

**FACTORS AFFECTING THE DEMAND FOR INSURANCE AMONG LICENCED  
WOMEN-OWNED MICRO, SMALL AND MEDIUM ENTERPRISES (WMSMES) IN  
NAIROBI COUNTY, KENYA**

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**14 May 2025**

**DECLARATION**

**This research thesis is my own work and has not been presented for a degree in any other university.**

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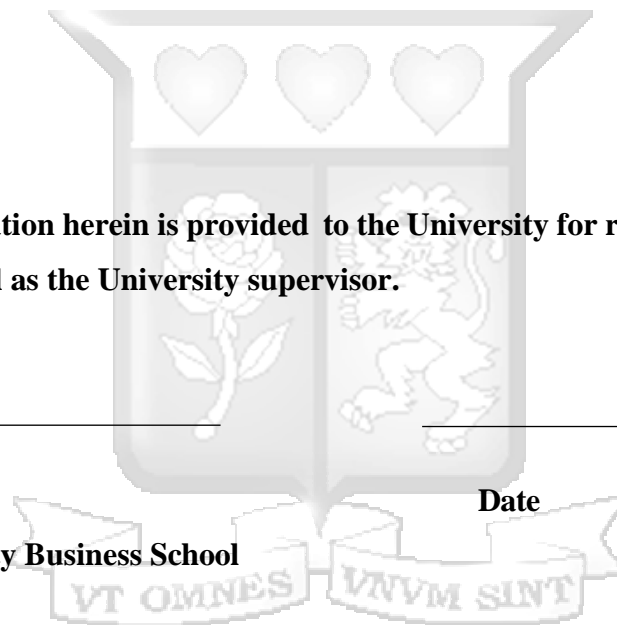
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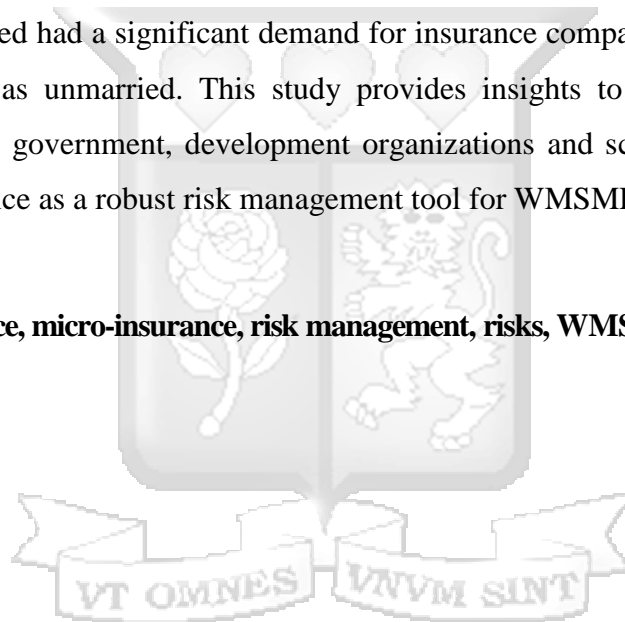
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## **ABSTRACT**

This study applied a gender lens to determine the factors affecting the demand for insurance among licensed Women-owned MSMEs (WMSMEs) in Nairobi County. WMSMEs play an important role in contributing to the economic growth of the country and improving the welfare of society at large. Self-administered questionnaires were used to collect primary quantitative data from a random sample of 398 licensed WMSMEs in Nairobi County. Using this sample, the researcher used Binary Logistic regression analysis to determine the relationship between the dependent and independent variables. The results showed that insurance literacy and insurance product awareness by the WMSME owner, the enterprise ownership structure, price of insurance products and the availability of suitable insurance products had an insignificant effect on the demand for insurance among licensed WMSMEs in Nairobi County. In contrary, WMSME owners who were married had a significant demand for insurance compared to other WMSME owners that identified as unmarried. This study provides insights to stakeholders such as insurers, regulators, the government, development organizations and scholars to put in more effort to support insurance as a robust risk management tool for WMSMEs.

**KEY WORDS; insurance, micro-insurance, risk management, risks, WMSMEs**



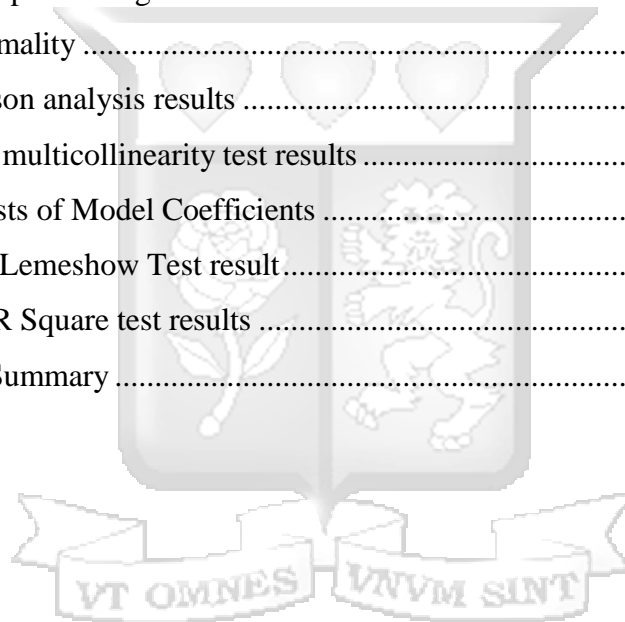
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## **List of abbreviations**

ADB Asian Development Bank  
AfDB African Development Bank  
AKI Association of Kenya Insurers  
BI (I) Business Interruption (Insurance)  
CDC Centres for Disease Control and Prevention  
CENFRI Centre for Financial Regulation and Inclusion  
EUT Expected Utility Theory  
GDP Gross Domestic Product  
HICs High Income Countries  
IFC International Finance Corporation  
IRA Insurance Regulatory Authority  
KBA Kenya Bankers Association  
KEPSA Kenya Private Sector Alliance  
KNBS Kenya National Bureau of Standards  
KNCCI Kenya National Chamber of Commerce and Industry  
LMICs Low- and Middle-Income Countries  
MFIs Micro Finance Institution(s)  
MSEA Micro and Small Enterprises Authority  
MSMEs Micro, Small and Medium Enterprises  
NGO Non- Governmental Organization  
NHIF National Hospital Insurance Fund  
PT Prospect Theory  
SBA Small Business Administration  
SMEs Small and Medium Enterprises  
SPSS Statistical package for social science  
UN United Nations  
UN ECLAC United Nations Economic Commission for Latin America  
UNCTAD United Nations Conference on Trade and Development  
UNDESA United Nations Department of Economic and Social Affairs  
UNDP United Nations Development Programme  
WMSME Women-owned Micro, Small and Medium Enterprises

## **CHAPTER 1 INTRODUCTION**

### **1.1 Background of the study**

#### **1.1.1 Insurance demand**

Insurance as a risk mitigation tool has been used with considerable success, with its history in its formal state dating back to the 17th century in Europe (Swiss Re Group, 2013). The insurance industry plays an important role in the development of a country through its various roles such as increasing the resilience of households and businesses in mitigating risks, provision of capital, providing employment opportunities, contributing to economic growth and narrowing the poverty gap (Laskowska, 2022; Welz, 2020).

Insurance also contributes to the economic and social development of women, narrowing the gender gap in various spheres of life, including in finance and business (IFC, 2015). The current global insurance premiums were expected to exceed USD 7 trillion in 2022 for the first-time in history, most of this attributed to the high-income countries in Europe, North America and in emerging countries like China (Aizpún, Dai, & Lechner, 2021).

Though touted as having one of the most profitable and fastest-growing insurance sectors, Africa accounts for only 1% of the world's insurance premiums, with the lowest penetration rate (ratio of insurance premiums to GDP) in the world at 2.4% against a global average of 6.8% (Swiss Re Institute, 2023). The insurance penetration in Kenya, which is equally low grew to 2.29% in 2022 from 2.25% in 2021 (Insurance Regulatory Authority, 2023).

According to IRA, this low figure, especially among business enterprises, are due to reasons such as financial constraints, high premiums, little to no knowledge of insurance and insurance products, lack of trust in insurance companies and lack of products addressing business needs (Association of Kenya Insurers (AKI), 2021).

The insurance sector is also yet to properly tap into the Micro, Small and Medium Enterprises (MSMEs) space due to various reasons such as regulatory challenges, lack of appropriate insurance products for MSMEs, lack of core business understanding between business owners and insurers, limited distribution methods, lack of relevant MSME data, pricing challenges, product awareness and insurance literacy, the type of enterprise ownership structure and limited resources by insurers that hinder insurance awareness campaigns to MSMEs (Chatterjee & Wehrmann, 2017; Tilwetwa, 2019; Lin, Bruhn, & William, 2019; Hasan, et al., 2021; Dayour, Adongo, & Kimbu, 2020). This is against the backdrop of insurance having increase the resilience of these businesses, hence increasing their chances of survival.

A persistent gender protection gap (difference in the uptake of insurance between men and women) also exists, extending to all facets of life, including in running of their businesses (IFC/ILO, 2023; Kwapisz, 2020; KarimI, 2023; Gilchrist, 2019). Despite this, the She for Shield report shows that by focusing on addressing women's insurance needs, the global insurance industry has the potential to grow to 1.7 trillion US Dollars, most of which will come from emerging markets in Africa, Asia and Latin America (IFC, 2015). This means that there is a huge potential and benefits to be reaped by insurers who will specifically target women and their businesses.

### **1.1.2 WMSMEs**

MSMEs play an important role in economies globally, contributing to economic development and growth (International Labour Organization (ILO), 2023), creating employment (Endris & Kassegn, 2022) driving innovation (Algan & Bayraktar, 2019), creating wealth (Villiers, 2023) and contributing positively to countries' GDPs and alleviating poverty (Hayati & Fatarib, 2022). According to the United Nations, MSMEs constitute 90% of all businesses, contribute 50% of the global GDP and provide employment to 70 % of the global workforce (UN, n.d.). In addition, MSMEs play an important role in the attainment of the SDGs, having the ability to make a difference in each of the SDGs (UN, 2020). According to the Kenya National Bureau of statistics, there are over 7.4 million MSMEs, providing employment to an excess of 15 million people and contributing about 33% to the country's GDP (KNBS, 2016).

The Micro and Small Enterprises Act of 2012 provides definitions for micro and small enterprises. According to the Act, micro businesses are those with fewer than 10 employees and whose annual turnover does not exceed Kes. 500,000 while small enterprises employ between 10 and 50 people and rake in between Kes. 500,000 and 3 million annually in sales. Medium enterprises are defined in the Public Finance Management (Amendment) Bill of 2020 as those having an annual turnover not exceeding Kes. 100 million and employing between 51 and 250 people. According to the KNBS survey, 32.1% of all licensed MSMEs were owned by women. WMSMEs tend to have unique challenges that their male counterparts do not, for instance access to credit, social norms, education and unpaid care burden.

## **1.2 Problem Definition**

Women-owned MSMEs access and usage of financial services, including insurance have been documented to be lower than those of male-owned businesses (Shaikh, 2020; Inter-

American Development Bank, 2023). This is despite the fact that they face more and unique challenges in running of their enterprises, such as additional care work for children and other dependents, lower literacy levels, little to no collateral and limiting social and cultural norms (Khairy, 2019; Amolo, Lauren, Michelle, & Priyanka, 2018).

WMSMEs are also more vulnerable to emerging risk such as the Corona Virus pandemic and climate-related risks, which disproportionately affected them more negatively than their male counterparts (Sultan & Sultan, 2020; Setijawan, Sutiyono, Wicaksono, Ardiyanti, & Christi, 2023). To mitigate these risks, women -owned enterprises tend to use less reliable and informal risk mitigation methods such as depending on their social networks of family and friends, diversifying into other businesses, scaling down their stock, sale of valuable assets, using their savings, laying off employees (Fillaili, et al., 2020; Afenyo-Agbe, et al., 2021; Atela, Gannon, & Crick, 2018). These measures are inefficient and have negative impacts on the resilience of their businesses in the long run (Atela, Gannon, & Crick, 2018).

Insurance on the other hand is a robust risk mitigation tool for businesses, especially owned and run by women, even though the uptake is low due to various factors. With the lack of such a robust risk mitigation tool, women running MSMEs are one disaster away from slipping into poverty when faced with risks such as theft and burglary, fire, illnesses, accidents leading to disabilities or death for them or their families.

Given that about one third of all licensed WMSMEs in Nairobi are owned by women, failure to address this lack of robust risk mitigation methods via insurance may be detrimental to the society and economy at large (KNBS, 2016). There has been very little scientific research on the demand for insurance among WMSMEs. One of the reasons for this is that gender- disaggregated data is not collected in many jurisdictions (Microinsurance Network, 2023) Most of the studies have been conducted by non-profit organizations, whose objectives are to narrow the gender gap. Examples of these organizations are the IFC/ ILO and the Microinsurance Network.

A number of studies on the demand for insurance among business enterprises have been conducted in Kenya (Oino, Osiero & Kuloba in 2012; Nyakio, 2009; Kamara & Makori, 2017; Kihara, 2017; Munyao, 2014; Nyasani 2021; MSEA & UNDESA, 2022). None of these studies included a gender lens in their study. The researcher hence sought to fill this gap by undertaking a gendered approach in studying the factors affecting insurance demand by licensed WMSMEs in Nairobi County. The study provided useful insights on the topic

under study, with a view to assist stakeholders in the insurance industry put in place measures to incorporate a gender lens in their approach to providing insurance offerings that target WMSMEs.

The dependent variable for the study was the likelihood of a WMSME purchasing any insurance policy for the enterprise. This was analyzed against the predictor variables, which are insurance product awareness and insurance literacy, enterprise ownership type, price of insurance products and availability of suitable insurance products from the point of view of the participating WMSMEs.

### **1.3 Research objectives**

#### **1.3.1 General Objective**

This study set out to investigate the factors affecting the demand for insurance among licensed WMSMEs in Nairobi County.

#### **1.3.2 Specific Objectives**

To address the general objective, the study set out to achieve the following specific objectives:

1. To evaluate the effects of insurance product awareness and insurance literacy on the demand for insurance among licensed WMSMEs in Nairobi County.
2. To evaluate the effect of enterprise ownership type on the demand for insurance among licensed WMSMEs in Nairobi County.
3. To evaluate the effect of price of insurance products on the demand for insurance among licensed WMSMEs in Nairobi County.
4. To evaluate the effect availability of suitable insurance products on the demand for insurance among licensed WMSMEs in Nairobi County.

#### **1.3.3 Research questions**

The study set out to answer the following questions.

1. What is the effect of insurance product awareness and literacy on the demand for insurance among licensed WMSMEs in Nairobi County?
2. What is the effect of type of enterprise ownership on the demand for insurance among licensed WMSMEs in Nairobi County?
3. What is the effect of price of insurance products on the demand for insurance among licensed WMSMEs in Nairobi County?
4. What is the effect availability of suitable insurance products on the demand for insurance among licensed WMSMEs in Nairobi County?

#### **1.4 Scope of the study**

The study was carried out in Nairobi County, which has the largest concentration of licensed (W)MSMEs in the country, representing 17.18% of all licensed MSMEs in Kenya, according to a survey done by KNBS (2016). The choice of Nairobi County has also been informed by IRA's 2023 Annual Report indicating that 84% of all insurance premiums are collected from Nairobi County (Insurance Regulatory Authority, 2023). The study was a cross-sectional study, with the period of focus and data collected relating to the year 2024.

#### **1.5 Significance of the study**

Insurance plays an important role in the economy of a country (IFC/ILO, 2023). WMSMEs are part of the engine that drives economic growth, alleviates poverty and improves societal welfare (IFC, 2015). Thus, the results of this study will be beneficial to various stakeholders in a bid to increase the resilience of WMSMEs. First, an increase in the demand and consumption of insurance by WMSMEs will improve Kenya's low insurance penetration rate of about 2.29% (IRA, 2024), further pushing the economic development of the country. The insurance regulator, IRA and other government stakeholders will be able to put into place measures that drive insurance demand and purchase by WMSMEs. Insurance companies will benefit from the results of the study by developing innovative products and distribution channels that align with WMSME needs and improve their market share and profitability by tapping into this market that remains largely untapped. Development organizations will also benefit from this study as they will have more insight on which aspect of WMSME insurance they can support in terms of financial assistance and capacity building. WMSMEs will be able to become more aware of the risks they face and engage insurance companies on products that speak to their businesses, personal lives and situations. This will make them more resilient to the risks they face in the running of their businesses and in their daily lives.

Other financial institutions like banks and MFI's that target WMSMEs will gain an understanding of the segment's needs and collaborate with insurers to offer more innovative bundled financial products that will help in the growth of WMSMEs. Finally, scholars will get more insight on this topic and on WMSMEs insurance demand, leading to further research and addition of knowledge to this topic.

## **CHAPTER 2 LITERATURE REVIEW**

### **2.1 Introduction**

This section delves into the theoretical and empirical literature on the topic of the study, that is the demand for insurance among Women-owned Micro, Small and Medium Enterprises (WMSMEs).

### **2.2 Theoretical Literature Review**

Theories surrounding demand for insurance are part of the wider group of decision-making under uncertainty theories. This study focused on two theories on decision making under uncertainty. Uncertainty arises because insurance, being in the business of making promises, requires that one pays premium in advance, in exchange for a promise that should a risk that causes financial loss to policyholder materialize, they will be compensated for the loss. The timing or occurrence of the risk is not known in advance.

The theories discussed in the research have been forwarded to explain insurance demand among individuals, as research has shown that the risk management practices of MSMEs are closely linked to those of the owner-managers (Adeyele & Osemene, 2018; Chakabva & Tengeh, 2023). The two theories in the study are Expected Utility Theory (EUT) and Prospect Theory (PT). While the former considers demand for insurance under ideal conditions, the latter approaches the demand of insurance from a behavioural science observation point of view. The theories are discussed in more detail below.

#### **2.2.1 Expected Utility Theory (EUT)**

This is the classic theory used to explain the decision by individuals on whether or not to purchase insurance. The theory puts forth the notion that people would rather trade the certainty of paying a small premium rather than facing an uncertain financial loss resulting from an unfortunate event in the future. The theory postulates that human beings are rational decision-makers and risk-averse in nature, hence desire to maximize their utility or satisfaction from consuming a product or service. EUT is one of the oldest theories studied under the wider decision theory, with its genesis going as far back as the 17th century to the works of Daniel Bernoulli and Gabriel Cramer (SOMMER, 1954).

Further developments on the theory have been done by various scholars such as Von Neumann and Morgenstern (1944), who further expanded the theory further to show that individuals tend to maximize their expected utility under uncertain conditions, creating the von Neumann-Morgenstern utility of wealth function. A number of contributions to EUT have focused on the demand of Life insurance, including (Hakansson, 1969; Yaari, 1965; Fischer, 1973; Lewis, 1989).

Other contributions relating to insurance demand have also been made by Arrow (1963) and Pratt (1964) whose contribution added Risk aversion to the theory and Mossin (1968).

The theory has two main components. First component is the use of expected value of utility. Under this component, people are thought to be rational and make decisions that maximize the expected value of their utility, which is choices that provide maximum satisfaction given the constraints facing a person. These constraints include both income and prices. Each individual is able to rank items according to their own preferences, and all the combination of items that produce the same utility will lie on the same utility curve or function. The expected utility is then computed by adding the products of various utilities and their corresponding probabilities.

EUT can be used to classify individuals as either risk averse, risk neutral or risk loving. Most individuals are risk averse, meaning they prefer safe options rather than gamble to get higher returns (Holt & Laury, 2002). The second component of EUT relates to the approach to risk by individuals, who are either risk averse, risk neutral or risk taking. Most rational individuals are considered risk averse. Risk averse individuals have utility that increases at a decreasing rate, creating a concave curve, a phenomenon referred to as diminishing marginal utility of wealth. Therefore, risk averse individuals derive a decreasing increase in utility as their material wealth increases (Marshall, 1890).

In addition, the marginal utility when an individual pays premium is lower than the corresponding marginal utility of the large amounts of money they may lose if they do not have insurance, as demonstrated by Jevons (Stigler, 1950). Accordingly, then, EUT expects risk averse individuals to take up insurance covers in order to minimize their losses.

According to this theory, it would be expected that WMSMEs would purchase insurance to protect their businesses, assets, health and lives, as insurance would increase their utility.

However, in reality, this is not the case, particularly in developing nations. The main undoing for this theory is that it is a positive theory that explains risk and insurance demand in an ideal setting, where all factors have to be present for the results to occur. However, this is rarely the case in reality, as there are many other factors that exist in the real world, when risk and insurance demand are approached holistically. It however still remains an important theory in decision making that has assisted in explaining some phenomena in insurance demand.

### **2.2.2 Prospect Theory (PT)**

PT is a positive theory of decision making under risk and part of behavioural economics, studying decision making as observed in the real world, rather than in ideal circumstances and environments. The theory was put forth by Amos Tversky and Daniel Kahneman in 1979 and

further developed by the duo in 1992 (Kahneman & Tversky, 1979; 1992). The core argument under PT is that individuals look at gains and losses from different points of view. Individuals will thus make different decisions on the basis of whether they perceive they are likely to win or lose given their circumstances. This is known as loss aversion.

The theory describes how people make choices in which there is a risk, and the likelihood/probability of the different outcomes is not known in advance. In their study, Tversky and Kahneman found that losses have a negative psychological effect on people, and gains tend to be more acceptable, hence the reason people perceive gains better than losses. Similar to EUT, PT demonstrates that individuals make decisions based on expected utility. Individuals make decisions based on how likely they perceive an event will happen. If individuals perceive an event as unlikely to happen, they take their chances and do little about it. This explains why people are unlikely to take catastrophe insurance but will take insurance such as domestic and health covering risks, in which they are exposed to more frequently (Kunreuther & Pauly, 2004).

However, when catastrophe occurs, for instance the Covid-19 pandemic or devastating fire incidents, people are likely to purchase catastrophe insurance, after seeing the devastating effects of loss, since at this point losses loom larger than gains. However, as time goes by, people tend to forget the effects of the risk and reduce or altogether drop catastrophe insurance, until the next time a catastrophe occurs. Another important aspect of PT is the framing effect, where people become risk-averse when they are in the gains domain, and risk-taking when they are in the losses domain.

The impact on insurance is that people will be willing to pay premium if they perceive it as a small loss for greater gain, rather than a large loss for potentially no gain. This is due to the very nature of insurance in that the premium paid is a small proportion of the compensation one would get should they suffer a financial loss. Under PT, this decision is made from a reference point, usually on the level of wealth one has after purchasing insurance (Schmidt, 2016). This is an important aspect in insurance, given the low and uncertain incomes of MSMEs and the limited disposable income many of these enterprises have.

In insurance demand, one of the issues arising from PT as a theory is the likelihood of overestimating regular every day, resulting in lower insurance demand than the theory predicts. In addition, the assumption of risk-seeking behavior in the domain of losses does not necessarily capture the intricacies of insurance decisions, where people's needs are protection from risk and certainty of loss mitigation should risk events occur.

## **2.3 Empirical Literature Review**

### **2.3.1 Introduction**

This section reviewed the various literature and studies conducted on the factors affecting demand of insurance WMSMEs across the globe. A number of studies have shown that gender plays a role in the demand for insurance and other financial services, impacting how men and women demand these crucial services (Purnomoa & Wibowob, 2020; Efobi, Beecroft, & Osabuohien, 2014; Field, Pande, Rigol, Schaner, & Moore, 2021; Morsy, 2020; Isaga, 2018). This is against the backdrop of the positive benefits that the access and usage of insurance can have on these female-owned enterprises (Olowu & Vyas-Doorgapersad, 2023).

### **2.3.2 Type of enterprise ownership and demand for insurance**

Studies in the past have researched whether an enterprise ownership type has any influence of insurance demand (Ngera, 2018; Dayour, Adongo, & Kimbu, 2020). Research has also shown that MSMEs tend to have more challenges than medium and large businesses in accessing financial services from financial institutions such as banks, insurers and other financial institutions (Mahiti, 2018; Saifi, 2021; Endris & Kassegn, 2022). Financial tools are an important success factor to MSMEs for growth and long-term sustainability, and lack of such tools is a key contributor to many MSMEs failure after the first few years of business (Franco, Haase, & Ant3nio, 2021; Khatri, 2019).

Large organizations are properly structured and well-funded, hence are able to access a large array of managerial skills necessary for business success, including risk management that enables them to successfully manage the risks they face. In addition, the availability of complex risk frameworks such as Enterprise Risk Management is targeted to large established businesses, with no such frameworks from MSEs (Oliveira, Méxas, Meiri3o, & Drumond, 2019; Fraser & Simkins, 2016). However, most MSE's are small enterprises with informal organizational structures owned by one or two entrepreneurs who are the sole decision-makers, with limited funding and know-how on how to properly manage risks or hire professional risk managers. This situation puts them at a disadvantage as far as risk management is concerned. Studies conducted have shown that business owners who have higher managerial and risk management skills, including financial literacy tend to have more successful business ventures than those without (Crane, 2020; Eniola, 2016; Ripain, Amirul, & Mail, 2017). A study of businesses with various ownership structures concluded that this factor influenced insurance demand by enterprises (Krummaker, 2019). The study found that large, limited liability companies' demand for insurance largely depended on whether the companies were tightly controlled by the owners or

whether the managers had more freedom to make insurance purchase decisions. Further the research found that in sole proprietorships and partnerships, which by nature tended to be smaller and less complex, the risk appetite of the owners greatly influenced their demand for insurance. Thus, the demand for insurance among MSMEs is influenced by this ownership orientation.

Given the micro nature of WSMEs, the various financial challenges they face, including access to finance, do have an impact in the demand for insurance (Mkenda & Tryphone, 2023; Yudiastuti, Pratikto, & Sopiah., 2021). This is further exacerbated by limited insurance and financial literacy level (Banu, Baral, & Vijayalakshmi, 2024). These factors make it difficult for women who are WMSE owners to make the optimum risk management decisions that best serve their enterprises and personal interests (Hasanah, Wijyantini, Wibowo, & Rozzaid, 2023; Preeti.S.Desai, S.Pannerselvam, & Chandawarkar, 2023). For women to create an impact in their businesses, they have to have agency to make key decisions regarding their businesses, including in key areas such as financing and use of insurance (Collazos & Botero, 2024)

### **2.3.3 Product awareness and insurance literacy and demand for insurance**

Awareness of insurance offerings that have the ability to improve the resilience and development outcomes of individuals and businesses affect their demand for these offerings (Banjo & Adewale, 2021; Hagos, Kebede, & Shewakena, 2019; Hasan, et al., 2021). This awareness also extends to government social insurance products (Thakur, 2016; Kimani, Ettarh, Warren, & Bellows, 2014). Awareness goes hand-in-hand with insurance literacy, which has been defined as understanding the concept of insurance, knowledge of insurance products and risks covered, and the ability to apply such knowledge to make consistent insurance decisions (Lin, Bruhn, & William, Extending financial literacy to insurance literacy: a survey approach, 2019).

A study in Nigeria showed a significant difference in insurance awareness among men and women that had a negative impact on the demand for microinsurance products (Jinadu & Adebuseye, 2023). On the contrary, a study conducted among university students in India showed no significant differences in insurance awareness among male and female students (Gupta, 2021). Insurance awareness and knowledge by professionals in contact with the general public, like health professionals is key, as they can improve awareness among the people or entities, they serve (Oladimeji, Alabi, & Adeniyi, 2017).

A study conducted on the social health coverage in Kenya, NHIF showed that a higher population of female-led households purchased the insurance, and mass awareness through mass media like television and radio played a key role in this (Kimani, Ettarh, Warren, & Bellows, 2014). However, awareness in rural areas, especially among rural women tends to be low, thus impeding

the uptake of much-needed insurance for this geographical demographic, leading to slow progress in Universal health Coverage (UHC) according to a study conducted in Turkey by (Qutab, 2022).

Insurance literacy, a subset of financial literacy, is key in understanding the complex concept of insurance and its uptake among customers (Kiwanuka & Sibindi, 2023; Sanjeewa & Hongbing, 2019; Weedige, Ouyang, Gao, & Liu, 2019). Products specific insurance literacy is also a phenomenon that has been observed. For instance, a study in the USA found that females tend to be more health insurance literate than men. (Bartholomae, Russell, Braun, & McCoy, 2016). This is due to the fact that women tend to do more care-giving work within their families, hence the need to be more knowledgeable in this area.

A study in Indonesia found that women entrepreneurs had a high level of knowledge in digital finance but had limited knowledge in digital insurance and access to capital markets (Mardhiyaturrositaningsih & Hakim, 2023). However, a study conducted in Pakistan found that the use of mobile technology and its use in financial services had little impact on addressing the financial needs of female microentrepreneurs (Mustafa, et al., 2019). Financial services regulators and other key stakeholders like insurance companies have a key role in the development of financial literacy programmes, policies and products targeting women and their businesses that will help them make sound financial decisions while also protecting them from negative vices such as fraud (Sundarasan, Rajagopalan, Kanapathy, & Kamaludin, 2023; Igwe & Adelus, 2021; Rashedul Hasan, Muhammad Ashfaq, Tamiza Parveen, & Ardi Gunardi, 2023; Baluja, 2016).

Lack of insurance products awareness that can be useful to their personal lives and businesses and lack of awareness of the benefits of insurance as a risk mitigation method both have an impact on the demand for insurance among WMSME owners (Jinadu & Adebuseye, 2023).

A study conducted both a quantitative and qualitative analysis on women entrepreneurs in Lagos Nigeria, and the conclusion on the study showed that these two aspects of awareness greatly impacted their demand for microinsurance offerings in the market. The study indicated that over 90% of the respondents agreed that they always and often found awareness of microinsurance offerings in the market had a significant impact on their consumption. This speaks largely to insurers to create more awareness on their offerings to enterprises belonging to women. Another study conducted concluded that the channel used to spread awareness to women also mattered, especially through advertising campaigns, both physical and through mass media like television (Jurkovicova, 2016). Limited visibility of insurance products by WMSMEs is further exacerbated by moral hazards and adverse selection (Navare & Handley-Schachler, 2018). A low rate in

insurance literacy has also led to women having lower confidence in decision-making than their male counterparts when it comes to insurance purchase (Ubfal, 2024). Coupled with the higher risk aversion women entrepreneurs have, the result is lower demand for formal insurance and usage of insurance substitutes such as diversifying their business offerings and investing in less risky entrepreneurial activities. The source of insurance knowledge and benefit and product awareness also impacts the demand for certain types of insurance among women entrepreneurs. A study conducted in the USA in 2016 after the implementation of the Affordable Care Act, showed that self-employed women entrepreneurs were less likely to take up the health care (Kwapisz, 2020). The results of the study showed that the uptake for this health insurance policy increased when they sought information from their social network of family and friends, pointing to the importance of relationship creation in targeting female entrepreneurs in insurance purchase. Another study conducted in India corroborated the findings of this study, indicating that women's decision to purchase insurance was highly influenced by the advice received from their social networks, like friends and family (Kharde & Madan, 2018). This is important in informing insurers on the marketing strategy that would best serve this demographic. The effect of financial literacy among MSMEs was apparent during the Covid-19 pandemic of 2020. A study in Italy found that MSMEs whose owner-managers had high levels of financial literacy had purchased Business Interruption insurance, which shielded their businesses during the economic downturn brought about by the pandemic (Ricci & Santilli, 2024). The high level of financial literacy among this group of entrepreneurs made it possible for them to be aware of the business risks they faced, hence prepare more readily by enquiring on available insurance solutions for their businesses. This underscores the duality of financial literacy and awareness in risk management among MSMEs.

#### **2.3.4 Price of insurance products and demand for insurance**

The price of insurance has been studied to affect insurance demand, as there is a perception that insurance is a product for the middle and higher echelons of society (Tilwetwa, 2019; Ćurak, Kovač, & Poposki, 2021; Dash, 2018; Ndurukia, Njeru, & Waiganjo, 2017; Kazushi Takahashi, Munenobu Ikegami, Megan Sheahan, & B. Barrett, 2016; Vargas Hill, et al., 2019). A study conducted in the USA on interest charged to loans given to entrepreneurs was higher for female sole-entrepreneurs than for male sole-entrepreneurs, making it harder and less appealing for female enterprises to access this financial service (Wu & Chua, 2012; Rosa & Sylla, 2018; Carranza, Dhakal, & Love, 2018).

In Nigeria, a study conducted among female textile female entrepreneurs showed that the low amounts and short loan repayment periods offered by MFIs added to the costs of accessing

formal finance, resulting to the women to turn to other informal financial means to access credit (Olarenwaju & Olabisi, 2012). An increase in the price of insurance leads to a decrease in its demand (Casabianca, Gallego, Góngora, & Rodríguez-Lesmes, 2022).

Because of the high cost of insurance products, Gichuki, Mulu-Mutuku, & Kinuthia (2014) found that women entrepreneurs mitigated risks caused by natural disasters and sickness by accessing other forms of credit or digging into their savings, both of which reduce their assets and incomes, and may plunge them back into poverty.

Research on specific insurance policies has also shown that women tend to pay higher premiums for motor insurance (Pernagallo, Punzo, & Torrasi, 2024; Krippner, 2024; Medders, Parson, & Thomas-Reid, 2021). For instance, women tend to be charged higher premiums for health insurance, including in social health schemes (Mulenga, Mulenga, Musonda, & Phiri, 2021; Nsiah-Boateng, Ruger, & Nonvignon, 2019; Salari, Akweongo, Aikins, & Tediosi, 2019). In addition to the high premiums, these studies showed that women tend to incur additional expenses when afflicted by health challenges, due to a narrow scope of cover of the available health insurance coverage that exclude gender-specific health challenges. These costs add up very fast, making it costly for women, even with the presence of an already present insurance policy. The situation is further made worse for non-employed, enterprising women. A study conducted in China found that low-income and unemployed women were required to pay higher premiums to access the social health insurance cover, as compared to employed women and men who could access the same through their employers (Zhou, Zhao, & Zhao, 2021). Women also tend to be caregivers to their children and other relatives, hence a higher insurance price tag.

A study conducted in Delaware State in the USA found that women pay higher insurance for their motor insurance than men (Insurance Commissioner of the state of Delaware, 2022).

According to this research, women are conceived to be a higher risk due to low experience on the roads. On the contrary, the study found that female drivers caused fewer fatal accidents on the road compared to male drivers, pointing out an unbiased difference in price as a result of perceptions (Pernagallo, Punzo, & Torrasi, 2024; Zhou, Zhao, Pour-Rouholamin, & Tobias (2015). On the other hand, due to a lower mortality rate, women's life insurance policies have always been priced lower than for men, keeping all other factors constant (Schünemann, Strulik, & Trimborn, 2017).

Insurance premiums are a cost to businesses and may be a significant amount for WMSMEs which generate less revenues and profits than MSMEs owned by men (Prayudi, Vijaya, & Ekawati, 2019; Chaudhuri, Sasidharan, & Raj, 2020; Sanchez-Riofrio, Lupton, Camino-Mogro, & Acosta-Ávila, 2023). To mitigate the price factor, innovations such as

microinsurance have been developed to cater for low-income demographics, including micro and small enterprises (Navare & Handley-Schachler, 2018). Though touted a game changer, the study showed that the uptake of microinsurance among MSMEs has been low, since most micro and small enterprises have low and irregular incomes due to their very nature. Individuals with high incomes due to high paying occupations and successful enterprises and high wealth levels are able to afford insurance premiums or price compared to those earning lower and irregular incomes like MSMEs (Mulenga, Mulenga, Musonda, & Phiri, 2021; Nsiah-Boateng, Ruger, & Nonvignon, 2019; Salari, Akweongo, Aikins, & Tediosi, 2019). This is due to the presence of more disposable income, which allows individuals to cater for their basic needs and other additional expenses. WMSMEs tend to have narrow and irregular incomes, allowing women entrepreneurs to barely cover their basic needs, forcing them to forego investments on items such as insurance. Despite the differential in gender-based pricing in insurance, some geographies have put measures in place to eliminate this bias and enable women to pay equitable premiums that are not affected by gender. An example is in the European Union, where the Gender Directive of 2004 banned the use of gender as a determinant for insurance premiums across all insurance lines, that is still active to date (Rebert & Hoyweghen, 2015). This effectively means that men and women pay equitable insurance premiums that are determined by other factors that exclude gender.

### **2.3.5 Availability of suitable insurance products and demand for insurance**

Relevant products that serve the needs of customers does have a bearing on the demand for both conventional and microinsurance products (Platteau, Bock, & Gelade, 2017; Stoeckli, Dremel, & Uebernickel, 2018; Lanfranchi & Grassi, 2021; Clement, Botzen, Brouwer, & Aerts, 2018).

As a result of not applying the gender lens to offerings, the number of gender-specific insurance products targeting women, and their enterprises is very low. According to the She for Shield report, gender-neutral products, processes and distribution models do not serve women's needs, hence reducing their demand by this demographic (IFC, 2015).

Research has shown that the behavioural approaches and insurance needs for men and women are different, hence a difference in how each gender approaches insurance (Vischer & Fan, 2021). Many studies have been conducted, focusing on the difference in premium payments that men and women pay for insurance, particularly in life, health and motor insurance products (Krippner, 2024; Porrini & Fusco, 2020).

However, even more important is introducing a gender lens in insurance products and processes to ensure that women are adequately served by insurance. A study conducted on the demand for index-based insurance among small-scale farmers in Kenya found that women are less risk-averse

than men, leading to less trust in insurance companies and a lower demand for the insurance product than for men (Akter, Krupnik, Rossi, & Khanam, 2016).

This is against the backdrop of index-based insurance can increase women's resilience against shocks brought about by climatic risks.

Another study conducted in Kenya also found that gender-specific agriculture insurance solutions have better outcomes in terms of increased farm investments, higher family incomes, increased food security, improved nutrition especially for children, and women's economic empowerment (Timu & Kramer, 2023).

A narrow scope of health insurance products that do not have a gender lens, has led to women spending more in insurance than men. (Mulenga, Mulenga, Musonda, & Phiri, 2021; Nsiah-Boateng, Ruger, & Nonvignon, 2019; Salari, Akweongo, Aikins, & Tediosi, 2019). These narrow descriptions mean that women have to incur out of pocket expenses to pay for gender-specific health challenges not covered in their health policies, making insurance more expensive as these costs add up very fast, even with the presence of an insurance policy. In addition, women tend to be caregivers to their families, and the burden of purchasing insurance, particularly for elderly parents may fall on them.

Going hand-in-hand with suitable products, distribution channels should also have a gender lens. For instance, the use of female agents tends to increase insurance demand among women has been proven to be a successful distribution among women (Zhang, Zhang, & Wang, 2017). This is due to the fact that women have similar experiences and are able to sympathize and break down complex insurance concepts to more relatable real life experiences facing women. The She for Shield report also notes that female agents tend to approach insurance through relationship formation, which is crucial, as women tend to take more time to understand the value of a product before purchasing (IFC, 2015).

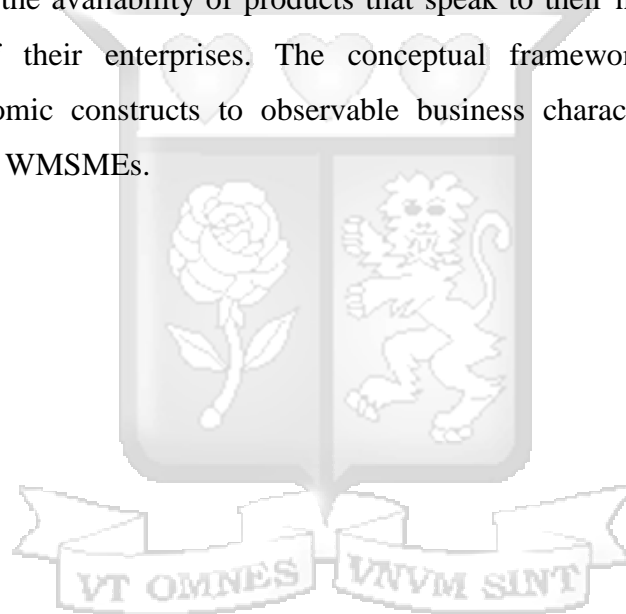
The lack of data disaggregated by gender on WMSMEs has been cited as one reason for the lack of products specifically targeting this demographic (Andrade, Azar, Kazembe, López Mayher, & Vincensini, 2023). According to a survey that featured 54 public development banks that had gender-inclusive programmes for WMSMEs in South America, lack of gender disaggregated data was a challenge. This challenge meant that there was very little insight on the specific needs for women-entrepreneurs, making it difficult to design financial products that suit their needs. Financial products designed with a gender lens have been found to be more successful among women than those without (Gender-Smart Enterprise Assistance Research Coalition, 2022). This is because women tend to have unique needs that are different from men, and such products serve their needs. In addition to products that are gender-specific, the distribution method, including

marketing campaigns and use of female agents go hand-in-hand in making uptake of financial services, including insurance, more successful, as shown by other studies in the area (Richard Chamboko, et al., 2021; Adegbite & Machethe, 2020).

Products that are very gender-conscious have a transformative impact on women, addressing their needs, increasing their consumption of insurance, with a resulting effect of more resilience for businesses, communities and country's economic growth at large (Wiedmaier- Pfister, 2019).

#### **2.4 Summary of literature review and the gaps in literature**

Based on the theoretical literature based on Expected Utility Theory (EUT) and Prospect Theory (PT), the study hypothesizes that WMSME owners' decisions to demand insurance are influenced by their perceptions of insurance products prices or premiums, their awareness and knowledge of insurance, the availability of products that speak to their needs and the type of ownership structures of their enterprises. The conceptual framework below links the psychological and economic constructs to observable business characteristics that predict insurance demand among WMSMEs.



## 2.5 Conceptual Framework

In order to answer the questions of the research, the Conceptual Framework below was formulated and used by the researcher.

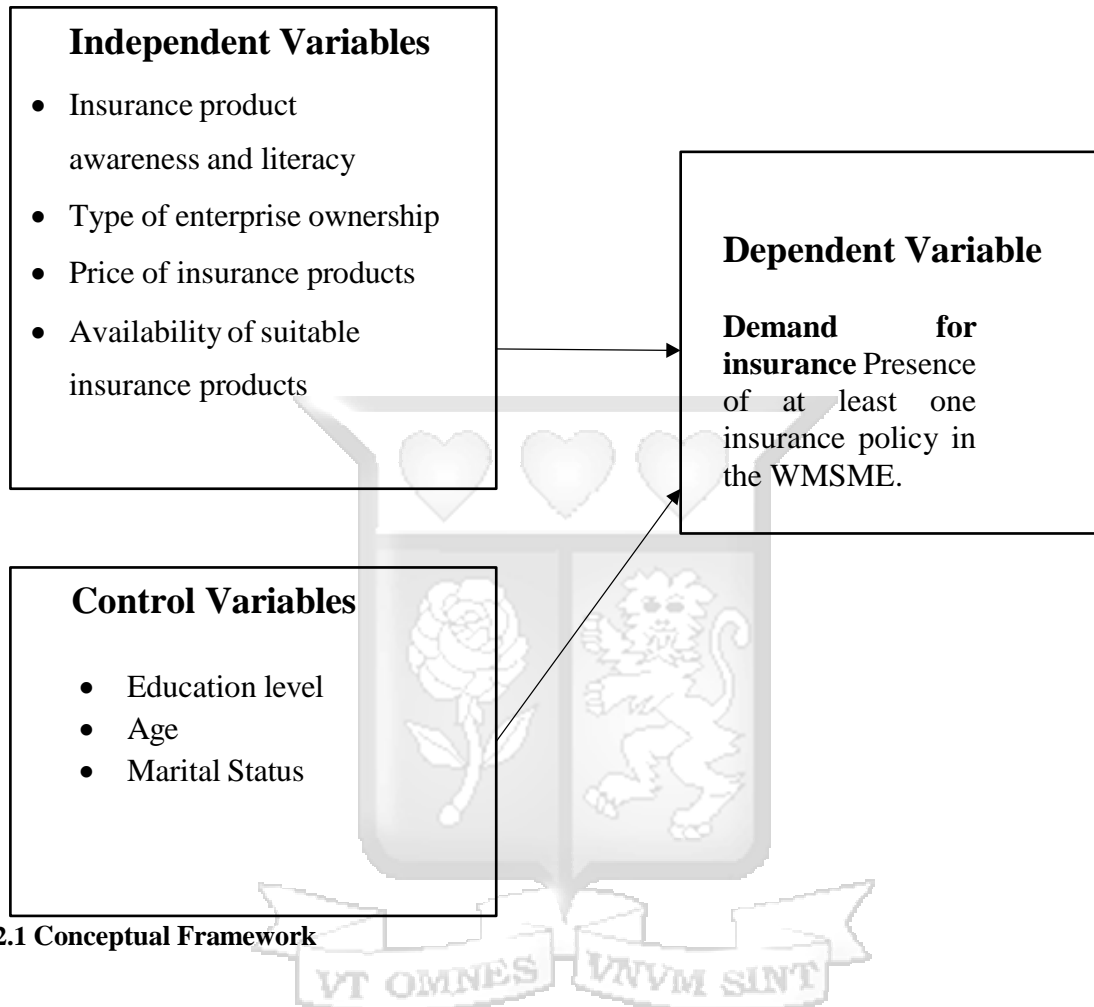


Figure 2.1 Conceptual Framework

## 2.6 Variable Operationalization

To conduct analysis, the researcher extracted the variables below from the various studies conducted by previous scholars.

Variable	Type	Measurement	Supporting Literature
<b>Dependent variable</b>			
Presence of at least one insurance policy in the WMSME.	Binary	1- Yes 2- No	Asuming & Gaisie, 2022
<b>Independent variables</b>			
Insurance product awareness and insurance literacy	Categorical	1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5-Strongly Agree	Houser & White, 2012
Type of enterprise ownership	Categorical	1-Sole Proprietorship, 2- Partnership, 3- Limited Company 4-Other	Hasanah, Wijyantini, Wibowo, & Rozzaid, 2023
Price of insurance products	Categorical	1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5-Strongly Agree	Carranza, Dhakal, & Love, 2018
Availability of suitable insurance products	Categorical	1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5-Strongly Agree	Timu & Kramer, 2023
<b>Control Variables</b>			
Education level	Categorical	1-Master's degree, 2- Bachelor's degree, 3- Completed Secondary school, 4-Completed Primary School, 5- None, 6-Others	Dimbuene, Nzuzi, & Kikhela, 2022
Age	Numerical	1,2,3,...,n	Lucas, Mendes-Da-Silva, & Lyons, 2017
Marital Status	Categorical	1- Married, 2- Single, 3- Divorced, 4-Widowed	Luciano, Outreville, & Rossi, 2015

**Table 2.1 Variable Operationalization**

## **CHAPTER 3 RESEARCH METHODOLOGY**

### **3.1 Introduction**

Research methodology can be defined as a way to systematically solve the research problem according to Devi (2017). This chapter delves deeper into discussing the design of the research, research philosophy, and the population under study, the sample representative of this population, collection of data, data analysis, and measures taken to ensure the quality of our research is maintained and other ethical issues surrounding research. The design and philosophy chosen for this study make significant contributions in answering the objectives of the study. The data collection and analysis methods used are discussed in this chapter and the regression models adopted are also discussed. Finally, the chapter clarifies how the validity and reliability of the research design and how research ethics are achieved in the study.

### **3.2 Research Philosophy**

This study lent itself to an ontological positivist approach, in achieving the research objectives. Ontology concerns itself with the study of what is real and in existence (Saunders, Lewis, & Thornhill, 2009). It lends itself to questions of what is in existence in reality. This study lends itself to ontology as it sets out to study the reality of the research question, and what is in existence therein. Positivists are of the view that the most effective way to analyse the world is by using objective methods, such as observations, and that reality can only be perceived through observation, hence lends itself to the collection and analysis of quantifiable data, and its interpretation (Park, Konge, & R. Artino, 2020). Positivism requires that the researcher detach themselves from the study and limits their role to the collection of data using appropriate instruments and interpreting the data from the findings (Maksimović & Evtimov, 2023; Hasan, 2016). Positivism in the study was achieved through collection of data using survey questionnaires and quantitative analysis to answer the research question, rather than the researcher's subjective opinions

### **3.3 The Research Design**

According to Mligo (2016), a research design sets the logic for the research. This study will use a descriptive research design to answer the research question. A descriptive design, according to Silver, Stevens, Wrenn and Loudon (2013) accomplishes the task of determining the extent to which two or more variables co-vary and using this information to make predictions. A descriptive research design aids the researcher to collect data in the subject's natural environment, without the researcher's intervention (Siedlecki, 2020). The study design

answers the where, what, who, when, where, and how aspects relating to the research problem, and investigates the current phenomenon status (Erickson, 2017). This research design concerns itself with the collection of a large amount of data, and the results can lead to important practical recommendations in the real world (Siedlecki, 2020). This study set out to examine the most significant factors that affect the demand for insurance among Women-owned MSMEs in Nairobi County. This study made use of the deductive approach, due to its quantitative nature, that seeks to explain the causal relationship between the dependent and independent variables.

### **3.4 Population and sampling**

Population is described as a collective term used to describe total quantity of things or items, including people, who are the subjects of interest in a study (Mligo, 2016). The unit of analysis in this study is WMSME owners. The unit of analysis was formed by KNBS whose report indicated that 92.2% of all MSMEs, and by inference WMSMEs, are micro-enterprises being operated by owner-managers (KNBS, 2016). The justification for conducting the study in Nairobi County was due to the county having the largest concentration of MSMEs, and by inference, WMSMEs in the country at 17.18%. In order to collect data representative of the large population of WMSMEs in the country, a random sample was used, that would be used to infer findings back to the population.

### **3.5 Sample and Sampling Process**

Due to the large number of the target population and in order to make inferences about the population of the study to meet our objectives, the research has made use of representative sampling. Neelankavil (2015) describes sampling as a procedure that uses a small number of elements of a given population as a basis for drawing conclusions about the whole population. Simple random sampling methods were utilized to ensure no bias is introduced in the selection and the sample has similar characteristic to the population. Krejcie Morgan Table or Yamane Formula was used to calculate the sample size, given that the population of the study is known. The formula is given by:

$$n = N / (1 + Ne^2)$$

Where;

n is the sample size

N is the population size e is the margin of error

According to KNBS (2016), there are 268,100 licensed MSMEs operating in Nairobi County, representing 17.18% of all licensed MSMEs in Kenya. Out of these, 31.4% are owned by

women, representing 84,183 women-owned enterprises. Using Slovin's formula, and an error margin of 5%, the sample size for this study was a minimum of 398 participants, calculated as  $(n=84,183/(1+84,183*0.05^2))$ . The researcher was able to collect data from 370 participants, representing 92.96% of the required sample, hence the sample was sufficient for the research. The participants in the study were chosen from various sub-counties in Nairobi, where the research assistants visited the largest markets in the sub-counties and focusing on women-owned businesses, selected and administered the questionnaires. The questionnaires were administered through electronic and using physical questionnaires as well, where participants filled the questionnaires after signing the participant's consent form. The data in the physical and electronic forms were later collated, cleaned and analyzed for the study.

### **3.6 Data collection instruments and procedure**

The main data used for this study was cross-sectional quantitative primary data. A self-administered survey questionnaire was used in the collection of the primary data. A questionnaire is defined as a set of questions to be asked from respondents in an interview or survey, with clear instructions on the questions that should be responded to (Sreejish, Anusree and Sanjay, 2014). The use of questionnaires was chosen due to its ability to reach a wider audience within a reasonable time, and they do offer respondents required anonymity (Geisinger, 2010). The questionnaires used had both closed and open-ended questions, in order to maximize the information collected.

### **3.7 Pilot Study**

Whitehead, Julious, Cooper, & Campbell (2015) define a pilot trial as a trial which mimics the design of the main trial and is meant to try out its aspects the researcher conducted the pilot study in two phases. In the first phase, the questionnaire was shared with two different micro insurance experts, who checked and gave their opinion on the data collection tool. In the second phase, the questionnaire was distributed to 10 randomly chosen MSMEs in the area under study to determine whether the questionnaire was sufficient in gathering the required information and any other feedback from the participants. Feedback was taken into consideration, and the necessary changes were added into the final questionnaire.

### **3.8 Validity Test**

Validity in a research test whether the instrument of research, in this case the questionnaire, measures what is it is intended to measure (Sreejish, Anusree, & Sanjay, 2014). Two aspects of validity relevant to this study are internal and external validity. Bradford and Cullen (2012) refer internal validity as causal validity and define it as the rigour in which a study is

done and how much the researcher has taken into account other explanations for the causal relationships between the variables in the study and define external validity as the extent to which results of the study can be generalized.

To test content validity of the research instrument, a pilot study was conducted where 10 participants from the target group were sampled to fill the questionnaires. This was done to determine whether the instrument was clear, legible, feasible and suitable, and to get feedback from the participants on the challenges faced when filling the questionnaire. The questionnaire was also shared with two industry experts, who scrutinized the instrument and gave their feedback. Both the feedback from the industry experts and from the pilot study were then incorporated in the questionnaire. To measure external validity, the study used a random sampling technique to select participants to the study. The aspect of randomness increases the probability of the sample size being representative of the target population, hence increasing external validity.

### 3.9 Reliability Test

Reliability of a research can be defined as degree to which the measurements of a particular instruments do not contain errors, resulting in consistent results (Sreejish, Anusree, & Sanjay, 2014). This research utilized the Cronbach’s Alpha to check for internal consistency of the data collected and analyzed using SPSS statistical software. For reliability, a Cronbach’s Alpha of 0.7 or above is desirable. This method is in line with the study done by Ndurukia, Njeru and Waiganjo (2017). The results of the test revealed that are summarized in the table below. All results show a Cronbach’s Alpha of more than 0.7, hence showing reliability of the data.

Constructs	No. of items	Alpha ( $\alpha$ )
Insurance product awareness	10	.711
Insurance literacy	5	.725
Type of enterprise ownership	5	.792
Price of insurance products	5	.701
Availability of suitable insurance products	5	

**Table 3.1 Reliability Statistics**

### 3.10 Ethical Considerations

The researcher undertook the study with utmost ethical considerations in mind. Ethical behavior was considered at every stage of the research process, including in topic selection, research design, collection and analysis of data analysis. In particular, due to the nature involved in collecting primary data, additional considerations of informing participants of taking part in the study, getting their consent in participating and ensuring confidentiality of the data have been included. The research was approved by Strathmore University Institutional Ethics Review Committee (SU-IERC) and a permit to collect data and proceed with the research was issued by the National Commission for Science, Technology and Innovation to carry out the research (NACOSTI). The researcher also strictly adhered to the provisions of the Data Protection Act (2019) in the collection, storage and processing of participants' confidential data.

### 3.11 Data Analysis

Quantitative data in its raw form, as collected by the questionnaires, does not have a lot of value for research purposes (Sreejish, Anusree, & Sanjay, 2014). It is necessary to clean, sort and code the data in order to perform analyses that add value to the study. Descriptive statistics were used to perform univariate analysis on the variables to describe and compare the variables numerically. The researcher performed binary logistic regression to assess the strength of the relationship between the predictor and response variables.

To answer the research questions, the regression model below was used:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where;

Y, the response variable is the presence of at least one insurance policy in the WMSME, and the predictor variables  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  represent type of enterprise ownership, insurance product awareness and literacy, price of insurance products and availability of suitable insurance products respectively.  $\beta_0$  is the constant (Y-intercept), while  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are the corresponding coefficients for each respective independent variable and  $\varepsilon_i$  is the error term that considers other factors not captured in the model.

### 3.12 Empirical model

To measure the extent to which each of the independent variables influence the uptake of insurance among WMSMEs, the researcher utilized the models below:

Insurance demand (*Insu\_dem*) was modelled as a function of the independent variables which influence the demand, holding all other factors constant.

The model used is as below: type of enterprise ownership, insurance product awareness and literacy, price of insurance products and availability of suitable insurance products.

$$Insu\_dem = \beta_0 + \beta_1 Own + \beta_2 ins\_awar\_lit_i + \beta_3 Ins\_pric_i + \beta_4 avail_i + \varepsilon_i$$

The error term  $\varepsilon_i$  catered for all other variables that have not been accounted for otherwise.



## CHAPTER 4 PRESENTATION OF RESEARCH FINDINGS

### 4.1 Introduction

The fourth chapter of the research presented the findings emanating from the analysis of the collected data. The survey was conducted in the month of September 2024 and the analysis was performed using descriptive and inferential statistics. The findings are presented in line with the objectives of the study.

### 4.2 Background Analysis

This section focused on the analysis of the response rate as well as the profile of the respondents who were included in the survey.

#### 4.2.1 Response Rate

The survey sought to obtain survey data from a sample of 398 respondents drawn from licensed WSMEs in Nairobi County. Out of this sample the study obtained 370 responses which amounted to 93% response rate which was deemed adequate and representative for application in quantitative analysis.

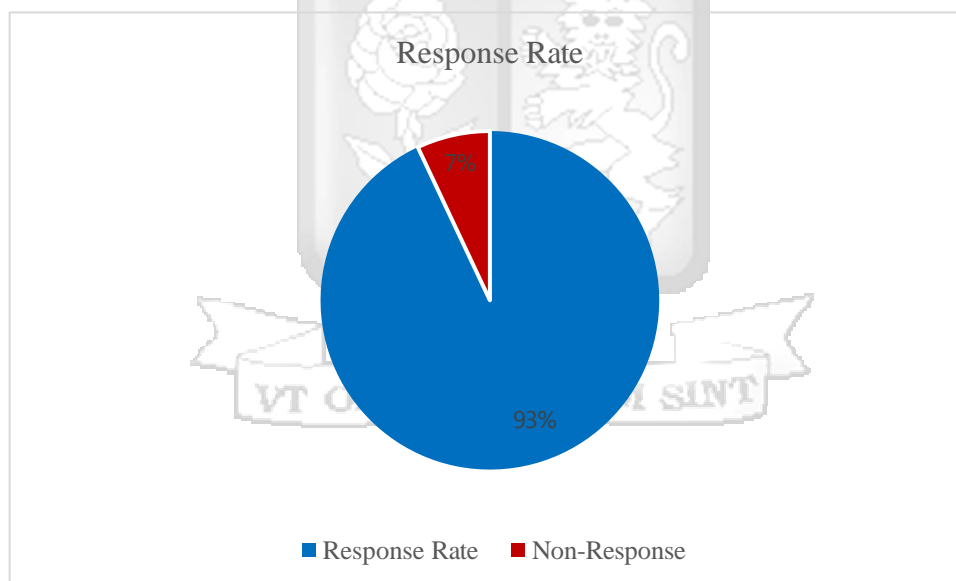


Figure 4.1 Response Rate

#### 4.2.2 Demographic Profile of the Respondents

The research further sought response from the owners of the WSMEs on various demographic characteristics. Overall, the findings showed the average age of the owners was 35.07 years with the oldest at 54 years of age and the youngest at 25 years of age showing there was a high concentration of youthful WSMEs owners within the County. The analysis further indicated that on average the business owners had at least 2 children with 16% of the respondents having no children at all, 2.2% had 5 children and 34% had 2 children. This

indicated that most of the WSME owners were parents as shown by the results indicating a parental role in addition to running their businesses.

		<b>Frequency</b>	<b>Percent</b>
Highest education level	Bachelor's degree	114	30.9
	Diploma/Tertiary Certificate	239	64.6
	Completed secondary school	16	4.3
	Completed primary school	1	.3
	<b>Total</b>	<b>370</b>	<b>100.0</b>
Marital Status	Married	276	74.8
	Single	69	18.7
	Divorced	23	6.2
	Widowed	1	.3
	<b>Total</b>	<b>370</b>	<b>100.0</b>
Training Received	Budgeting	41	11.1
	Saving	157	42.4
	Investing	59	15.9
	Insurance	19	5.1
	None	201	54.3

**Table 4.1 Summary of Demographic Characteristics**

Table 4.1 findings showed that majority of the owners of the licensed WSMEs, 65% (n = 239) had a Diploma/Tertiary Certificate, 31% (n = 114) possessed a bachelor's degree and 4% had a completed secondary school. This was indicative of formal education qualification among selected participants. Further, analysis showed that 75% (n = 276) of the respondents were married, 19% identified as single and just 6% were divorced showing variation in the marital status of the owners of the licensed WSMEs in Nairobi County. The results showed that 54% of the owners of the WSMEs had received no formal financial training, 42% have undergone training on savings, 11% on budgeting, 5% on insurance and 16% on investing, respectively. This demonstrated there was lack of access to financial training for licensed WSMEs in Nairobi County.

#### **4.2.3 Ownership of Phone and Internet Usage**

The respondents were asked to identify the devices they utilize and frequency of access to the internet and the results are presented below.

		Frequency	Percent
Type of phone being used	Smartphone	369	99.7
	Basic features phone	1	.3
	<b>Total</b>	<b>370</b>	<b>100.0</b>
Access to Internet	Hourly	1	.3
	Daily	367	98.9
	Weekly	3	.8
	<b>Total</b>	<b>370</b>	<b>100.0</b>

**Table 4.2 Ownership of Phone and Internet Usage**

The findings showed that 99% of the respondents had access to a smartphone which was consistent with 99% of the owners of the licensed WSMEs indicating they access the internet daily which is an indicator of high proliferation of internet-enabled devices and integration of digital channels in the operations of the businesses within the County.

#### 4.2.4 Profile of the WSME Businesses

The study further focused on a review of the characteristics of the WSME business included in the survey and the findings are shown in the Table below. On average the findings showed that the businesses have been on operation for at least 4.788 years with the longest operating business being 16 years of age and a mode of 4 years which was an indicator that most the business have survived beyond the 2–3-year threshold for failure of small businesses. The analysis further showed that on average the businesses had 2 employees with a mode of 2 employees and a maximum of 25 employee illustrating a growth in operations necessitating more than one person running the licensed WSMEs.

		Frequency	Percent
Main Business Activity	Service	56	15.2
	Trade	259	69.9
	Both	55	14.9
	<b>Total</b>	<b>370</b>	<b>100.0</b>
Type of ownership	Sole Proprietorship	263	71.0
	Partnership	99	26.8
	Limited Company	8	2.2
	<b>Total</b>	<b>370</b>	<b>100.0</b>
Revenue generated annually	Less than Kes. 500,000	356	96.2

Between 500,001 and 3,000,000	14	3.8
<b>Total</b>	<b>370</b>	<b>100.0</b>

**Table 4.3 Profile of the WMSME Businesses**

The results above indicated that 70% (n = 259) of the businesses were involved in trade activities, 15% on service industry and 15% on both trade and services business. This implied that selected respondents were from a diverse pool thus can provide reliable information needed for this research. Further majority of the businesses, 71% (n = 263) were sole proprietorship, 27% were partnerships and 2% registered limited companies which is indicative of the growth in entrepreneurship among women. Findings revealed that 96% of the business recorded less than 500,000 in revenue with only 4% generating between Ksh. 500,001 and 3,000,000, showing small revenue margins among licensed WMSMEs within the county, indicating that majority of the WMSMEs sampled fitted the description of micro and small businesses as defined in the Micro and Small Enterprises Act of 2012.

### 4.3 Descriptive Analysis

The main objectives of the study relied on structured questionnaires in the data collection process and the obtained data was analyzed using means, percentages, frequencies and standard deviation. The findings are presented in line with the objectives.

#### 4.3.1 Enterprise Ownership Type

The enterprise ownership structure constructs were analyzed, and the summary of the results is shown in the Table 4.4 below.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean	Standard Deviation
Easy to obtain tailored insurance	18.1%	19.5%	19.7%	23.2%	19.5%	2.94	1.39	
Adequate insurer options	20.3%	20.5%	17.8%	19.2%	22.2%	2.98	1.45	
Legal structure affects qualification	21.9%	17.8%	19.5%	21.1%	19.7%	3.01	1.44	
Insurers assess ownership in pricing	20.5%	20.0%	18.9%	19.5%	21.1%	2.99	1.44	
Challenges due to ownership type	20.8%	21.4%	19.7%	16.5%	21.6%	3.03	1.44	

**Table 4.4 Enterprise ownership type**

The analysis showed that 21.9% of the participants agree that their ownership structure affects their qualification for insurance policies for their businesses. In addition, 22.2% strongly disagree that there are insurance options suitable for their ownership structures as WMSMEs. 21.1% of the participants with a mean of 2.99 disagree strongly that insurers assess their ownership type in provision of insurance services.

**4.3.2 Insurance awareness and literacy**

The constructs for insurance awareness and literacy were computed and the summary of the results is shown in the Table 4.5 below.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
I understand how Business insurance works	16.8%	24.1%	19.7%	17.3%	22.2%	2.96	1.40
I can assess the type and level of insurance coverage my business needs	19.2%	21.1%	15.7%	16.8%	27.3%	2.88	1.49
I understand policy terms such as deductibles, exclusions, and coverage limits.	22.2%	17.3%	19.2%	16.2%	25.1%	2.95	1.49
I am aware of the claims process and the steps required to file a business insurance claim	18.9%	22.4%	17.3%	15.4%	25.9%	2.93	1.47
I know the financial consequences of not having business insurance	2.7%	4.3%	1.4%	5.1%	6.5%	.92	.50
I am aware of different types of business insurance available	2.4%	2.2%	7.6%	9.7%	8.1%	.11	.43
I know where to obtain information about business insurance products	2.2%	1.6%	8.4%	1.1%	6.8%	.11	.41

I understand the risks that business insurance can help mitigate	5.4%	7.3%	0.0%	6.2%	1.1%	.10	.48
I am familiar with insurance products specifically designed for small businesses	5.1%	8.1%	6.8%	7.0%	3.0%	.05	.51
I have received information about business insurance from insurers, brokers, or industry associations.	5.4%	7.8%	5.7%	7.6%	3.5%	.04	.52

**Table 4.5 Insurance literacy and awareness**

The analysis revealed that majority of the respondents strongly disagree with the questions that they are able to assess the type and level of insurance their enterprises require, they are familiar with insurance terms such as deductibles, exclusions and coverage limits and that they are aware of the claims process, at 27.3% with a mean of 2.88, 25.1% with a mean of 2.95 and 25.9% with a mean of 2.93 respectively. In regard to insurance product awareness for their businesses, 8.1% of the participants strongly disagree that they are aware of the different insurance offerings available for their businesses, while 6.5% strongly disagree that they are knowledgeable on where to access information on available insurance products for their businesses.

### 4.3.3 Price of insurance products

The price of insurance constructs was computed, and the summary of the results is shown in the table below.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean	Std Deviation
Premium cost of insurance is affordable for me	16.8%	24.1%	19.7%	17.3%	22.2%	2.96	1.40	
I consider insurance premiums to be reasonably priced for the benefits offered	19.2%	21.1%	15.7%	16.8%	27.3%	2.88	1.49	

Paying insurance premiums does not put financial strain on my household/business	22.2%	17.3%	19.2%	16.2%	25.1%	2.95	1.49
If insurance premiums were lower, I would be more likely to purchase coverage	18.9%	22.4%	17.3%	15.4%	25.9%	2.93	1.47
I prioritize other financial needs over paying insurance premiums	22.7%	14.3%	21.4%	15.1%	26.5%	2.92	1.50

**Table 4.6 Price of insurance products**

The results show that 27.3% of the participants, with a mean of 2.88 strongly disagreed that insurance premiums were reasonably priced for the benefits. Another 26.5% with a mean of 2.92 also strongly disagreed with the sentiments that they prioritized other financial needs to insurance premiums. 25.9% of the participants with a mean of 2.93 strongly disagreed with the sentiment that if insurance premiums were cheaper, they would purchase more insurance for their enterprises.

#### 4.3.4 Availability of suitable insurance products

The constructs for availability of suitable insurance products that serve the needs of WMSMEs were computed and the summary of the results is shown in the Table 4.7 below.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The insurance products available meet the specific needs of my business or personal situation	16.8%	24.1%	19.7%	17.3%	22.2%	2.96	1.40
I have access to a variety of insurance products tailored to my industry or sector	22.4%	18.4%	18.4%	19.2%	21.6%	3.01	1.46

The terms and conditions of available insurance products are flexible and customizable.	19.5%	16.8%	21.1%	21.6%	21.1%	2.92	1.42
Insurers offer innovative insurance solutions that cater to emerging risks in my sector.	18.9%	23.0%	17.3%	21.9%	18.9%	3.01	1.40
I can easily compare different insurance products before making a decision.	21.6%	22.2%	15.9%	21.1%	19.2%	3.06	1.44

**Table 4.7 Availability of suitable insurance products**

22.6%, 21.6% and 21.1% of the respondents with a mean of 2.96, 3.01 and 2.92 respectively strongly disagreed with the following statements; available products meet their needs, they have access to a variety of insurance products and that there are insurance products in the market offering flexible terms that match the reality of WMSMEs in the market.

#### 4.3.5 Availability of an insurance policy by the WMSME owner

The analysis of the responses showed that 337, representing 91.1% of the respondents had a form of insurance for their business or personal self. This was mostly NHIF cover, for the WMSME owner and their family. 8.9% of the WMSMEs did not have any insurance product for their business or personal use. The results of the analysis are as shown in table 4.9 below.

	Yes	No	
Do you have any insurance policies for your business and/or family?	%	91.1%	8.9%
	Count	337	33

**Table 4.9 Availability of an insurance policy by the WMSME owner**

#### 4.4 Regression Analysis

Regression analysis is useful in determining the nature of the relationship between the dependent and independent variables. This was then used to analyze whether the independent variables and the model itself are adequate in predicting the dependent variable, that is, the

likelihood of WMSME owners purchasing insurance policies. The results of the regression analysis were also used to determine whether the results of the study can be inferred to the whole population of WMSME entrepreneurs in Nairobi County.

The dependent variable was tested for normality to determine the most appropriate regression analysis to be conducted.

#### 4.4.1 Test for Normality

The researcher set out to find out the distribution characteristic of the population, as this informed the tests that were used in the study. The test for normality determines whether parametric or non-parametric tests are to be conducted. To test whether the sample size comes from a normally distribution population, two tests that were conducted: the Kolmogorov- Smirnov and Shapiro-Wilk tests. While the Kolmogorov-Smirnov is used when the sample size is greater than 50, the Shapiro-Wilkins test can be used on both large and small sample sizes (Biu, Nwakuya, & Wonu, 2019; Afeez, Maxwell, Otekunrin, & Happiness, 2018). The null hypothesis for both tests at a 95% significance level are as below.

H<sub>0</sub>: Sample is taken from a normally distributed population.

H<sub>1</sub>: Sample is not taken from a normally distributed population.

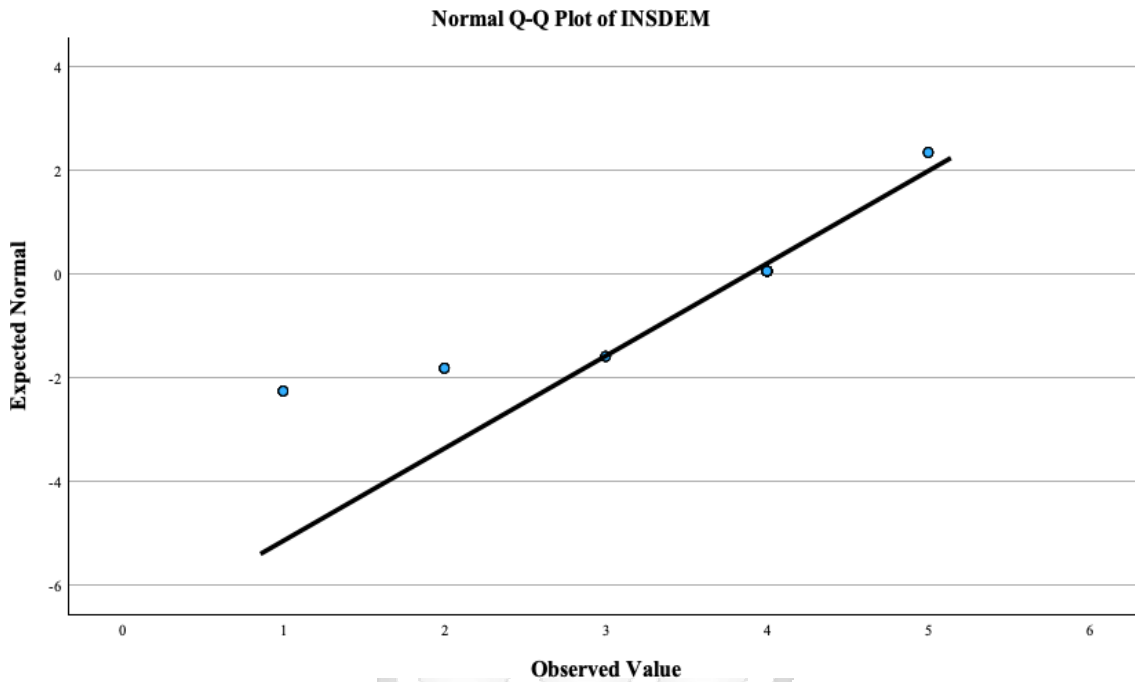
The results of the tests are as shown below.

*ests of Normality*

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		Sig.
	Statistic	df	Sig.	Statistic	df	
How likely are you to purchase an (another) insurance policy for yourself or business in the foreseeable future?	.517	370	<.001	.317	370	<.001

a. Lilliefors Significance Correction

**Table 4.10 Tests of Normality**



**Figure 4.2 Normal Q-Q plot for insurance demand**

Both the Kolmogorov-Smirnov and Shapiro-Wilk tests have a p-value of 0.001, which is less than the significance value 0.05. The Q-Q plot further indicates the lack of normal distribution of the data, as indicated above. The null hypothesis is hence rejected, indicating that the data is not normally distributed. Given these results, the researcher proceeded to conduct an Ordinal Logistic Regression analysis.

#### **4.4.2 Binary Logistic Regression Analysis**

In order to conduct binary logistic regression, the researcher conducted a number of analyses to ensure that the assumptions required for the analysis were not violated.

The first assumption is that the dependent variable should be categorical and measurable on a dichotomous scale. This assumption has not violated since, the dependent variable is binary in nature. It tests whether a WMSME owner has purchased at least one insurance policy or has none for their personal and business purposes.

To test the independence of observations assumption, the researcher applied the Durbin-Watson method. The result of the test indicates a Durbin-Watson value of 1.803, indicating that the observations are independent.

#### *Model Summary<sup>b</sup>*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.147 <sup>a</sup>	.022	.008	.280	1.803

a. Predictors: (Constant), PROD\_AVAIL, OWNERSHIP, PRICE\_CAT, INS\_PROD\_AWARE, INS\_LIT

b. Dependent Variable: PRESENCE\_OF\_INS

**Table 4.11** Durbin-Watson analysis results

To test for the assumption of multi-collinearity, Spearman's coefficient statistic was used. The results are as shown in Table 4.11 Below. The results show a Spearman's coefficient of less than 0.7, indicating that the assumption of multicollinearity in the observed data is not violated.

*Correlations*

		OWNERSHIP	INS_PROD_AWARE	INS_LI	PRICE_CAT	PROD_AVAIL
Spearman's rho OWNERSHIP	Correlation Coefficient	1.000	-.028	.125*	-.018	.165**
	Sig. (2-tailed)	.	.590	.016	.732	.001
	N	370	370	370	370	370
INS_PROD_AWARE	Correlation Coefficient	-.028	1.000	.390**	.184**	.204**
	Sig. (2-tailed)	.590	.	<.001	<.001	<.001
	N	370	370	370	370	370
INS_LIT	Correlation Coefficient	.125*	.390**	1.000	.293**	.286**
	Sig. (2-tailed)	.016	<.001	.	<.001	<.001
	N	370	370	370	370	370
PRICE_CAT	Correlation Coefficient	-.018	.184**	.293**	1.000	.204**
	Sig. (2-tailed)	.732	<.001	<.001	.	<.001
	N	370	370	370	370	370
PROD_AVAIL	Correlation Coefficient	.165**	.204**	.286**	.204**	1.000
	Sig. (2-tailed)	.001	<.001	<.001	<.001	.
	N	370	370	370	370	370

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

\*\*. Correlation is significant at the 0.01 level (2-tailed).

**Table 4.12** Spearman's multicollinearity test results

The researcher conducted Binary Logistic Regression, and the results are as shown below. The Omnibus tests of model coefficients resulted in p-values less than the observed p-value of 0.05, indicating that the test is not statistically significant, hence the model is a good fit and that the predictor variables in the model are significantly related to the outcome variable.

*Omnibus Tests of Model Coefficients*

		Chi-square	df	Sig.
Step 1	Step	74.799	22	<.001
	Block	74.799	22	<.001
	Model	74.799	22	<.001

**Table 4.13 Omnibus Tests of Model Coefficients**

The researcher used the Hosmer-Lemeshow test to determine how well the binary logistic regression model used fits the observed data. At a significance level of 0.05, the result of the test indicated lack of significance, with a p-value of 0.130. This indicates that the model fits the data well, and the observed and expected event rates are the same across all groups.

*Hosmer and Lemeshow Test*

Step	Chi-square	df	Sig.
1	12.506	8	.130

**Table 4.14 Hosmer and Lemeshow Test result**

The Nagelkerke R Square method was used in the study to evaluate how well the binary logistic regression model used fits the data. It indicates the proportion of variance in the outcome that is explained by the model. The results of the test indicate that 41.1% of the variance in the outcome can be explained by the independent variables used in this study.

*Model Summary*

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	143.007 <sup>a</sup>	.183	.411

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

**Table 4.15 Nagelkerke R Square test results**

The model summary for the binary regression analysis is as shown below.

*Variables in the Equation*

95% C.I.for EXP(B)		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 <sup>a</sup>	EDUCATION			3.775	3	.287			
	EDUCATION(1)	16.965	40192.969	.000	1	1.000	2.3e7	.000	.
	EDUCATION(2)	-1.612	.957	2.840	1	.092	.199	.031	1.301
	EDUCATION(3)	.134	.491	.074	1	.785	1.143	.437	2.991
	MARITAL			11.801	3	.008			
	MARITAL(1)	19.302	40192.969	.000	1	1.000	2.4e7	.000	.
	MARITAL(2)	2.675	.779	11.790	1	<.001	14.511	3.152	66.80
	MARITAL(3)	2.106	1.271	2.745	1	.098	8.213	.680	99.14
	OWNERSHIP				2	.855			
	OWNERSHIP(1)	16.643	14087.167	.000	1	.999	1.6e7	.000	.

OWNERSHIP(2)	.390	.698	.312	1	.576	1.477	.376	5.800
INS_PROD_AWARE			.237	4	.994			
INS_PROD_AWARE(1)	21.961	40193.637	.000	1	1.000	3.4e7	.000	.
						1		
INS_PROD_AWARE(2)	-18.728	69616.651	.000	1	1.000	.000	.000	.
INS_PROD_AWARE(3)	21.718	40193.637	.000	1	1.000	2.7e7	.000	.
						9		
INS_PROD_AWARE(4)	21.691	40193.637	.000	1	1.000	2.6e7	.000	.
						3		
INS_LIT			.835	3	3.841			
INS_LIT(1)	-.581	.640	.824	1	1.364	.559	.159	1.962
INS_LIT(2)	17.729	40192.969	.000	1	1.000	5.0e7	.000	.
INS_LIT(3)	-.549	.948	.335	1	.563	.578	.090	3.703
PROD_AVAIL			2.860	3	.414			
PROD_AVAIL(1)	-.024	.561	.002	1	.966	.977	.325	2.930
PROD_AVAIL(2)	-.885	1.109	.638	1	.425	.413	.047	3.625
PROD_AVAIL(3)	-1.075	.765	1.976	1	.160	.341	.076	1.528
AGE	.080	.083	.928	1	.335	1.083	.921	1.273
PRICE_CAT			.317	3	.957			
PRICE_CAT(1)	.148	.512	.083	1	.773	1.159	.425	3.165
PRICE_CAT(2)	17.174	40192.969	.000	1	1.000	2.8e7	.000	.
PRICE_CAT(3)	.744	1.375	.293	1	.588	2.104	.142	31.16
								0
Constant	-23.075	40193.637	.000	1	1.000	.000		

a. Variable(s) entered on step 1: EDUCATION, MARITAL, OWNERSHIP, INS\_PROD\_AWARE, INS\_LIT, PROD\_AVAIL, AGE, PRICE\_CAT.

**Table 4.16 Regression Summary**

The findings from the regression analysis showed that the type of enterprise ownership and the price of insurance products had an impact on the demand for insurance among WMSME owners. In particular, compared to the other ownership types, limited companies appeared to demand more insurance than partnerships and sole proprietorships. Nonetheless, the ownership type did not have a significant impact on the demand for insurance among WMSMEs, keeping all other factors constant. In terms of price, most WMSME participants in the appeared to be neutral, compared to those who agreed, strongly agreed and disagreed. This variable also indicated no significance in the demand for insurance by WMSMEs. Product availability, according to the results of the regression analysis, indicated a negative relationship with presence of an insurance product in a WMSME. In particular, participants

in the studies indicated those participants who strongly agreed with the presence of insurance products suitable for WMSMEs were more likely than those who were neutral, agreed or strongly agreed to not possess any insurance policy. This factor was not significant in affecting insurance demand among MSMEs.

In terms of insurance product awareness, participants who strongly disagreed, disagreed, agreed and strongly agreed had a higher probability of patronizing insurance products, while those who were neutral had a lower probability of having an insurance policy. This factor was not significant in affecting insurance demand among WMSME participants in the study. Insurance literacy as a variable also showed mixed results with those who are neutral having a higher probability of demanding insurance, while those who disagree and also agree with the effect of insurance literacy on insurance demand tended to purchase less insurance. This factor did not have a significant impact on insurance demand among WMSMEs.

Nevertheless, the effect of marital status appeared to be significant among WMSME owners, with married owners having a significant demand for insurance, compared to the single, divorced and separated participants, whose marital status was not significant in demanding insurance. This could be explained due to a number of reasons such as additional disposable income resulting from being in a two-income household.

#### **4.5 Chapter Summary**

This chapter delved into the descriptive and inferential statistics of the data collected, in an attempt to answer the research questions and objectives. The results of the regression analysis showed mixed results on the various factors affecting insurance demand by WMSMEs in Nairobi County. Thus, the study found that insurance literacy and knowledge, enterprise ownership type, price of insurance products and products availability had an effect on insurance demand by WMSMEs in Nairobi, though none of the main factors were significant in influencing this demand. The effect of being married, though a control variable, was found to be both positive and significant in the demand for insurance by WMSMEs.

## **CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter summarizes the findings and conclusions of the study based on the research conducted. The chapter also provides recommendation to the stakeholders associated with the subject matter and provides suggestions on further studies to be conducted under the topic.

### **5.2 Summary of findings**

The purpose of this chapter is to present a summary of the findings, draw conclusions from the summary and make recommendations in light of the findings. This was done along the general and specific objectives that were set out for the study.

#### **5.2.1 Insurance product awareness and literacy**

The results of the research showed that WMSME owners who were aware of insurance products were more likely to demand more insurance than those who did not. A similar study of the NHIF in Kenya among female-led households showed a similar result, with such households having a higher probability of owning an NHIF policy than those with little or no awareness of the insurance (Kimani, Ettarh, Warren, & Bellows, 2014). This could be as a result of interactions with various insurance products or insurance marketers selling to them different insurance products that respond to their various needs. On the other hand, the study showed that insurance knowledge/ literacy had a negative effect on insurance demand by WMSMEs. This is contrary to a number of studies that actually indicate that the more insurance knowledge one gains, the higher their demand as they are able to understand the importance and advantages of insurance as a risk mitigation mechanism (Ricci & Santilli, 2024; Kharde & Madan, 2018) . This phenomenon can be further studied, in order to ensure the right information on insurance is passed on to WMSME owners. In addition, understanding how insurance works and the terms and conditions will lead to more insurance purchase by WMSMEs, as the insurance products will be made more vivid to them, hence simplifying the products and increasing their demand.

#### **5.2.2 Type of enterprise ownership**

The research studied whether the ownership structure of a WMSME, that is sole-proprietorship partnership or limited companies had an effect on insurance demand. The results indicated that this factor, though not significant, did have an effect on insurance demand. Limited companies, in particular appeared to demand more insurance than the other non-liability structured business types. This corroborates the finding by Oliveira, Méxas, Meiriño, & Drumond (2019), whose findings showed that limited companies tend to have

more resources, knowledge and tools like the Enterprise Risk Model, which is not accessible to smaller enterprises classified under WMSEs. This could arise due to a number of reasons such as the fact that companies may be having more disposable income, may be facing more risks and may be required by law to have compulsory insurance covers such as employer's liability and Workmen's compensation insurance policies. However, sole proprietors and partnerships, especially those by women, tend to face greater risks of closing down due to their small nature and unlimited liability on the proprietors of the businesses. Further insights on how to increase insurance among the latter two would be beneficial.

### **5.2.3 Price of insurance products**

The study looked into studying whether the price of insurance had an effect on the demand for insurance by WMSMEs. The results indicated that price did indeed have a bearing on insurance demand by this demographic, though not a significant one. In particular, majority of the interviewed participants indicated that they were neutral to price when it came to insurance demand for their personal and business needs. This is in contrast to various studies among different demographics that have indicated price as a factor in insurance demand. This indicates that women are looking for value by demanding products that do serve their needs, and the price is not a significant factor in this. This speaks to the providers of microinsurance products who lower prices for insurance but do not offer sufficient value, hence reducing demand by WMSMEs. The fact that WMSMEs are neutral to price may indicate that they are looking for more robust risk mitigation methods, and understand that for insurance products to work sufficiently, price and value should go hand-in-hand. The results of the study are in line with studies conducted by other researchers in the past (Lesmes, 2022; IFC, 2015: Hernandez, Calder, Hariharan, & Martinez, 2023).

### **5.2.4 Availability of suitable insurance products**

The results from this study showed that availability of insurance products suitable for WMSEs had a negative impact on their demand. This is in contrast to studies, particularly the IFC She for shield Report (IFC, 2015), which concluded that suitable insurance products for women had an impact on their demand. Though not highly significant, the results of this need to be investigated further. Women as entrepreneurs face unique challenges requiring unique insurance products. For instance, women entrepreneurs are primary caregivers to their dependents, do more unpaid care work and work fewer hours due to insecurity and other issues, hence earn less than their male counterparts. In addition, WMSMEs earn less than men-owned MSMEs, and plough more into their families from their business proceeds.

Without proper insurance that speak to these needs, risks such as illnesses and accidents are likely to push them back into poverty at a higher rate than men. In addition, increasing awareness of products tailored to serve WMSME needs has a positive impact in that the entrepreneurs see value in these purchases that will help them mitigate the risks they face in their day-to-day and even long-term running of their businesses. Knowledge is power, and this is even more so in insurance, which is considered a complex product.

### **5.3 Conclusion**

The main objective of this study was to investigate the factors affecting the insurance demand among Women-owned MSMEs (WMSMEs) in Nairobi County. The specific objectives broke this further by investigating the demographic and demand-side factors, supply-side factors and macro-economic factors that have in effect on this demand, in order to answer the main objective. The research concluded that for WMSMEs, insurance literacy and knowledge, enterprise ownership type, price of insurance products and products availability had an effect on their insurance demand, though none of the main factors were significant in influencing this demand. The effect of being married, on the other hand, was found to be both positive and significant in the demand for insurance by WMSMEs.

### **5.4 Recommendations**

As per the conclusion of the study, WMSMEs play an important role in the development of an economy, helping in poverty reduction and narrowing the gender gap. With a potential 1.7 trillion US Dollars market for women's insurance, with a significant amount from emerging markets, it is imperative that all stakeholders promote insurance among Women-owned MSMEs.

The government is urged to give priority to WMSMEs by formulating policies that encourage their formation, growth and long-term sustainability. The insurance regulator is particularly encouraged to enforce the collection of gender-disaggregated data and reporting of gender metrics in the insurance sector. Other regulators in the financial industry are also encouraged to enforce the same data, as insurance complements these sectors. Insurance companies can take the initiative to disaggregate their data, conduct further analysis and create innovative products that address the specific needs of WMSMEs. They should also conduct market studies and create insurance literacy training programmes to arm WMSMEs with relevant information in insurance and other risk management measures.

Development partners also have a role to play through funding research and development initiatives focusing on WMSMEs and encouraging the social insurance initiatives to supplement the efforts of insurance companies. Scholars and academic institutions are also

urged to have a gender lens in the creation of the financial courses and research, especially focusing on insurance, risk management and finance among WMSMEs. They could also create funds that focus on the insurance and risk management needs of WMSMEs.

With these recommendations in place, the role of insurance for WMSMEs will help with the achievement of wider development goals, reduction of gender parity in insurance and the achievement of SDGs like poverty eradication (SDG 1) and gender equality (SDG 5).

### **5.5 Suggestions for further studies**

The objective of this study was to investigate the factors affecting demand for insurance among Women-owned MSMEs in Nairobi County. The study focused on three insurance products that were deemed to majorly affect WMSMEs. Further studies should be done to explore the demand for all insurance products, and the possibility of other more innovative insurance solutions that would benefit WMSMEs. Further studies should also be done on rural-based WMSMEs and in other urban and peri-urban areas outside Nairobi County.

Furthermore, studies can also be conducted on the informal WMSMEs, as informal MSMEs account for 79% of all businesses operating in Kenya (KNBS, 2016). The unit of analysis for the study was WMSME owners: other units of analysis such as female managers or workers insurance companies, insurance intermediaries and other workers in financial institutions could be explored to give further insights. The topic could also lend itself to a mixed or qualitative study to answer the “why “questions related to the study. The effect of marital status on the insurance demand by WMSMEs can also be further analyzed to determine the specific reason this is significant in their demand, and how the results can be extrapolated to benefit other women with different marital statuses.

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## CHAPTER 7 APPENDICES

- 7.1 Appendix 1: Ethical Approval
- 7.2 Appendix 2: NACOSTI Approval
- 7.3 Appendix 3: Questionnaire and participant's consent form





Final Decision

This is to certify that the application for ethics clearance submitted by:

Principal Investigator: Ms. Macharia, Yolanda Vumilia

Reference number: SU-ISERC1579/23

For Study: "IMPACT OF COVID-19 ON INSURANCE DEMAND"

Was reviewed and received the following status: "done"

Reviewer Comments Final decision: approved Comments sent:

*Reviewer #1:*

*'There is a mix up in your study.*

*You seem to be changing from one study to another which is causing confusions. Kindly choose one topic and stick to it,, then the other parts of the proposal should be in line with the topic.*

*Consider the issues of concern that have been raised in order to correct your work. '*

The SU-ISERC wishes you all the best with this research undertaking. 23  
March 2023 10:39:24

VI OMNES VNVM SINT



REPUBLIC OF KENYA

Ref No: 521491

RESEARCH LICENSE



This is to Certify that Ms. Yolanda Vumila Macharia of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev 2014) in Nairobi on the topic: EFFECT OF COVID-19 PANDEMIC ON DEMAND FOR INSURANCE BY LICENSED MSMEs IN NAIROBI COUNTY for the period ending : 25/April/2024.

License No: NACOSTIP/23/25258

Applicant Identification Number

Director General

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Date of Issue: 25/April/2023

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Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

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  - iv. Result in exploitation of intellectual property rights of communities in Kenya
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14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
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## QUESTIONNAIRE

### **PART A: General Information**

Please tick or fill the appropriate answer

1. How old are you? (Mention).....
  
2. What is your highest education level?
  1. Master's degree      2. Bachelor's degree      3. Completed Secondary school
  4. Completed Primary School      5. None      6. Others(Mention).....
  
3. What is your marital Status?
  1. Married      2. Single      3. Divorced      4. Widowed
  
4. How many children do you have? Mention.....
  
5. Do you belong to any of the following?
  1. Self Help Group (SHG)      2. Merry-go-round      3. Table banking
  
6. Do you have any of the following:
  1. SACCO account.      2. Bank Account      3. M-Pesa Account      4. Other digital Account (Mention).....
  
7. Have you ever received training on any of the following?(Tick all appropriate)
  - a) Budgeting ( )
  - b) Saving ( )
  - c) Investing ( )
  - d) Insurance ( )
  
8. Which type of phone are you using?
  1. Smart phone      2. Basic features phone      3. I don't own a phone
  
9. How often do you access the internet?
  1. Hourly      2. Daily      3. Weekly      4. Monthly      5. Others (Mention)

### **PART B: ENTERPRISE INFORMATION**

1. Name of business (mention).....
  
2. Main business activity
  1. Service      2. Trade.      3. Both
  
3. Location and telephone number(mention).....
  
4. Type of ownership
  - a) Sole Proprietorship ( )
  - b) Partnership ( )

- c) Limited Company ( )
- d) Other (mention).....

5. For how many years has your business been operational?  
(Mention).....

6. How many employees does your business have?  
(Mention).....

7. How much revenue does your business generate in a year? (Mention). Kes.  
.....

**PART C: INSURANCE DEMAND FACTORS**

**1. ENTERPRISE OWNERSHIP TYPE AND INSURANCE DEMAND**

On a scale of 1 to 5 below, how much do you agree with the statements below? Tick in the box, ratings are on a scale of 1-5, where 1- strongly disagree and 5- strongly agree)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I find it easy to obtain insurance coverage tailored to my business structure					
Insurers provide adequate options for businesses with my ownership type.					
The legal structure of my business makes it easier/harder to qualify for insurance.					
I believe insurers assess my business ownership type when determining premiums.					
I have faced challenges in securing business insurance due to my ownership type.					

**2. PRICE OF INSURANCE PRODUCTS AND INSURANCE DEMAND**

On a scale of 1 to 5 below, how much do you agree with the statements below? Tick in the box, ratings are on a scale of 1-5, where 1- strongly disagree and 5- strongly agree)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The premium cost of insurance is affordable for me.					
I consider insurance premiums to be reasonably priced for the benefits offered					
Paying insurance premiums does not put financial strain on my household					
If insurance premiums were lower, I would be more likely to purchase coverage					
I prioritize other financial needs over paying insurance premiums.					

### 3. AVAILABILITY OF SUITABLE INSURANCE PRODUCTS AND INSURANCE DEMAND

On a scale of 1 to 5 below, how much do you agree with the statements below? Tick in the box, ratings are on a scale of 1-5, where 1- strongly disagree and 5- strongly agree)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The insurance products available meet the specific needs of my business or personal situation.					
I have access to a variety of insurance products tailored to my industry or sector					

The terms and conditions of available insurance products are flexible and customizable.					
Insurers offer innovative insurance solutions that cater to emerging risks in my sector					
I can easily compare different insurance products before making a decision.					

#### 4. INSURANCE PRODUCT AWARENESS AND INSURANCE LITERACY AND INSURANCE DEMAND

On a scale of 1 to 5 below, how much do you agree with the statements below? Tick in the box, ratings are on a scale of 1-5, where 1- strongly disagree and 5- strongly agree)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Insurance Literacy</b>					
I understand how business insurance works and its importance in risk management.					
I can assess the type and level of insurance coverage my business needs.					
I understand policy terms such as deductibles, exclusions, and coverage limits.					
I am aware of the claims process and the steps required to file a business insurance claim.					
I know the financial consequences of not having business insurance.					
<b>Insurance Product Awareness</b>					

I am aware of different types of business insurance available (e.g., property, liability, workers' compensation)					
I know where to obtain information about business insurance products.					
I understand the risks that business insurance can help mitigate.					
I am familiar with insurance products specifically designed for small businesses.					
I have received information about business insurance from insurers, brokers, or industry associations.					

**PART D: TYPES OF INSURANCE POLICIES PURCHASED**

1. Do you have an insurance policy for your business and/or family? (Tick all that Apply)

Insurance Product		Yes	No
Business Insurance Protection			
Health Insurance	NHIF		
	Private Insurance		
Life Insurance			
Others (mention)			

2. If yes to question (1) above, how much premium do you pay per year? (Mention)

Kes.....

3. If no to question 1 above, how likely are you to purchase an insurance policy for yourself or business in the foreseeable future?

Likely ( )                                      Moderately likely ( )                                      Neutral ( )  
 Less likely ( )                                      Least likely ( )

4. Do you have any suggestions on how insurance companies can serve MSMEs better?

## **PARTICIPANT INFORMATION AND CONSENT FORM**

FACTORS AFFECTING THE DEMAND FOR INSURANCE AMONG LICENCED WOMEN-OWNED MICRO, SMALL AND MEDIUM ENTERPRISES (WMSMES) IN NAIROBI COUNTY, KENYA

### **SECTION 1: INFORMATION SHEET**

Investigator: Yolanda V. Macharia

Institutional affiliation: Strathmore Business School (SBS)

### **SECTION 2: INFORMATION SHEET–THE STUDY**

Why is this study being carried out?

This study is being carried out to assess whether the demand for insurance as a risk mitigation tool by licensed MSMEs in Nairobi has been affected by the Covid-19 pandemic.

#### **Do I have to take part?**

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on your usage of insurance before, during and after the Covid-19 pandemic. If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational session after which you may be asked to answer the questions a second time. You are free to decline to take part in the study from this study at any time without giving any reasons.

Who is eligible to take part in this study?

Any owner of a business classified as an WMSME.

#### **Who is not eligible to take part in this study?**

Any person not mentioned above.

#### **What will taking part in this study involve for me?**

You will be approached by our investigator and their team and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then taken through a questionnaire to complete.

#### **Are there any risks or dangers in taking part in this study?**

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

#### **Are there any benefits of taking part in this study?**

The information will be used to improve insurance products and services offered to MSMEs.

#### **What will happen to me if I refuse to take part in this study?**

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

#### **Who will have access to my information during this research?**

All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

#### **Who can I contact in case I have further questions?**

You can contact me, Yolanda M. Vumilia, at SBS, or by e-mail [Yolanda.Macharia@strathmore.edu](mailto:Yolanda.Macharia@strathmore.edu),

or by phone 0734460497. You can also contact my supervisor, Prof. Simon Ndiritu, at the Strathmore Business School, Nairobi, or by e-mail [sndiritu@strathmore.edu](mailto:sndiritu@strathmore.edu).

If you want to ask someone independent anything about this research please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email ethicsreview@strathmore.edu Tel number: +254 703 034 375

I, \_\_\_\_\_, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

**Please tick the boxes that apply to you;**

**Participation in the research study**

I AGREE to take part in this research

I DON'T AGREE to take part in this research

**Storage of information on the completed questionnaire**

AGREE to have my completed questionnaire stored for future data analysis

I DON'T AGREE to have my completed questionnaire stored for future data analysis

**Participant's Signature:**

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

\_\_\_\_\_

*DD / MM / YEAR*

**Participant's Name:**

**Time:** \_\_\_\_/\_\_\_\_

\_\_\_\_\_

*(Please print name)*

*HR / MN*

I, \_\_\_\_\_ (Name of person taking consent) certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

**Investigator's Signature:**

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

\_\_\_\_\_

*DD / MM / YEAR*

**Investigator's Name:**

**Time:** \_\_\_\_/\_\_\_\_

\_\_\_\_\_

*(Please print name)*

*HR / MN*