

**ASSESSING THE EFFECTS OF FINANCIAL LITERACY ON THE
PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN
WINDHOEK**

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Abstract

Financial literacy is one of the key factors for the effective operation of businesses including SMEs. Thus, the lack of financial training (financial knowledge) and poor financial management capacity could be detrimental to the effective management of business resources. This study assessed the effects of financial literacy on the performance of small and medium enterprises (SMEs) in Windhoek. For data collection, the study drew a sample of 100 registered SMEs (50 SMEs that attended the financial literacy training and 50 SMEs who did not attend the financial literacy training) using stratified and simple random sampling methods and structured questionnaires. The study applied an ordinary least squares technique to examine the determinants and effects of financial literacy on the performance of SMEs in Windhoek. The results suggest that tertiary education and financial literacy training significantly influence financial knowledge. The study finds that attending the financial literacy training programme significantly increases the composite score index of financial knowledge by 0.04 units while being 30 – 50 years old significantly increases the index by 0.07 units. Completing tertiary education significantly increases the financial knowledge index by 0.10 units. Therefore, ensuring participation in the financial training initiative and educational attainment of individuals enhances the level of financial knowledge of SMEs. Financial literacy training and financial knowledge are both important determinants of the performance of SMEs in Windhoek. Specifically, a unit increase in the composite index of financial knowledge significantly increases the composite score of business performance by 0.16 units and attending the financial literacy training significantly increases the composite index of business performance by 0.14 units. Gender, number of dependents, age of business, business type, business ownership and educational attainment are also important in explaining the performance of SMEs. This suggests

that policy options that promote financial literacy and financial knowledge will enhance the performance of SMEs in Windhoek.

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List of abbreviations

EU	European Union
FL	Financial Literacy
FLI	Financial Literacy Initiatives
GDP	Gross Domestic Products
ICT	Information and Communication Technology
LARRI	Labour Resource & Research Institute
MSME	Micro, Small and Medium Enterprises
MOF	Ministry of Finance
MITSMED	Ministry of Industrialisation, Trade and SME Development
NCCI	Namibia Chamber of Commerce and Industry
NEPRU	Namibia Economic Policy Research Unit
NFIS	Namibia Financial Inclusion Survey
SME	Small and Medium Enterprise
OCED	Organisation for Economic Co-operation and Development.
UNDP	United Nations Development Programme

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Dedication

Firstly, I would like to thank The Almighty God for giving me the strength and power to complete this thesis. I would like to dedicate it to my dearest uncle Hon. Cleophas Mutjavikua and my grandmother Welda Mutjavikua. It could have been of great joy to you, seeing us pursuing further studies, as it was your conviction for us to do further studies. May your dear souls rest in peace. Lastly, I would like to dedicate this thesis to Godwin Murangi, who stood by me during the lengthy period I was busy with this research. Your encouragement and understanding is much valued and the advice to pursue a Master's degree is much appreciated!

Declaration

I Asnath Kavena Murangi, hereby declares that the work contained in the mini-thesis, entitled **“Assessing the effects of financial literacy on the performance of small and medium enterprises in Windhoek”**, is my own work.

It is submitted in partial fulfilment of the requirements for the degree in Master of Science in Accounting and Finance at the University of Namibia. It has not been previously in its entirety or in partiality submitted to any university or other higher education institution for the award of a degree. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Certification page

It is certified that the mini-thesis titled: “**Assessing the effects of financial literacy on the performance of small and medium enterprises in Windhoek**”, submitted by Mrs Asnath Kavena Murangi in partial fulfilment of the requirements of the degree of Masters of Science in Accounting and Finance, and is based on the study carried out under my guidance. The mini-thesis has not been submitted for an academic award at any other university or for any academic purposes.

Dr Alfred Mukong (Supervisor)

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The performance and growth of Small and Medium Enterprises (SMEs) has been a concern in many developing countries, especially different institutions including non-governmental organisations, the banking sector, entrepreneurs, and the government (Eniola and Entebang, 2014). Small and Medium Enterprises (SMEs) are regarded as important contributors to the national economy and social development with potential for employment creation, improving income generation, strengthening the purchasing power, poverty reduction and inventions among the inhabitants of the society.

Globally, SMEs account for an important segment of employment and Gross Domestic Product (Ramsden, 2010). Studies conducted in Namibia by Mukata and Swanepoel (2017) Iguna and Sazita (2018) indicated that SMEs account for 20% of total employment and contribution to GDP was about 11%. SME contribution to employment and GDP in developing countries, appears fairly modest and estimates suggest that the informal sector which is mainly SMEs, accounts for 48% of the total labour force and 37% of GDP in developing countries.

Self-governing and growth of SMEs are the key aspects of SMEs. They also contribute in terms of development, innovation, and job creation in an emerging economy. The growth of SMEs, depends on a number of factors including financial literacy, access to capital markets, taxation and bank charges. For instance, the individual financial distress experienced worldwide is viewed as a consequence of low financial literacy (Musie, 2015). Thus, the level of financial literacy of individuals and businesses has been of key interest to many stakeholders including academics,

government, the private sector and communities at large. This is mainly because of the SME sector's vital role in the economy.

According to the Namibia financial literacy baseline survey (2013), Namibians had shown a reasonable level of financial inclusion, but a very low level of financial behaviour and that has been attributed to lower levels of financial literacy (FL). Musie (2015) also reported that globally, many people have little financial knowledge. Guiso and Viviano (2014) cited that financial literacy is an important determinant of sound financial decision-making both to individuals and businesses, yet, many lack very basic financial knowledge, which is detrimental to the successful operation of their businesses.

Financial literacy for SMEs in Namibia is very crucial for the effective operations of the business. The majority of SMEs lack financial training and have poor financial management capacity and thus, financial literacy could be very crucial for the effective management of business resources. Financial literacy is regarded as one of the key factors influencing the success of the SMEs and the ability to grow to achieve their goals (Mandell, 2008). SMEs in many countries face challenges accessing financial services, exploiting technological facilities, managerial incapability, very low production and regulatory burdens in businesses (Cherugong, 2015). In the context of Namibia, SMEs face many socio-economic challenges such as access to finance, access to land, high costs of utilities, lack of managerial skills, accounting skills, lack of accurate information, financial exclusion, access to technology, regulatory aspects and research and development (National Micro Small Medium Enterprises' Policy and Programme, 2016).

The financing of SMEs is not attractive to commercial banks because, they are seen as high risks with limited possibility of yielding appropriate profit even when they present good investment

opportunities. Limited access to finance is also strongly associated with poor financial literacy as the majority of SMEs use private savings accounts and private cheque accounts to run their businesses. As a result, over 97% of SMEs' failure to use banking institutions is considered to be due to insufficient financial literacy and lack of SME training towards appropriate management of their resources (National Micro Small Medium Enterprises' Policy and Programme, 2016).

Hilgert, Hogarth and Beverly (2003) mentioned four financial behaviour variables namely: cash-flow management, credit management, savings and investment practices. Robb and Woodyard (2011) stated that adequate financial literacy will have an impact on financial behaviour and inspires individuals to use and be able to allocate their resources adequately. Most people have not realised the importance of financial management and perceived that personal investment planning is for individuals with high income. According to Pritazahara (2015) there are individuals who earned a very high income but with limited management plans. Therefore, it is crucial for every individual to have basic financial knowledge. Musie (2015) stated that most individuals and SMEs have been reported to have low levels of financial literacy and lack very basic knowledge of the financial concepts that should guide their financial decisions. As a consequence, many countries have implemented of financial education strategies to increase the level of financial literacy, as it is perceived as very instrumental to economic growth and the financial stability of society and the state (Tali, 2016).

The Government of the Republic of Namibia has prioritised the importance and the urgency of financial literacy training and through the Ministry of Finance (MOF) initiated the Financial Literacy Initiative (FLI) in 2009 (FLI, Annual report 2016/2017). The purpose was to educate and enable individuals and businesses to make informed decisions in managing their finances, ensuring better financial behaviour, investment practices, influence savings and budgeting. Since inception,

the MOF has trained 3000 individuals under the FLI and during the financial year 2016/2017 and 2017/ 2018, the MOF has trained 300 SMEs under the auspices of the FLI. Considering two components of financial literacy (financial knowledge and financial behaviour) the Namibia Financial Inclusion Survey (NFIS) (2017) showed that the level of financial knowledge was 51.2% compared to 32.3% for financial behaviour. This suggests that the level of financial literacy in Namibia is still low and requires further interventions. However, there is need to understand how the financial literacy initiative has impacted the financial knowledge of individuals, their well-being and the performance of SMEs. This study investigates the effects of financial literacy on the performance of SMEs in Namibia.

1.1.1. Financial literacy

Financial literacy is about discernment to make wise decisions regarding the management and use of financial services (Gavigan, 2010). It requires knowledge, attitude and skill and experience with the aim of ensuring the company's profitability and sales enhancement, minimisation of staff turnover and increasing wealth (Jacobs, 2011). Making the right financial decision, is essential to individuals and SMEs for a number of reasons, including: planning for retirement (Lusardi and Mitchell, 2011) better saving decisions (Babiarz and Robb, 2014) and stakeholders' earnings in the stock market (Guiso & Viviano, 2014).

Disney and Gatherhood (2013) argued that there is a strong relationship between financial literacy and credit portfolios of the customers. Individuals with lesser knowledge of financial literacy pay more interest on the money they borrow compared to the more financially knowledgeable individuals. Financially literate individuals tend to negotiate for lower interest as they understand the financial concept better than their counterparts.

1.2. Statement of the problem

There are numerous challenges that affect the performance of SMEs in Namibia (Stork 2010). Some of these challenges include: collateral for obtaining credit, ease of access to credit, investment knowledge and lack of accounting and financial knowledge. However, Ramsden (2010) highlighted that with the exception of the challenge of SMEs' access to finance, the poor business environment which includes business infrastructure, business regulations, and management skill capacity contributes to the poor performance of SMEs in Namibia.

Financial literacy contributes when it comes to making informed decisions and it is important for the profit and growth of SMEs. There is evidence of limited financial knowledge among many SMEs in the world (Ibrahim, 2017).

The 2013 baseline survey on financial literacy, showed significant deficiency in the level of financial literacy among SMEs in Namibia. The survey showed that 62% of Namibians had difficulties in keeping their financial commitments, 32% are committed to their budget, 33% are committed to save money regularly and 26% have insurance products. The financial literacy annual report 2016/2017, indicated that on average 51.2% of Namibians are financially knowledgeable and 32.4% are known for good financial behaviour. Amongst other challenges, financial literacy is one of the threats that influences the performance and the growth of the SMEs. While this is the case, there is limited evidence on the role of financial literacy in the performance and growth of SMEs in Namibia. This study seeks to assess effects of financial literacy on the performance of SMEs in Windhoek.

1.3. Research Objectives

The main objective of this study is to assess the effects of financial literacy on the performance of SMEs in Namibia. The specific objectives include:

- To assess the effects of the Financial Literacy Initiative training on the financial knowledge of SMEs in Windhoek.
- To determine how financial knowledge contributes to the performance of SMEs.

1.4. Hypotheses of the study

H_0^a : The financial literacy has no significant effect on the financial knowledge of SMEs in Windhoek

H_1^a : The financial literacy has a significant effect on the financial knowledge of SMEs in Windhoek

H_0^b : The financial literacy has no significant impact on the performance of SMEs in Windhoek

H_1^b : The financial literacy has a significant impact on the performance of SMEs in Windhoek

1.5. Significance of the study

It has been proven that SMEs play an essential role in the development of the Namibian economy as they can alleviate and curb unemployment and poverty. Yet, there is little literature on the relationship between financial literacy and SME performance in Namibia. Specifically, much is not known regarding the effect of financial literacy initiative training on the financial knowledge of SMEs and how the acquired financial knowledge has affected the performance of SMEs in Namibia. This study contributes to this evidence gap and provides essential information to

stakeholders and organisations that have an objective to enhance financial knowledge of business owners and to the populations at large.

The study is also beneficial to SMEs, the Financial Literacy Initiatives group, the financial institutions and other stakeholders to understand the importance of financial literacy to the SME's performances. The study is beneficial to academics and emerging researchers in the field of financial inclusion.

1.6. Limitations of the study

There is no baseline information on SMEs that benefitted from the Financial Literacy Initiative training and thus assessing the effects of financial literacy on the performance of these SMEs is challenging. The study considered a similar group of SMEs that did not benefit from the training for comparison.

1.7. Delimitations of the study

This study focused only on SMEs operating in Windhoek. The study also considered only registered SMEs including that those who benefitted from the Financial Literacy Initiative training and those that did not benefit from the programme. Willingness from SMEs to provide needed information that will support the research study.

1.8. Structure of the study

The study consists of five chapters. Chapter one, highlighted and provided an introduction and the background of the research being conducted. It also deals with the statement of the problem, highlighted the research objectives and hypotheses of the study, the significance of the study, the limitations and delimitations of the study.

Chapter two presents the literature review which covers recent studies in the area of research and the gaps in the studies. This includes both theoretical and empirical literature. Chapter three presents the methodology of the study that encompasses the research design, the population, sample and sampling procedures used, the research instrument, procedure and method of data analysis. Chapter four presents the results and discussions of study to come up with the findings. Chapter five presents the conclusions and recommendations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This study assesses the effect of financial literacy on the performance of SMEs in Windhoek, Namibia. This chapter reviews the relevant theoretical and empirical literature. The concepts and definitions of financial literacy and its role on SMEs' performance is broadly elaborated upon to stretch out the meaning of the context to the research study.

2.1. Theoretical Review

Financial Literacy has attracted very high attention in both developed and developing countries due to its role in financial behaviour and wellbeing (Kimunduu *et al.*, 2016). Many countries, including Namibia have set up task forces and programs aimed at improving the level of financial education of the population, including SME operators. Many researchers, including Kim & Garman (2004) indicated that inadequate financial literacy affects and damages the performance of many businesses. Tali (2016) argued that financial literacy is perceived as life expertise needed for financial behaviour and a significant foundation for the economic and financial steadiness of individuals, households and the government.

Bosman and Harding (2006) reported that many SMEs were unsuccessful because of the lack of financial literacy, inadequate business perception and poor entrepreneurial activities and skills. Adomako *et al.* (2015) also added that the absence of suitable and timely banking finance, limited financial knowledge and capacity to identify new financial products and lack of financial management skills hinders the performance of business. Many SMEs are required to make procurement and management decisions daily, and financial knowledge is very important for the effective operations of any business and SME.

On the other hand, Small Medium Enterprises (SMEs) play a vital role to the growth of countries and are regarded as a key contributor to the development economies. The SMEs sector is regarded as a mainstay of the Namibian economy as it provides employment and generates income for individuals and households (NEPRU, 2005). According to LaRRI study (2002) SMEs are likely to offer about 60 000 full time employment to Namibians, an important contributor to employment. In many countries, SMEs are at the forefront and key position in technological development, diversification of manufacturing processes and strengthening of export undertakings.

2.1.1 Theories

This research is guided by the goal setting theory and the item response theory.

Goal Setting Theory

Locke *et al.* (1981), describe the goal setting theory (GST) as what individual is trying to achieve. GST aim more for actions, is grounded on the belief that conscious goals and objectives drive results. Moeller et al (2012), established that the goal setting is the process of establishing specific and effective targets for task performance. Based on the goal setting theory of motivation, Locke and Latham (1990) discovered that individual goals are likely to determine how well they perform their task. It suggests individuals must be committed to setting of goals, obtain feedback and must have the ability to perform the task. Goal setting theory have been used by various organisations e.g. academics for the leaners performance, human resource management on employees behaviour and performances. Thus, goal setting theory is an appropriate theory to use for assessing the effects of financial literacy on SMEs performances. SMEs should be gaol driven to improve their business performances. Motivational theory advocates that measures of financial literacy should

be linked to financial behaviour and should be in the consumer's best interests. Hilgert *et al.* (2003) prepared a Financial Practice Index grounded on behaviour in cash flow management, credit management, savings and investment practices. They suggested in their findings that financial knowledge is a link to financial practice. Evidence suggests that the relationship between financial knowledge and financial behaviour is more complicated as improved financial knowledge may not necessarily improve the financial behaviour of individuals, Robb and Woodyard (2010).

Item Response Theory

According to An and Yung (2014), Item Response Theory (IRT) was first proposed in the field of psychometrics for the purpose of ability assessment. It is widely used in education and lately educational assessment has used the theory based technique to develop tests. The IRT is being used because the methodology can significantly improve measurements accuracy and reliability while providing significant reductions in assessment time and effort, especially via computerised adaptive testing. IRT model has become very popular specifically in health outcomes, quality-of-life research and clinical research. Their two basic concepts of IRT models, which is the Rasch and two parameter model. There are main features of the IRT procedures; supports logistic and probit links, calibrates items that have different response model, performs multidimensional exploratory and confirmatory analysis. IRT is also an appropriate model to use for the research study.

2. Empirical Theory

2.2 Definitions and the overview of the terms

2.2.1 Financial Literacy

Financial literacy is an important thing that must be possessed by SMEs in achieving success and improving business performance. However, there are still many people who do not understand financial literacy well, Buchdadi *et al.* (2020). It is recognised that most businesses lack financial knowledge to make informed financial judgement in their own interests (Perry, 2008). For a financial system to be reliable and effective, financial literacy is highly needed in order to escape any future difficulties and to take any appropriate actions to improve the performance of businesses (OCED, 2009). Gale and Levine (2010) defined financial literacy as the ability to make sound informed choices that are effective in the use and management of finances and wealth. Moreover, Financial Services Authority of Indonesia (OJK, 2016) defines that financial literacy is not limited to the understanding the product and services of the financial institutions, but FL can make ability for people to arrange the goals by compiling financial planning and management of finances through using financial products and services. This literacy

Financial literacy comprises the understanding and necessary ability of individuals to be able to organise and function effectively in the money economy and make informed decisions with respect to their household circumstances. Ariba (2016), explains that financial literacy is knowledge of financial concept, abilities and skills related to financial concepts, skills in business management, and the ability to make strategic business decision, fairly specific and fast in certain situation. It contains the capability to make informed decisions and to take effective decisions on financial issues or basic numerical knowledge and understanding to be able to do calculations and

understand the risks of financial choices and the fundamental concepts of the financial literacy (Worthington, 2005). According to Xu and Zia (2012) the term financial literacy comprises various notions which range from financial awareness and knowledge of financial products and banking. Also, financial skills and ideas like the capabilities to calculate compound interest payments and general financial capability in terms of money management and planning and financial forecasting. Practically, these financial ideas connect frequently.

Financial literacy is important in assisting individuals with identification of vigorous financial matters and behaviours that support effective management of financial resources (Hilgert and Hogarth, 2003). The Financial Literacy Initiatives Annual report (2015) indicated that financial literacy is positively related to outcomes such as wealth creation, retirement planning and responsible borrowing. Bayrakdoroglu and San (2015) state that differences that exist in people's wealth levels is determined by their financial literacy status. Financial literacy enables people to have knowledge of very important financial notions such as different types of interest rates, risks and return on investment and changes in investment. It also helps in the understanding of the needed financial products, such as different types of banking products, basic investments, savings plans and insurance (Greenspan, 2001). It also helps individuals to respond capably to any changes that may have an effect on their daily financial wellbeing and to general economic factors such as collapse on the financial markets, rise in unemployment and inflation (Hilgert and Hogarth, 2003).

Remund (2010) summarised various definitions of financial literacy and classified them into five different groups, namely: (i) Skilled in financial ideas, (ii) Capable to interconnect on financial notions, (iii) Ability to deal with finances, (iv) Skills in making proper financial decisions, (v) Confidence in making necessary preparations in approaching financial needs. According to

Derbyshire *et al.* (2016) unemployment and high cost of living, forces people to engage in employment for them to survive. This has resulted in individuals having to start-up businesses without basic financial literacy, or without proper forecasting of the possible risks, and this results in problems for SMEs not to operate for longer periods. Financially illiterate consumers, including SMEs make wrong choices that have an unpleasant and bad impact, not only on themselves but also on their relatives and entire communities.

2.2.2 Importance of financial literacy in financial decisions

Financial literacy assists individuals with decision-making on financial matters such as the timely payment of bills and proper management of time which improves the credit worthiness for the potential borrower, economic growth, sound monetary systems and poverty reduction. A number of researchers such as Garcia (2005) and Pansiri and Temtime (2008) found that lack of appropriate financial skills by the SME owner and managers had contributed highly to the SMEs' operations failures. Thus, skills such as financial literacy, business management, and personal qualities are important for SME performance. Also, various SMEs operated for less years, due to the lack of financial management and general business management skills.

2.2.3 Small & Medium Enterprises (SMEs)

The acronym, "SME" refers to small and medium sized business or enterprises. Srinivas (2016) described SMEs by three keywords- small, single, and local. Small in nature- SMEs are small by nature, moreover, defined in terms of size of workforce, capital and assets and turnover. Single- generally, most SMEs are owned and managed by a single owner, who could also be the single employee. Local- SMEs are essentially local by nature, SME markets are confined to the specific area of locations (city and district).

According Hooi (2006) there is no established definition of SMEs, globally. The definition of SMEs varies from country to country as no unambiguous and unified definition exists. Different factors are used to categorise small, medium enterprises, quantitatively. The SME definition is governed by the economic structure of the country, type of business, regulatory and institutional framework of the country. However, small business can be distinguished according to size, which comprises of turnover (income and assets) structure and the total number of personnel. According to OECD (2006) the European Union (EU) had set the limit of 250 SME employees, with less than 50 million Euro in income or less than 43 million Euro in the total of the balance sheet. However, some countries agreed to the limit of 200 employees. For most developing countries, the EU threshold is very high and only 27 countries globally, adopted the EU SME definition.

Hashim and Abdullah (2000) stated that the SME definition in Malaysia is determined by the total number of personnel, level of capital employed, total assets and by sales income. As per the Malaysian Third Industrial Master plan (2006) SMEs in the industrial sectors are defined as companies with full time employees limited to 150 employees and annual sales income not exceeding RM25 million, whereas SMEs in the services of the agricultural sectors and ICT are businesses with full time employees limited to 50 employees and or annual sales income not exceeding RM5 million. All the above-mentioned sectors in Malaysia are classified according to medium- sized companies, small enterprises and micro –enterprises (Oma *et al.*, 2009).

According to Mukata and Swanepoel (2017), in Namibia, SMEs are classified into two different sectors, manufacturing and service sectors. Manufacturing sector employs fewer than ten employees and its turnover is less than N\$ 1 million Namibian dollars and capital employs N\$ 50 000. In the service sector, employs fewer than five people and its turnover is less than N\$ 250 000 and capital employs N\$ 50 000. SMEs contributes to the national economy of Namibia in various

ways, such as employment creation, adding value to the GDP and assist in realisation of the Vision 2030, government agenda, (Iguna & Sazita, 2018). Despite the noted contribution of SMEs to the Namibian economy, SMEs in Namibia suffer from various challenges.

2.2.4 Financial knowledge

Ibrahim (2017) defines financial knowledge as an understanding of an individual's knowledge obtained through education and the ability to manage income, expenses, savings and investment. Huston (2017) defines financial knowledge as "an understanding of the financial terms and concepts needed to function daily". Derbyshire (2016) analysed the need for financial literacy and concluded that financial knowledge on SMEs refers to how to deal with money. Mandell *et al.* (2009) stated that experts also do agree that the financial knowledge appears to be associated with the self-beneficial behaviour. Robb and Woodyard (2010) stated that enhanced financial knowledge will have an influence in more effective financial decision making. The study also emphasised that the answer to insufficient financial knowledge, i.e., the remedy to it, should be financial education.

2.3 Empirical Literature

2.3.1 Effects of financial literacy on financial knowledge

Several studies indicated that financial literacy is associated with self-beneficial financial behaviour. Hilgert *et al.* (2003) designed a financial practice index, based on four variables namely: cash-flow management, credit management, savings and investment practices. An assessment of the index score and a quiz conducted on financial literacy had shown a positive link between financial literacy and financial behaviour.

Hilgert *et al.* (2003) also compared the outcome of the index on financial practice based on four financial behaviour variables and found that those individuals with higher financial literacy had a higher financial practice index score which indicated that financial literacy is related to the financial behaviour. Another study further indicated that individuals with little financial education are more likely than their counterparts to base their conduct on financial advice from relatives and friends (van Rooij *et al.*, (2007). People with higher levels of financial literacy invest their resources on the stock market where they are more likely to generate greater premiums. Low financial literacy in principle, is a cause failure in retirements planning, and bad debts behaviour that can be resolved through basic financial training (Lusardi, 2008:19).

In recent years, various studies have shown that households with lower levels of financial literacy, do not plan for their retirement and acquire less assets (Lusardi and Michell, 2007). They also have a habit of borrowing money at higher interest rates (Stango and Zinman, 2008). According to the Financial Express (2008) in Asia, an Indian Survey found that the majority of labourers, keep their cash at home. Besides that, they took loans from money lenders at very high interest rates. This is evidence that adequate financial literacy has a significant influence on individuals' financial behaviour and can assist with proper allocations of assets.

2.3.2. SME financial performance and sustainability

The performance of SMEs has been a big concern throughout the nations, among others, development economists, entrepreneurs, governments and non-governmental organisations and banking institutions (Eniola and Ettenberg, 2014). They also looked at difficulties in the performance of SMEs which are attributed to the lack of understanding, expertise, approach and alertness to deal with finances of their businesses in a robust and specialised way. Financial

performance is defined as the collective economic outcome of events embarked on directly and indirectly by the business (Lusch and Laczniak, 1998).

Financial performance demonstrates how effectively and efficiently the organisation is functioning, financially (Letting, 2009). According to Eniola *et al.* (2015a) performance of the business may have two strategic results, normally denoted as a business success or failure. The end product of a firm's performance will depend on whether the business has achieved its objectives or not. Precisely, financial performance of the business, defines how sound the business is performing in wealth creation and obtaining assets (Komppula, 2004). Zoysa, Fonseka and Perreira (2004) pointed out that there are different techniques used to measure business financial performance. These are as follows: sales revenue, profits return on investment and return on equity.

It is very easy to notice the company's growth in through its financial performance. Performance of the SMEs can be regarded as the business' ability to produce satisfactory results and activities (Eniola and Entebang, 2015a). The company' growth is associated with the firm's achievements and existence (Ochieng, 2012). However, some researchers claim that most SMEs are very sensitive to disclose their companies' financial performances and that it will be difficult to know their financial performances although the company's growth is visible. Carmeli and Tishter (2004) also argued that the scholarly assets have a good effect on SMEs' sustainability. Financial literacy plays an important role in the value creation process of SMEs, which leads to sustainable performance (Jappelli and Pandula, 2013). Financial literacy adds value to the SMEs' knowledge and helps the SMEs to adapt to any changes and challenges in the business settings. Therefore, it is very important for the SMEs to enhance the understanding and to explore more on the financial literacy and its role in order to expand on the financial literacy capabilities.

2.3.3. Financial literacy and the performance of SMEs

Several studies around the globe, including Smorffit *et al.* (2010) found that SMEs were faced with a number of challenges in running their enterprises' finances. That has an impact on the performances of the SMEs and their returns. A number of researchers have prominently noted and agreed on the relationship between financial literacy and performance of the business (Hilgert *et al.*, 2003; Kidwell & Turrisi, 2004; Piprek & Coetzee, 2004).

Business performance at SMEs can be perceived from the company success in product quality, innovation, human resource management, and customers and finance (Fitriti *at al.*, 2020; Mukson *et al.*, 2021). According to Huston (2012) financial literacy is positively related to the SME's performance. Another study conducted by Nyabwanga (2011) revealed that, 57% of the business operators scarcely attended any business training programs and 60% had no or very little financial knowledge and hence, were incompetent to run their business.

According to Lusardi and Michel (2007); Moore (2003) financial literacy is a significant determinant of SME performance and enriches SME decision making. The financial literacy concept comprises of three dimensions in knowledge, Lusardi and Scheresberg (2013); attitude Sabri and Macdonald, (2010); and awareness Rahmandoust *et al.* (2011) and all are important determinants of business performance. According to Kimunduu *et al.* (2016) there are common measures of financial literacy which are: (1) monetary basic knowledge, (2) management of finances, (3) debt, (4) insurance and (5) investment literacy which are important in determining the performance of businesses.

Lack of skills in basic monetary, accounting and record keeping have been a challenge to many SMEs, and skills can be acquired through training and can provide a long-lasting solution to the

survival battle of SMEs (Smith and Perks, 2006). Due to some challenges such as lack of skills, some SMEs end up closing their businesses at an earlier stage. According to Cork and Nixon (2000) poor business management and accounting practices influence the ability of SMEs to obtain finances. Some lenders do require SMEs to submit financial statements and or records when sourcing loans to enhance business operations. According to Ibrahim (2017) debt management is the capability to execute activities of the business within the parameters of the budget. Sucuahi (2013) stressed that debt management skills are needed in financial literacy and that gives the capacity to get assets at a minimum price. Many researchers have proven that many SMEs lack financial literacy on the aspects of acquiring funds for their businesses (Assibey, 2010).

Lack of financial management knowledge and skills were acknowledged as one of the major reasons of SMEs' failure (Wise, 2013). Karadag (2015) also established that financial management practices such as working capital management, fixed assets management, financial reporting and control practices have an impact on SMEs' performance. The author also emphasises that maintaining records of income received, managing debtors and credit sales, managing outgoings and control of expenses were important in explaining business performance. Huston (2010) pointed out that financial literacy is relevant for the SMEs to survive and adapt to the speedy economic changes. Enforcement of the financial management practices boosts the development and sustainability of the SMEs. According to Jindrichovska (2019) a comprehensive understanding of financial knowledge and skills is important to all stakeholders, including SMEs. According to Arianti (2018) financial behaviour is a strategy in making decisions regarding investment. Basic financial literacy knowledge is fundamental to SMEs and is needed as it involves understanding and knowing the financial concepts that will enable SMEs to start saving and investing in assets with the aim to generate extra revenue for wealth maximisation.

Financially literate individuals know the right financial concepts and financial illiteracy will not enable individuals and SMEs to do savings and investments (Lusardi and Mitchell, 2011).

The findings of Sucuahi (2013) advised that SMEs are fully aware of the consequences, punishment, interest to be paid that occur because of poor debt management. Plakalović (2011) emphasised that the financially illiterate cannot assess their debt burden, they borrow at overstated rates and therefore end up with too many liabilities and non-performing loans. Debt management skills are needed and are very important for SME managers for better business performance. Peru (2008) showed that a third of customers in the U.S. miscalculate their own credit ratings and financial knowledge positively affects financial behaviours (Benson *et al.*, 2011). Bucher-Koenen and Ziegelmayr (2011) showed that financially illiterate German investors were less likely to have invested in the stock markets and therefore less likely to have lost money in the financial disaster and they were also less likely to understand losses on the assets they did sell. There are various factors that influence investment decisions, including, income and experience in investments. The more income a person has by managing their finances, the better the way of managing their finances (Nababan and Sadalia (2013).

According to Helfat *et al.* (2007) for the businesses to perform various financial activities effectively and efficiently, companies may rely on a dynamic capability such as financial literacy which would help to change resources into other variables and allow the entrepreneur to be innovative. The study concluded that, it is very important for SMEs to have financial knowledge as they face many challenges such as the requirement for collateral when requesting for finance, high rate of lending, lack of financial knowledge and strict policies. Adequate financial literacy and knowledge is needed to choose the appropriate source of finance for the effective operations of their business.

Budgeting is an aspect in financial literacy and it is required for each and every SME to strategise their income and expenditure (Kalekye and Memba, 2013). A budget is defined as a key monetary document that expresses the expected contribution from the activities of a business in terms of anticipated income and expenses over a certain period (Heinle *et al.*, 2014). Warue *et al.* (2013) also added that “budgets were an image of management expectation regarding the firm’s income, cash flow and financial position in monetary terms”. A financial budget is regarded as a forecasting tool used for estimation of the forthcoming business performance.

Warue *et al.* (2013) argued that the reason why SMEs are unsuccessful, is because of the lack of proper budgeting. Joshi *et al.* (2003) also confirmed and suggested that large companies tend to have a broad budget that includes all their expenses process and that their companies excel in their performances. According to Pietrzak (2014) budgets are regarded as a main element in assessing management performance. Budgets were used by business for forecasting, coordination, assessment, motivation and for performance management. Limited companies use budgets as part of the performance appraisals because human resource departments are not included during the budgeting process (Cohen and Karatzimas, 2011).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The main aim of the study is to assess the effects of financial literacy on the performance of small and medium enterprises (SMEs) in Windhoek, Namibia. This chapter explains the research methods adopted by the study. It addresses and clarifies the research design, population, sample and sampling methods. The chapter further discusses the data collection methods, procedures and the way the data was analysed.

3.2 Research Design

Kothari (2004) described research design as an arrangement of conditions for collection and analysis of data with the purpose of providing a bearing and connotation to the research purpose. It provides the whole structure for the collection of data for a study. Thus, it is a plan for selection of the research subjects and sites and data collection procedures for the answering the research question to provide credible outcomes. The quantitative method, particularly experimental quantitative research design were used to assess the effects of financial literacy on SMEs' performance. The research design is suitable for the study and it utilises scientific approach. It establishes procedures that allow the researcher to test hypotheses and systematically and scientifically study causal relationships among variables. The selection of these methodological approaches is informed by existing literature and is the one that minimises bias, maximizes the reliability of data to be collected and in line with the purpose of the study. The research design selected allows for the obtaining numerical and structured description of the population and gives a clear understanding and assessment of the determinants and effects of financial literacy on SMEs performances.

3.3 Population and Sampling Design

3.3.1 Population

Table 3.1, illustrates the number of SMEs registered with the Ministry of Industrialisation and Industry based in Windhoek. These were the latest published statistics available to the researcher and no other data could be provided by the Ministry. The study focused on the populations of SMEs (Small Medium Enterprises) situated only in Windhoek, Namibia. There are about one thousand and eighty (1 080) registered SMEs in Windhoek as shown in Table 3.1. In the population, some of the SMEs benefited from the financial literacy training programme and others did not. However, there is no official documentation on the number of SMEs in Windhoek that benefited from this programme.

Table 3.1: The number of SMEs by sector in Windhoek

Sector	Number
Manufacturing	220
Trade	290
other Services	380
Tourism	190
Total	1080

Source: MTI (2013)

3.3.2. Sample and Sampling Design

Sample size for this study was set at 100 registered Small Medium Enterprises (SMEs) in Windhoek, some of which attended the financial literacy training. To ensure representation of different sectors of the population, a stratified and simple random sampling techniques were adopted. For the stratified random sample, SMEs were classified according to sectors and in each sector, a representative sample was selected using a simple random sampling technique. While the study targeted sample was 100 SMEs, it important to note that the response rate was 76% (82 SMEs were successfully interviewed).

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3.3.3. Instruments and Procedures of Data Collection

The data was collected using questionnaires as instruments. Questionnaires were issued to the respondents and face-to-face interviews were conducted with some of the SMEs, which might have had difficulties understanding the questionnaire. This prevented misunderstanding of questions and helped overcome the language barrier. The drop and pick up procedure was also

used to collect the data. The researcher recorded the data obtained from the interview and appropriate techniques were used when analysing the data.

3.4 Measurement of Financial Literacy and SME Performance

3.4.1 Financial Products

The focus of this study is to investigate the effects of financial literacy on SMEs' performance. The study employed several questions that are related to the performance of SMEs. This includes increase in the profitability of the business, increase in the market share of the business and the revenue turnover of the business. The response to each question is coded in a scale of one if the individual strongly disagreed to five if the individual strongly agreed. Based on these three questions, a composite score measuring the performance of SMEs is constructed using the Min-Max rescaling transformation as presented in Equation 3.1 and 3.2.

3.4.2 Financial Literacy

Several definitions of financial literacy have been used in the literature; however, these definitions can be summarised to represent the ability of individuals or households to obtain, understand and evaluate information required to make future and best possible financial decisions (Huston, 2010; Despard & Chowa, 2014; Fernandes *et al.*, 2014). Based on the data used and on financial literacy literature, a series of questions have been used to measure financial literacy.

The questions provide information on individual participation in financial literacy training programmes and financial knowledge (Table 3.2). The questions on financial knowledge are measured by knowledge on financial operations, recording and reporting. A total of eight questions were used to understand the financial knowledge of individuals (Table 3.2). The

response to each question was coded in a scale of one if the individual strongly disagreed to five if the individual strongly agreed. Based on these eight questions, a composite score measuring financial knowledge was constructed using the Min-Max rescaling transformation as presented in Equation 3.1 and 3.2. Individuals were also asked whether they attended the financial literacy training initiative or any other financial literacy training program. This is a binary outcome variable equivalent to 1 if the individual attended and zero otherwise.

This study used the composite scores for financial knowledge and financial literacy training initiative to independently estimate their separate effects on SME performance. The study also constructed a composite index (score) for SME performance. The Min-Max rescaling transformation was used to construct these composite indices (financial knowledge and SMEs performance). The method decomposes each variable into an identical range between zero and one, with a score of one being the worst outcome for a specific question and a score of five being the best outcome. In this study, the questions of financial knowledge and SME performance in Table 3.2 are code one if strongly disagreed and five if strongly agreed. According to Yoon (2012) the scaling procedure ultimately subtracts the minimum value (X_{min}) and divides by the observed difference between the maximum value (X_{max}) and the minimum value (X_{min}) as illustrated as follows:

$$C_i = \frac{X_i - X_{min}}{X_{max} - X_{min}} \quad (3.1)$$

With this approach, differentially scaled questions of financial knowledge can be standardised into indices. The questions used in computing the financial knowledge and SME performance indices are presented in Table 3.1. This approach has been used by several scholars to aggregate variables and create composite scores (Bernard, 2007; Cutter *et al.*, 2010; UNDP, 2014). To free the

questions from assuming their initial measurement units, the indices generated were standardised between 0 and 1. Since there were more than one question for measures of financial knowledge and SME performance, the standardisation is obtained by calculating the average values of the different questions as follows:

$$Fl/Ps = \frac{\sum_{i=1}^n IndexA_i}{n} \quad (3.2)$$

Where *Fl* is an index for financial knowledge (financial literacy), *Ps* is an index for SMEs performance, *IndexA_i* is the question(s) that make up a given index and *n* is the number of questions in the measure of financial knowledge and SMEs performance. The composite indices ranges were between 0 and 1, with high values denoting higher level of financial knowledge and performance.

3.5 Method of Data Analysis

This study employs the Ordinary Least Squares (OLS) method to estimate the determinants of financial literacy (financial knowledge) and SMEs performance. This chosen estimation approach is dictated by its suitability and applicability to the objective, theory and the structure or nature of the dependent available. The financial knowledge and SME performance indices are continuous and can be estimated by OLS specified as follows:

$$Fli = \beta_0 + \beta_i X_i + \varepsilon \quad (3.3)$$

$$Psi = \alpha_0 + \alpha_1 Fli + \alpha_i X_i + \varepsilon \quad (3.4)$$

Where *Fli* and *Psi* are the composite scores for financial knowledge (financial literacy) and performance of business *i* respectively, *X_i's* are vector of factors influencing the level of financial

literacy and business performance and β_i and α_i are vectors of parameters to be estimated. The selection of the determinant of financial literacy and SMEs performance are strictly based on literature and data availability.

These variables are listed in Table 3.2.

Table 3.2: Description of variables used in the analysis

Variables	Description
Age	0: if less than 30, 1: if between 30 and 50 and 2: if above 50 years.
Gender	0: if individual is male and 0: if female
Number of dependents	0: if none, 1: if between 1 and 5 and 2: if between 6 and above
Education	0: if less than secondary, 1: if secondary and 2: if tertiary
Business Type	0: if corporations, 1: if partnership, 2: if sole proprietor, 3: if others
Marital status	0: if individual is not married and 1: if married
Position of respondent in the business	0: if manager, 1: if owner, 2: if owner& manager and 3: if others
Age of business	0: if 0 to 5 years; 1: if 6 to 10 years and 2: if 11+ years
Mobile phone	1: if individual own mobile phone and 0: otherwise
Saving club	1: if a member of a savings club and 0: otherwise
Distance	1: if less than an hour to a financial service and 0: otherwise
Financial decision	1: participate in household financial decisions and 0: otherwise
Measures of financial literacy and SMEs performance.	
Participation financial literacy training	1: if individual participated in financial literacy training and 0: otherwise
Financial knowledge index	On a scale of 1 to 5 individuals are asked to rate their knowledge and skill on basic bookkeeping (accounting); balancing of ledger account; preparing financial statements; improvement in financial reporting; better knowledge and ease of filing of tax return and cash book maintenance; maintaining good financial records and good management skills of the business.
SMEs performance index	On a scale of 1 to 5 individuals are asked whether the profitability of their company has increased over the years; whether there has been an increase in their company's market share over the years and whether there has been an increase the revenue turnover of their business.

3.6 Research ethics

The research endeavoured to respect professional integrity. The study acknowledged all sources and avoided plagiarism. Furthermore, the data used in the study was not distorted, fabricated or falsified in any manner.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results and discussions of the study. Data was collected from the respondents through the use of questionnaires. Descriptive statistics and regression analysis was used to analyse the data. The chapter further provides findings based on the research objectives. The chapter consists of three sections, namely: descriptive demographical information of the respondents, the company information and regression results on financial literacy and the performance of the company.

4.2 Descriptive Statistics

A total of 100 SMEs were targeted and selected to participate in this research study. However, only 82 SMEs participated in the study, constituting a participation rate of 76%. The participation rate was 76%, as the questionnaire was not fully completed by some of the respondents. This was due to confidentiality reasons and it is also acknowledged that report errors could be common, especially regarding monthly turnover of businesses. It is also acknowledged that most of the questions focused on teasing out the perception of the respondents and as such the measurement error from responses does not undermine the evidence presented in the study. A few face-to-face interviews were conducted to explain the question in the vernacular language to assist the respondents to understand clearly the set questionnaire. This was done to avoid misinterpretations of the questions.

4.2.1 Descriptive Statistics on Demographical Characteristics

This section provides descriptive statistics on the demographical factors of the participants successfully interviewed. Regarding the gender composition of the respondents, females accounted for over 66% of the total respondents (N=82) while males accounted for 34% (Table 4.1). The study also set to establish the ages of the respondents and the findings revealed that most of the respondents were aged between 31 and 50, accounting for 70% and individuals above 50 years of age accounting for 18% of the sample. This suggests that almost all the respondents were adults who should be accountable for their responses. The study also established the marital status of the respondents and it was determined that 51% were married and 49% were not married.

Table 4.1: Individual and Household characteristics

Variable	Obs	Mean	Std. Dev.
Individual is male	28	0.341	0.477
Individual is female	54	0.659	0.477
Individual is married	42	0.512	0.503
Individual in not married	40	0.488	0.503
More than 10 members in household	80	0.125	0.333
Individual is between 31 to 50 years	68	0.695	0.463
Individual is above 50 years	13	0.183	0.389
Less than secondary education	3	0.124	0.441
Secondary education	28	0.259	0.441
Tertiary education	51	0.617	0.489
At most 5 dependents in household	57	0.802	0.454
At least 6 dependents in household	16	0.198	0.401

Manager	21	0.266	0.503
Owner	38	0.481	0.503
Owner and manager	17	0.228	0.422
Others	1	0.025	0.158

Note: Obs represents number of observations and Std Dev represents standard deviations.

Various studies including Lusardi and Mitchell (2011) acknowledged that the educational level was positively connected with high financial literacy and knowledge. The study establishes the educational level of the respondents and the findings revealed that the majority of the respondents 62% completed tertiary education, while 26% indicated that secondary education was their level of education. Non-secondary and tertiary education respondents were 12%, and that caused the researcher to assist with interpretation of the questionnaire to the language that they understood.

The study is about Small Medium Enterprises and majority of the respondents' position in the company indicates that 48% were the owner of the business 27% were manager of the business, 22% were owner and manager of the business and the rest 3% were others workers not specified. The position of the owner and manager was not one of the positions listed on the questionnaire and it appeared that some respondents were the owner of the business and also managing their business. Of the respondents, 12.5% had more than 10 members in their households. Over 80% of the households have at most 5 dependents compared to 20% households with at least 6 dependents.

4.2.2 Descriptive Statistics on the Business Characteristics

Table 4.2 present descriptive statistics on the characteristics of the businesses interviewed including the type of businesses run by the respondents and the respondents. It is observed that most of the SMEs operates as sole proprietor which accounted for about 54% of the sample. Corporation companies accounted for 29%, partnership was only 10% and other type of businesses were about 8%. This implies that majority of the SMEs in Windhoek are owned and run by just one person. The average number of employees per businesses interviewed was 6.

Table 4.2: The characteristics of the business

Variables	Obs	Mean	Std. Dev.
Number employees in business	81	5.679	11.361
Business Kind			
Beauty and hair salon	9	0.110	0.241
Education related	5	0.061	0.241
Farming	5	0.061	0.241
Health related	2	0.024	0.155
Manufacturing related	11	0.134	0.343
Other services	12	0.146	0.356
Restaurant, drinking and catering	6	0.073	0.262
Retail and trading	31	0.366	0.485
Waste management	2	0.024	0.155
Business Type			
Corporations	16	0.288	0.302
Partnership	5	0.100	0.302
Sole proprietor	42	0.537	0.502

Others	5	0.075	0.265
Age of business			
1 to 5 years	23	0.354	0.481
6 to 10 years	1	0.268	0.446
11+ years	26	0.329	0.473

Note: Obs represents number of observations and Std Dev represents standard deviations.

Regarding the kind of business, 37% of the 82 businesses were retail business trading with various commodities, 15% were other services not mentioned, manufacturing related accounted for 13%, beauty and hair salon 11%, health related and waste management accounted for 2.4%, education related and farming is accounted for 6% and restaurants, drinking and catering is accounted for 7%. The respondents were asked to provide the number of years it operated and it was determined that most of the business (35%) were have been in existence between 1 to 5 years, 33% for 11 years and above 33% and 27% have been in existence for 6 to 10 years. This implies that most of the business have been in existence for less than 5 years in existence.

4.2.3 Descriptive Statistics on Financial Literacy and Business performance

Musie, (2015) argued that financial literacy, is one of the main elements that effect the success of Small Medium Enterprises, citing that globally and inadequately low level of financial literacy reduces SMEs abilities to grow and to achieve its goals. Table 4.3 illustrates statistics on financial literacy, financial knowledge and the performance indicators of the business. About 49% of the 82 respondents attended the financial literacy training initiative programme, meaning that 51% did not attended the training. However, it is important to note that some of the respondents attended other financial training programmes. The results suggest that 48% of the respondents attended other financial management trainings.

There were questions set to determine the financial knowledge of the SMEs. Several questions were asked to determine whether the respondents have basic bookkeeping skills, able prepare basic financial statement, knowledge on ledger accounts, whether there was a significance improvement on their financial reporting after attending the financial literacy training. These indicators of financial knowledge were used to create and index for financial knowledge. It was observed that the average index for financial knowledge was 0.55, suggesting that many respondents have basic financial knowledge to run their businesses efficiently.

Table 4.3: Financial literacy, financial knowledge and business performance indicators

Variable	Obs	Mean	Std. Dev.
Financial literacy indicators.			
Financial literacy training	40	0.488	0.503
Other financial training	35	0.480	0.503
Financial knowledge index	39	0.549	0.163
Business performance indicators			
Business performance index	38	0.586	0.220
Monthly turn-over less N\$5,000	21	0.269	0.446
Monthly turn-over (N\$5,000 to N\$10,000)	21	0.269	0.446
Monthly turn-over (above N\$10,000)	36	0.462	0.502
Increased market shares of business			
Strongly disagree	3	0.038	0.194
Disagree	21	0.269	0.446
Neutral	21	0.269	0.446
Agree	21	0.269	0.446
Strongly agree	12	0.154	0.363
Increased profitability of business			

Strongly disagree	5	0.065	0.248
Disagree	17	0.221	0.417
Neutral	13	0.182	0.388
Agree	26	0.338	0.476
Strongly agree	16	0.195	0.399

Note: Obs represents number of observations and Std Dev represents standard deviations

The business performance indicated that monthly turnover of the majority (46%) of the SMEs was above N\$ 10 000, whereas 27% of the SMEs earned a monthly turnover of less than N\$ 5 000. In addition, about 27% of the SMEs had a monthly turnover between N\$ 5 000 and N\$ 10 000. However, the SMEs were not asked to specify their exact amount of their monthly turnover earnings. There were possibilities of failure of SMEs to reveal the true value of their monthly turnover to the researcher, therefore, the used of earning brackets is expected to improve the response rate. About 78 of the SMEs made an effort to respond to the questions on the monthly turnover of the company. Also, to assess the performance of the SMEs after attending financial literacy training, information was obtained on the market share and profitability of the SMEs. The questions on market share and profitability were measured on scale of 1 to 5 with 1 being strongly disagree and 5 being strongly agree. Regarding increase in market share of the business as a result of the financial literacy training only 4% of businesses strongly disagree. However, respondents got the same percentage of 27 % to disagree, neutral and agree. Over 15% of the respondents strongly agree that their businesses experienced an increase in market share after they received financial training. Approximately 34% of the respondents agreed that their business ‘profit has increased because of the financial literacy training, 20% strongly agreed, 18% are neutral 22% disagree and only 7% strongly disagree. While the average of the financial knowledge index is 0.55, the average of the business performance index is 0.59. This suggests the possibility of a strong positive correlation between business performance and financial knowledge. Rather rely on

this intuitive observation, the next section presents a correlation matrix of the relationship between financial literacy and the performance of businesses.

4.3 Regression Analysis of Financial Literacy and Business Performance

Table 4.4 present the regression results, showing the factors that influence financial knowledge and the performance of SMEs in Windhoek. The dependent variable for the results in Column (1) is financial knowledge measured and in Columns (2) and (3) SMEs performance and are all estimated using the ordinary least square technique. The dependent variables are indices and are constructed using the indicators of financial knowledge and business performance.

Table 4.4: Determinants of financial knowledge and business performance

Variables	(1)	(2)	(3)
Financial literacy training	0.04*** (0.01)	0.14** (0.05)	
Financial knowledge index			0.16** (0.08)
Individual is female	0.03 (0.04)	-0.11* (0.06)	-0.10 (0.06)
Individual is married	-0.02 (0.04)	0.04 (0.05)	0.06*** (0.02)
Individual is 30 – 50 years	0.07** (0.03)	-0.04 (0.10)	-0.06 (0.10)
Individual is older 50 years	0.06 (0.07)	-0.09 (0.11)	-0.13 (0.12)
Completed secondary education	0.07 (0.07)	0.12** (0.06)	0.16** (0.08)
Completed tertiary education	0.10*** (0.04)	0.09** (0.05)	0.16* (0.09)
1 to 5 dependents in household		0.01 (0.10)	0.04 (0.10)
At least 6 dependents in household		-0.07*** (0.02)	-0.11*** (0.04)
Partnership business		-0.02 (0.12)	-0.03 (0.13)
Sole proprietor business		-0.07*** (0.01)	-0.08*** (0.01)
Other types of business		0.16 (0.12)	0.15 (0.13)
Owner of the business only		0.05	0.08

		(0.07)	(0.07)
Owner and manager of the business	0.08***	0.06***	
		(0.03)	(0.02)
Other relationship with business	-0.24	-0.20	
		(0.18)	(0.19)
Business is 6 to 10 years old	0.05	0.07	
		(0.07)	(0.08)
Business is at least 10 years old	0.21***	0.23***	
		(0.07)	(0.08)
Constant	0.40***	0.41**	0.48**
	(0.08)	(0.16)	(0.18)
Observations	78	70	69
R-squared	0.06	0.37	0.30

The results suggest that financial literacy training, age and educational attainment of individuals are important determinants of financial knowledge. For instance, attending the financial literacy training programme significantly increases the composite score index of financial knowledge by 0.04 units while being 30 – 50 years old significantly increase the index by 0.07 units. Completing tertiary education significantly increases the financial knowledge index by 0.10 units. Therefore, ensuring participation in the financial training initiative and educational attainment of individuals enhance the level of financial knowledge of SMEs.

Financial literacy training and financial knowledge are both important determinants of performance of SMEs in Windhoek. For example, a unit increase in the composite index of financial knowledge significantly increase the composite score of business performance by 0.16 units and attending the financial literacy training significantly increase the composite index of

business performance by 0.14 units. This suggests that policy options that promote financial literacy and financial knowledge will enhance the performance of SMEs in Windhoek.

Gender and educational attainment are also important in explaining the performance of SMEs. The results suggest being female reduces the composite score of business performance by 0.11 units and completed secondary and tertiary education significantly increase the composite index by 0.12 and 0.09 units respectively when the financial literacy training regression is considered and 0.16 units each when the financial knowledge estimation is considered. Having at least 6 dependents in a household relative to no dependent reduces the composite score of business performance by 0.11 units and being a sole proprietor relative to corporations reduces the composite index by 0.08 units. Being an owner and at the same time the manager of a business significantly increase the performance index between 0.06 and 0.08 units and businesses that are at least 10 years old significantly increase the composite index of business performance between 0.21 and 0.23 units. Hence ownership and age of the business are significant determinants of business performance.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The chapter presents a discussion based on findings on assessing the effects of financial literacy on SME performance in Windhoek. The first part presents the summary of the study based on the research study. Conclusions and recommendations based on the findings and recommended areas for further study were established.

5.2. Summary and Conclusions

The study assessed the effects of financial literacy on the performance of SMEs in Windhoek. The objectives of the study were to assess the effects of the financial literacy initiative, training, on the financial knowledge of SMEs in Windhoek and to determine how financial knowledge contributes to the performance of SMEs. While there is growing evidence on the role of financial literacy on the performance of SMEs, such evidence is limited in the context of Namibia and therefore this study adds value to the topic and literature of financial literacy in Namibia. Evidence from this study is important for stakeholders such as, financial institutions, SMEs, financial literacy initiatives and academics.

The study collected primary data from registered SMEs in Windhoek and adopted quantitative research methods to analyse the data and provide clear understanding of the research objectives. This research design assists in assessing the determinants of financial literacy and the effects of

financial literacy on the performance of SMEs. The study involves a sample drawn from SMEs in Windhoek that attended the financial literacy training and some that did not attend the training.

To achieve the objectives, primary data was gathered using a set of structured questionnaires. Stratified and simple random probability sampling techniques were used to randomly select a sample of 100 SMEs. Descriptive statistics and linear regression, specifically the ordinary least squares technique was employed to examine the determinants of financial literacy and the effects of financial literacy and financial knowledge on SME performance. The data was coded using a Microsoft excel spreadsheet and analysed using the STAT 15 statistical package.

The findings from the descriptive analysis of demographic characteristics revealed that the sample was made up of more female (66%) than male (34%) and 70% of the respondents were aged between 31 and 50 years. The study also established that 51% were married compared to 49% that were not married. Evidence suggests that educational attainment is positively correlated with high financial literacy and knowledge (Lusardi & Mitchell, 2011). The study revealed that the majority of the respondents completed tertiary education (62%) and 26% have completed secondary education. The majority of the respondents' position in the company indicates that 48% were the owners of the businesses, 27% were managers of the business, and 22% were owner-managers. Over 80% of the households have at most 5 dependents compared to 20% households with at least 6 dependents.

Regarding financial literacy, financial knowledge and the performance indicators, the study found that 49% of the respondents attended the financial literacy training initiative programme and 48% of the respondents attended other financial management training. Several questions were used to

determine the financial knowledge of the respondents. The index of financial knowledge created from these indicators was 0.55, suggesting that many respondents have basic financial knowledge to run their businesses efficiently.

The questions on market share, revenue turnover and profitability were used to construct an index for SME performance. The average of the business performance index is 0.59, suggesting a strong positive correlation between business performance and financial knowledge. For business characteristics, it is observed that most of the SMEs operate as sole proprietorships (54%) and others as corporation companies (29%) partnership (10%) and others (8%). The average number of employees per businesses interviewed was 6. It was determined that most of the businesses have been in existence for between 1 to 5 years (35%) 11 years and above (33%) and for 6 to 10 years (27%).

The regression results suggest that financial literacy training, age and educational attainment of individuals are important determinants of financial knowledge. For instance, attending the financial literacy training programme significantly increases the composite score index of financial knowledge by 0.04 units while being 30 – 50 years old significantly increases the index by 0.07 units. Completing tertiary education significantly increases the financial knowledge index by 0.10 units. Financial literacy training and financial knowledge are both important determinants of performance of SMEs in Windhoek. For example, a unit increase in the composite index of financial knowledge significantly increases the composite score of business performance by 0.16 units. Also, attending financial literacy training, significantly increases the composite index of business performance by 0.14 units. This suggests that policy options that promote financial literacy and financial knowledge will enhance the performance of SMEs in Windhoek.

Gender and educational attainment are also important in explaining the performance of SMEs. Having at least 6 dependents in a household relative to no dependent reduces the composite score of business performance by 0.11 units and being a sole proprietor relative to corporations reduces the composite index by 0.08 units. Being an owner and at the same time manager of a business significantly increases the performance index. Ownership and age of the business are significant determinants of business performance.

5.3. Recommendations for Improvements.

The SMEs plays a very crucial role by alleviating poverty through the employment process. Therefore, the financial literacy training to SMEs should not be the concern of Government agencies only. Other stakeholders such as financial institutions, private entities among others should also support the Government and put more effort by providing adequate funds for the financial literacy program to continue spontaneously. They should also implement proper planning without any financial constraints or any other hindrances. Proper curriculum needs to be developed and advance training on financial literacy should be implemented.

There is also a need for a refresher courses on financial literacy training to SMEs who already attended the training. Not only should the other stakeholders assist the Government with providing financial assistance, they should also seek to offer financial literacy training to their SME clients to keep them abreast of finance matters. Financial literacy awareness should reach each and every SME in the country, for them to be sensitised of the importance of financial literacy as this will enhance SMEs how to run their businesses effectively for better performance and growth. Through that, SMEs will enhance their financial knowledge and the lacking areas and this would

enhance their business performance. This would also have spill-over effects on the growth of the economy of the country.

5.4. Further Studies

This study examined the effects of financial knowledge and the role of financial literacy on the SMEs performance in Windhoek. However, an in-depth analysis is still required to provide evidence of financial literacy and the performance of businesses in other regions of the country. The concept of financial literacy and the dimensions for measuring financial literacy is vast and hence future research should consider other robust measures on financial literacy other than the measures used in this study. While there was no baseline data to evaluate the impact of financial literacy on business performance before and after the financial literacy training, it is recommended that future interventions should take into consideration the baseline information of the SMEs.

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APPENDIX A: Ethical Clearance Certificate



ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: DEC FOC/22/01 Date: 10/02/2022

This Ethical Clearance Certificate is issued by the University of Namibia Ethics Committee (REC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the ethics committee.

TITLE OF PROJECT: ASSESSING THE EFFECT OF FINANCIAL LITERACY ON THE PERFORMANCE OF THE SMALL MEDIUM ENTERPRISE (SME) IN WINDHOEK, NAMIBIA

Student: ASNATH KAVENA MURANGI

Student Number: 9983538

Supervisor(s): Dr Alfred. K. Mukong


Centre for Research Services

Take note of the following:

1. Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the ethics committee. An application to make amendments may be necessary.
2. Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the ethics committee

3. The Principal Researcher must report issues of ethical compliance to the ethics committee (through the Chairperson) at the end of the Project or as may be requested by the ethics committee
4. The ethics committee retains the right to:
 - i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
 - ii) Request for an ethical compliance report at any point during the course of the research.

The ethics committee wishes you the best in your research.



Precious Mubon dami (Chairperson Ethics Committee)



Prof. Davis Mumbengegwi (Head, Multidisciplinary Research)

APPENDIX B: LANGUAGE EDITING CERTIFICATE



The Rev. Dr. Greenfield Mwakipesile

TED, MBA, HBS | mwakipg@outlook.com

CONTACT

PO Box 99539,
UNAM,
Nairobi

LANGUAGE & COPY-EDITING CERTIFICATE

11th November 2021

RE: LANGUAGE, COPY-EDITING AND PROOFREADING OF AGRICULTURAL ECONOMY, TRADE POLICY ANALYSIS OF ECONOMIC POLICIES AND ECONOMIC DEVELOPMENT OF THE UNIVERSITY OF NAIROBI

This certificate serves to confirm that I copyedited and proofread **AGRICULTURAL ECONOMY, TRADE POLICY ANALYSIS OF ECONOMIC POLICIES AND ECONOMIC DEVELOPMENT OF THE UNIVERSITY OF NAIROBI** for the **DEGREE OF BACHELOR OF BUSINESS AND ECONOMIC DEVELOPMENT** entitled: **ANALYSING THE IMPACTS OF ECONOMIC POLICY ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN URBAN AREAS**.

I declare that I professionally copyedited and proofread the thesis and removed mistakes and errors in spelling, grammar, and punctuation. In some cases, I improved sentence construction without changing the content provided by the student. I also removed some typographical errors from the thesis and formatted the thesis so that it complies with the University of Nairobi's guidelines.

I am a trained language and copy editor and have edited many Postgraduate Diploma, Masters' Thesis, Dissertations and Doctoral Dissertations for students studying with universities in Nairobi, Zimbabwe, Eswatini, South Africa and abroad. I have also copy-edited company documents for companies in the region and abroad.

Please feel free to contact me should the need arise.

Yours Sincerely,

The Rev. Dr. Greenfield Mwakipesile



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[Dr. Greenfield Mwakipesile](#)

APPENDIX C:

RESEARCH QUESTIONNAIRE

Dear respondent

Thank you for participating in this research study.

My name is *Asnath Murangi*. I am a Master student at the University of Namibia, conducting an academic research on: *“Assessing the effects of financial literacy on the performance of small and medium enterprises (SMEs) in Windhoek, Namibia.”* Kindly note the following:

- The findings of the research are solely for academic purposes and all the responses will be treated with utmost confidentiality and privacy.
- Your response by filling in the questionnaire from your perspective and contributions will find a practical solution to the problem being addressed.
- Any information you provide will be used for research data collections only, no information will be disclosed.
- By taking part in the research study is voluntary and you are not forced.
- As per University of Namibia research ethics policy, regulations and guidelines, you are required to sign the consent form, this is to protect the University and to uphold, committed to the principles of honesty, objectivity and respect for intellectual property.
- Please answer all questions as honestly and as truthfully as possible, without leaving unattempt questions.
- Answer by writing or ticking X, when necessary.
- The document consist of 11 pages and please attempt to answer all.

For more clarity and information, please do not hesitate to contact me at following details, below:

Researcher Name: Asnath Kavena Murangi

Email Address: kavena.murangi@gmail.com

Mobile Phone: +264813007301

The questionnaire is divided into 6 Sections as follows:

Section A: Demographics information

Section B: Company information

Section C: Financial literacy training

Section D: Performance of the company

Section E: Borrowing

Section F: Investment

Project Title:

Assessing the effect of Financial Literacy on the Performance of Small Medium Enterprises (SMEs) in Windhoek, Namibia.

Thank you once more, for your interest in the research by completing the questionnaire.

SECTION A: DEMOGRAPHICS INFORMATION

(Please tick the appropriate answer)

1. Gender of the respondent

Female

Male

2. Age of the respondent

(Write answer in space provided below)

30 years and below.	<input type="checkbox"/>
Between 30 and 40 years	<input type="checkbox"/>
Between 40 and 50 years	<input type="checkbox"/>
Between 50 and 60 years	<input type="checkbox"/>
Others: Please Specify	<input type="checkbox"/>

3. Marital Status

(Choose the correct answer by providing the correct the answer)

Single	<input type="checkbox"/>
Married	<input type="checkbox"/>
Divorced	<input type="checkbox"/>
Widow	<input type="checkbox"/>
Widower	<input type="checkbox"/>

4. (a) Indicate your highest academic qualification by ticking the correct answer.

Post Graduate Degree	<input type="checkbox"/>
Bachelor Degree	<input type="checkbox"/>
Diploma	<input type="checkbox"/>
Matric	<input type="checkbox"/>
Others: Please specify	<input type="checkbox"/>

4. (b). Indicate your last year of obtaining your highest qualification?

5. What is your household size
(Choose the correct answer by ticking)

Below 10	
From 10 and below 20	
Above 20	
Others: Please specify	

6. Please provide the number of your dependents
(Choose the correct answer by ticking)

0 dependent	
1-5 dependents	
6-10 dependents	
Others: Please specify	

SECTION B. COMPANY INFORMATION

7. What is the nature\ kind of your business? (What are you trading with)

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8. Type of your business organization: (please choose one answer)

Sole Proprietor	
Partnership	
Corporations	
Cooperative Society	
Joint Venture	
Private Limited Company	
Public Limited Firm	
Others: Please Specify	

9. What is your position in the company? [*Choose the correct answer by ticking in the appropriate box*].

Owner	
Manager	

Accountant	
Financial Manager	
Others: Please Specify	

10. How many years has the business been in existence and operations? [**Choose the correct answer by ticking in the appropriate box**].

Less than 1 year 1-5 6-10

11 and above

11. Does your business have a business plan?

Answer the question by choosing the correct one:

Yes

No

12. What is your monthly average turnover (revenue) of your business?

Tick the correct answer by choosing:

Less than N\$ 5000	
Between N\$ 5 000 – N\$ 10 000	
From N\$ 10 000 and more	
Others (Specify):	

13. What was your company turnover for five years period since you started operating. Tick the appropriate amount of revenue turnover.

Year 1 N\$	Year 2 N\$	Year 3 N\$	Year 4 N\$	Year 5 N\$
0- 50 000	51 000- 250 000	251 000- 450 000	451 000- 650 000	651 000 and more

14. How many employees are working for you? (Please, fill in the correct answer)

Full Time _____ Employees

Part Time _____ Employees

Others, Specify:

SECTION C. FINANCIAL LITERACY

15. Have you ever attended the financial matter trainings in Namibia?

Never.....

Yes: (1 -12 months ago)

Yes: (13 -24 months ago)

Yes: (25 – 48 months ago)

Others: Please specify.....

16. Which other training programs have you attended on financial or business management within the last five years?

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17. If you attended, who provided the trainings?

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18. Please indicate the most appropriate number that describes your business position on the scale: 1= Strongly Agree, 2=Agree, 3=Not sure, 4=Disagree, 5= Strongly Disagree.

1 2 3 4 5

- 18.1. I have a good basic bookkeeping (accounting) knowledge and skills.
- 18.2. I know how to prepare basic financial statements (Statements of income & expenses).
- 18.3. The knowledge on balancing the ledger account has improved the business operations.
- 18.4. There is a significance improvememnt in my financial reporting as a result of the financial literacy training.
- 18.5. I now have a better knowledge and ease of filing on tax return and cash book maintenance.
- 1.8.6. I invested personal funds (savings and investment, retirement funds etc.) in my business.
- 18.7. I have investments, savings for the business.
- 18.8. Have good managing skills of the business.
- 18.9. Maintaining good financial records, should increase your chances of obtaining good credit with the financial institutions.

18.5. I now have a better knowledge and ease of filing on tax return and cash book maintenance.

1.8.6. I invested personal funds (savings and investment, retirement funds etc.) in my business.

18.7. I have investments, savings for the business.

18.8. Have good managing skills of the business.

18.9. Maintaining good financial records, should increase your chances of obtaining good credit with the financial institutions.

SECTION D: PERFORMANCE OF THE COMPANY

19. The profitability of my company has increased after attending the financial literacy training or any other financial or management trainings.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Financial literacy has increased my company market share (**Provide the answer by ticking**).

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Which assets listed below gives the highest rate of return, considering for longer period, for instances for 10 years?

- Account Bond
- Stock
- Treasury Bills
- Savings in Bond

Do not know

22. Time Value of Money

Imagine Maria won a lottery worth N\$ 200 000 today and Jane won a lottery to the amount of N\$ 200 000 in three years. Now, who is going to be richer (wealthier) in terms of value of money? **(Provide the answer by ticking).**

Maria
Jane
Both
None
Do not know

23. Suppose, your income remain the same over the 5 years and the prices of the things you buy double, will you be able to buy: **(Please choose the answer below)**

Less than you can buy today
The same as you can buy today
More than you can buy today
It will depends on the kind of business
Do not know

24. Inflation

High Inflation means that the cost of living is increasing rapidly.

Yes
No

25. Suppose you have N\$ 50 000 in your savings account and the interests is 6% per annum and you never withdraw the capital amount and or the interest rate. After a year, how much would you have in your bank account? **(Provide the answer by ticking).**

More than N\$ 50 000

Exactly N\$ 50 000

Not Sure

Less than N\$ 50 000

26. If you have to wait for dividends for one year, will you be able to buy more?

More

Less

Same amount

Will depend on a certain factors

Do not know

SECTION E: BORROWING

27. Does your company borrow money to fund its operations? (**Provide the answer by ticking**).

Yes

No

28. If the answer is yes in question 27, answer the following questions by rating your business borrowing activities?

Rating Scale
 a = Strong Agree
 b = Agree
 c = Not Sure
 d = Disagree
 e = Strong Disagree

		a	b	c	d	e
i	My debt management skills have enabled me to access various source of Finance for my business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ii	I consider interest rate and inflation before borrowing money for the business.					
iii	Company differentiate between long term- and short term debt in order to manage its balance sheet and the payment period.					
iv	Tax benefits is taken into account					
v	The company is fully up-to-date when acquiring funding from different financial institutions					

29. What is the source of financing your business? (**You may choose more than one answer**).

Loans from Commercial Banks	
Loans from Family and Friends	
Savings	
Retained earnings	
Other: <i>[Please specify]</i> .	

30. Through financial literacy and other knowledge obtained, I can now access credit easily form banks and other institutions. (**Provide the answer by ticking**).

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree

SECTION F: INVESTMENT

31. Does the company invest or save some money obtained from profits to ensure business sustainability and growth.

Yes

No

32. Where does the company invest or save its surplus money? Provide the answer by indicating the possible, below:

Mortgage Bonds	
Treasury Bonds	
Farming	
Shares	
Insurances	
Financial Institutions	
Others, Specify:	

33. If the answer is yes to question 31, please rate the following activities according to your business

Rating scale

a = Strong Agree

b = Agree

c = Not Sure

d = Disagree

e = Strong Disagree

		a	b	c	d	e
i	The company invest some of its profit in order to generate more income and for future growth of the business.					
ii	The company keep the financial reserves in case of emergency.					
iii	The company invest in the capacity building (trainings) of the staff members					
iv	The company invest in the research and development initiatives					
v	The company invest in other activities not listed above					

34. Any other information that you would like to Share regarding the performance of your business.

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End of questionnaire,

Thanks for taking your time to complete this questionnaire.
