THE RELATIONSHIP BETWEEN FINANCIAL LITERACY AND FINANCIAL ACCESS AMONG SMEs IN THE EKURHULENI METROPOLITAN MUNICIPALITY, SOUTH AFRICA

by

MEMORY CHANGWESHA

submitted in accordance with the requirements for

the degree of

MASTER OF COMMERCE

in the subject

BUSINESS MANAGEMENT

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF ASHLEY T. MUTEZO

DECLARATION

I declare that **“The relationship between financial literacy and financial access among SMEs in the Ekurhuleni Metropolitan Municipality, South Africa**” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

MEMORY CHANGWESHA | 23 SEPTMBER 2019

MS M CHANGWESHA | **DATE**

ACKNOWLEDGEMENTS

Firstly, I would like to give thanks to The Almighty for blessing me with the opportunity to pursue this study and for seeing me through until the end.

Secondly, my deepest thanks go to my supervisor Professor Ashley Mutezo, for her patience, dedication, time and exceptional guidance and expertise throughout my journey. I am very grateful and please continue in that spirit.

I would also like to extend a special appreciation to my mother, Mrs Judith Changwesha for her prayers, continuous encouragement, sacrifices and willingness always to look after my daughter while I studied.

To my siblings, Honour, Rejoice and Blessing and to my family and friends not mentioned, I am sincerely grateful for your advice, constant support and for always believing in me.

A very big thank you also goes to my daughter Celeste, who always understood when I had to study and always pushes me to achieve my goals.

Lastly, thank you to UNISA, the Ekurhuleni Metropolitan Municipality, participants of the study, Dr Tawanda Chiyangwa for analysing my data, Juanita du Toit for editing and formatting my dissertation and to all those who made this study possible.

ABSTRACT

Financial literacy continues to be a significant factor affecting small and medium enterprises (SMEs) in their ability to access finance worldwide. Both new and existing SMEs rely on external financing to grow and expand operations. However, financial literacy remains low among entrepreneurs, resulting in restricted access to finance which leads and contributes to the high failure rate of SMEs. The objective of the study is to determine whether a relationship exists between financial literacy and financial access among SMEs.

This study followed a descriptive and quantitative research design. Primary data was gathered in a survey by means of self-administered questionnaires distributed to 397 entrepreneurs in the Ekurhuleni Metropolitan Municipality, Gauteng.

The study revealed that entrepreneurs in Ekurhuleni did not fully understand basic financial concepts and thus portrayed low levels of financial knowledge. The study also indicated that access to finance was a major challenge for the majority of the SMEs in the municipality. Furthermore, the study established a positive relationship between financial literacy and financial access among SMEs in the municipality.

Recommendations were provided to government, financial institutions, academic institutions and entrepreneurs suggesting measures that could be implemented in an effort to improve the levels of financial literacy and financial access among entrepreneurs. This study is the first to examine the financial literacy-financial access relationship among SMEs in Ekurhuleni Metropolitan Municipality and provides a benchmark for future research studies in this area.

Key words: Financial literacy, financial access, small and medium enterprises (SMEs)

IQOQO

Ukufundiswa ngezezimali kuqhubeke njalo kuba yisithikamezo esikhulu esithinta amabhizinisi amancane nalawo asakhasayo (SMEs) kwikhono lawo lokuthola izimali emhlabeni wonke. Zombili lezi zinhlobo zamabhizinisi akhona ama-(SMEs) encike phezu koxhaso lwezimali oluvela ngaphandle ukuze zihlume futhi zidlondlobalise imisebenzi yazo. Yize-kunjalo, izinga lokufundiswa ngezimali lihlala liphansi phakathi kosomabhizinisi, lokhu kudala ukutholakala kwezimali kube wumnqansa omkhulu, lokhu kusuke kuholele futhi kube nomthelela omkhulu ekudaleni izinga eliphezulu lokwehluleka kwama (*SMEs*). Inhloso enkulu yocwaningo wukuthola ukuthi ngabe ubudlelwano bukhona yini phakathi kokufundiswa ngezimali kanye kanye nokutholakala kwezimali phakathi kwamabhizinisi amancane nalawo asakhasayo (*SMEs*).

Ucwaningo lulandela indlela yocwaningo echazayo kanye naleyo esebenzisa ulwazi. Idatha yokuqala yaqoqwa ngokwesaveyi ngokusebenzisa imibhalo yemibuzo yokuzenzela, eyasatshalaliswa kosomabhizinisi abakumasipali *Ekurhuleni Metropolitan Municipality*, eGauteng.

Ucwaningo luveza ukuthi osomabhizinisi base-*Ekurhuleni* abazange bazwisise ngokugcwele amagama ezimali awulwazi oluyisisekelo kanti lokhu kwaveza amazinga aphansi olwazi lwezimali. Ucwaningo futhi luyaveza ukuthi ukutholakala kwezimali kwakuyinselelo enkulu kwiningi losomabhizinisi abancane nalabo abasakhasayo (*SMEs*) kumasipali. Ngaphezu kwalokho, ucwaningo luye lwancoma ukuthi kukhona ubudlelwano obuhle phakathi kokufundiswa ngezezimali kanye nokutholakala kwezimali phakathi kwamabhizinisi amancane nalawo asakhasayo (*SMEs*) ngaphakathi komasipali.

Izincomo kanye nemihlahlandlela eqondiswe kuhulumeni, kumaziko ezezimali, kumaziko ezemfundo kanye nosomabhizinisi kuye kwanikezwa, kanti lokhu kungasetshenziswa kwimizamo yokuthuthukisa amazinga okufundiswa ngezimali phakathi kosomabhizinisi. Lolu wucwaningo lokuqala oluhlola ubudlelwano obumayelana nokufundiswa ngezimali kanye nokutholakala kwezimali phakathi kosomabhizinisi abancane nalabo abasakhasayo (SMEs) ngase-*Ekurhuleni Metropolitan Municipality* kanti futhi lolu cwaningo luye lwandlala isisekelo lapho ezinye izinhlelo zocwaningo zingaqhutshekiswa khona ngalesi sihloko.

Amagama asemqoka: Ukufundiswa ngezezimali, ukutholakala kwezimali, amabhizinisi amancane nalawo asakhasayo (SMEs).

OPSOMMING

Die finansiële geletterdheid van klein en medium ondernemings (KMO's) bepaal die mate waarin hulle toegang tot wêreldwye finansiering verkry. Sowel nuwe as bestaande KMO's steun op finansiering om hulle werksaamhede uit te brei. Omrede min entrepreneurs finansieel ongeletterd is, geniet hulle beperkte toegang tot finansiering, en misluk KMO's meestal. Die doel van hierdie studie is om vas te stel of daar 'n verband tussen die finansiële geletterdheid van KMO's en hulle toegang tot finansiering bestaan.

'n Deskriptiewe en kwantitatiewe navorsingsontwerp is in hierdie studie gevolg. Die primêre data is ingewin met vraelyste wat deur 397 entrepreneurs in die Ekurhuleni Metropolitaanse Munisipaliteit in Gauteng ingevul is.

Uit die studie het geblyk dat entrepreneurs in Ekurhuleni 'n gebrekkige begrip van basiese finansiële begrippe het, en gevolglik oor weinig finansiële kennis beskik. Daar is bevind dat finansiering 'n groot struikelblok vir die meeste KMO's in die munisipaliteit is. Hierdie studie het vasgestel dat daar 'n bepaalde verband tussen finansiële geletterdheid en finansiering onder die KMO's in die munisipaliteit bestaan.

Aanbevelings word gedoen om die finansiële geletterdheid en finansiering van entrepreneurs te verbeter. Hierdie riglyne is vir die regering, finansiële en akademiese instellings, en entrepreneurs bedoel. Aangesien dit die eerste ondersoek na die verband tussen finansiële geletterdheid en finansiering onder KMO's in die Ekurhuleni Metropolitaanse Munisipaliteit is, stel hierdie studie 'n standaard vir ander studies in hierdie streek.

Sleutelwoorde: Finansiële geletterdheid, toegang tot finansiering, klein en medium ondernemings (KMO's).

ABBREVIATIONS/GLOSSARY OF TERMS

ANOVA	:	Analysis of variance
CIRT	:	Centre for Innovation in Research Teaching
EMM	:	Ekurhuleni Metropolitan Municipality
EO	:	Entrepreneurial orientation
FCSM	:	The Federal Committee on Statistical Methodology
GDP	:	Gross domestic product
GEM	:	Global Entrepreneurship Monitor
HSRC	:	Human Sciences Research Council
IDC	:	Industrial Development Corporation
IDP	:	Integrated Development Plan
MSE	:	Micro and small enterprises
NPC	:	National Planning Commission
NSBA	:	National Small Business Act
OECD	:	Organisation for Economic Co-operation and Development
PCA	:	Principle component analysis
POT	:	Pecking order theory
RBV	:	Resource Based View
S&P	:	Standards & Poor
SDG	:	Sustainable Developmental Goals
SEDA	:	Small Enterprise Development Agency
SEFA	:	Small Enterprise Finance Agency
SME	:	Small and medium enterprises
SPSS	:	Statistical Package for Social Sciences
TIPS	:	Trade and Industrial Policy Strategies

TABLE OF CONTENTS **PAGE**

CHAPTER ONE: INTRODUCTION AND BACKGROUND

CHAPTER TWO: LITERATURE REVIEW

CHAPTER THREE: RESEARCH METHODOLOGY

CHAPTER FOUR: RESULTS AND DISCUSSIONS

CHAPTER FIVE: FINDINGS AND DISCUSSIONS

LIST OF TABLES **PAGE**

LIST OF FIGURES **PAGES**

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.0 Introduction

The first chapter of the current study provides an introduction and background to the research study. The main aim of the study is to establish whether there is a relationship between financial literacy and financial access among small and medium enterprises (SMEs) in the Ekurhuleni Metropolitan Municipality (EMM). Therefore, a general overview of both financial literacy and financial access among South African SMEs is provided. Thereafter, the problem statement and research questions and objectives of the study are highlighted. Methodological issues (research design, population, sample size, measuring instrument, data collection and data analysis) are briefly described and issues of reliability and validity of the study are considered. The significance of the study, ethical considerations and the conceptual framework of the study are outlined, with the structure of the study concluding the chapter.

The last two decades have seen the South African economy displaying significant progress, with an improvement in the standards of living and an increase in the number of people being moved out of poverty throughout the nation (OECD, 2017). Several industries and key sectors have played unique, yet contributory, roles in the upliftment of the economy. One such sector is that of the small and medium enterprises (SMEs). SMEs play pivotal roles in South Africa, but are, however, faced with numerous challenges, with access to finance and a lack of financial knowledge and understanding, among other challenges, ranking at the top. It is therefore imperative that small business owners, or entrepreneurs, invest in financial education which will allow them to manage their businesses efficiently and effectively. Thus, the aim of the current research is to determine the existence of a relationship between financial literacy and access to finance among small and medium enterprises in the Ekurhuleni Metropolitan Municipality, South Africa. The following section provides a background to the research study.

1.1 Background

Globally, SMEs are considered as anchors which foster the growth of an economy, alleviate poverty, as well as contribute to the creation of jobs (Chimucheka & Rungani, 2011). The development of this sector has therefore taken centre stage for governments worldwide. According to the Organisation for Economic Co-operation and Development (OECD, 2017), SMEs at all developmental levels worldwide, play the crucial role of achieving the sustainable development goals (SDGs). These goals include the promotion of an inclusive and sustainable growth of the economy, provision of employment and increasing innovation and equality of income. SMEs in OECD countries account for about 99% of enterprise firms, employing the majority of the population of a country, creating 70% of jobs and contributing between 50 and 60% to value creation (OECD, 2017). Although SMEs in the global market contribute significantly to the various economies, a few hurdles derail their growth and overall contribution to economies. These include a shortage of skills, inadequate practices of internal management, less than average training levels portrayed by the workforce and a lack of financing (World Bank, 2018).

The importance of SMEs, as well as the challenges they encounter, have been documented in previous studies across the globe. SME financial literacy and access to finance, in particular, have been researched worldwide and a few of these studies are highlighted as follows. Lusardi, Mitchell and Curto (2010) investigated the financial literacy of the youth in United States of America. In Canada, Wise (2013) examined financial literacy and its effect on new venture survival. Guliman (2015) also assessed financial literacy levels among micro and small enterprises (MSEs) in the Philippines. Casey and O'Toole (2014) examined whether European SMEs that were restricted to bank finance, mostly resorted to external sources of financing such as trade credit. In Istanbul, Turkey, Karadag (2016) evaluated the financial management performance of SMEs, considering the industry and age of the firm, as well as the education levels of the owners or managers indifferences.

In the South African economy, SMEs are just as essential, as they contribute significantly to the gross domestic product (GDP) of the nation, as well as aid in the curbing of unemployment (Chimucheka & Rungani, 2011). The unemployment rate is 29.1%

(Statistics South Africa, 2019) and as such, small businesses play the extremely vital role of job and wealth creation in the economy (Chimucheka & Rungani, 2011). However, research shows that SMEs are inevitably faced with numerous obstacles such as the lack of entrepreneurship education, a shortage of skills in business (Rogerson, 2008) and the inability to access to finance readily, especially bank finances (Okpukpara, 2009; Rogerson, 2008). As a result of these obstacles, Fatoki and Odeyemi (2010) report that 75% of SMEs in South Africa fail after two years of operation. Furthermore, because of the financial illiteracy of the majority of entrepreneurs in South Africa, business finances tend to be mismanaged, which also leads to the high failure rate of SMEs (Chimucheka & Rungani, 2011).

The relevance of financial literacy among individuals, households and the South African economy as a whole cannot be emphasised enough. Financial literacy of owners and managers of SMEs is an essential requirement, which assists in the efficient management of business funds and enables fundamental decisions to be made effectively. Majority of researchers concur that most of the activities surrounding the routine decision-making of entrepreneurs, have financial consequences (Wise, 2013). Hence, financial education remains the foundation for achieving adequate financial literacy levels and entrepreneurs as a result, are more likely to make well-informed financial decisions and participate more in the consumption of financial products and services.

Another crucial factor contributing to the high failure rate of SMEs in South Africa, is the lack of access to finance. Although financial institutions, the private sector and the government have attempted to improve access to finance for SMEs in the country (Fatoki, 2014), more effort still needs to be put in place to ensure more readily accessible finance. According to Mutezo (2013), the unavailability of finance hinders the growth and sustainability of SMEs in South Africa, resulting in most business life cycles being cut short. Nieman and Nieuwenhuizen (2009) report that most SMEs fail after operating for only approximately two years, mainly due to cash flow problems, which may arise because of the inaccessibility of finance.

Since its democratic establishment in 1994, South Africa has seen initiatives and policies implemented by the government focusing on the creation of an economy which is financially inclusive. However, considerably low levels of financial literacy are still displayed by a relatively high number of South Africans, emanating partially from financial knowledge gaps (De Beer & Coetzee, 2013). In low-income countries, such as South Africa, only a minute percentage of the population have access to the more advanced consumer products and there is a constraint in terms of financial outreach, therefore more attention has been given to the role of financial literacy in boosting access to, and the use of, financial services (Xu & Zia, 2012).

The President of South Africa, Cyril Ramaphosa, in his State of the Nation Address (SONA) in February 2019, acknowledged the importance and need of SMEs in the country:

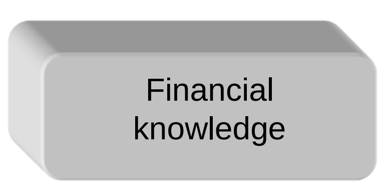
> *"Given the key role that small businesses play in stimulating economic activity and employment- and in advancing broad-based empowerment – we are focusing this year on significantly expanding our small business incubation programme. The incubation program provides budding entrepreneurs with physical space, infrastructure and shared services, access to specialized knowledge, market linkages, training in the use of new technologies and access to finance."* (The Sowetan Live, 2019:7)

With the growing importance of financial literacy and financial access in economies around the world, these concepts have been widely researched in previous studies. In a study by Fernandez (2015), levels of financial literacy were assessed among SMEs in Portugal and their impact on the performance of the company. In Ghana, Adamako, Danso and Damoah (2015) established a relationship between access to finance and the growth of the firm, using financial literacy as a moderator of the relationship. In South Africa, several studies have been conducted around the concepts of financial literacy and financial access. Fatoki (2014) examined the financial literacy of micro-enterprise owners in the country. Chimucheka and Rungani (2011) investigated the inaccessibility of bank finance, the lack of knowledge in financial management and their effect on SMEs in the Buffalo Municipality. Fatoki (2012) examined entrepreneurial activity (EO) and its impact on debt finance access and SME performance. In a separate study, Fatoki (2014) also studied micro-enterprises in the country and their ability to access external financing.

These studies highlight the concepts of financial literacy and financial access separately, however, researched in different contexts. Thus, Brown, Saunders and Beresford (2009) note that, although small businesses play pivotal roles in many economies, the focus of most research previously conducted was on personal finances and the public in general, leaving a gap for financial literacy levels and financial access to be analysed among SMEs. Therefore, an opportunity exists further to establish and understand the underlying relationship between financial literacy of SME owners and their ability to access finance in South Africa. A study of this relationship not only provides relevant insight, as well as make a significant contribution in this field of study, but also assists in the curbing of low financial literacy and financial access levels recorded in South Africa.

Therefore, although the terms ‘access’ and ‘use’ of financial products and services in literature are regarded as different, these terms will be used interchangeably in this study for the purposes of the measurement of the variables. Hence, the conceptual framework of the study is presented in Figure 1.1 below.

1.2 Conceptual framework



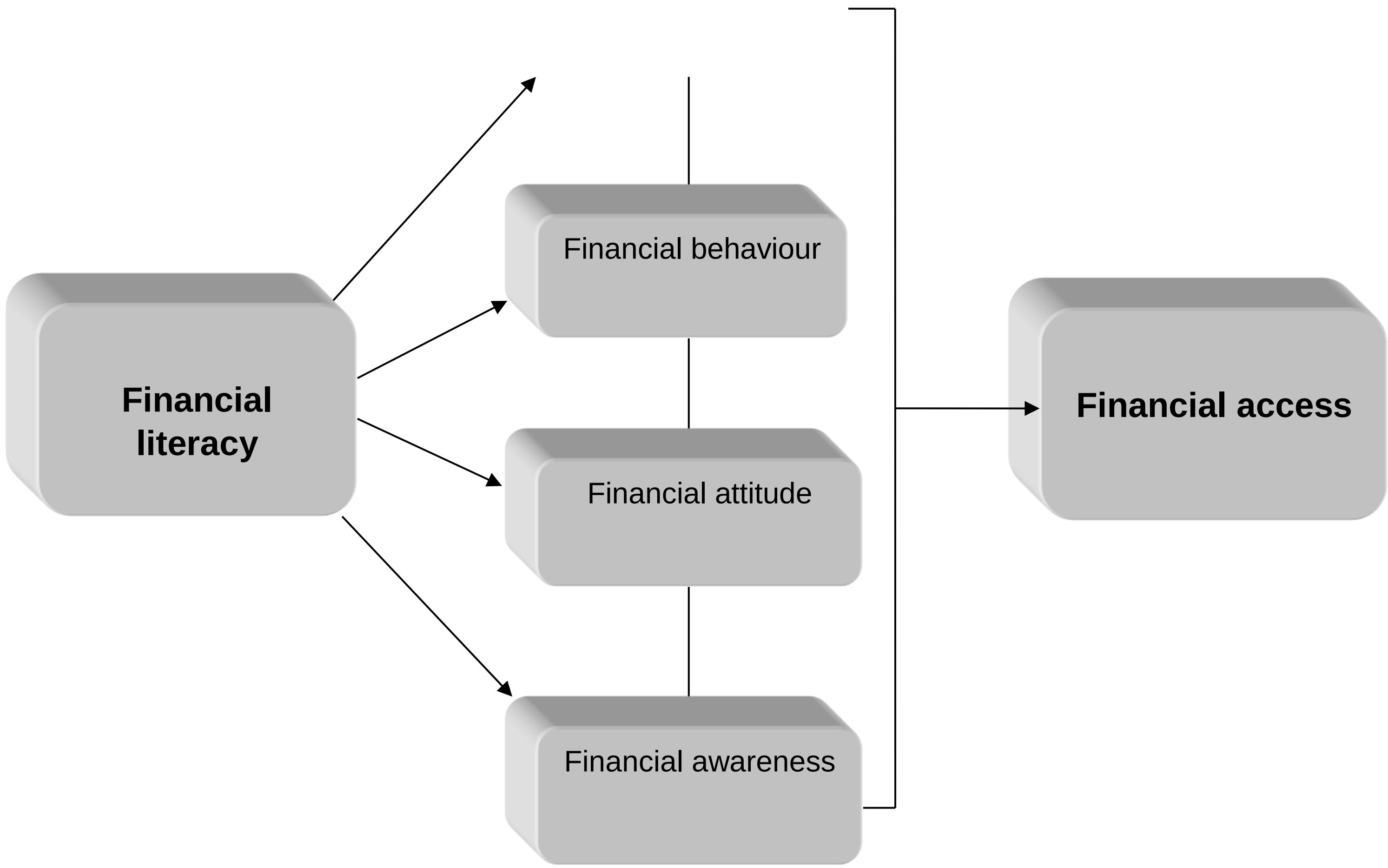


Figure 1.1: Conceptual framework (Author, 2019)

1.3 Research problem

The South African economy currently has a high rate of unemployment of 29.1% (Statistics South Africa, 2019) and SMEs are therefore expected to play the all-important role of addressing the issue of job creation, as well as the overall stimulation of the economy (Fatoki & Odeyemi, 2010). However, within the first two years of business, 75% of new SMEs created, fail (Fatoki & Odeyemi, 2010). According to Chimucheka and Rungani (2011), the major hurdle that causes SMEs to fail, is the inaccessibility of finance. Furthermore, the mismanagement of business funds caused by the financial illiteracy of most small business owners and managers, inevitably leads to the failure of these enterprises. Literacy levels in general, are low in most developing countries, with only 32% of adults in sub-Saharan Africa recorded as being financially literate (Fanta, Mutsonziwa & Naidoo, 2016). As a result, entrepreneurs are seen to formulate and implement uninformed financial decisions which ultimately lead to the untimely failure of several small businesses. Hence, SMEs need to be supported and should readily access the necessary resources required for their growth and survival (Chimucheka & Rungani, 2011). The main aim of financial literacy is to ensure that individuals have the ability to find their way around a complicated range of financial products, as well as services (Xu & Zia, 2012). Therefore, it is plainly true that having managers who are well-placed with making profound financial decisions in the conduct of their venture, has a positive impact on their sustainability (Mabula, 2016). This research study addressed the issue of financial literacy and financial access. It also sought to determine whether a relationship existed between the two variables within the South African small business perspective.

1.4 Research questions

The research questions for the study were as follows:

1.4.1 What are the determinants of financial literacy among SMEs in the Ekurhuleni Metropolitan Municipality?

1.4.2 What are the indicators of financial access among SMEs?

1.4.3 What is the relationship between financial literacy and financial access among SMEs in the Ekurhuleni Metropolitan Municipality?

1.5 Research objectives

The aim of the study is to determine the relationship between financial literacy and financial access among SMEs in Ekurhuleni Metropolitan Municipality. The objectives of the study include:

1.5.1 To determine the factors that influence financial literacy among SMEs in the Ekurhuleni Metropolitan Municipality;

1.5.2 To determine the indicators of financial access among SMEs in the Ekurhuleni Metropolitan Municipality;

1.5.3 To establish the relationship between financial literacy and SME access to finance among SMEs in the Ekurhuleni Metropolitan Municipality.

1.6. Research methodology

This section provides details of the methodology that was followed in this study. Firstly, the research design is presented, and then there is a discussion of the population, sampling procedures, data collection and analysis methods. The section concludes with issues relating to the variability, reliability and ethical considerations.

1.6.1 Research design

Akthtar (2016) defines a research design as the 'glue' that keeps together all the elements involved in a research study. In other words, it is the blueprint of a potential research work. The research design seeks to address a given research problem by establishing the selection of participants, the manipulation of variables, the collection and analysis of data and the control of variables (Dannels, 2010). This study used the descriptive research design, which according Salkind (2014), describes the status quo at the time of the study. The study also followed a quantitative research approach. This scientific method focuses on the collection and analysis of fresh data from a broad population, in line with the research problem, but ignoring the emotions, feelings and environmental context of the individual (Rahi, 2017).

1.6.2 Population

Rahi (2017) describes a population as human subjects or objects in their entirety that a researcher wishes to investigate. The population of the study consisted of 5609 registered SMEs in the Ekurhuleni Metropolitan Municipality (The City of Ekurhuleni Integrated Development Plan, 2019)

1.6.3 Sample

According to Salkind (2014), a sample can be defined as a fraction or portion of the population. The process of sampling involves selecting and investigating only a section of the population (Rahi, 2017). Sampling strategies are divided into two main categories, namely probability and non-probability sampling. While with probability sampling, the chances of choosing an individual in the population is certain, selecting an individual in the population using methods of non-probability sampling is uncertain (Salkind, 2014). In this study, the probability sampling technique, namely the systematic random sampling, was used where the first point of sampling is selected at random and then the sampling points thereafter, are selected evenly or systematically (Rahi, 2017).

The sample size of the study was found using Fischer's formula ($N=Z^2pq/d^2$) which is further illustrated in the methodology chapter (see Chapter Three). The resultant participants of the study totalled 384 SMEs from the Ekurhuleni Metropolitan Municipality.

1.6.4 Measuring instrument

Measuring instruments are considered crucial and aid the researcher in collecting the necessary information or data from participants. The research study used a self-designed questionnaire to gather data from the participating individuals in the study. However, the questions used in the instrument were based on already existing questionnaires. Questions on financial literacy were adapted from Eniola and Entebang (2017), while financial access questions were adapted from The World Bank Survey (2015). The questionnaire of the study was divided into three sections, where Section A considered the demographics of the respondents and sections B and C related to financial literacy and financial access respectively. A five-point Likert scale ranging from 1(strongly disagree) to 5 (strongly agree) was used to rate the responses of the participants.

1.6.5 Pilot study

As a fundamental first step in any research, a pilot study represents the basis of a valuable research design (Hazzi & Maldoan, 2015). Further a pilot study can be defined as minor scale test of procedures and methods (Porta, 2008).The primary reason for carrying out a pilot study is to enhance the quality, as well as the efficiency, of the main research study. The pilot study can be used to detect any apparent logistical issues prior to conducting the main study (Hazzi & Maldoan, 2015). A pilot study was conducted to test the procedure of this study. A total of twenty (20) questionnaires were distributed to randomly selected participants. The participants were comprised of experts in financial literacy and SME financial access from the University of South Africa, as well as randomly selected SME owners from the Ekurhuleni Metropolitan Municipality. Interpretations of questions, as well as other necessary changes, were made and the instrument (questionnaire) was amended accordingly.

1.6.6 Data collection

Primary data was gathered in this study. Primary data is raw data collected to address a specific objective (Salkind, 2014). According to Rahi (2017), primary data remains the most influential technique used in quantitative methods. Data was collected in a survey where questionnaires were distributed to participating respondents. By analysing how frequent and related psychological and sociological variables are, surveys tap into multiple constructs such as beliefs, opinions, attitudes, prejudices and preferences (Salkind, 2014).

1.6.7 Data analysis

Data analysis involves a process of extracting information that is of relevance, from data after conducting certain calculations and evaluations, and putting together this information in such a way that closely answers the research question(s) of the study (Ibrahim, 2015). For the purposes of accurate analysis, the Statistical Package for Social Sciences (SPSS) version 23 was used. Descriptive statistics were used to analyse the data, where both the mean and the standard deviation were computed. Correlations were also established among the variables using factor analysis. Regression analysis was used in the study to determine statistically whether a relationship exists between financial literacy and financial access.

1.7 Reliability and validity

1.7.1 Reliability

Beins (2013) defines reliability as a data consistency measure which uses small methods across different, yet related, test items on more than one occasion. The study used

Cronbach’s alpha as a measure of internal consistency. According to Salkind (2014), internal consistency involves examining the uniformity of items in a test. Items are then evaluated by correlating performances on each of the items with total performance on the test, which takes the form of correlation co-efficiency.

1.7.2 Validity

Beins (2013) describes validity as a concept, property of data or research findings useful in validating the degrees for measuring and understanding a phenomenon. Furthermore, Joppe (2008) explains that validity assesses whether the research truly measures what it is supposed to measure. In other words, are the results truthful? Maree, Creswell, Ebersohn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen and Plano Clark (2016) highlight four different types of validity, namely face, content, construct and criterion validity. The study used construct validity, which refers to the extent to which an instrument represents the complete contents of the particular construct it seeks to measure.

Face and content validity were established through feedback received after piloting the questionnaire to a panel of experts in financial literacy and financial access. Criterion validity was ensured by conducting correlations between the current measuring instruments and selected instruments which are already established and have shown to already to possess criterion validity (Salkind, 2014).

1.8 Significance of the study

The study addressed two crucial and relevant issues, namely financial literacy and financial access by SMEs. As high failure rates are recorded in South Africa among small businesses, the lack of financial literacy and financial access has been established to be the contributing factors. Hence, the study attempted to determine a relationship between the two concepts, as well as suggested potential avenues in which key stakeholders could take to reduce SME financial literacy and financial access levels recorded nationwide.

The study sought to provide relevant insight in this field of study to SMEs and industry p olicy makers, the government, financial and academic institutions.

1.8.1 SMEs

Findings of the study could assist the owners and managers of SMEs to understand the need to receive financial education so as to improve their financial literacy levels. The findings also hope to improve SME owners or manager's comprehension of how the providers of finance operate. This therefore allows them to better position themselves to gain access to bank finance.

1.8.2 Policymakers

A study of this nature will enable policymakers develop or improve specific policies which seek to assist SMEs increase their financial literacy levels as well as address their financing issue faced by majority of the SMEs.

1.8.3 Government

The government of South Africa considers SMEs as key in the upliftment of the country's economy. Therefore, the findings of the study will allow the government to identify the gap in the issues of financial literacy and financial access experienced by SMEs in the municipality and find ways to provide tailor made solutions accordingly. The study will also enable the government formulate policies aimed at improving financial literacy levels among entrepreneurs, and as a result improving the ability of entrepreneurs to access finance.

1.8.4 Academic Institutes

The findings of the study will enable academic institutions understand the relevance and contribution of SMEs in the country. Therefore, these institutions will develop ways in which to incorporate financial education into the curriculum, as well ensure all students benefit from it, rather than a select few (business and management students only).

1.8.5 Financial Institutions

The study's findings will help financial institutions develop ways to assist entrepreneurs on how to improve their financial literacy levels by implementing readily accessible and convenient educational programmes. The findings will also enable financial institutions develop feasible and sustainable means to access finance. By so doing, banks will be aware of the potential the SME sector has and develop relevant strategies accordingly, aimed at meeting the needs of SMEs in the municipality and the country at large.

Lastly, the study seeks to address the gap found in financial literacy and financial access literature, as well as contribute to the existing academic knowledge which will be used as a reference in future studies.

1.9 Limitations of the study

The study used a descriptive and quantitative research design consisting of closed-ended questions which limited respondents in fully expressing themselves. The study recognised SMEs in the Ekurhuleni Metropolitan Municipality (EMM) only, therefore findings could possibly be applicable to SMEs in that particular municipality and not to all SMEs in other municipalities across the country.

1.10 Ethical considerations

Ethics are standards of conduct or norms used to differentiate, as well as determine, between what is acceptable and unacceptable during a research study (Centre for Innovation in Research and Technology (CIRT), no date). As such, several agencies and professional organisations are guided by codes and policies that outline ethical behaviour which guides researchers (CIRT, no date). A survey was conducted by means of questionnaires, and high ethical standards were maintained throughout. Ethical clearance was requested from both the University and participating SMEs. The informed consent of participants was also obtained. Thereafter participants were briefed on the process of the survey and purpose of the study. Participants were assured of the highest level of privacy and confidentiality and protection from harm or coercion (Salkind, 2014). Care was taken to adhere to any other ethical guidelines presented in this regard.

1.11 Chapter outline

The following is an outline of chapters presented in the study.

1.11.1 Chapter 1: Research orientation

This chapter introduced and highlighted the background of the study. The conceptual framework of the study is highlighted and the research problem was also discussed. Thereafter the research questions, research objectives, methodology of the study, the measuring instrument and the pilot study procedure are briefly outlined. The process of collecting and analysing data is also highlighted and reliability and validity issues discussed in short. The chapter concludes with an outline of the significance, limitations and the ethical considerations of the study.

1.11.2 Chapter 2: Literature review

A literature review can be defined as a systematic synthesis of previous work around a particular topic (Card, 2010). This chapter presents and discusses the general SME environment in the South African context. Thereafter, SME financial literacy and financial access in the country are discussed in detail with a brief overview of the relationship between the two financial concepts. The theoretical framework and the empirical studies are also presented in this chapter.

1.11.3 Chapter 3: Research methodology

This chapter discusses the research methodology used in the study. It describes the research design and approach, the population, sample frame and size, as well as the sampling technique. The chapter also explains the data collection instrument, measures used and the data analysis methods. It also deals with issues of reliability, validity, ethical considerations and the limitations of the study.

1.11.4 Chapter 4: Research results

This chapter presents the results of the study. These include results from the demographics of the sample population and the results of the factor analysis, correlations and regression analyses.

1.11.5 Chapter 5: Research findings, recommendations, areas for future research and the conclusion.

This chapter discusses the findings of the research study and synthesises them with theory and other empirical studies in the research. Recommendations originating from the study are suggested. The chapter details limitations of the study and proposes directions for future research. An overall conclusion of the study is then presented in this chapter.

1.12 Conclusion

The first chapter of the study introduced and provided the background and the conceptual framework of the research study. The research problem was also discussed and the research questions highlighted. The methodology of the study was briefly outlined and reliability and validity were also discussed. The significance of the study was presented and ethical considerations highlighted. A structure of the overall research study is outlined and limitations to the study briefly discussed. The following chapter presents the literature review of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Chapter one of the study introduced and provided a background to the research study. This chapter presents a detailed discussion of the general SME sector in South Africa and SME financial literacy and financial access in South Africa. The theoretical framework and the literature review of the study are also presented which form the conclusion of the chapter.

2.1 SMEs in South Africa

The unemployment rate figures in South Africa currently stand at 27.6% (Statistics South Africa, 2019) and the government has identified the SME sector as key in addressing the issue of unemployment. SMEs in the country are seen to contribute significantly to economic growth sustainability, equal distribution of income and to the overall development of the economy (Fatoki & Odeyemi, 2010). However, although the South African government renders support to SMEs, owners and operators of these businesses still face numerous challenges, the main one being the inaccessibility of finances (Chimucheka & Rungani, 2011). The FinScope Small Business Survey (2010) states that 8.7% of small business owners reported financial access as one of the numerous hindrances to business growth. Chimucheka and Rungani (2011) highlight that SMEs are also negatively affected by other factors such as poor book-keeping practices and insufficient knowledge of managing finances by the owners or managers of enterprises. As a result, small businesses may find product offerings by financial institutions difficult to comprehend and assess, due to low levels of financial literacy (Fatoki, 2014). Therefore, SMEs need financially literate entrepreneurs in order to operate effectively and grow their businesses (Oseifuah, 2010).

2.1.1 Definitions of SMEs

Several definitions of SMEs exist emanating from various government and official sources. Such sources include SME agencies, governmental institutions and ministries, The European Commission and national statistical institutions/bureaus (Senderovitz, 2009). However, a single universal definition would enable accurate identification of targeted beneficiaries for support measures or exclusions from compliance. It would also contribute to lowering the burden of administration of small businesses needing to comply with small pieces of legislation with varying definitions (Trade and Industrial Policy Strategies (TIPS), 2016). It is therefore suggested that there is a great degree of variance in the definition of small business across and within different jurisdictions depending on the institutional and historical contexts (TIPS, 2016). Therefore, the economic indicators typically used among countries include the levels of turnover and employee size (The World Bank, 2015). The table below provides the official definition of SMEs/small firms as provided by The European Union, The Small Business Administration, United States, The Australian Bureau of Statistic and Statistics Denmark.

Table 2.1 Official definition of small firms/SMEs

The European Commission	**The Small Business Administration, US**	**The Australian Bureau of Statistics**	**Statistics Denmark**
Definition of SMEs: - Micro firms: Up to 10 full-time employees and an annual turnover or balance sheet of maximum €2 million. - Small firms: Up to 50 full-time employees and an annual turnover or balance sheet of maximum €10 million. - Medium-sized firms: Up to 250 full-time employees and an annual turnover of maximum €50 million or a balance sheet of maximum €43 million.	Definition of small firms: - Manufacturing firms: Maximum 500 employees. - Wholesale trade firms: Maximum 100 employees. - Agriculture: Maximum $750,000 in average annual receipts. - Retail trade and most service firms: Maximum $6.5 million in average annual receipts. - General and heavy construction (except dredging): Average annual receipts of maximum $31 million.	Definition of SMEs: - Micro firms: Less than 5 employees. - Small firms: Between 5-19 employees. - Medium-sized firms: Between 20-200 employees. - Large firms: More than 200 employees.	Definition of SMEs: - Micro firms: up to 9 Full-time employees. - Small firms: 10-49 Full-time employees. - Medium-sized firms: 50-100 fulltime employees.

Source: Trade and Industrial Policy Strategies (TIPS), 2016).

Similarly, in South Africa, several definitions of SMEs exist. The National Small Business Act (NSBA) No. 102 of 1996 defines a small business as a "separate and distinct business entity, including co-operative enterprises and non-governmental organisations managed by one or more owners, including its branches or subsidiaries if any, and predominantly carried on in any sector or subsector of the economy".

The NSBA recognised survivalist enterprises, very small, micro, small and medium enterprises and provided the following definitions respectively:

- **Survivalist enterprises:** These enterprises are based on livelihood strategies for people that are unable to find formal economic opportunities, such as vendors.
- **Micro-enterprises:** With turnover of less than the value-added tax (VAT) registration limit, there is usually a lack of formal registration among these enterprises, for example minibus taxis.
- **Very small enterprises:** These enterprises employ fewer than 10 employees, operate in the formal market and have sufficient access to technology.
- **Small enterprises:** The enterprises employ a maximum of 50 employees. These enterprises are also better established than very small enterprises.
- **Medium enterprises.** These employ at most 100 employees with other sectors such as mining, construction and manufacturing employing a maximum of 200 workers. Decentralisation of power is among some of the characteristics that make up these enterprises.

Following this definition, the South African National Act for Small Businesses of 1996, amended 2003 and 2004, further defined SMEs as:

- Small enterprises having fewer than 20 employees, less than 2 million in sales revenue or R5.5 million depending on the industry, and less than R2 million in assets or 4.5 million depending on the industry.
- Medium enterprises having less than 100 employee or R200 million depending on the industry, less than R4 million in sales revenue or R50 million depending on the industry, and less than R2 million in assets or R18 million depending the industry.

The IFC (2009) briefly defines SMEs in South Africa as registered businesses, employing less than 250 employees while The Department of Trade and Industry (1995) however provided the following definition, "a small business is a firm which employs less than 50 but more than 5 workers, using capital assets (exclusive of fixed property) valued at less than R2 million, with an annual turnover of R6 million".

As highlighted above, it is clear that there is no unanimous definition of SMEs and a single, common definition would desirable in South Africa across all legislation (TIPS, 2016). The study therefore adopted the definition provided by the South African National Act for small Businesses of 1996, amended 2003 and 2004.

2.1.2 Contributions of SMEs in South Africa

While there is a wide variation of definitions available, SMEs contribute significantly to a ny economy (OCED, 2014). In developing economies such as South Africa, the role played by SMEs is critical as the corporate sectors are comparably less developed (Nireth, 2013).

Of all the formal businesses in South Africa, a majority of the businesses are accounted for by SMEs which contribute over 20% to the national gross domestic product (GDP) and employ approximately 47% of the population of the country (Statistics South Africa, 2019). The FinScope Small Business Survey (2010) study estimates that within the SME sector, 5.6 million small businesses are in operation, resulting in about 11.6 million jobs being created. When the business owners are excluded, SMEs create at least 6 million jobs across the nation (Mukumba, 2014). However, the SME sector is biased towards micro-enterprises, which account for 82% of business entities in South Africa (Mukumba, 2014). Often, these businesses are survivalist in nature with two-thirds of these entities solely run by the owners. Therefore, the majority of the people are generally employed by medium-sized firms, although these firms do not produce the majority of output in the country (National Planning Commission, 2011).

In both advanced and emerging economies, SMEs stimulate the development and performance of the economy (Fatoki & Asah, 2011). The South African government perceives SMEs as the solution to the long-lasting issues of unemployment and poverty (Fanta, Mutsonziwa, Berkowitz, Maposa, Motsomi & Khumalo, 2017). Since 1994, there has been a change in the national policy concerning SMEs in South Africa, hence the role played by the national government appears crucial in defining both the current situation and the future of the SME sector (Fatoki & Mazanai, 2012).

2.1.2 Challenges faced by South African SMEs.

According to Kongolo (2010), SMEs encounter challenges regardless of whether it is during an economic regression or economic growth. The rate of success of SMEs in South Africa is not so admirable due to improper business and management practices, a shortage of skilled labour, brain drain, lack of financial skills and competent managers (Van Tonder, 2010). Because SMEs are small in size, a minor error in management may force the business to shut down without having been able to derive lessons from mistakes experienced in the past (Bowen, Morara & Mureithi, 2009). In other words, minor obstacles encountered by SMEs may lead to the SME having to close business without being afforded the chance to learn and grow from those obstacles. Although government and private sector initiatives continue to support small business development and growth, countless SMEs in South Africa still fail (Cant & Wiid, 2013). Thus, the high failure rate of new SMEs in South Africa seemingly withholds the SMEs full potential to contribute significantly to the creation of jobs, economic development and poverty alleviation (Fatoki & Odeyemi, 2010).

According to Cant and Wiid (2013) the major variables impacting South African SMEs include interest and exchange rates, inflation, unemployment, crime, HIV/AIDS, technological advancement and government legislation. These variables influence the demand for goods and services and hence the growth of SMEs (Ehlers and Lazenby, 2010). It is therefore imperative for SME owners or managers to take heed of these external variables by minimising any negative effects and thus be able to adapt swiftly to these changes so as to capatilise on possible opportunities as well as eliminate any threats (Sha, 2010). SMEs need to also be aware of the market environment in the economy. In other words, they need to know their customers, the customers spending patterns, how, where and when customers buy in order to sufficiently meet their demands as well as survive (Cant and Wiid, 2013).

Largely contributing to the high failure rate of SMEs in South Africa are variables found in the internal environment. The variables in this environment constitute of lack of financial knowledge, insufficient management skills and expertise in the fundamental areas such as marketing and human resources and inability to access finance (Cant and Wiid, 2013).

The South African government, in association with the Department of Trade and Industry, has founded several public establishments, which are intended to meet the needs of SMEs. Such establishments include (but are not limited to) the Small Enterprises Development Agency (SEDA), SA Micro Finance, Small Enterprise Finance Agency (SEFA) and Industrial Development Corporation (IDC) among several others.

2.2 Financial literacy of SMEs in South Africa

There are numerous definitions of financial literacy despite a call for consistency by Schuchardts, Hanna, Hira, Lyons, Palmer and Xiao (2009). Hence scholars and financial experts have long disagreed on a common definition of the concept (Kimiyaghalam and safari, 2015).

Huston (2010) defines financial literacy as the measure of an individual's level of understanding and usage of information associated with one's finances. Atkinson and Messy (2012) however, broadly define financial literacy as an alliance of knowledge, awareness, skills, behaviour and attitudes required in the making of profound financial decisions.

According to Mandell and Klien (2009) financial literacy is an individuals' ability to evaluate new and complex financial instruments and make sound judgments when choosing instruments and the extent of use that would serve in their interests in the long run.

Terblanche (2009) provides another definition of financial literacy as the understanding of basic financial concepts and knowledge of suitable financing and financial management options for various stages of growth of the business. Furthermore, the author states that a financial literate SME owner or manager should (i) be knowledgeable as to where to obtain the most suitable products and services, (ii) interact confidently with suppliers of these products and services and (iii) be familiar with the legal and regulatory frameworks as well as his/her rights and recourse.

According to Eniola and Entebang (2016), financial literacy is the capability to adequately oversee the financial resources over the life cycle of the business and connect effectively with financial products and services. Redmund (2010) defines financial literacy as the extent to which an individual can comprehend important financial concepts and possess the capacity and confidence to appropriately manage personal funds, short-term decision making and long term forethought.

A recent report by Standard and Poor (S&P) Rating Services on financial literacy levels worldwide e, indicated that globally, 33% of adults understood basic concepts of financial literacy (Klapper, Lusardi & van Oudheusden, 2015), which means that 3.5 billion adults in the world are financially illiterate (Fanta *et al*, 2017). In sub-Saharan Africa, only 32% of adults are financially literate (Fanta *et al*, 2017).

As the complexity of the financial landscape continues to increase, financial literacy is fast becoming a core skill necessary for successfully operating in this environment (Atkinson & Messy, 2012). An added dimension in financial literacy exists which entails that, in order to make sound financial decisions, an individual must be capable and confident to utilise his or her knowledge of finance.

While SME owners or managers make financially related decisions around investments, saving and retirement planning, enterprises perform specific activities in the acquisition and development of resources (Stadler, Helfat & Verona, 2013). Therefore, in order to execute these activities efficiently, firms may depend on capabilities such as financial literacy, which convert resources into an array of uses such as resource production, expansion and alteration (Helfat *et al.*, 2009). Furthermore, Brown *et al.,* (2009) emphasise the importance of financial literacy among the owners of small businesses, stating that when the owners are financially equipped with the necessary tools, they are more likely to make informed and sound financial decisions. This then contributes significantly to the prosperity of the company in the future (Glaser & Walther, 2012).

A financially literate SME is defined as one which (i) is in possession of appropriate levels of skills in personal finance and business management, as well as competent in personal entrepreneurship, (ii) adequately understands the systems of functional financial management, (iii) can comprehend the funding of the SME life-cycle, and (iv) is capable of acquiring and negotiating the necessary requirements for the funding requirements. Furthermore, a financially literate SME (i) understands and has the ability to manage financial risks, (ii) understands issues concerning the law, regulations regarding tax in relation to financial matters, and (iii) has knowledge of the various legal options available to them or legal recourse options it can resort to, if and when necessary, such as in the event of bankruptcy and financial distress situations (The Banking Association, 2014).

In the same light, Andoh and Nanoo (2011) concur that SME usage of financial services is explained by the financial literacy levels of SME owners. Hence, the lower the levels of financial literacy that SME owners possess, the less likely they will comprehend and evaluate the various financial products offered by financial institutions. However, investing in financial education leads to increased financial literacy, resulting in more effective and improved financial decision-making (Altman, 2012).

2.3 SME financial access in South Africa

Data presented in prior studies on small businesses worldwide, found that SMEs, when compared to large firms, encounter more financing challenges and are less likely to be externally financed, especially by banks (Beck, Demirgüç-Kunt, Laeven & Maksimovic 2008). Hence, constraints in finance experienced by small firms and other firms encountering similar challenges in self-financing can be reduced by improving the functioning of the formal financial sector (Demirgrüç-Kunt & Klapper, 2012).

Fatoki and Asah (2011) say that financing is a pre-requisite in the creation and expansion of firm operations. Similarly so, financing is an essential requirement in the development of innovative products and the investment in new staff and facilities for production. However, high SME failure rates are still recorded in South Africa, caused by multiple obstacles preventing new SME creation. One such obstacle is the unavailability of financing from the formal sector (Fatoki & Odeyemi, 2010). Previous literature reveals that financing, which is both sufficient and conveniently accessible, is imperative in the development of SMEs (Fatoki, 2014). This is the case in many sub-Saharan African economies, where researchers Dauda and Nyarko (2014) confirm that small firms are constrained due to the lack of financial access.

According to Fatoki and Van Aardt Smit (2011), a significant number of new SMEs are dependent on internal finance which ranges from contributions by the owners, to contributions from friends and family. However, internal finance is often insufficient for the survival and growth of SMEs (Mutezo, 2013). Therefore, start-up SMEs often have limited or no retained earnings, as they will be relatively new in the market (Fatoki, 2014). External finance is made up of equity, debt, or a mixture of debt and equity, which then create the capital structure (Fatoki, 2014). The capital structure can be defined as a combination of equity and debt used by a firm in the financing of its operations (Gitman, 2010).

The creation, development and sustenance of SMEs require funding from financial institutions in the formal sector such as banks. However, banks expect SMEs to meet certain requirements including having valid business plans and collateral requirements, most of which small businesses rarely meet (Moloi & Ntshakala, 2016). As such, banks tend to be indifferent towards financing firms in early stages of development as the majority of these firms (i) are often illiquid, (ii) do not provide information that is reliable on the entrepreneur, therefore failing to provide a traceable track record and (iii) often have too much outstanding debt (Markova & Petkovska-Mircevska, 2009).

SMEs access to finance is believed to be determined by both macro- and micro-level factors (Makina, Fanta, Mutsonziwa, Khumalo & Maposa, 2015). Macro-level factors include developing a financial sector and putting in place a sound legalised and institutional framework which is crucial in the expansion of access to finance by small businesses (Beck, Demirgrüç-Kunt & Peria, 2011). Nichter and Goldmark (2009) attribute micro-level factors to be firm and owner specific.

2.4 The relationship between financial literacy and financial access

Numerous previously conducted studies have found relationships between financial literacy and proposed financial behaviour, capability and outcomes. According to Cole, Sampson and Zia (2011), some studies have found that the association between financial literacy and financial outcomes is strong and positive. However, empirical findings from other recent studies suggest that financial literacy and financial behaviour are strongly correlated (Lusardi, Mitchell and Curto, 2010) In addition, entrepreneurs' views as supported by empirical research which highlight that the inaccessibility of finance and SME growth are negatively correlated (Financial Access, 2010). Wise (2013) concurs and says that improved access to finance by SMEs can be accomplished if there is a good level of financial literacy. Therefore, an increased level of financial literacy of SME owners and managers undoubtedly betters the chances of accessing financing of SMEs. Coad and Tamvada (2012) assert that financial access is arguably the main hindrance to the growth of SMEs. Worsened by the shortage of skills in finance, the possibility of SMEs flourishing in developing economies remains limited (Adomako, Danso & Damoah, 2015).

Previous research has also found a positive correlation between financial literacy and retirement planning, savings and accumulation of wealth (Hung, Parker & Young, 2009; Stango & Zinman, 2009; Van Rooij, Lusardi & Alessi, 2011). Financial literacy is seen to be a predictor of behaviours of investment such as participating in share markets (Van Rooij, *et al*. 2012), selecting an investment portfolio that is low (Choi, Laibson, & Madrian, 2011, Hastings & Mitchell, 2011), improved diversification and increased frequency in the trading of shares (Graham, Harvey, & Huang, 2009). Low levels of financial literacy were found to be associated with credit behaviour perceived as negative such as borrowing at exorbitant costs and mortgage delinquency (Gerardi, Goette & Meier, 2010).

According to the World Bank (2008), financial literacy is an aid in the improvement of service efficiency and quality. Increasing the supply of financial products in an effort to expand financial access would be unsuccessful, unless it was accompanied by the promotion of financial literacy, because consumers would not find these products beneficial if they did not understand their value (Fanta *et al.*, 2016). Wachira and Kihiu (2012) explain that financial literacy is important for the following reasons: (i) it allows one to control his or her financial future more efficiently, (ii) it reduces the susceptibility of irrational retailers and (iii) it enables effective usage of both financial products and services.

Furthermore, Fanta *et al.,* (2017) suggest that for financial education to be more effective, it must be delivered at docile moments, including moments when the client opens a bank account, purchases insurance or obtains a loan.

2.5 Theoretical Framework

The theoretical framework of the study consists of three theories, namely the resource-based theory, the credit rationing theory and the pecking order theory.

2.5.1 The resource based view (RBV)

Originating from the work of Penrose (1959), the resource-based view (RBV) is perceived by several researchers as one of the most influential perspectives in organisational sciences (Kellermans, Walter, Russel Crook, Kammer & Narayan, 2016). Defining a firm as a resource bundle according to the generation of utilities it can provide for consumers, Penrose (1959) further emphasise the need for a firm to be viewed as an administrative framework comprising of a cluster of resources bundles. Formalised over two decades later by authors Wenerfelt (1984), Rumelt (1984) and Barney (1991), the RBV has become one of the leading present-day approaches to analysing sustained competitive advantage worldwide (Ridwan & Bakri, 2017). Accordingly, Barney, Ketchen and Write (2011) assert that the resource-based theory resulting from the RBV of the firm, provides an imperative framework, which can be used to describe and predict the foundation of a competitive advantage as well as the performance of the firm.

A firm is said to have achieved a competitive advantage once it is capable of producing more value to the economy in relation to its ‘break even’ competitor producing in an identical market. Sustained competitive advantage is achieved when a firm creates more economic value than its competitor does in the same industry and duplication of its strategy benefits by competitors is impossible (Barney & Clark, 2008). Therefore, Barney (1991) states that firm resources have to be rare, valuable, difficult to substitute and hard to imitate. Hence, the more innovative a firm is, the more resources grow and the higher the possibility for diversification, and as a result, the more the ability of the firm to contribute to economic and social values in the community. According to Almarri and Gardiner (2014) there is a general notion that among firms, capabilities and resources are diverse and not comparable (heterogeneous), which is the cornerstone of the RBV and by the adoption of this notion, the success rate difference among firms is describable.

Appiah-Adu, Okpattah and Hagan (2017) define a capability from an RBV perspective as a distinguishable set of human skills with an attitudinal, behavioural and motivational basis that converts resources into a particular set of business activities. Firms are up against the increasingly dynamic external environment which results in the constant upgrading of capabilities and enforcement of strategic action so as to maintain their competitive edge (Derfus, Maggitti, Grimm & Smith, 2008). In addition to strong capabilities Sirmon, Hitt, Ireland and Gilbert (2011) argue that the process of resource instrumentation must be ordered in such a way that the capabilities generated are those required to execute the chosen strategies. Therefore, the firm needs to procure the necessary resources required to develop the capabilities needed to carry out the selection of practices and in turn, used to aid in the effective implementation of the desired strategy (Hitt, Carnes & Xu, 2017).

Hence the RBV suggests that a firm’s action should be dependent on its characteristics while focusing mainly on beneficial activities and refraining where it does not benefit (Wenerfelt, 2013).

2.5.2 Credit rationing theory

Credit rationing has been the focus of numerous theoretical contributions and was researched earlier on because of its possible role in connection with the transmission of monetary policy (Ferri, Murro & Rotandi, 2010). SMEs often depend on bank loans and overdrafts as well as credit from suppliers for early financing as a result of the shortage of external equity (Fatoki & Smit, 2011). Although this may be the case, accessing debt finance generally remains constrained in developing countries (Fatoki & Odeyemi, 2010). Economists such as Stiglitz and Weiss (1981) argue that private financial institutions may be unable to apportion loans efficiently mainly due to significant information asymmetry in the small business loans market (Craig, Jackson & Thompson, 2009). The severity of the information asymmetry may inevitably lead to credit rationing and ultimately result in the failure of the credit market (Craig, *et al.*, 2009).

The credit rationing theory highlights a condition involving the constraint of credit supply by lenders to borrowers, even though borrowers are willing to take elevated prices (Lubanga, 2013). Stiglitz and Weiss (1981) state that credit rationing occurs when (i) among similar loan applicants, credit is obtained by some while others do not, (ii) if the population has distinguishable groups that are unable to access credit even at elevated prices (Fatoki & Smit, 2011).

Theoretical literature observes risks such as adverse selection and moral hazards, loan contracts enforcement cost and inadequate legislation promoting the disclosure of information as having an influence on credit rationing (Boucher, Guirkinger & Travelli, 2009; Kimutai & Ambrose, 2013). The core contention is that financiers may opt to offer varying interest rates, resulting in several prospective borrowers being left without accessing credit (Fatoki & Odeyemi, 2010). The model of bank lending formulated by Stiglitz and Weiss (1981), describes the reasons for the rationing of bank finances as well as the reasons why SMEs wishing to borrow at existing and higher interest rates still fail to access financing from banks (Chimucheka & Rungani, 2011). Therefore, the theory suggests that several SMEs could productively utilise funds if they were available, however, obtaining these funds from the formal financial institution has proven to be challenging (Fatoki & Odeyemi, 2010).

2.5.3 Pecking order theory

Donaldson (1961) introduced the pecking order theory (POT), which was later revived in 1984 by Myers and Majluf, who based their argument on information asymmetries. In accordance with this theory, Minola, Cassia and Criaco (2013) report that the actual value, investments and opportunities of a firm, are known only by its owners or managers. Furthermore, the theory stipulates that because of asymmetries of information between owners or managers and investors, firms tend to become constrained financially and therefore resort to choosing sources of finances using a hierarchy (Serrasqueiro & Caetano, 2015). An observation made by Myers (1984) of the way firms structure their balance sheet, showed that firms are inclined to adopt a ‘pecking order’ in project financing, using first internal equity, followed by debt and lastly, external equity.

This suggests that depletion of normally generated funds leads to firms issuing debt, then debt securities inclusive of debt, with equity being the last option (Chipeta & McClelland, 2018). However, should a firm not require much financing, it may use internal earnings to meets its needs, and debt can only be issued after the exhaustion of the internal funds (Seifert & Gonenc, 2009). Thus, a profitable firm has the capacity of accumulating retained profits, reducing the need to utilise external finance (Serrasqueiro & Caetano, 2015).

Tests of the POT have also been conducted on SMEs. The reason for studying SMEs stems from the assumptions that the access of firms to equity markets may be constrained, increasing the likelihood of debt financing with a deficit (Serrasquerio & Caetano, 2015). The POT has proved favourable in several documented studies on SMEs. An example of this is highlighted in the study by Lopez, Gracia and Sorgorb-Mira (2008) who report evidence of the POT for a broad sample of SMEs in Spain. Similarly, Vanacker and Marnigart (2010) explored small high-growth firms and their incremental financing decisions and found evidence supporting the POT.

In addition, Gonzalez and Gonzalez (2012) attest to the prepotency of the POT for SMEs and ascribed this to the asymmetry of information linked to small firms. However, Laery and Roberts (2010) argue that the POT financial behaviour is not materially affected by the varying degrees of information asymmetry. Rather, the authors indicate that the POT is influenced more by aging conflicts than asymmetric information.

Therefore, in light of the discussion above, financial literacy of the study was anchored on the RBV while financial access was underpinned, credit rationing and pecking order theories.

The RBV was used to support financial literacy of the study. The RBV views organisations as a bundle of resources (Penrose, 1959), and such resources include financial, human and organisational resources, assets, capabilities, information and knowledge (Teece, 2012). According to Eniola and Entebang (2015) a deficiency in any of these reduces the firms' innovation activities. Therefore, Adamako, Danso and Damoah (2015) argue that financial literacy (in this instance, financial knowledge, financial behaviour, financial attitude and financial awareness) is a resource available to a firm which is paramount for generating competitive advantage and can be used in the undertaking of various activities to achieve firm growth. The authors further state that the financial literacy of an entrepreneur is deemed an internal firm capability that can complement access to finance, which could result in supreme growth outcomes. Therefore, the researcher considered the RBV as the most suitable theory to underpin the financial literacy variable of the study.

Financial access on the other hand, was anchored on the credit rationing theory and the POT. Previous studies identify the need for both adequate and accessible financing as imperative for the development of SMEs Fatoki, 2010). However, majority of SMEs in South Africa are unable to access finances (credit), largely due to the lack of financial knowledge, collateral and credit history (Mutezo, 2011). The credit rationing theory highlights the prevailing condition among South Africa small businesses today, where the SMEs demand for loans exceeds the supply, resulting in some SMEs not receiving the loans or receiving less than the amount applied for at existing interest rates (Stiglitz and Weiss, 1981). Therefore, SMEs find themselves having limited access to financing

The POT also anchored financial access of the study. Most SMEs face the challenge of accessing financing especially bank finance, therefore management prefers to opt for internal finance (borrowing from family, friends) before external financing (Fatoki, 2011) where they choose the least risky and entrepreneur(Fatoki,2010). The POT is therefore based on the premise above and was regarded as one of the appropriate theories to support financial access of the study.

2.6 Empirical research

Financial literacy and financial access are fundamental concepts in most economies across the globe, hence several studies have been conducted in this respect. Highlighted below are select studies conducted internationally, regionally (Africa) and locally (South Africa) and these make up the empirical research of this study.*2.6.1 International studies*

In his study, Wise (2013) investigated financial literacy and its impact on the survival of new ventures in Canada. The study proposed a model where increases in the use of financial tools (financials ratios or financial statements) lead to increased production of financial statements. This in turn resulted in the increased likelihood of repayment of loans and a decrease in the likelihood of failure of new ventures. The dependent variable of the study was loan repayment and the independent variables were financial statements usage and financial ratio changes. A student model was then tested by The Canadian Youth Business Foundation, which used data from 509 Canadian youth entrepreneurs who had obtained start-up loans through their involvement in a particular programme. The results of the study indicated that the higher the levels of financial literacy among the entrepreneurs, the more frequently financial statements were produced. The study also revealed that enterprises that frequently generated financial statements were more likely to repay their loans and were less likely to experience the closing of their venture.

Fernandez (2015) evaluated the financial literacy levels of SMEs owners and analysed the relationship between those findings and the companies' operation performance. The study tested the hypothesis that with all other factors being constant, high levels of financial literacy among the owners of SMEs should result in improved company performance. The sample consisted of small business owners of SMEs in the north of Portugal. Through questionnaires, the relevant data needed to measure the financial literacy levels was obtained. The results revealed high levels of financial literacy among small business owners of SMEs in the north of Portugal. A significant positive correlation was also found between the levels of financial literacy and the operating performance of the companies.

Casey and O'Toole (2014) examined whether SMEs restricted from borrowing bank funds would resort to other external financing options such as trade credit, lending informally, borrowing from other companies and receiving grants from the state. Credit and self-rationed firms were identified as constraint indicators as a result of elevated cost of lending. The study used data at euro-firm level. Findings of the research highlighted that that there was a high probability of using or applying for credit by credit-rationed firms. Secondly, there was a likelihood that SMEs would borrow from the informal sector and from other companies. Lastly, the study found that when firms were refused credit to be used as working capital, they often resorted to credit, while borrowing from the informal sector or from other companies often acted as a bank investment loans alternative.

Guliman (2015) assessed levels of financial literacy among micro- and small enterprises in the Philippines, focusing mainly on financial knowledge and skills. The secondary objective of the study was to determine factors affecting the level and the quality of financial skills, financial knowledge and financial literacy in general. Data was collected from 100 participants with different businesses. They were asked to respond to a total of 38 questions, in a three-part structure. The first part was made up of seven questions on demographics and financial literacy. Part two consisted of sixteen multiple-choice questions on financial knowledge (time-value of money, tax, investment securities and financial institutions). Part three of the questionnaire contained fifteen financial skills questions (planning, budgeting, saving and record keeping). Based on average-percentage rating, the results of the study indicated that generally, the financial literacy levels of entrepreneurs were very low. The results also indicated a low positive correlation between financial knowledge and financial skills.

Lusardi, Mitchell and Curto (2010) used the National Longitude Youth Survey in the United States of America in analysing youth financial literacy. The survey used three questions testing knowledge of very basic, but essential financial concepts. Questions one and two related to interest rates and inflation respectively, testing how knowledgeable respondents were regarding inflation and whether they were in possession of general financial numeracy. Question three referred to risk diversification, where the respondents' knowledge of risk diversification was assessed. Demographics considered were gender, race or ethnicity as well as cost and opportunities for learning variables such as cognitive ability and financial knowledge exposure and schooling through family and peers. The findings of the study indicated low financial literacy levels. Less than a third of the youth possessed basic expertise on all financial concepts tested in the study (interest rates, inflation and risk diversification). However, a strong relationship was established between financial literacy and socio-demographics and the financial sophistication of family.

Karadag (2016) examined SME financial management performance with regard to the industry, age of the firm and education levels of owners or indifferences in Istanbul, Turkey. The study adopted Nguyeni's (2001) questions and scales. A nine point Likert scale was used for each of the eight financial management practice questions asked. Questionnaires were used to collect data from 188 SMEs. Structural equation modelling was used to test three hypotheses regarding the associations. Results of the one-way ANOVA showed a strong positive correlation between financial management practices performance and the level of education between small business owners and managers. SMES operating in different industries were found not to have any significant differences.

Sucuiaha (2013) determined the financial literacy of selected micro-enterprises in Davao City in the Philippines. The study participants consisted of 100 micro-enterprises. Overall, the moderation of financial literacy levels of micro-enterprises resulted in unimpressive financial resource management. Multiple regressions were used to obtain financial literacy determinants, which revealed a significant influence of education attainment on financial literacy. The results also showed that gender cannot be used as a financial literacy predictor among micro-enterprises in the city.

2.6.2 Regional studies

Adomako, Danso and Damoah (2015) examined the relationship between access to finance and firm growth with financial literacy as a moderator. The study was drawn on a resource based view. Data was collected from 201 SMEs in Ghana. Three constructs were measured, namely firm growth, financial literacy and financial access. Demographics used in the study included the size and age of the firm and the number of employees. The findings of the study suggested that financial literacy had a positive influence on the relationship between access to finance and the growth of the firm.

Calice, Chando and Sekioua (2012) describe the findings from a survey conducted in four countries in east Africa (Kenya, Tanzania, Uganda and Zambia) on the financing of SMEs. SMEs in this region were a strategic priority. Several challenges hindering the further involvement of banks with SMEs were highlighted including factors relating to SMEs, regulation of business, the legal and contractual environment, a less proactive attitude by government towards SMEs and other factors. The authors posit that banks have however adjusted to their environment and have found ways to manage it. Thus, the conclusion of the study suggested that through reforms, the trend requires continuous encouragement and support in order to cushion the negative impact of those challenges derailing the further development of banks and SMEs.

Tadesse (2014) conducted a study in Debre Markos Town, Ethiopia, where the access to finance was assessed among small and micro-entrepreneurs. Data of the study was gathered using questionnaires and interviews. A total of 80 micro- and small enterprises (MSEs) selected at random participated in the survey. The study found that the absence of competition among financial institutions restrains financial access. Furthermore, access to finance was constrained by high transaction costs and high risks affiliated with MSE creditors. In addition, some MSEs were found to perform sub-standard book-keeping practices, while some did not prepare formal financial statements resulting in limited financial access.

Kimindundi and Erik (2016) studied SMEs in the Ruiru sub-county, Kenya, seeking to establish whether financial literacy had an influence on financial performance. The study used a descriptive research survey design. The population of the study consisted of registered SMEs who had some financial literacy training under Equity Bank in Ruiru sub-county. Out of 334 respondents, 100 were selected to participate in the study. Stratified sampling was used in determining the sample. The SPSS software was used to analyse the data and inferential statistics in the determining of the significance of the results. Multiple regressions were also used and the results thereof indicate that financial literacy and financial performance had a strong positive relationship. The overall results of the study thus conclude that the higher the levels of financial literacy portrayed by SME owners, the higher the performance by the SMEs.

Eniola and Entebang (2017) examined SME owner or manager financial literacy levels and its effect on the performance of the firm. Random sampling was used and data was analysed using structural equation modelling to evaluate the impact of financial literacy of SME owners or managers in the south-west of Nigeria. The findings showed that SME (owners or managers) FK and FAW were not pre-requisites of firm performance, but characteristics of the entrepreneurs in decision-making and relationship to financial attitude could be compared with financial literacy.

2.6.3 Local studies

Fatoki (2010) examined financial literacy levels of new micro-enterprise owners in South Africa. Variables used to measure entrepreneurs' financial literacy included (i) financial planning, (ii) analysis and control, (iii) bookkeeping, (iv) comprehension of sources of funds, (v) use of technology and risk management use, (vi) business terminology, and (vii) skills in finance and information. A survey was used to collect data using self-administered questionnaires. The survey used both dichotomous and Likert scale questions. The findings of the study suggest that owners of new micro-enterprises possessed low levels of financial literacy.

Chimucheka and Rungani (2011) investigated bank finance inaccessibility, the lack of knowledge in financial management and the resultant impact on SMEs in the Buffalo Municipality. The study sought to determine what impact the absence of financial management knowledge had on the accessibility of finance. Another objective of the study was to investigate the absence of bank finance and knowledge of financial management and its impact on SMEs. The results of the study indicate that SMMEs in the Municipality encountered difficulties in accessing bank finance. The results also reveal that bank finance inaccessibility had a significant effect on SMME survival. The authors also suggest SMME survival and growth was affected by the lack of financial management, thus SMMEs were encouraged to try alternative sources of funds and be responsible for gaining relevant knowledge and skills.

Fatoki (2014) investigated new South African micro-enterprises and their ability to access external financing. A survey was conducted through the administration of questionnaires. Obtaining populations of micro-enterprises for this study proved to be rather difficult. The study used snowball and convenience sampling methods. Data was analysed using descriptive statistics. The results highlight that micro-entrepreneurs faced challenges when attempting to access debt and equity finance. Furthermore, the limitation on awareness by micro-enterprise owners of government programmes meant to assist SMEs, is revealed.

Oseifuah (2010) assessed the impact of financial literacy levels on young South African entrepreneurs. Desk research and questionnaires coupled with interviews were used in the collection of data for the study. Demographic data, namely age and type of enterprise, was used as control variables. The results of the study indicate that young entrepreneurs in the Vhembe District had an above average level of financial literacy and this in turn contributed significantly to their skills in entrepreneurship.

Fatoki (2012) investigated the effect of entrepreneurial orientation (EO) on debt finance access and SME performance in King Williams Town and East London, South Africa. Data was gathered in a survey through self-administered questionnaires. Descriptive statistics, regression and correlations were used to analyse the data of the study. Reliability was measured using Cronbach’s alpha. The study finds a significant positive relationship between EO and the access to debt finance and SME performance. The study also reveals a partial mediation of access to debt finance on the relationship between EO and SME performance. The study recommends that training and the incorporation EO into the reward system would significantly improve EO.

Fatoki and Odeyemi (2010) peg the rejection rate of bank credit applications by SMEs at 75%. The aim of the study was to determine the factors of credit approval for new SMEs. A survey method was used to collect data, through the self-administration of questionnaires. The survey was comprised of 445 respondents. Logistic regression was used to analyse data. The results also suggest that new SMEs could resort to commercial banks as a prospective source of finance after owner’s funds.

Musie (2015) examined the SMEs in the Mpumalanga and how entrepreneurs in that area used financial literacy concepts. The study followed a quantitative and descriptive research design. Questionnaires were administered during interviews (face-to-face) and data was collected from the fifty-three participating entrepreneurs in the study. The findings of the study show that the majority of SMEs used all three concepts of financial literacy in the management of their business finances. The results also indicate that entrepreneurs had no knowledge of alternative sources of capital. Furthermore, the study also reveals a positive relationship between financial literacy concept usage and SME economic success.

From the above, financial literacy of SME owners was analysed by Guliman (2015) in the Philippines, Sucuiaha (2013) also in the Philippines and Fatoki (2014) in South Africa. The studies revealed similar results which showed that entrepreneurs possessed low financial literacy levels. According to Fatoki (2014) low levels of financial literacy are likely to prevent SMEs from comprehending and assessing financial products from financial institutions. However, it should be noted that financial literacy of the studies was measured using different variables. Data of the studies was collected using questionnaires in a survey, however using various methods to analyse the dat. In the current study, financial literacy was also measured using varying variables as those used in the studies above. Therefore, according to the results, this shows that irrespective of the variables used and the location of the SME, financial literacy levels are generally low among entrepreneurs.

Similarly, access to finance was investigated by Tadesse (2014) and Fatoki (2014). Results of the studies indicated that financial access was indeed a major challenge for participating SMEs. While Tadesse (2014) used simple random sampling, Fatoki (2014) used snowball and convenience sampling however, differences in the sampling methods did not affect the overall results of the study. The current study therefore identified a gap in the literature and sought to determine a relationship between financial literacy and financial access variables among SMEs in the EMM.

The studies above highlighted the concepts of both financial literacy, as well as financial access. Each study regards either or both of the concepts with an associated outcome, use similar, or in some cases different variables, methods of collecting and analysing the data. In some instances, the results from the studies yielded similar results, while others varied accordingly. However, the current study used financial literacy and financial access concepts and sought to determine whether there was a relationship between the two.

2.7 Conclusion

This chapter presented a detailed analysis of financial literacy and financial access among SMEs in South Africa. The theoretical framework of the study was highlighted and a review of the literature discussed. The following chapter of the study discusses the methodology followed by the research study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

The main aim of the current study was to determine statistically the existence of a financial literacy–financial access relationship among SMEs in the Ekurhuleni Metropolitan Municipality. The preceding chapter presented the literature review of the study, where SME financial literacy and financial literacy were discussed in detail. This chapter discusses the research design, the methodology followed (philosophy, approach and strategy), the population, sample and the measuring instrument used in the study. Furthermore, this chapter explains how data was collected and analysed. Validity and reliability issues were also discussed.

3.1. Research design

For the overall research problem to be potentially resolved and the objectives of any research to be achieved, a particular research design needs to be followed. According to Dannels (2010), a research design determines the selection of participants, the manipulation, as well as the control, of variables and the collection of data. In so doing, the research design establishes a connection between methodological principles and a particular system of methods required fully to answer questions raised in the research or the formulated theory (hypothesis), and in the examining of social phenomena (Wayhuni, 2012). This study used the descriptive research design. Salkind (2014) asserts that the focal point of descriptive research is to describe the status quo at the time of study. The study also followed a quantitative research approach, which, according to Mertler (2018), involves determining how related variables are and also involves the researchers' reliance on data expressed in numbers. This approach is scientific in nature, focusing on the gathering and analysing of raw data, according to the research problem, from a large population, while disregarding the individual's emotions, feelings and the environmental context (Rahi, 2017). Furthermore, Rahi (2017) asserts that when the researcher focuses on the objective of the study, while evaluating it by how humans act and express their views, the quantitative strategy assists the researcher in reporting, rather than explaining data.

3.1.1. Research philosophy

Saunders, Lewis and Thornhill (2015) define the term philosophy as knowledge development founded on opinions and premises. Accordingly, the authors highlight five of the most widely used philosophies, namely positivism, critical realism, interpretivism, post modernism and pragmatism. This study follows the positivist philosophy. However, in order to differentiate clearly between the various philosophies, a deliberation of the differences of each philosophy's underlying assumptions needs to be considered. Hence, the three research assumptions, namely ontology, epistemology and axiology (Saunders, *et al.*, 2015) are discussed below.

Ontology considers the concept of knowledge while regarding its nature of realism (Rahi, 2017). Although seemingly abstract and far-fetched from the intended research, suppositions underlying ontology define an individual's perception and analysis of objects of research (Saunders *et al.*, 2015). Such objects include organisational events and artefacts. Thus, according to Kalof, Dan and Dietz (2008) in any scientifically based research, the doctrinal position of the research explains the researchers' ontological presentation on a concept of truth in a given discipline. *Epistemology* expresses the relatedness of an individual as the investigator and the item under investigation (Vaishnavi, Capelletti, Le, Kako, Butaney, Ercan, Mahale, Davies, Aisner, Pilling & Berger, 2013). The investigator considers the essential qualities of knowledge or similarly, accounts for acquired knowledge. *Axiology* is defined as the purpose of ethics and beliefs placed in the research process (Saunders *et al.,* 2015). Incorporated in the process are questions about how researchers handle their own values, as well as those of the research participants. The five major philosophies previously mentioned can thus be distinguished based on these philosophical groundings. The philosophy of positivism adopted by the study is briefly discussed as follows.

Positivist philosophy supporters believe that through observation and experiment, true knowledge can be obtained (Rahi, 2017). Positivism explains philosophically a scientist's position and entails producing general rules while operating with a social reality, which can be discerned (Saunders *et al*. 2015). Once reality has been comprehended by objectively performing tests on an individual truth outcome, positivist researchers therefore perceive themselves as separate from a reality, which is both social and physical. Hence, according to Wayhuni (2012), the positivism philosophy applies the lens of natural science. Ontologically, it is viewed that social reality is external and objective. Axiologically, the investigator and the investigation are separated by following the ethical view of the outsider. Epistemologically, positivism recommends using the approach scientifically by numerically developing measures that yield satisfactory knowledge (Wayhuni, 2012).

The cautious use of tests statistically and the application of identical research processes when observing a broad population, leads to positivists believing that separate investigators evaluating an identical problem will obtain identical results (Creswell, 2009).

3.1.2 Research approach.

Saunders *et al.* (2015) highlights three theory development approaches, namely the deductive approach, inductive approach, as well as the abductive approach.

The deductive approach involves developing a theory, which then undergoes strict testing through a range of suggestive measures (Collis & Hussey, 2013). Essentially, the aim of researchers is to put to the test a theory or a number of theories by gathering raw data from the participants in a study. Once different statistical tests have been employed, the findings are then observed (Rahi, 2017). Therefore, the deductive approach is regarded as the leading approach in natural science research where the foundation of explaining is represented by rules, the expectation of a particular development is permitted, their likelihood of taking place is anticipated, their occurrence is predicted and as result, the control over them becomes relatively easier (Saunders *et al*, 2015).

An inductive approach firstly considers the research's main objective and the inquiry of theory by using diverse research methods and seeks to bring forth a theoretical basis from the research (Greener, 2008). In other words, it starts with specific observations, and then a general conclusion is later derived from them (Walliman, 2011). Similarly, Collis and Hussey (2013) define the induction approach as an approach elaborating a process of theory development by evaluating that which the researcher has observed throughout his research. In addition, induction can thus be explained as a procedure involving the observation and inquiring of the relationships between human actions and opinions (Collis & Hussey, 2013).

The third approach, the abductive approach, commences with observing the 'fact of surprise' (Ketokivi & Mantere, 2010). According to Saunders *et al*., (2015) this 'fact of surprise' is considered a conclusion instead of an assumption. With the conclusion as the basis, conceivable assumptions regarded as sufficient to describe the conclusion are determined. Hence, researchers are of the belief that should these assumptions be the truth, this would also be the case with the conclusion. Because the assumptions are enough to yield a plausible conclusion, this gives ground to trust that this is also the truth.

This study therefore, followed the deductive approach. The research idea and questions were developed from theories and prior research (Eriksson & Kovalainen, 2015), hence the approach moved from theory to data collection. Saunders *et al*., (2015), highlight three important characteristics of the deduction process. Firstly, the deduction approach seeks to describe causality between concepts and variables. Secondly, in order to measure facts quantitatively, concepts need to be operationalised accordingly. Finally: generalisation. The careful selection of the sample as well an adequate sample size ensures generalisation.

3.1.3 Research strategy

A research strategy involves the collection and interpretation of data, which has well-defined objectives. When a researcher has set out the research question(s), the research strategy becomes a guide, which the researcher can use in answering the question(s) (Easterby-Smith, Thorpe & Jackson (2012). Yin (2017) highlights five important research strategies, namely experiments, surveys, archival analysis, histories and case studies. The survey strategy was used in this study.

The survey approach is closely related to the deductive approach and is regarded as popular in the social sciences (Mark, Philip & Adrian, 2009). The survey method involves collecting data through interviewing and questionnaires (Rahi, 2017). The frequency and relationships between variables is examined, tapping into various constructs such as beliefs, preferences, attitudes and opinions. The most commonly used survey methods include face-to-face interviews, pen and paper and web-based administration. Thus, no one preferred administration mode is used as its success is dependent on considerations such as the survey content, the target population which the survey intends to use, anonymity and length of the survey, time, labour and other such resources available to conduct the survey (Stapleton, 2009).

According to Salkind (2014), the use of the research method is beneficial to the researcher for the following reasons. Firstly, surveys allow the researcher to get a broad picture of the subject(s) being studied, hence if sampling is done properly, it then becomes fairly easy to generalise to millions of people. Secondly, surveys are efficient in that the data collection phase of the study is completed after only a one contact is made with the respondents. Thirdly, survey can yield remarkably accurate results if administered the right way and with minimal sampling error.

Furthermore, Mae (2015) highlights other benefits of using surveys in a research study.

- **Low costs.** Surveys are found to be cost effective and uses minimal facilities (for example, pen, clipboard and questionnaire)
- **Convenient data gathering.** A variety of ways can be used to administer surveys. Questionnaires can simply be sent via e-mail, fax or administered through the internet.
- **Good statistical significance.** The high representativeness brought about by surveys makes it easier to find statistically significant results than other methods of gathering data. Multiple variables can also be analysed when using surveys.
- **Little or no observer subjectivity.** Surveys are ideal in scientific research as they provide all participants in a study with a standardised stimulus. The high reliability obtained eliminates the researches own biases.

3.2 Population and sample

3.2.1 Population

According to Rahi (2017) a population consists of human subjects or objects in their entireties, which are under investigation. The study population consisted of 5609 registered SMEs in the Ekurhuleni Metropolitan Municipality (EMM). According to The City of Ekurhuleni Integrated Development Plan (2017), Ekurhuleni Metropolitan Municipality is made up of the following towns: Alberton, Bedfordview, Benoni, Birchleigh, Bocksburg, Brakpan, Clayville, Daveyton, Dunnotter, Edenvale, Geduld, Germiston, Katlehong, Kempton Park, Kwa-Thema, Machenzieville, Nigel, Olifanstfontein, Springs, Tembisa, Tokoza, Vosloorus and Vorsterkroon.

3.2.2 Sample

Salkind (2014) defines a sample as a smaller set of the population. Sampling is a process where a section of the population to be investigated, is selected (Rahi, 2017). It is a pragmatic way of studying people and the way they think, act, their attitudes and their relationships are displayed. Thus, the selection of the sample from the population should ensure that the sample represents the population as well as possible (Salkind, 2014). In other words, the sample must be similar to the broader population as much as possible. By ensuring similarity between the two implies that on completion of the research, the findings, based on the sample used, are generalisable to the broader population (Salkind, 2014).

According to Rahi (2017), selecting a sampling method is dependent on the type of research, which may be inclusive of issues pertaining to both theory and practice. Sampling strategies have two major classes, namely probability and non-probability sampling (Salkind, 2014). Probability methods have their foundation on randomness and probability theory principles, contrary to methods of non-probability (Maree *et al.,* 2016).

This study used the systematic random sampling which begins with the random selection of the first sampling point and the following points are chosen evenly or systematically (Rahi, 2017).

Systematic random sampling allows the researcher to draw a probability sample without complete or prior knowledge of the sampling frame (The Federal Committee on Statistical Methodology, FCSM, 2012). According to Maree, *et al.,* (2016) systematic samples tend to be easier to draw as well as execute, therefore the researcher does not have to jump back and forth through the sampling frame to draw the members to be sampled. Since systematic sampling reduces the chances of certain participants being selected, it is therefore less unbiased (Salkind, 2014). Another attractive aspect of systematic sampling is that the method can allow the researcher to draw a probability sample without prior knowledge of the sampling frame (FCSM, 2012).

3.2.3 Sample size

Saunders and Lewis (2012) regard a sample size as the maximum number of participants involved in a study. The size of a sample must statistically be a representation of the broader population. The use of a well-designed probability sampling method ensures better representation by larger samples than smaller samples, thus also ensuring that results will be accurate (Maree *et al*., 2016). The optimum size of the sample is determined by considering requirements of efficiency, reliability, representation and feasibility (Kothari, 2011). Other practical requirements such as cost and time were considered.

The sample size of the study was 384 SMEs, which was derived using Fischer's formula as shown below.

$N=Z^2pq/d^2$

Where:

N=the sample size (for a population greater than 1000)

Z= the normal standard deviation at an identified level of confidence.

p = the proportion of the target population being measured.

q = 1 – p

d = significance level

$N = 1.96^2*(0.5) (1 – 0.5)/ (0.5*0.5)$

$N = 384$

In accordance with the definition of SMEs used for the study and out of the sample size found above, 255 businesses were considered small while 47 businesses considered medium in size.

3.3 Measuring instrument

During research studies, empirical data was gathered with the aid of a measuring instrument (Knapp & Mueller, 2010). The study used the questionnaire as the measuring instrument. Questionnaires contain sets of structured and focused questions (Salkind, 2014) measuring what respondents like, as well as how they feel collectively or as individuals (Rahi, 2017). Questionnaires are time saving because individuals (or groups) can complete them in their own capacity, without the assistance or involvement of the researcher.

Rahi (2017) highlights three main objectives for using survey questionnaires when conducting research when (i) the research data is based on quantitative methods, (ii) the research instruments must be pre-defined, and (iii) analysis of the findings of a sample from the entire population is required by the research work. The questionnaire of this study was divided into three sections. Section A consisted of the respondents' demographics and sectionsB and C included questions relating to financial literacy and financial access, respectively. Open-ended and closed-ended questions were used in section A, while sections B and C rated responses on a 5-point Likert scale, where '1' represented 'strongly agree' and '5' represented 'strongly disagree'. Financial literacy questions were adapted from Eniola and Entebang (2017), while questions on financial access were adapted from The World Bank Survey (2015). Since the questionnaire of the study was adapted from existing instrument, it is therefore considered both reliable and valid.

3.4 Data collection

Primary data was gathered for this study. Primary data is raw, original data used to address a specific objective (Salkind, 2014). Primary data is further defined by Burnham, Lutz, Grant and Layton-Henry (2008), as fresh data without prior analysis or interpretation. It serves to enrich and make the research study believable, hence it is regarded as the most influential technique in quantitative methods (Rahi, 2017).

The survey method was used to gather data, where questionnaires were distributed to the sample frame in the study. By examining the frequency and relationships between psychological and sociological variables, surveys tap into constructs such as beliefs, attitudes, opinions, prejudices and preferences (Salkind, 2014). Developing survey items and appropriate methods of administering surveys so as to obtain quality responses and high response rates, is multifaceted and development statistics are dependent on the subject to be measured and the population target of the survey (Stapleton, 2009). The term ‘survey’ has been used to link various things across people and disciplines. At its core, the term should connote that the administration of the questionnaires has been done to a sample of members from a given population, which the investigator would like to generalise (Stapleton, 2009).

Prior to gathering of data for the main study, a pilot study was carried out. According to Doody and Doody (2015), a pilot study is a smaller variation of a well-defined research study carried out with fewer participants who however, bear similarities to those participating in the larger scale study as a later stage. Thus, by conducting pilot studies, researchers are given the opportunity to test and assess how their planned technique of data collection will be (Doody & Doody, 2015). Anticipated problems can easily be detected by conducting a pilot study, enabling the researcher to implement changes, as well as guide the development of the research plan, ensuring that methods work in practice, while the feasibility of the research process is assessed (Leon, Davis & Kraemer, 2011). Hence, conducting a pilot study permits the researcher to focus and expand or narrow the research subject, thus comprehending the focus of the research well (Denzin & Lincoln, 2013).

A pilot study thus asks the fundamental question of whether a large study is practical (Jeray &Tanner, 2012) and this question is addressed by the answering of other essential questions by the researcher, ahead of conducting a full scale study, in order to avoid unexpected complications (Doody & Doody, 2010). By so doing, Conn, Algase, Rawl, Zerwic & Wyman (2010), and Leon *et al*., (2011) assert that the researcher can then decide whether amendments need to be made to the research design and ensure that intervention or procedural protocols are adhered to prior to conducting a research study on a large scale. This is accomplished by acquiring preliminary data, evaluating methods of analysing data and thorough clarification of financial, equipment and human resources needed.

In light of the above, twenty copies of the questionnaire were distributed to SMEs selected at random in the Ekurhuleni Metropolitan Municipality. The questions resembled those used in the main study. Participants were asked to consent before being briefed on the intent of the study and the survey process. The data from the pilot study was collected and analysed. Necessary amendments to the questionnaire were made, such as rephrasing or omitting ambiguous, leading and personal questions, and the changes were implemented accordingly. The participants of the pilot study however did not take part in the main study and data collected in this regard was excluded so as to avoid bias in the main study.

3.5 Data analysis

The SPSS package ensured accuracy in the analysis of the results of the study. Data was also analysed using descriptive statistics, where the mean and standard deviation were computed. Pie charts and bar graphs were used further to illustrate the results of the descriptive statistics. Factor analysis was also performed, determining which items ‘belonged together’ in terms of them being answered similarly and thus measuring the same factor (Maree *et al*., 2016). The ANOVA test was also used in the analysis of data so as to test the significance of the model of the study in the explanation of the relationship between identified variables at 5% level of significance. To determine the financial literacy-financial access relationship, regression analysis was used. Relationships amongst the variables of the study were highlighted through correlation analysis.

3.5.1 Analytical model

In order to determine the relationship between financial literacy and financial access among SMEs in the Ekurhuleni Metropolitan Municipality, regression analysis was done using the analytical model outlined below.

$$\mathbf{Y=\beta_0 + \beta_1FAC_4 + \beta_2FAC_4 +\beta_3FAC_4+ \beta_4FAC_4+ \varepsilon}$$

Where

Y= Financial literacy

FAC_1 = Business operations

FAC_2 = Source of funds

FAC_3 = Loan convenience

FAC_4 = Government regulations

ε = Erroneous term

3.5.1 Interferential statistics

Generalisations of findings or conclusions drawn from sample data are referred to as statistical inferences. Statistics of this nature rely heavily on probability theory. The analysis of variance tested the model significance measuring the relationship between financial literacy and financial access in the Ekurhuleni Metropolitan Municipality.

3.6 Variables

3.6.1 Independent variable

The independent variable of the study was financial access. Financial access was measured in terms of (i) business operations, (ii) source of funds, (iii) loan convenience, and (iv) government regulations. The *business operation* measure sought to determine the extent to which SMEs were able to access finance. In other words, how easy or difficult was it for SMEs to access finance in the Municipality. The *source of funds* measure assessed the different financing options available to SMEs, where participants highlighted which funding source they mostly used. *Loan convenience* determined how important factors surrounding obtaining a loan from a financial intuition were to the entrepreneurs. Lastly, the government regulations measure looked into government actions that would assist SMEs in readily accessing financing.

3.6.2 Dependent variable

Financial literacy was the dependent variable. Using four parameters, the variable was measured using financial knowledge, financial behaviour, financial attitude and financial awareness. *Financial knowledge* tested entrepreneurs' understanding of basic financial concepts and enquired whether SMEs prepared, reviewed and analysed company financial statements. *Financial behaviour* assessed how well participants managed their finances. *Financial attitude* determined the entrepreneurs' attitude towards spending, saving and investing their finances, as well as their attitude towards life in general. Finally, *financial awareness* evaluated how conscious or aware they were of and whether entrepreneurs comprehended financial products and services offered by financial institutions.

3.7 Reliability and validity

Both reliability and validity pose as crucial elements of instruments of measurement. The following section discusses briefly issues of reliability and validity.

3.7.1 Reliability

Computing reliability precisely is impossible. However, approximating it is accomplished by using of an assortment of measures. Maree *et al.*, (2016) identify four different methods of reliability namely test re-test, equivalent form, split halves reliability and internal consistency.

The study used the internal consistency method to measure reliability. According to Salkind (2014) internal consistency, involves examining the uniformity of items in a test. Items are then evaluated by correlating performances on each of the items with total performance on the test which takes the form of correlation co-efficiency. As the most widely used statistical tool, the Cronbach's alpha determines an instrument's internal consistency (Salkind, 2014). Results of the Cronbach's alpha is a number between 0 and 1, and for an instrument to be considered reliable, the acceptable score is one that is 0.7 and higher (Shuttleworth, 2012). The Cronbach's alpha for the study was 0.771 and this score was considered acceptable as it is above 0.7, also meaning that the instrument used in the study was reliable.

3.7.2 Validity

An instrument is valid once it has measured what it is meant to measure. According to Beins (2013), validity is defined as concepts, property of data or research findings, useful in validating degrees for measuring and understanding a phenomenon. Furthermore, Joppe (2008) explains that validity assesses whether the research truly measures what it purports to measure. Put differently, are the results truthful? Researchers therefore ascertain validity by presenting a range of questions which will be answered by looking into the work of fellow researchers.

Maree *et al*., (2016) highlight four different types of validity, namely face validity, content validity, construct validity and criterion validity. The study used construct validity, which refers to the degree to which an instrument represents the complete contents of the particular construct it seeks to measure. A good construct validity is represented by a factor loading greater than 0.5. Therefore, in this study, constructs where each item had a factor loading of 0.5 or greater were retained, and the remaining constructs with a lesser factor loading were deleted.

Salkind (2014) defines content validity as the extent to which a test represents a universe of items from which it is drawn. Face validity, a subset of content validity, involves expert opinions on whether a given instrument measures the intended concept (Heale and Twycross, 2015). Criterion validity is concerned with either how well a test estimates present performance (called concurrent validity) or how well it predicts (called predictive validity). It therefore measures the extent to which a test is related to some criterion (Salkind, 2014).

The study also ensured face, content and criterion validity of the instrument. Face and content validity were established through a review of draft questionnaires by financial literacy and financial access experts. Based on the pilot study data analysis and feedback from the pilot study and the panel of experts, revisions were made before administering the instrument to the study sample (Salkind, 2014). Criterion validity on the other hand, was ensured by conducting correlations between the instrument of the study and other measuring instruments considered to already possess criterion validity, determining the extent to which different variables measured the same variable (Heale and Twycross, 2015).

3.8 Ethical considerations

Prior to gathering data for the research study, a series of procedures were followed to ensure that the study was conducted in an ethical manner. Firstly, the researcher applied for ethical clearance from the university to carry out the study. Permission to conduct the study was also obtained from the Ekurhuleni Metropolitan Municipality after information regarding the nature, purpose and the benefits of the study was described. Once the ethical clearance was approved and permission granted, participants of the study were then briefed on the overall study and survey process, highlighting also the ethical considerations on which the study was based. These are described below.

- Informed consent from the participants was obtained after explaining to them the purpose, aim and value of the study and the survey process.
- Participants were assured that the information they provided would be treated in a private and confidential manner. Hence, the data was accessible only to the researcher, supervisor and the statistician who agreed to sign a confidentiality

agreement. Anonymity was also used, where the participants' names, identity and company names were not required throughout the data collection process.

- Participation in the study was purely voluntary. Participants were allowed to withdraw at any stage of the data collection process without being penalised or forfeiting any benefits.
- Participants were also informed that by being involved in the study, there would be no benefits or compensations (reward/financial payment) and the participants would not suffer any negative consequences (risks) or potential harm.
- Participants were informed that, upon completion of collecting and analysing data, it would be shredded (if paper-based) and deleted from the system (if computer-based) to ensure that it was permanently destroyed.

3.9 Conclusion

The research methodology of the research study was presented in this chapter. The study adopted a quantitative and descriptive research design aiding the researcher to determine the existence of a financial literacy-financial access relationship. The study population consisted of all registered SMEs in the Ekurhuleni Metropolitan Municipality. The sample size was determined using systematic random sampling and primary data was gathered by administering a self-designed questionnaire. Data was analysed using the SPSS software. Further analysis of data was done using descriptive statistics, factor and regression analyses. The ANOVA and correlations were also computed. The following chapter presents a description of the results of the study.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

Methodological issues were discussed in the previous chapter. This chapter presents and discusses the data analysis results. Data was collected in a survey by means of questionnaires, where the demographics of the respondents were recorded in the first section, while the two subsequent sections required participants to respond to financial literacy and financial access questions. Data analysis was done using descriptive statistics, correlations and regressions. The results from each section are presented and described in this chapter respectively. However, the objectives of the study are restated first.

4.1 Objectives of the study

The primary aim of the research study (see section 1.5) was supported by the secondary objectives mentioned below.

4.1.1 To determine the determinants of financial literacy among SMEs in the Ekurhuleni Metropolitan Municipality.

4.1.2 To determine the indicators of financial access among SMEs in the Ekurhuleni Metropolitan Municipality.

4.1.3 To establish the relationship between financial literacy and SME access to finance among SMEs in the Ekurhuleni Metropolitan Municipality.

4.2 Descriptive statistics

4.2.1 Response rate

From the 384 distributed questionnaires, 311 (N) questionnaires were completed and returned, which translates into an 80.9 % response rate. Incomplete questionnaires were discarded and were not included in the study.

4.2.2 Demographic information

Participant demographics are discussed in the following section below.

4.2.3 Participants' age

According to Table 4.1 below, 14.1% of the participants were below 30 years of age. Just over a third of the respondents were between 30–39 years, accounting for 33.4%. Ages 40–49 years accounted for 27.7% of the respondents, while 19.9% made up respondents between the ages of 50–59 years. Only 4.8% were 60 years and older.

Table 4.1: Age distribution

Age	Frequency	Percentage
Below 30	44	14.1
30–39	104	33.4
40–49	56	27.7
50–59	62	19.9
60 and older	15	4.8
Total	**311**	**100**

Majority of the respondents were between the ages of 30-39. This age group is usually the most active workforce. From the results above, starting and operating businesses seemingly reduces with age. The Global Entrepreneurship Monitor [GEM] states that an increase in entrepreneurship indicates a maturing entrepreneurial population in South Africa. Therefore, the results of the study can safely be said to be a true representation of the current situation in South Africa.

4.2.4 Gender profiles

The results indicated that there were significantly more male (60.1%) than female respondents (39.9%). This is depicted in Figure 4.1 below.

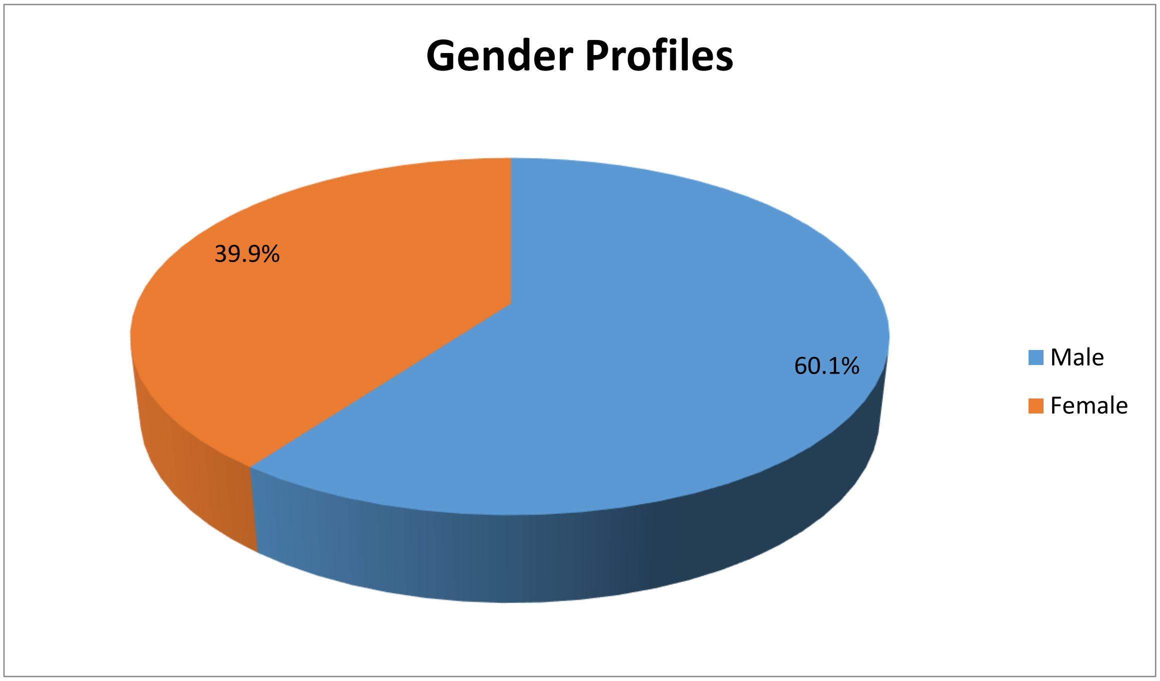


Figure 4.1: Respondents' gender profiles

As shown in the figure above, SMEs in the EMM are male dominated possibly resulting from majority of businesses or types of businesses being regarded as 'male oriented' business such as construction, building and engineering. The GEM (2018) reports that there are likely to be more men than women involved in entrepreneurial activity, regardless of economic development, reflecting how differences in customs and cultures have an effect on the participation of the female gender in the economy. This may indicate that significantly more males are resorting to creating their businesses, therefore curbing unemployment as well as contributing to the economy in general.

4.2.5 Level of education

The education levels used in the study ranged from 'no education' to 'postgraduate degree'. Figure 4.2 below indicates that most respondents had attained a diploma or certificate and these accounted for 28.6% of total respondents. Those who had a university degree accounted for 24.8% of respondents. Standard 10 or Grade 12 made up 24.1% of respondents, while Standard 9 or Grade 11 and Standard 8 or Grade 10 accounted for 8% and 6.1% respectively. While 5.1% held a post-graduate degree, 0.3%

of the respondents had no education. From the results above, it seems that participants had fairly adequate and relevant knowledge regarding financial literacy and financial access and were likely to respond to questions with ease and fair accuracy.

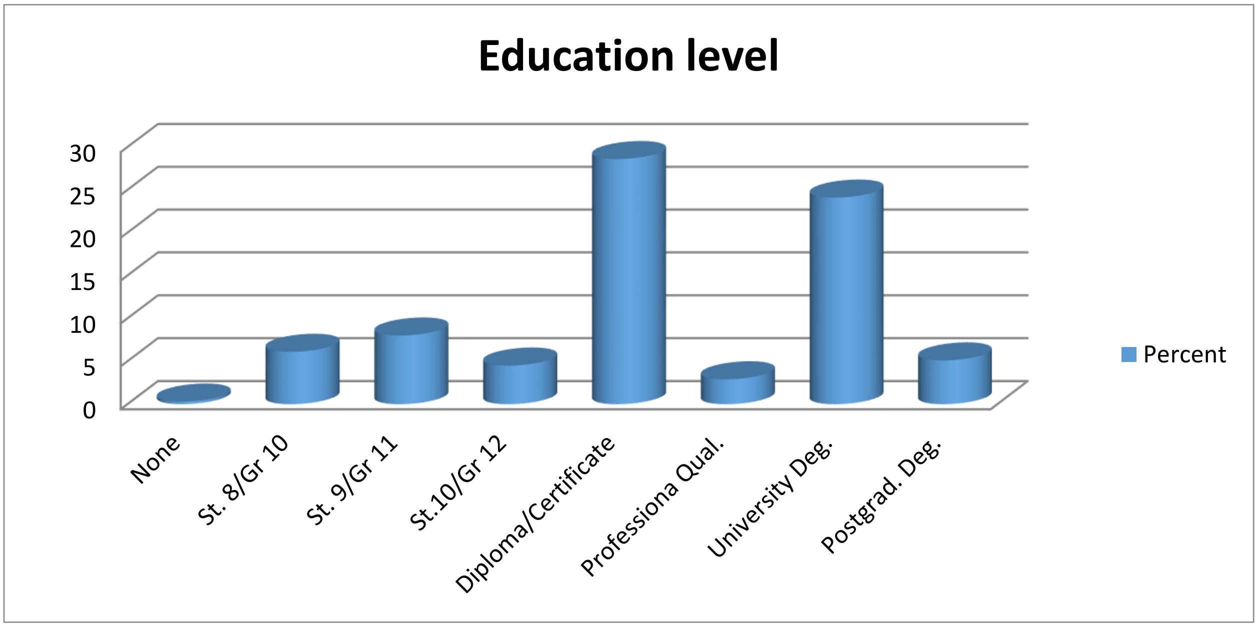


Figure 4.2: Education level

4.2.6 Owner or manager profile

Participants were either SME owners or managers. Accordingly, 56.3% of respondents were recorded as owners, while the remaining 43.75% were managers.

4.2.7 Firm legal status

Table 4.2 below shows the legal status of the firms. Private companies accounted for 61.4% of total respondents, 14.1% accounting for partnerships. Sole proprietors made up 12.9% and 4.8% represented franchises. Limited partnerships, non-profit making organisations, as well as ‘other’ types of firm legal status, each accounted for 2.3% of total respondents.

Table 4.2: Firm legal status

Firm legal status	Frequency	Percentage
Sole proprietor	40	12.9
Private company	191	61.4
Partnership	44	14.1
Limited partnership	7	2.3
Franchise	15	4.8
NPO	7	2.3
Other	7	2.3
Total	**311**	**100**

4.2.8 Business operation

Business operation in the study relates to the number of years the business has been operational. The number of years of operation ranged from 2 years to more than 10 years. Table 4.3 indicates that a majority of 26.7% entities have been in operation for more than 10 years, while 24.8% accounted for businesses having operated for between 6 and 10 years. A total of 21.5% represented 4–5-year-old businesses, while 19.6% represented business entities operational for 2–3 years. Less than 2 years in operation, accounted for 7.4% of total businesses.

Table 4.3: Business operations

Number of years	Frequency	Percentage
Less than 2 years	23	7.4
2–3 years	61	19.6
4–5 years	67	21.5
6–10 years	77	24.8
More than 10 years	83	26.7
Total	**311**	**100**

4.2.9 Annual turnover

From Figure 4.3 below, the majority of businesses had an annual turnover of up to R50 000, making up 48.6 % of total respondents. A total of 19.3% of respondents represented those businesses with a turnover of between R50 001–R100 000. Participants' businesses that made R500 001 and above accounted for 8%, while 6.1% accounted for those in the range of between R100 001–R200 000. Bands of between R200 001–R300 000 and R300 001–R400 000 accounted for 7.4% and 7.1% of respondents respectively, while only 3.5% of business had an annual turnover of between R400 001–R500 000.

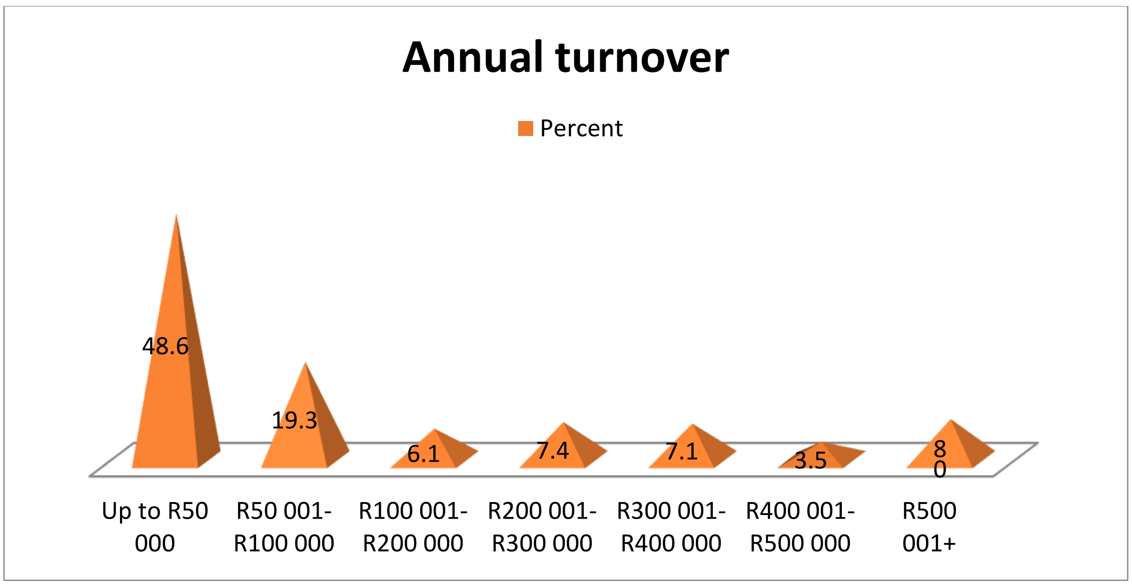


Figure 4.3: Annual turnover

Overall, demographic data collected from participants revealed that more SMEs were owner-run than manager-run. Most respondents were aged between 30–39 years and there were significantly more male participants in relation to the female participants. The majority of respondents held a certain level of education, with most being in possession of a diploma or certificate. More than half of the businesses (51.5%) had been in operation for more than 6 years. An annual turnover of up to R50 000 was represented by majority of the businesses and the number of employees varied, ranging from one employee to just more than 200 employees. The following section highlights the reliability and validity of the scale and provides a description of the financial literacy and financial access results respectively.

4.3 Reliability and validity of scale

Prior to discussing reliability and validity issues, the variables used to measure financial literacy and financial access of the study in the subsequent sections, are highlighted in Table 4.4 below.

Table 4.4: Financial literacy and financial access variables

Abbreviation	**Variable name**
FK	Financial knowledge
FB	Financial behaviour
FAT	Financial attitude
FA	Financial awareness
FAC_1	Financial access (business operations)
FAC_2	Financial access (source of funds/working capital)
FAC_3	Financial access (loan convenience)
FAC_4	Financial access (government regulations)

4.3.1 Factor analysis

Factor analysis was performed on a set of items producing a factor loading matrix as its primary output, which consisted of a separate factor loading for each item (Maree *et al*., 2016). Table 4.5 below shows the results found from the Bartlett's test of sphericity and the KMO value. The KMO had a value of 0.811. The p-value of Bartlett's test ($p = 0.000$) which is less than the 0.05 is significant at the 99% confidence level. These results show that the structure of constructs of the correlations is adequate to perform factor analysis on the items.

Table 4.5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.811
Bartlett's test of sphericity	Approx. Chi Square	4143.444
	Df	496
	Sig.	0.000

Df: Degrees of Freedom

Sig: Significance

The results of factor analysis for the constructs of the study were determined using Principle Component Analysis (PCA) as highlighted in Table 4.6 below. Eight dimensions were identified as separate factors for both financial literacy and financial access.

Table 4.6: Factor loadings

	Rotate component matrix[a]							
	Component							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
B1	0.682							
B3	0.819							
B4	0.878							
B5	0.813							
B6				0.785				
B7				0.821				
B8				0.756				
B9				0.728				
B11								0.729
B12								0.755
B17		0.711						
B18		0.720						
B19		0.683						

B20		0.740						
B21		0.771						
C23							0.764	
C24							0.815	
C27						0.515		
C28						0.752		
C29						0.796		
C30						0.698		
C31			0.576					
C32			0.532					
C33			0.696					
C34			0.694					
C35			0.743					
C36			0.687					
C37			0.626					
C38					0.766			
C39					0.581			
C40					0.788			
C41					0.771			

Extraction method: Principle Component Analysis

a**.** Rotation converged in six iterations

Factor analysis showed that 30 items were loaded onto eight different factors. Relevant items were loaded onto the different factors. Factors one and two were named *financial knowledge* and *financial awareness,* respectively, as four out of five and five out of five items expected to measure the factors had significant loadings respectively. Factor three was named *loan convenience* as seven out of seven items expected to measure the factor loaded significantly. A fourth factor was named *financial behaviour* as four out of items measuring this factor loaded significantly together. The fifth factor was named *government regulations* as four out of four items expected to measure the factor had significant loadings. Factor six was named *source of funds or working capital,* where four out of seven items measuring the factor had significant loadings. Factor seven was named *business operations* as two out of three items measuring the factor loaded significantly together and the eighth factor was named *financial attitude* with two out of five items expected to measure the factor had significant loadings. Insufficient loadings of items onto a factor below 0.5 were removed from further analysis in order to ensure the measuring instrument (questionnaire) construct validity. Therefore, factor loadings of the items showed construct validity of the measuring instrument as a sufficient number of items loaded onto the factors were above 0.5. Table 4.7 below highlights the component matrix resulting from factor analysis.

Table 4.7: Communalities

Variable	**Extraction**
FK	0.878
FB	0.821
FAT	0.755
FA	0.771
FAC_1	0.815
FAC_2	0.796
FAC_3	0.743
FAC_4	0.788

Extraction Method: Principal component analysis.

The component matrix shows that financial knowledge with a value of 0.878 was the highest variable considered, followed by financial behaviour with a value of 0.821. The highest values indicate positive variance of variables.

PCA was used in the study as the extraction method, therefore the total percentage of variance and cumulative percentage columns resemble the first eight components in the eigenvalues computed initially. Hence the cumulative variance explained by the factors is depicted in Table 4.8 below.

Table 4.8: Total variance explained

Component	Initial eigen-values		
	Total	% of variance	Cumulative %
1	5.781	18.067	18.067
2	4.366	13.644	31.711
1	2.438	7.618	39.239
4	2.093	6.540	45.869
5	1.696	5300	51.169
6	1.384	4.326	55.495
7	1.316	4.114	59.608
8	1.244	3.888	63.493

The table above reveals that the eight components with eigen-values greater than one account for 63.49% of the cumulative variance. It can be noted that the number of factors initially used in the total variance explained is the same as the variables used in factor analysis.

After factor analysis was performed, the internal consistency of the constructs was determined. To check the internal consistency of the constructs, the Cronbach's alpha (α) which is based on the inter-items correlations, was used. According to Shuttleworth (2012), an instrument is considered reliable when the score is one that is 0.7 and higher. Table 4.9 below shows those constructs which were reliable, however the construct Financial Attitude (FAT) was excluded from the table as it was not reliable (α<0.60).

Table 4.9: Cronbach's reliability coefficient.

Scale items	Items	Cronbach(α)
Financial knowledge	4	0.897
Financial behaviour	5	0.794
Financial attitude	7	0.831
Business operations	4	0.714
Source of funds	4	0.695
Loan convenience	2	0.780
Government regulations	2	0.729
Total average	**30**	**0.771**

The Cronbach's alpha for the study, as shown in Table 4.9 above, was 0.771. As this score is higher than the acceptable score of 0.7, it therefore implies that the measuring instrument of the study was reliable. The following section presents the descriptive results of the research questions of the study on financial literacy and financial access.

4.4 Financial literacy and financial access.

Participants of the study were asked to respond to several statements regarding financial literacy and financial access concepts, indicating the extent of agreement or disagreement with each statement. A 5-point Likert scale was used, where '5' represented 'strongly agree', and '1' represented 'strongly disagree'. The subsequent sections present the results of the descriptive statistics of the research questions of the study.

4.4.1 Research question 1: Results

The following section presents results of the first research question. The benefits of receiving financial education include consumers knowing what questions to ask when dealing with financial institutions, being able to handle complicated financial products and knowing to whom to complain when they are experiencing problems with financial institutions (Tamaki, 2011). Therefore, Table 4.10 below seeks to establish the extent to which SMEs had knowledge of financial concepts.

Table 4.10: Financial knowledge of SMEs

	Mean	Std. deviation
B1. I understand basic financial concepts	3.40	0.909
B2. We prepare monthly company financial statements (income statement and balance sheet).	3.63	0.994
B3. We review monthly financial statements.	3.20	1.085
B4. We perform financial analysis on monthly financial statements.	2.92	1.058
B5. We have an understanding of the company's gross profit ratio and its contribution to the overall profit.	2.90	1.223
Financial knowledge average	**3.22**	**0.870**

From Table 4.10 above the mean values of 3.40 indicate that SMEs neither agreed nor disagreed on their understanding of basic financial concepts, meaning they were uncertain if they had that basic knowledge of the financial concepts. On the other hand, the mean values of 3.63 meant that respondents agreed that financial statements of the company were prepared on a monthly basis. The extent of agreeing to the above statement simply shows that some of the respondents were fully aware of what monthly financial statements are with regard to the notion of putting that into practise. These results were, however, inconsistent with the findings of Tadesse (2014), where MSEs prepared substandard or no financial statements at all. The following values of 3.20, 2.92 and 2.90 indicate that respondents were also uncertain regarding the reviewing of financial monthly statements and performing financial analysis monthly. The notion of not practising is an indicator that SMEs did not have an adequate level of financial literacy.

The overall mean score value of 3.22 means that on average SMEs neither agreed nor disagreed, leading to the implication that SMEs are not fully aware of basic financial concepts. These results were consistent with findings of Lusardi, Mitchell and Curto (2010), where less than a third of the participants of the study possessed basic knowledge of financial concepts. However, Musie (2012) in his study found that the majority of SMEs had knowledge of basic concepts of financial literacy in the management of their business finances. The following section shows the financial literacy of respondents measured against their financial behaviour.

Table 4.11: The financial behaviour of respondents

	Mean	Std. deviation
B6. I always budget my money before spending it.	4.21	0.946
B7. Before I buy something, I carefully consider whether I can afford it.	4.29	0.891
B8. I pay my bills on time.	4.47	0.726
B9. I keep a close personal watch on my financial affairs.	4.61	0.667
B10. I set long-term financial goals and strive to achieve them.	4.60	0.706
Financial behaviour average	**4.39**	**0.700**

The mean scores of 4.21, 4.29 and 4.47 indicate that on average respondents agreed that they always budget money before spending it, considered whether something was affordable before purchasing it and also paid their bills on time. The standard deviations of 0.946, 0.891 and 0.726 respectively, indicate a homogenous response, which means almost all the SMEs agreed on practising the above financial behaviours.

The mean values of 4.61 and 4.60 show those SMEs respondents that strongly agreed that they monitored their finances closely and set financial goals which they ensured they met. The standard deviations of 0.966 and 0.706, which is less than 1, indicate homogenous responses (i.e. similar) from all the respondents.

The overall mean value of 4.39, which is highly positive (agree), shows that the majority of SMEs in Ekurhuleni had positive practices regarding financial behaviours. The above discussion reveals that financial literacy and the resultant financial access may lead to positive financial behaviour, and it is therefore important to consider the overall effect of financial education on financial behaviour. The effect of receiving financial education may be indicated by increased savings, reduced debt and consumers reaching their financial goals. The subsequent table indicates the respondents' financial literacy measured against their attitudes.

Table 4.12: Respondents' financial attitude

	Mean	Std. deviation
B11. I find it more satisfying to spend money than to save it for the long term.	2.73	0.753
B12. I tend to live for today and let tomorrow take care of itself.	2.54	1.075
B13. Money is there to be spent.	2.67	1.030
B14. I am prepared to risk some of my own money when saving or making investments.	4.25	0.770
B15. I have a tendency to initiate and act proactively.	4.41	0.712
Financial attitude average	**1.88**	**0.778**

The mean values of 2.73, 2.54 and 2.67 indicate that respondents neither agreed nor disagreed (uncertain) on whether they were satisfied with spending rather than saving money for the future, lived for the moment and were not worried about tomorrow, and that the sole purpose of money is to spend it. The uncertainty implies that SMEs in Ekurhuleni have an attitude of mismanaging their funds and are seen to formulate and implement uninformed financial decisions. The standard deviations of 1.075 and 1.030 are more than 1 indicating heterogeneous (different) responses. This means that not all SME respondents were using or applying the same concept of financial management in their businesses.

Furthermore, the values of 4.25 and 4.41, means respondents agreed that they were willing to channel their finances towards saving and investing and were inclined to be proactive.

The overall mean value of 1.88 means that, on average, SME respondents disagreed and thus portrayed negative financial attitudes. Eniola and Entebang (2017), however found that entrepreneurs' characteristics with regard to decision-making and financial attitude could be comparable with financial literacy. The following table shows the results, indicating SME financial awareness.

Table 4.13: Respondents' financial awareness

	Mean	Std. deviation
B16. We are capable of understanding and handling various financial mix strategies.	2.96	1.122
B17. We are aware of different external service providers.	3.96	0.763
B18. We are aware of the various financial product offerings by financial institutions.	4.07	0.695
B19. We understand the products offered by financial institutions.	3.27	0.887
B20. We use the products offered by financial institutions to avoid problems.	3.32	0.930
Financial awareness average	**3.78**	**0.833**

The mean value of 2.96 points out that SME entrepreneurs neither agreed nor disagreed (uncertain) if they were capable of understanding and handling various financial mix strategies. The standard deviation of 1.12 was more than 1, indicating there were heterogeneous responses from the SME entrepreneurs.

The values of 3.96 and 4.07 indicate that on average respondents agreed that they were aware of different external service providers and of the various financial products offered by financial institutions. The standard deviations of 0.763 and 0.695 are less than 1, which means there were homogeneous (similar) responses from the entrepreneurs.

At the same time the values of 3.27 and 3.32 show that the respondents were uncertain of whether they could comprehend financial products and whether they could maintain these financial products with the financial institutions. In the study by Eniola and Entebang (2017), the results revealed that financial awareness, as a measurement of financial literacy, was not a pre-requisite to overall firm performance.

It is quite visible that the majority of SME entrepreneurs in the Ekurhuleni Metropolitan Municipality had not fully grasped the idea of financial management, and this is seen by majority of them having little knowledge of using some basic financial management concepts like preparing and reviewing monthly financial statements. The idea of not using the above concepts is an implication that most of these SMEs are operating under financial illiteracy.

Fatoki and Asah (2011) say that financing is necessary for the creation and expansion of operations, development of novel products and in the investment of new staff. However, financial knowledge, awareness and attitudes have been identified as some of the obstacles that have hindered entrepreneurs from accessing the finance they need for them fully to operate their businesses for economic development. The following section presents the result of the second research question of the study.

4.4.2 Research question 2: Results

The table below shows the results found for financial analysis in terms of business operations.

Table 4.14: SME financial access in terms of business operations

	Mean	Std. deviation
C22. Access to finance is a major obstacle for our current business operations.	4.46	0.893
C23. We have easy access to finance to support business operations.	1.31	0.622
C24. Our business operations are better financed than our key competitors' operations.	1.57	0.792
Business operations	**1.43**	**0.628**

The mean value of 4.46 above shows that SME entrepreneurs strongly agreed that their businesses regarded financial access as a major obstacle. The standard deviation of 0.893 indicates homogeneous responses. The values 1.31 and 1.57 show that the respondents disagreed that they easily accessed finances which supported their business and that they had better access to finance than other businesses in the municipality. This implies that the majority of SMEs in Ekurhuleni have a problem to accessing funds in their business operations. The results above are consistent with those of Chimucheka and Rungani (2011), and Fatoki (2014) who indicate that access to finance was a major constraint for SMEs in the respective areas under study. The following table shows results of financial access in terms of sources of funds or working capital.

Table 4.15: SME sources of funds/working capital

	Mean	Std. deviation
C25. Internal funds or retained earnings	3.79	1.075
C26. Owners contributions or issued new equity share	3.92	1.094
C27. Borrowed from bank (private and state owned)	2.89	1.314
C28. Borrowed from non-bank financial institutions (micro-finance, credit unions and credit corporations)	2.32	1.172
C29. Purchases on credit from suppliers and advances from customers	1.65	0.965
C30. Business angels, venture capital	1.66	0.936
C31. Other (money lenders, friends, family, bonds)	2.62	1.547
Sources of funds	**2.48**	**1.072**

The table above shows the sources of funds SMEs are using to access their funds. The mean values of 3.79 and 3.92 show that on average SME entrepreneurs' source of funding is through internal funds and retained earnings. However, the standard deviations of 1.075 and 1.09 show that there were differences in responses among the SMEs. The majority of micro-enterprises (33.8%) highlighted in the study by Tadesse (2014), also revealed a high reliance on internal funds as their primary source of finance.

At the same time the mean values of 2.89 and 2.62, indicate that SMEs neither agreed nor disagreed that they sourced bank funds (private and state owned) and other sources (money lenders, friends, family, and bonds). The standard deviations of 1.31 and 1.54

indicate differences in responses. However, the respondents disagreed, as seen by the values of 2.32, 1.65 and 1.66, that they borrowed from non-bank financial institutions (micro-finance, credit unions, credit corporations), purchased on credit from suppliers, took advances from customers and used business angels and venture capital. The above findings are also consistent with the findings of Tadesse (2014), where very few micro-enterprises borrowed from bank and non-bank financial institutions, which imply that the ese financial institutions were not willing to lend to these micro-enterprises due to an absence of collateral for the specified period. The standard deviations of 1.17 and 1.54 indicate differences in responses. The average mean value of 2.48 means that most of the entrepreneurs do not have proper sources of funding, which then hinders their access to funds to operate their businesses.

Table 4.16: SME loan convenience

	Mean	Std. deviation
C39. Convenient location of financial institution	4.05	0.796
C40. Quick processing of loan	4.77	0.517
C41. Staff efficiency (quality of service)	4.13	0.786
C42. Low interest rates	2.72	0.558
C43. Convenient repayment period.	2.57	0.648
C44. Absence of requirement for fixed property as collateral	4.29	0.839
C45. Availability of financial services from the same financial institution	4.13	0.857
Loan convenience	**3.37**	**0.646**

The mean values of 4.05 and 4.13 indicate that, on average, SME entrepreneurs agreed that convenient location of financial institutions and availability of financial services from the same financial institution were of importance. The standard deviation of 0.796 and 0.857 were lower than 1, indicating a homogenous nature of responses (similar).

The SMES also agreed on the importance of staff efficiency (quality of service) and the absence of the requirement for fixed property as collateral as seen with the mean values of 4.13 and 4.29 respectively. Furthermore, they strongly agreed that the quick processing of loans is imperative, as seen with the mean value of 4.77. Findings by Tadesse (2014) also revealed that respondents agreed on the absence of collateral being a requirement for financing and that short loan processing times were of importance. The standard deviation of 0.517 is less than 1, indicating a homogeneous nature of responses. However, the mean values of 2.72 and 2.57 showed that SMEs neither agreed nor disagreed on the importance of low interest rates charged and convenient repayment periods.

The average mean value of 3.37 shows that on average respondents neither agreed nor disagreed (uncertain) on whether financial institutions offered convenient services when accessing loans. The following table shows financial access in terms of government regulations.

Table 4.17: Government regulations

	Mean	Std. deviation
C46. Lowering taxes	4.30	1.006
C47. Simplification of the registration process	3.65	1.237
C48. Government loans	4.14	1.105
C49. Subsidies to keep employees on the payroll	3.58	1.204
Government regulations	**3.92**	**1.048**

The mean value of 4.30 indicates that SMEs agreed that one of the government regulations for them to have access to proper finances would be the lowering of taxes. The standard deviation of 1.006, which is more than 1, indicates heterogeneous responses, meaning there were differences in responses. The mean value of 3.65 also indicates that respondents agreed that if the government simplifies the registration process, it would be simple for them to access the finances. They also agreed that getting government loans would allow them to have access to finances. Lastly, subsidies to keep employees on the payroll were perceived to be an added advantage to that. The standard deviations of 1.237, 1.105 and 1.204 are more than 1, indicating heterogeneous responses, meaning there were differences in responses. Tadesse (2014) concurs with the above results and emphasises the need for government regulations to be eased to improve the chances of accessing finance by entrepreneurs. Table 4.18 below thus summarises the maximum, minimum, mean and standard deviation for each of the variables of the study.

Table 4.18: Descriptive statistics

	Minimum	**Maximum**	**Mean**	**Std. deviation**
Financial knowledge	1.00	5.00	3.22	0.939
Financial behaviour	1.75	5.00	4.39	0.639
Financial attitude	1.00	4.00	1.88	0.760
Financial awareness	1.20	5.00	3.78	0.630
Business operations	1.00	5.00	1.43	0.627
Source of funds	1.60	4.00	2.48	0.574
Loan convenience	2.14	5.00	3.37	0.484
Government regulations	1.00	5.00	3.92	0.844

The table above is a summary of the descriptive results. It revealed that SMEs neither agreed nor disagreed, meaning they had uncertainties regarding some of the basic concepts of financial management. However, the mean value of 4.39 for financial behaviour was positive, showing that the majority of SMEs were positive regarding their financial behaviours. As such, Atkinson and Messy (2012) state that by combining knowledge, behaviour, awareness, attitude and skill, individuals are able to make sound decisions concerning their finances.

The summary also showed that SMEs had negative responses regarding the financial access in terms of their business operations as seen by the mean value of 1.43, which reveals that most respondents disagreed that they had easy access to finance to support their businesses and that they are better financed than key competitors. The mean value of 2.48 also indicates that on average SMEs neither agreed nor disagreed to having accessible sources of funds. Loan convenience had a mean value of 3.37 showing that on average SMEs were uncertain regarding the loan convenience as a factor of financial access. Lastly, government criteria also hindered them to have access to finances.

4.5 Correlation analysis

Factor analysis was performed to determine items ‘belonging together’, which required that similar answers, and as a result, measuring a similar dimension (Maree *et al.*, 2016). Eight constructs of the study were used to conduct factor analysis within the principal factor analysis consisting of varimax rotation to determine differences among the constructs. The results consist of the eight factors that have eigen-values greater than 1.0 and these accounted for 63.4% of total variances. For a construct to be retained, it must have a load of more than 0.05 and any variable with less than the desired load would be deleted. A factor loading greater than 0.5, shows good construct validity and convergence of the individual constructs (Chiyangwa, 2016). The Pearson’s correlations for the study are depicted in Table 4.19 below.

Table 4.19: Pearson’s correlations

Variable	FK	FB	FAT	FA	FAC_1	FAC_2	FAC_3	FAC_4
FK	1	-	-	-	-	-	-	-
FB	0.100	1	-	-	-	-	-	-
FAT	-0.245**	-0.184**	1	-	-	-	-	-
FA	0.589**	0.123**	-0.222**	1	-	-	-	-
FAC_1	0.204**	-0.237*	0.042	0.155**	1	-	-	-
FAC_2	0.186**	-0.133**	0.060	0.128**	0.212**	1	-	-
FAC_3	0.709	0.220**	-0.072	0.103	-0.141*	-0.067	1	-
FAC_4	0.104	0.114*	-0.168**	0.063	-0.126*	-0.130*	0.245**	1

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

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

*Correlation is significant at the 0.10 level (2-tailed)

The correlation table shown above reveals that financial knowledge is positively correlated with financial behaviour. This is seen by the Pearson value of 0.10 which is below the confidence level of 0.50, and a p-value of 0.07 which is higher than the 0.05 level of significance, resulting in a non-significant relationship. Also the value of -0.245 revealed that financial knowledge and financial attitudes were negatively correlated. However, the p-value indicates the existence of a significant relationship between the two variables at the 5% level. Financial knowledge and business operations (financial access) affected the ability of SMEs to source funds. Financial knowledge was also positively correlated with FAC_2, FAC_3 and FAC_4.

Financial behaviour was found to be positively correlated with financial knowledge, financial awareness, FAC_3, and FAC_4, but was however negatively correlated with financial attitude, FAC_1, FAC_2 with Pearson values of -0.184, 0.237, and 0.133 respectively.

Financial attitude was found to be positively correlated with FAC_2 with a Pearson value of 0.042 and FAC_2 with a Pearson value of 0.060. However, the relationships between the variables were found to be non-significant. FAT was however negatively correlated with FA, FAC_3 and FAC_4. However, the p-values of FA and FAC_4 indicated the existence of significant relationships between the variables at the 5% level.

Financial attitude is positively correlated with all the financial access variables as seen in the table above, where the Pearson values were 0.155, 0.125, 0.103 and 0.603 respectively.

FAC_1 was positively correlated with FAC_2, but a negative correlation was found with FAC_3 and FAC_4, as shown by the Pearson values of -0.141 and -0.126.

A negative correlation was found between FAC_2, and FAC_3 and FAC_4 as shown by the Pearson values of -0.067 and -0.130 respectively. A significant relationship was however found between FAC_2 and FAC_4 at the 10% level.

Lastly, FAC_3 was positively correlated with FAC_4, where the Pearson value was 0.245. The p-value, however of 0.08, which is higher than the 0.05 significance level, resulted in a non-significant relationship between the two variables.

The results of the regression analysis are presented in the following section.

4.6 Regression analysis

To determine to what extent the independent variable (financial literacy) affects the dependent variable (financial access), a regression analysis was conducted on all four constructs of financial access, namely business operations, source of funds, loan convenience and government regulations. The following tables depict the results of the regression analysis (regression co-efficient), ANOVA, as well as the model summary of each of the financial access constructs.

4.6.1. Business operations

Table 4.20 below is an extraction of the model summary from the regression analysis. The model has an adjusted R-square value of 11.6%, which means that financial literacy (financial knowledge, financial behaviour, financial attitude and financial awareness), account for 11.6% of the variance in the financial access in terms of business operations. Only 88% of the remaining variables are not accounted for in the model of the study. The subsequent table highlights the relationship between the variables.

Table 4.20: Model summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.341[a]	0.116	0.105	0.59416	0.116	10.047	4	306	0.000	1.788

a. Predictors: (Constant), FA, FB, FAT, FK
b. Dependent Variable: FAC_1

The ANOVA findings at a 5% significance level show that the F statistic calculated is 10.047, with F critical at 0.338 as shown in Table 4.20 below. Since the calculated F value is greater than the F critical value (10.047 > 0.3338), the overall model was thus significant, meaning that financial literacy and access to finance through business operations are significantly related. The p-value of 0.000 indicated a significant relationship between financial literacy and financial access in terms of business operations.

Table 4.21: Analysis of variance[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.188	4	3.547	10.047	0.000[b]
	Residual	108.026	306	0.353		
	Total	122.214	310			

a. Dependent Variable: FAC_1
b. Predictors: (Constant), FA, FB, FAT, FK

After checking the fitness of the model, it is of relative importance to check each independent variable in predicting the dependent variable. If R squared is to be the explanation power of the regression model and beta value on the determinants of financial literacy, for every unit increase in the predictor value, the outcome variable (financial access) will increase by 11 units. Hence, there was a positive 11% increase of financial access with every unit of financial literacy added.

Considering the coefficient beta value of 0.194 for financial knowledge increase, there is an increase of 19 units only in financial access in terms of business operations, which in the case above is positive, but low. At the same time, the p-value of 0.004 supports the significant relationship of the two variables.

Also, the coefficient value of -0.256 shows that the association between financial behaviour and SME financial access is low and negative. The p-value of 0.000, however, indicates a significant relationship between financial behaviour and financial access in terms of business operations by SMEs. For every unit reduction in financial behaviours among SME entrepreneurs, there was a 25-unit decrease to financial access in business operations.

The next value of 0.061 implies that there was 6% unit increase of financial access in business operations with every unit of financial literacy in terms of financial attitude. The value indicates a very low positive correlation that occurred between financial attitude and financial access. The p-value of 0.278 shows a non-significant association between financial attitude and financial access in terms of business operations. Lastly, the beta value of 8% implies that there was 8% increase in financial access with every unit increase in financial awareness. The p-value of 0.201 indicates no significant relationship between awareness and financial access. The above results are shown in Table 4.22 below.

Table 4.22: Coefficients[a]

Model		Unstandardized coefficients		Standardised coefficients	T	Sig.	95,0% Confidence interval for B		Collinearity statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.702	0.338		5.040	0.000	1.037	2.366		
	FK	0.130	0.045	0.194	2.892	0.004	0.041	0.218	0.639	1.564
	FB	-0.251	0.054	-0.256	-4.657	0.000	-0.357	-0.145	0.959	1.043
	FAT	0.051	0.047	0.061	1.088	0.278	-0.041	0.142	0.907	1.102
	FA	0.085	0.067	0.086	1.281	0.201	-0.046	0.217	0.644	1.552

a. Dependent variable: FAC_1

The model explanation above concludes that financial knowledge with the highest beta value of 0.194 and p-value of 0.004 had the highest influence on financial access in terms of business operations compared to the other remaining determinants, although it was a low positive correlation. Therefore, a significant relationship exists between financial literacy and access. However, the beta value showed a low positive correlation, which meant that most SMEs had not fully understood financial management knowledge.

The next table seeks to establish the presence of a relationship between financial literacy and financial access in terms of sources of funds.

4.6.2. Source of funds or working capital

The table below is an extraction of the model summary from the regression analysis. The model has an adjusted R square value of 58.9%, which means that financial literacy (financial knowledge, financial behaviour, financial attitude and financial awareness), accounts for 11.6% of the variance in financial access in terms of sources of funds. Only 41% of the variables remaining are not accounted for in the model of the study.

Table 4.23: Model summary[b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	.298[a]	0.589	0.477	0.55238	0.089	7.461	4	306	0.000	1.893

a. Predictors: (Constant), FA, FB, FAT, FK
b. Dependent Variable: FAC_2

The ANOVA findings at 5% significance level show that the F statistic calculated is 7.761, with F critical at 0.338. The F value calculated is greater than the F critical value (7.761>0.338), hence, the overall model was thus significant, revealing a significant relationship between financial literacy and access to finances through sources of funds. The p-value of 0.000 indicated that financial literacy and financial access in terms of sources of funds were significant. Findings of the ANOVA are highlighted in the table below.

Table 4.24: Analysis of variance[a]

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	9.106	4	2.276	7.761	0.000[b]
	Residual	93.367	306	0.305		
	Total	102.473	310			

a. Dependent variable: FAC_2
b. Predictors: (Constant), FA, FB, FAT, FK

After checking the fitness of the model, there is relative importance to check each independent variable in predicting the dependent variable. If we take the value of R squared to be the explanation power of regression model and beta value on the determinants of financial literacy, for every unit increase in the predictor value, the outcome variable (financial access) will increase by 58 units. Thus, there was a positive 58% increase of financial access with every unit of financial literacy added.

Considering the coefficient beta value of 0.212 for financial knowledge increase, there is an increase of 21 units only in financial access in terms of sources of funds. At the same time the p-value of 0.003 supports the significant relationship between the two variables. Also, the coefficient value of -0.149 shows a low negative correlation between financial behaviour and financial access by SMEs. The p-value of 0.008 indicates a significant relationship between financial behaviour and financial access in terms of sources by SMEs. For every unit of reduced financial behaviours among SME entrepreneurs, there was a 14 unit decrease to financial access in terms of sources of funds. The next value of 0.103 implies that there was a 10% unit increase in financial access in terms of sources of funds with every unit added of financial literacy in terms of financial attitude. A very low positive correlation was therefore found between financial attitude and financial access to sourcing of funds. The p-value of 0.074 shows that there was no significant relationship between financial attitude and financial access in terms of sources of funds.

Lastly, the beta value of 0.393 implies that there was 39% increase in financial access for every unit increase in financial awareness in terms of sourcing of funds. The p-value of 0.000 indicates significant relationship between awareness and financial access to the source of funds. The coefficients of the second financial access variable are shown in the table below.

Table 4.25: Coefficients[a]

Model		Unstandardised coefficients		Standardised coefficients	t	Sig.	95,0% Confidence Interval for B		Collinearity statistics	
		B	Std. error	Beta			Lower bound	Upper bound	Tolerance	VIF
1	(Constant)	2.041	0.314		6.502	0.000	1.423	2.659		
	FK	0.069	0.042	0.212	1.648	0.003	-0.013	0.151	0.639	1.564
	FB	-0.134	0.050	-0.149	-2.677	0.008	-0.233	-0.036	0.959	1.043
	FAT	0.078	0.043	0.103	1.795	0.074	-0.008	0.163	0.907	1.102
	FA	0.176	0.062	0.393	2.835	0.000	0.054	0.298	0.644	1.552

a. Dependent Variable: FAC_2

The results found by Chimucheka and Rungani (2011) concur with those highlighted above. The authors established that a lack of bank finance, coupled with a lack of knowledge of financial management, significantly affected the ability of SMEs to survive. SMEs were thus encouraged to consider alternative sources of finance, as well as being responsible for gaining the necessary financial knowledge and skills.

The next table shows the relationship between financial literacy and financial access in terms of loan convenience.

4.6.3. Loan convenience

Table 4.26 below is the model summary extracted from the regression analysis. With an adjusted R square value of 15.5%, the model shows that financial literacy (financial knowledge, financial behaviour, financial attitude and financial awareness) account for 15.5% of the variance in the financial access in terms of loan convenience. Only 84.5% of the remaining variables are not accounted for in the model of the study.

Table 4.26: Model summary[b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F Change	
1	.234[a]	0.155	0.042	0.47420	0.055	4.420	4	306	0.002	1.731

a. Predictors: (Constant), FA, FB, FAT, FK
b. Dependent Variable: FAC_3

The ANOVA findings at a 5% significance level show that the F statistic calculated is 4.420, with F critical at 0.338. Since the calculated F value is greater than the F critical value (4.420>0.3338), the overall model was thus significant. A significant relationship therefore exists between financial literacy and access to finances through loan convenience. The p-value of 0.002 indicated that financial literacy and financial access in terms of loan convenience were significantly related as depicted in Table 4.25 below.

Table 4.27: Analysis of variance[a]

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	3.975	4	0.994	4.420	0.002[b]
	Residual	68.807	306	0.225		
	Total	72.783	310			

a. Dependent Variable: FAC_3
b. Predictors: (Constant), FA, FB, FAT, FK

After checking the fitness of the model, there is a relative importance to check each independent variable in predicting the dependent variable. If R squared becomes the explanation power of the regression model and the beta value of the determinants of financial literacy, for every unit increase in the predictor value, the outcome variable (financial access) will increase by 15 units. As such, there was a positive 15% increase of financial access (loan convenience) with every unit of financial literacy added.

Considering the coefficient beta value of 0.016 for financial knowledge increase, there is an increase of 1 unit only in financial access in terms of loan convenience, which in the case above, is positive, but very low. However, the p-value of .0.817 indicates that the two variables had a non-significant relationship. Also, the co-efficient value of 0.207 indicates that financial behaviour is positively correlated with financial access of loan convenience by SMEs. The p-value of 0.000 reveals a significant relationship between financial behaviour and financial access. For every unit increase in financial behaviour among SME entrepreneurs, there was a 20 unit increase to financial access. The next value of -0.016 implies that there was 1% unit decrease of financial access in terms of loan convenience with every unit added of financial attitude. The value indicates a very low negative correlation that occurred between financial attitude and financial access of loan convenience. The p-value of 0.0788 highlights a non-significant relationship between financial attitude and financial access in terms of loan convenience.

Lastly, the beta value of 0.065 implies that there was 6% increase of financial access for every unit increase in financial awareness. The p-value of 0.000 shows the significant relationship between awareness and financial access in terms of loan convenience. Table 4.28 below highlights the above.

Table 4.28: Coefficients[a]

Model		Unstandardised coefficients		Standardised coefficients	T	Sig.	95,0% Confidence interval for B		Collinearity statistics	
		B	Std. error	Beta			Lower bound	Upper bound	Tolerance	VIF
1	(Constant)	3.485	0.269		12.933	0.000	2.955	4.016		
	FK	0.008	0.036	0.016	0.232	0.817	-0.062	0.079	0.639	1.564
	FB	0.157	0.043	0.207	3.651	0.000	0.072	0.242	0.959	1.043
	FAT	-0.010	0.037	-0.016	-0.269	0.788	-0.083	0.063	0.907	1.102
	FA	0.050	0.053	0.065	0.934	0.351	-0.055	0.154	0.644	1.552

a. Dependent Variable: FAC_3

In Table 4.28 above, financial behaviour had the highest beta value compared to the other determinants, implying that of all the four determinants, financial behaviour was positively correlated and significantly related to financial access in terms of loan convenience.

The following shows the financial literacy and financial access relationship in terms of government regulations.

4.6.4. Government regulations

Table 4.29 is the model summary extraction from the regression analysis. The adjusted R square value of the model is 3%, implying that the financial literacy (financial knowledge, financial behaviour, financial attitude and financial awareness) accounts for 3% of the variance in the financial access in terms of government regulations. Only 97% remaining variables are not accounted for in the model of the study.

Table 4.29: Model summary[b]

Model	R	R square	Adjusted R square	Std. error of the estimate	Change Statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F Change	
1	0.198[a]	0.039	0.027	0.83281	0.039	3.133	4	306	0.015	1.785

a. Predictors: (Constant), FA, FB, FAT, FK
b. Dependent variable: FAC_4

The ANOVA findings at 5% significance level show that the F statistic calculated is 3.133, with F critical at 0.338. The F value calculated is greater than the F critical value (3.133 > 0.3338) meaning that the overall model was significant. Therefore, a significant relationship is highlighted between financial literacy and access to finances through government action. The p-value of 0.015 indicated no significant financial literacy and financial access relationship in terms of government action. Table 4.28 below highlights the analysis of variance.

Table 4.30: Analysis of variance[a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	8.691	4	2.173	3.133	0.015[b]
	Residual	212.233	306	0.694		
	Total	220.924	310			

a. Dependent variable: FAC_4
b. Predictors: (constant), FA, FB, FAT, FK

After checking the fitness of the model, it is crucial to check each independent variable in predicting the dependent variable. If the value of R squared becomes the explanation power of the regression model and beta value on the determinants of financial literacy, for every unit increase in the predictor value, the outcome variable (financial access) will increase by 3 units. There was thus a positive 3% increase of financial access (regarding government regulations) with every unit of financial literacy added.

Considering the coefficient beta value of 0.074 for financial knowledge increase, there is an increase of 7 units only in financial access in terms of government action, which in the case above is positive, but very low. However, the p-value of .0.292 revealed a non-significant relationship between the two variables. The coefficient value of 0.083 indicates that financial behaviour and financial access in terms of government action had a very low positive correlation. The p-value of 0.146 indicates no significant relationship between financial behaviour and financial access. The next value of -0.140 implies that there was 14% unit decrease of financial access with every unit added of financial attitude. The value indicates a negative correlation that occurred between financial attitude and financial access of in terms of government action. The p-value of 0.018 reveals no significant relationship between financial attitude and financial access in terms of government regulations.

Lastly, the beta value of 0.022 implies that there was 2% increase of financial access for every unit increase in financial awareness. The p-value of 0.775 indicates a non-significant relationship between awareness and financial access in terms of government regulations. This is depicted in Table 4.31 below.

Table 4.31:Coefficients[a]

Model		Unstandardised coefficients		Standardised coefficients	T	Sig.	95,0% confidence interval for B		Collinearity Statistics	
		B	Std. error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.631	0.473		7.671	0.000	2.699	4.562		
	FK	0.066	0.063	0.074	1.055	0.292	-0.057	0.190	0.639	1.564
	FB	0.110	0.076	0.083	1.456	0.146	-0.039	0.259	0.959	1.043
	FAT	-0.155	0.065	-0.140	-2.377	0.018	-0.284	-0.027	0.907	1.102
	FA	-0.029	0.093	-0.022	-0.313	0.755	-0.213	0.155	0.644	1.552

a. Dependent variable: FAC_4

4.7 Conclusion

The chapter above described the results of the study. Descriptive statistics of the study were presented and validity and reliability of the scale discussed. Correlations among the variables of the study were established and described and a presentation of the regression analysis results highlighted in conclusion to the chapter. The final chapter presents a discussion of the findings of the results of the study.

CHAPTER FIVE

FINDINGS AND DISCUSSION

5.0 Introduction.

The results of the study were presented in the previous chapter and this chapter discusses the findings relating to those results. The main objective was to determine statistically the existence of a financial literacy–financial access relationship. However, for the primary objective of the study to be fully addressed, the secondary objectives need to be determined. Therefore, findings relating to each of the objectives of the study are discussed below. Recommendations are suggested, the limitations of the study and areas for further research, are also presented in this chapter. The first section below briefly summarises the profile of the participants of the study, followed by a discussion of the findings of the first research objective.

5.1 Participant profile

The results in the preceding chapter revealed that just over half (56.3%) of the SMEs in Ekurhuleni Metropolitan Municipality were run by the owner rather than by a manager. Over a third (33.4%) of the respondents were between the ages of 30–39 years with predominantly more male (60.1%) respondents compared to their female counterparts. Participants were also in possession of a certain level of education with the largest group (28.6%) holding a diploma or a certificate. More than half (61.4%) of the SMEs were private companies, with many (approximately 26.7%) having operated for more than 10 years. The annual turnover for most of the SMEs (48.6%) was up to R50 000 and there was a variation in the employee numbers, ranging from a single employee to just over 200 employees. The findings of the first research objective are discussed in the following section.

5.2 Research question 1: What are the determinants of financial literacy among SMEs in the Ekurhuleni Metropolitan Municipality?

5.2.1 Findings to research question 1

5.2.2 Financial knowledge

The results highlighted in Table 4.5 in the previous chapter indicated that entrepreneurs were neither well versed nor knowledgeable about basic financial literacy concepts. In other words, entrepreneurs portrayed a level of uncertainty concerning the comprehension of fundamental concepts of financial literacy, concurring with Klapper, Lusardi and Van Oudheusden (2015), who found that only 33% of adults worldwide understood basic financial literacy concepts.

However, entrepreneurs in Ekurhuleni were found to prepare monthly company financial statements, namely the statement of income and the balance sheet. In a previous study by Oseifuah (2010), the majority of respondents (85.3%) also prepared financial statements. This showed that small business owners in this study were aware of what financial statements were and regarded them as a necessary element in the operation of their businesses. Although entrepreneurs prepared financial statements, they showed levels of uncertainty with regard to reviewing and performing a financial analysis of financial statements.

The overall findings of the financial knowledge determinant indicated that entrepreneurs generally, and SMEs in particular, were not fully aware of basic financial concepts. The findings are in accordance with studies previously conducted by Lusardi, Mitchell and Curto (2010), and Fatoki (2010), who indicated that in general, individuals portrayed less than average or very low financial literacy levels. Musie (2012) however indicates that SMEs located in the Mpumalanga Province were knowledgeable about basic financial concepts, which resulted in the success of SMEs in that province.

5.2.3 Financial behaviour

According to the results, entrepreneurs in Ekurhuleni were found to budget before spending money, considered whether they could afford something before purchasing it and paid their bills on time. Entrepreneurs thus monitored their spending habits, and avoided impulsive spending. According to Diebold and Yilmaz (2009), and Scott (2010), effective money management is acquired once an individual has grasped the necessary financial skills well. Furthermore, entrepreneurs in Ekurhuleni were found to monitor their finances closely and planned ahead for their businesses. Thus, from the results above, owners and managers of SMEs in Ekurhuleni were seen to practice impressive financial behaviour. Oseifuah (2010) concurs with the findings above as his study found that 64.8% of respondents were thrifty (saved money when they could), while 66.7% of entrepreneurs attested to budgeting and tracking their spending.

5.2.4 Financial attitudes

Financial attitude was a third determinant of financial literacy. SME owners or managers portrayed impartial attitudes towards spending money than saving for it, living for the present moment without worrying about tomorrow and spending being the sole purpose of money. Thus, entrepreneurs were uncertain of how to handle money and had an impartial attitude towards life in general. Atkinson and Messy (2012) are of the opinion that consumers who portray negative attitudes towards future savings are unlikely to undertake such behaviour (saving). As such, should short-term needs tend to be a priority over long-term needs, consumers are less likely to make their own provision using emergency savings.

However, the results go on to show that entrepreneurs were prepared to take risks with their own money when saving and investing, and had a tendency to initiate and act proactively. The overall findings of the financial attitude determinants showed that entrepreneurs had negative attitudes about their financial matters. The above findings are, however, inconsistent with the findings of Oseifuah (2010).

5.2.5 Financial awareness

The results shown in Table 4.8 in the previous chapter highlight the extent to which SME owners or managers were aware of issues regarding their finances. Some of the owners or managers were uncertain as to whether they were capable of understanding and handling various financial mix strategies. According to Xu and Zia (2012), the level of awareness of financial products varies from one country to the other, with some individuals completely unaware of a savings account and insurance-related products. Hence, surveys conducted by FinScope (2010) highlight that being unaware of both financial institutions and the products they offer, increases the unlikelihood of the uptake of financial products.

SMEs in Ekurhuleni however, were aware of the different external services provided and financial products on offer at financial institutions. Hence, SMEs in the municipality were generally financially aware of the products and services of financial institutions. A previous study however, revealed varying results, which found that financial awareness was rather low among entrepreneurs in south-west Nigeria (Eniola & Enterbang, 2017).

5.2.6 Summary of research question 1

The above findings highlight that entrepreneurs in Ekurhuleni did not understand basic financial literacy concepts. They, however, portrayed commendable financial behaviour suggesting good budgeting and spending patterns. The entrepreneurs portrayed negative financial attitudes, but the results showed that these entrepreneurs were generally aware of what financial institutions had to offer with regard to the availability of the various products and services. The following section discusses the findings of the second research question.

5.3 Research question 2: What are the indicators of financial access?

5.3.1 Findings to research question 2

5.3.2 Business operations

Business operations were the first indicator of financial access in the study. Fatoki and Asah (2011) highlight that financing is critical when starting up or expanding business operations. In this study, business operations refer to the effective running of business entities and the degree of simplicity or difficulty encountered by SMEs in the accessing of financing. As such, the results found that the majority of entrepreneurs encountered difficulties in obtaining financing for their businesses. This was shown by their responses where they were in disaccord concerning having easy access to finance, as well as being better financed than others businesses in the municipality.

Reasons stated by Chimucheka and Rungani (2011) for the inaccessibility of finances by SMES included no response from financial institutions regarding the availability of funding, lack of a deposit or collateral, sub-standard business plans, ideas relating to business being generally ‘not viable’ and businesses being foreign-owned. Hence, there is need for SMEs to portray seriousness when making loan applications and drafting business plans to increase the likelihood of accessing funding.

Therefore, the results above show that the majority of SMEs in Ekurhuleni faced challenges in obtaining financing for business operations. This was the case in prior studies (Chimucheka & Rungani, 2011; Fatoki, 2014; Tadesse, 2014) where the authors found that SMEs had difficulties in accessing finance.

5.3.3 Source of funds

The results indicated that the main sources of financing used by entrepreneurs were retained earnings and internal funds. Tadesse (2014) reveals similar results where he finds that the majority of entrepreneurs in Ethiopia (33.8%) financed their businesses with internal funds. In the pecking order theory Myers, (1984) emphasises that internal financing should take first priority over external financing, when making financial decisions. However, Fatoki and Van Aardt Smit (2011) indicate that although internal finance is usually the primary option of an SME, it is often inadequate for the survival and growth of SMEs.

SME owners/managers in Ekurhuleni were impartial about using bank funds. The entrepreneurs also did not use venture capital, borrow non-bank finance, use business angels or purchase on credit from suppliers. However, Fatoki and Odeyemi (2010) report that after internal financing or owners’ funds, SMEs tend to resort to commercial banks as the next major source of financing.

Overall, the results reveal that the SMEs did not have proper sources of funds, resulting in inadequate financing to operate their businesses effectively. Similarly, Tadesse (2014) also found evidence that SMEs had difficulty in accessing banking funds, as well as funds from other sources, and thus relied mainly on internal finances.

5.3.4 Loan convenience

Entrepreneurs in Ekurhuleni indicated that financial institutions were conveniently located and that financial institutions needed to make other financial services available within the same financial institution. Kira and He (2012) observe that the geographical proximity of lenders and consumers is of paramount importance, as the financial institutions have the capability to make use of qualitative information available in determining their customers' credibility.

The entrepreneurs also agreed that the quality of services, the absence of collateral and the quick processing of loans were imperative regarding the convenience of obtaining loans. SMEs encounter major challenges in accessing external financing, because they do not possess adequate assets to pledge as collateral.

In his study, Tadesse (2014) found that the period taken to process loans for SMEs in Debris Marko Town in Ethiopia, varied from a week to four or five weeks. This resulted in most SME owners (58.7%) having to wait for around one week to receive funding from financial institutions, while the remaining entrepreneurs waited for two to five weeks. Therefore, this highlights the significance of the waiting period for SME owners as indicated by those in Ekurhuleni.

There was a neutral response from the entrepreneurs in Ekurhuleni to low interest rates and convenient repayment periods. The most probable reason for this response is that since the majority of SMEs in the municipality had difficulties in accessing financing and had limited financial knowledge and understanding, they were uncertain as to how low interest rates and convenient payment periods could affect their borrowing in the event of obtaining loan.

Similarly, Tadesse (2014) investigated how convenient the repayment period was for entrepreneurs in the study by determining the length of the repayment period. Repayment periods were classified into very short, medium, long and very long (exact length of repayment period not specified) based on borrowers' perceptions. The study thus found that the majority of entrepreneurs (54.7%) had a medium repayment period. On the contrary, 32.4% of respondents indicated their loan period was very short, resulting in negative consequences in repaying the loan at the given time. However, entrepreneurs in Ekurhuleni portrayed mixed sentiments on whether institutions offered convenient services when accessing loans.

5.3.5 Government regulations

SME owners or managers agreed that the lowering of taxes, simplification of the company registration process, government loans as subsidies to keep employees on the payroll would ease their access to finance. According to Eniola and Entebang (2015), government regulations can hinder entrepreneurial activity. Hence, among the numerous challenges faced by SMEs, government regulations contribute significantly to the restrictions in accessing finance.

It is therefore the role of government to support the SME sector as well as assist SMEs to overcome the apparent challenges in accessing finance. According to Chimucheka and Rungani (2011), numerous SMEs in South Africa are not conscious of government initiatives put in place to assist and improve the sector, thus there is need for SMEs to be educated on the necessary services available to them. Therefore, entrepreneurs in Ekurhuleni had similar responses to all the regulations usually implemented by government in the accessing of funds from financial institutions.

5.3.6 Summary of research question 2

The second research question found that accessing finance for business operations was a major obstacle that most SMEs experienced, and they further disagreed that their businesses were better financed than others were. Entrepreneurs were neutral regarding the convenience of loans and government regulations proved to contribute significantly to their ability to access finances. The findings of the third research question are presented next.

5.4 Research question 3: What is the relationship between financial literacy and financial access?

5.4.1 Findings of research question 3.

Using correlation and regression analysis, various associations and relationships (respectively) were found among financial literacy variables and financial access variables. Correlation results showed that SMEs were able to acquire some basic knowledge of financial management. Entrepreneurs were also found to have a positive financial behaviour and attitude, not leaving out the ability also to run the business effectively, as well as have access to funds and sourcing funds (financial access).

Financial knowledge was negatively correlated with financial attitude. However, regression analysis revealed that the two variables were significantly related. The study revealed that financial behaviour, financial attitude and business operations were strongly associated. Also considered was financial attitude, which had an association with financial awareness and financial behaviour. A positive correlation was also identified between financial behaviour and financial access in terms of business operations and loan convenience.

Previous research studies have highlighted relationships between financial literacy and proposed financial behaviour, capability and outcomes. While some studies suggest that financial literacy and financial outcomes are positively correlated, other recently conducted studies empirically suggest that financial literacy and behaviour are strongly correlated (Cole, Sampson & Zia, 2009). Empirical research of this study has proved that financial literacy and the financial performance of the firm are related (Eniola & Enterbang, 2017; Fernandez, 2015; Kimindundi & Erik, 2016; Lusardi, Mitchell & Curto, 2012) and that financial literacy and SME growth are also related (Chimucheka & Rungani, 2011; Musie, 2015).

Wise (2013) states that the access of SMEs to finances can be improved by increased levels of financial literacy. The findings above indicate evidence of a relationship between financial literacy, in terms of knowledge, behaviour, attitude and awareness, and the extent to which SMEs were able to access funds. Similar findings in previous studies

(Adamako, Danso & Damoah 2012; Fatoki & Odeyemi, 2012) say that financial literacy, or the lack thereof, impacts on the entrepreneur's ability to access finance. However, Chimucheka and Rungani (2011) emphasise that although financial illiteracy contributes to the inaccessibility of finances by entrepreneurs, other factors such as absence of collateral, lack of information, as well as a lack of government support, must be acknowledged in the accessibility of finance.

5.4.2 Summary of research question 3

The findings above show that various financial literacy and financial access variables were correlated. Financial behaviour was found to be strongly correlated with financial attitude and business operations. A positive correlation was found between financial attitude, and financial awareness and financial behaviour. A positive association was also found between financial behaviour, and business operations and loan convenience. Similarly, regression analysis established different relationships between some financial literacy variables and financial access variables. Financial knowledge was found to be significantly related to financial awareness. Lastly, all four financial literacy determinants (knowledge, behaviour, awareness and attitude) and SME access to funds indicators (business operations, loan convenience, sources of funds and government regulations) were found to be positively related. Therefore, the study proved that over-all, a positive relationship existed between financial literacy and the extent to which SMEs were able to access funding.

5.5 Recommendations

Based on the empirical findings of this study, the following section provides recommendations for the government of South Africa, banks, academic institutions and entrepreneurs.

5.5.1 Policymakers

Policy makers are recommended to attempt to explore the financial literacy and financing needs of SMEs. Having an understanding of these will assist them to develop specific or tailor made training and developmental programmes which are meant to assist entrepreneurs improve their overall financial literacy levels as well as overcome their financing challenges.

5.5.2 Government

SMEs are crucial in any economy. SMEs in South Africa are considered as the driving force behind the growth of the economy, expansion as well as sustainability. However, SMEs in the country are faced with countless inevitable challenges, which lead to the high rates of failure recorded.

Therefore, SMEs inevitably require the support of the government, who in turn should embark on initiatives such as financial development training and financial awareness programmes, among others, which place the needs of the SMEs at the core. The government should also ensure that SMEs around the country are made aware of such initiatives.

The government should develop policies that provide ongoing, as well as convenient, financial education programmes for both new and existing entrepreneurs. This will ensure that SME owners or managers acquire the necessary financial knowledge and comprehension to operate in the dynamic and complex market, while improving their overall financial literacy levels. The South African government should also formulate policies, which ensure that financing sources, such as commercial banks, ease their regulatory restrictions, encourage and stimulate borrowing among SMEs. Policies of this nature will ascertain increases in the accessibility of finance by SMEs.

Government institutions, for example the Small Enterprise Development Agency (SEDA) among others, could also look into ways which could fully meet the needs of SMEs, as well as ensure that SMEs access funding more readily with lenient measures in place.

5.5.2 Financial institutions

The importance of financial institutions in the economy cannot be emphasised enough as they significantly contribute in increasing both SME financial literacy and financial access. It is thus recommended that relevant departments in the banks should prioritise the needs of the SMEs. Teaching entrepreneurs prior to accessing any form of funding, the fundamentals of their products, services and financing options, could prove valuable to both the bank and the entrepreneur. Financial literacy and financial access levels could improve, resulting in a lesser likelihood of the rejection of loan applications.

5.5.3 Academic institutions

According to Fatoki (2014b), only business and management students have the opportunity to be taught financial education in South African universities. Academic institutions should therefore introduce financial education at an earlier stage and all students should be beneficiaries of these programmes.

5.5.4 Entrepreneurs

Financial literacy is of importance among entrepreneurs. In order for SMEs to experience exceptional firm growth and performance, improved financial literacy levels must be ensured. SME owners or managers were recommended to invest in financial education and training programmes provided to entrepreneurs by the government and the private sector. An increment in financial literacy levels among entrepreneurs in turn increases the likelihood of them being financially aware of the products and service offerings of financial institutions, resulting in increased chances of accessing finances.

5.6 Limitations of the study

The study was both quantitative and descriptive and made use of closed-ended questions. This could have placed a limitation on participants' ability fully to express their opinions on a given subject.

The study was limited to SMEs in the Ekurhuleni Metropolitan Municipality. It is possible that the findings of the study are only interpretable and applicable to SMEs in that municipality and therefore may not be generalisable to SMEs in other municipalities or the entire population of South African SMEs.

5.7 Areas of further research

A quantitative and descriptive research design was used for the study which included closed-ended questions in the questionnaire, limiting respondents in fully expressing themselves. Future studies could therefore be carried out using an alternative research design such as qualitative design.

Since the study focused on SMEs in the Ekurhuleni Metropolitan Municipality, future studies could extend the sampling approach to include other municipalities in the different provinces of South Africa.

The study covered all industry sectors. Future research could focus on one industry sector such as construction, mining or manufacturing.

5.8 Conclusion

Findings of results described in the previous chapter were summarised in this chapter. The findings of each research question or objective were also discussed. The study thus determined a positive financial literacy–financial access relationship. In other words, the financial literacy levels among SMEs inevitably affect their ability to access finance. Recommendations to government, financial institutions, academic institutions and entrepreneurs were suggested and the limitations of the study, as well as future research areas, were provided.

As financial literacy and financial access gain more recognition among several economies across the globe, more emphasis still needs to be placed, especially among developing nations, where low levels of financial literacy and financial access are recorded. Since SMEs contribute significantly to economic growth and sustainable development globally, a continuous support system, especially from governments in particular, is of the essence. In South Africa, the failure rate of SMEs remains very high, mainly due to low financial literacy levels among the owners and managers, as well as their inability to access the necessary financing to operate their businesses effectively. As the study above has established a positive relationship between the two financial concepts, it suffices that there is need for SME owners and managers to educate themselves financially in order to increase their ability to access the required financing.

6.0 References

Adamako, S., Danso, A. & Damoah, J.O. 2015. The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital,* 18(1):43–61.

Adeyeye, M.M. 2017. Market innovation for economic diversification in Lagos: A resource based perspective. *Ghanaian Journal of Economics,* (5): 41-51.

Afzal, H., Ali, I., Khan, A.M. & Hamada, K. 2010. A study of university students' motivation and its relationship with their academic performance. *International Journal of Business and Management*, 5(4):80–88.

Akhtar, D.M.I. 2016. *Research design*. Google.com Retrieved from https://www.google.com/url?sa=t&source=wed&rct=j&url=https://www.academia.edu/30071609/Research_Design [Accessed 20 January 2019].

Almarri, K. & Gardiner, P. 2014. Application of resource-based view to project management research: Supporters and opponents. *Social and Behavioural Sciences,* 119(9):437–445.

Altman, M. 2012. Implications of behavioural economies for financial literacy and public policy. *Journal of Socio-Economics*, 41(5):677–690.

Andoh, F.K. & Nanoo, J.M. 2011. *Sustaining SME enterprises through financial services utilization: Does financial literacy really matter?* Conference Paper no. 123418. Seattle, Washington: Agricultural and Applied Economics Association.

Appiah-Adu, K., Okpattaly, B. & Hogan, F. 2017. Strategic choices for competitive performance in a developing economy. *African Journal of Business and Economic Research,* 12(1):81–106.

Ardic, O. P., Imboden, K & Latortue, A. 2010. *Financial access 2010*. Retrieved from https://www.cgap.org/research/publication/financial-access-2010 [Accessed 20 May 2018].

Atkinson, A. & Messy, F. 2012. *Measuring financial literacy: Results of the OECD/INFE pilot study.* OECD Working Papers on Finance, Insurance and Private Pensions. USA: OECD Publishing.

Barney, J. & Clark, D. 2008. *Resource based theory: Creating and sustaining competitive advantage*. New York, NY: Oxford University Press.

Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management,* 17(1):99–120.

Barney, J.B., Ketchen, D.J. & Write, M. 2011. The future of the resource based theory: revitalization or decline? *Journal of Management,* 37(5):1299–1315.

Beck, T., Demirgüç-Kunt, A. & Pería, M.S.M. 2011. Bank financing for SMEs: Evidence across countries and bank ownership types. *Journal of Financial Services Research,* 39(1):35–54.

Beck, T.A., Demirgüç-Kunt, A., Laeven, L. & Maksimovic, V. 2008. The determinants of financing obstacles. *Journal of International Money and Finance*, 25:932–952.

Beins, O.B. 2013. *Research methods a tool for life*. Third edition. Upper Saddle River, NJ: Pearson Education.

Bhushan, P. 2014. Relationship between financial literacy and investment behaviour of salaried individuals. *Journal of Business Management and Social Sciences Research,* 3(15):82–87.

Boucher, S.R., Guirkinger, C. & Travelli, C. 2009. Direct elicitation of credit constraints: Conceptual and practical issues with an application to Peruvian agriculture. *Economic Development and Cultural Change,* 57(4):609–640.

Boweni, M., Morara, M. & Mureithi, S. 2009. Management of business challenges among small and micro-enterprises in Nairobi, Kenya. *KCA Journal of Business Management,* 2(1):44-56

Brown, R.B., Saunders. M.N.K. & Beresford, R. 2009. You owe it to yourself: The financially literate manager. *Accounting Journal*, 2(30):179–191.

Calice, P., Chando, V.M. & Sekioua, S. 2012. *Bank financing to small and medium enterprises in East Africa: Findings of a survey in Kenya, Tanzania, Uganda and Zambia*. Working paper no. 746. Kenya: African Development Bank

Cant, M.C. & Wiid, J.A. 2013. Establishing the challenges affecting South African SMEs. *International Business and Economics Research Journal*, 12(6):707–715.

Card, N.A. 2010. Literature review. In N.J. Salkind (ed.). *Encyclopaedia of research design.* Upper Saddle River: Sage, 726–729.

Casey, E. & O'Toole, C.M. 2014. Bank lending constraints, trade credit and alternative financing during the financial crisis: Evidence from European SMEs. *Journal of Corporate Finance,* 1(27):173–193.

Chimucheka, T. & Rungani, E.G. 2011. The impact of inaccessibility to bank finance and lack of financial management knowledge to small, medium and micro enterprises in Buffalo City Municipality, South Africa. *African Journal of Business Management*, 5(14):5509–5577.

Chipeta, C. & McClelland, D. 2018. In search of conclusive evidence on the trade-off and pecking order theories of capital structure: Evidence from the Johannesburg Stock Exchange. *Investment Analysts' Journal,* 47(1):15–30.

Chiyangwa, T.B. & Alexander, P.M. 2016. Rapidly co-evolving technology adoption and diffusion models. *Telematics and Informatics,* 33:56–76.

Chodokufa, K. 2009. An analysis of the business relationship between SMEs and insurance companies in Nelson Mandela Metropolitan areas. Unpublished MA dissertation. Eastern Cape: University of Fort Hare.

Choi, J., Laibson, D. & Madrian, B.C. 2011. $100 bills on the sidewalk: Suboptimal investment in 401(k) plans. *Revised Economic Statistics,* 93(3):748–763.

CIRT (Center for Innovation in Research Teaching). N.d. *Ethical Considerations.* Retrieved from https://cirt.gcu.edu/research/developmentresources/tutorials/ethics [Accessed 25 June 2018].

City of Ekurhuleni. 2017-18. *Integrated Development Plan*. Retrieved from www.ekurhuleni.gov.za/annual-budget-speech-2016/3018-annexure-a-integrated-development-plan-idp-2017-18.html [Accessed 3 June 2018].

Coad, A. & Tamvada, J.P. 2012. Firm growth and barriers to growth among small firms in India. *Small Business Economics,* 39:383–400.

Cole, S., Sampson, T. & Zia, B. 2011. Prices or knowledge? What drives demand for financial services in emerging markets? *The Journal of Finance*, 66:1933–1967.

Collis, J. & Hussey, R. 2013. *Business research: A practical guide for undergraduate and postgraduate students.* Kingstone, UK: Palgrave Macmillan.

Conn, V.S., Algase, D.L., Rawl, S.M., Zerwic, J.J. & Wyman, J.F. 2010. Publishing pilot intervention work. *West Journal of Nursing Research,* 132(80):994–1010.

Craig, B.R., Jackson, B.R. III & Thompson, J.B. 2009. Small firm finance, credit rationing and the impact of SBA guaranteed lending on local economic growth. *Journal of Small Business Management*, 45(1):116–132.

Creswell, J.W. & Poth, C.N. 2017. *Qualitative inquiry and research: Choosing among five approaches.* Thousand Oaks, CA, US: Sage.

Creswell, J.W. 2009. *Research design: Qualitative, quantitative, mixed methods approaches.* Third edition. Thousand Oaks, CA: Sage.

Dannels, S.A. 2010a. Research design. In R. Gregory, P. Hancock & R.O. Mueller (eds.). *The reviewer's guide to quantitative methods in social sciences*. Abingdon, UK: Routledge, 343–355.

Dannels, S.A. 2010b. *The researcher's university guide*. Berkshire, UK: McGraw-Hill Education.

Dauda, S. & Nyarko, S.H. 2014. Chasing credit: The bane of small and medium scale enterprises in Assin North Municipality, Ghana. *International Journal of Entrepreneurship and Small Business*, 22(2):218–230.

De Beer, J. & Coetzee, J. 2013. Financial literacy among students in South Africa. Paper delivered at the ESSA Conference, University of the Free State, Bloemfontein, 15 June.

Demirgruc-Kunt, A. & Klapper, L. 2012b. *Measuring financial inclusion: The global Findex database*. Development Research Group: The World Bank.

Demirgüç-Kunt, A. & Klapper, L. 2012a. *Financial inclusion in Africa: An overview*. Policy research working paper no. 6088. Development Research Group: World Bank.

Denzin, N.K. & Lincoln, Y.S. 2013. *Strategies of qualitative inquiry*. Fourth edition. Thousand Oaks, CA: Sage.

Derfus, P.J., Maggitti, P.G., Grimm, C.M. & Smith, K.G. 2008. The red queen effect: Company actions and firms performance. *Academic Management Journal,* 51:61–80.

Diebold, F.X. & Yilmaz, K. 2009. Measuring financial asset return and volatility spill overs, with application to global equity markets. *The Economic Journal,* 199(534):158–171.

Donaldson, G. 1961. *Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity*. Boston, MA: Harvard Graduate School of Business Administration.

Doody, O. & Doody, C.M. 2015. Conducting a pilot study: Case study of a novice researcher. *British Journal of Nursing*, 24(21):91–97.

dti (Department of Trade and Industry). 2012. *Department of Trade and Industry Annual Report 2011/2012-South African Government.* Retrieved from https://www.gov.za/sites/default/files/gcis_document/201409/dti-annua-report-2011-2012.pdf&ved [Accessed 17 July 2017].

dti (Department of Trade and Industry). 2015. SMME Development, DTI . Retrieved from https://www.thedti.gov.za/sme_development/sme_development.jsp [Accessed 12 May 2018].

Easterby-Smith, M., Thorpe, R. & Jackson, P.R. 2012. *Management research.* Thousand Oaks, CA: Sage.

Ehlers, T., and Lazenby, L. 2010. Strategic Management: South African concepts and cases. 2nd Edition, Van Schaik, Pretoria.

Eniola, A.A. & Entebang, H. 2017. SME managers and financial literacy. *Global Business Review,* 1(3):559–576.

Eriksson, P. & Kovalainen, A. 2015. *Qualitative methods in business research: A practical guide to social research*. Thousand Oaks, CA: Sage.

Fanta, A.B., Mutsonziwa, K. & Naidoo, D. 2016. *Financial literacy and financial inclusion in the SADC region.* Policy paper no. 02/2016. South Africa: FinMark Trust.

Fanta, A.B., Mutsonziwa, K., Berkowitz, B., Maposa, O., Matsomi, A. & Khumalo, J. 2017. *Small business performance: Does access to finance matter?* Policy paper no. 2/2017. South Africa: FinMark Trust.

Fatoki, O. & Asah, F. 2011. The impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams Town, South Africa. *International Journal of Business Management*, 6(9):170–179.

Fatoki, O. & Garwe, D. 2010. Obstacles to the growth of new SMEs in South Africa: A principle component analysis approach. *African Journal of Business Management,* 4(5):729–738.

Fatoki, O. & Mazanai, M. 2012. Perceptions of start-up SMEs on the importance of business development service providers (BDS) on improving access to finance in South Africa. *Journal of Social Sciences,* 30(1):31–42.

Fatoki, O. & Odeyemi, A. 2010a. The determinants of access to trade credit by new SMEs in South Africa. *African Journal of Business Management,* 4(13):2763–2770.

Fatoki, O. & Odeyemi, A. 2010b. Which new SMEs in SA have access to bank credit? *International Journal of Business Management*, 5(10):128–136.

Fatoki, O. & Oni, O. 2014. Financial literacy studies in South Africa: Current literature and research opportunities. *Mediterranean Journal of Social Science,* 5(20):409–414.

Fatoki, O. & Smit, A. 2011. Constraints to credit access by new SMEs in South Africa: A supply-side analysis. *African Journal of Business Management*, 5(4):1413–1425.

Fatoki, O. 2012. The impact of entrepreneurial orientation on access to debt finance and performance of small and medium enterprises in South Africa. *Journal of Social Sciences,* 35(2):121–131.

Fatoki, O. 2014a. Enhancing access to external finance for new micro-enterprises in South Africa. *Journal of Economics,* 5(1):1–6.

Fatoki, O. 2014b. The causes of failure of new small to medium enterprises in South Africa. *Mediterranean Journal of Social Sciences,* 5(20): 922–929

Fatoki, O. 2014c. The financial literacy of micro-entrepreneurs in South Africa. *Journal of Social Sciences*, 40(2):151–158.

Fatoki, O. 2014d. The financing options for new SMEs in South Africa. *Mediterranean Journal of Social Sciences,* 5(20):748–755.

Fawowe, B. 2017. Access to finance and firm performance: Evidence from African countries. *Review of Development Finance,* (7):6–17.

Fernandez, T.I.M. 2015. Financial literacy levels of small business owners and its correlations with firms operating performance. Unpublished MA dissertation. Portugal: Faculdade de Economia do Porto.

Ferri, G., Murro, P.G. & Rotondi, Z. 2010. *Do firms bank 'odd couples' exacerbate credit rationing?* Working paper no. 0031. University of Polytechnic: Southern Europe Research in Economic Studies.

Finmark Trust. 2010. *FinScope South Africa small business survey, 2010*. Retrieved from http://www.finmark.org.za/wp-content/uploads/pubs/FS-Small-Business-reportFNL1.pdf [Accessed 3 July 2018].

Gerardi, K., Goette, L. & Meier, S. 2010. *Financial literacy and subprime mortgage delinquency: Evidence from a survey matched to administrative data.* Working paper no. 2010–10. Atlanta, Georgia: Federal Reserve Bank Atlanta.

Ghoshan, N. 2003. Understanding reliability and validity in qualitative research. *The Qualitative Report,* 8(4):597–607.

Gilland-Burnham, P., Lutz, K.G., Grant, W. & Layton-Henry, Z. 2008. *Research methods in politics*. New York: Macmillan International Higher Education.

Gitman, L.J. 2010. *The principles of managerial finance*. New York, NY: Pearson Education.

Glaser, M. & Walther, T. 2012. Run, walk or buy? Financial literacy, Dual-process theory, and investment behaviour, *The Journal Finance,* 74: 112-121

Global Entrepreneurship Monitor (GEM). 2018. *Report on higher expectation entrepreneurship.* Retrieved from: www.gemconsortium.org [Accessed on 22 November 2019].

Gonzales, V.M. & Gonzalez, F. 2012. Firm size and capital structure: Evidence using dynamic panel data. *Applied Economics,* 44(36):4745–4754.

Graham, J., Harvey, C. & Huang, H. 2009. Investor competence, trading frequency, and home bias. *Management Science,* 55(7):1094–1106.

Greener, S. 2008. *Business research methods*. London: Bookboom.

Guliman, S.D.O. 2015. An evaluation of financial literacy of micro and small enterprise owners of Iligan City: Knowledge and skills. Paper presented at the 9th Global Business Conference, De La Salle University, Manda, 7 October.

Hancock, G.R. & Mueller, R.O. 2010. Structural equation modelling. In Gregory, R., Hancock, G.R. & Mueller, M. O (eds.). *The reviewer's guide to quantitative methods in social sciences*. New York: Routledge, 219–223.

Hastings, J.S. & Mitchell, O.S. 2011. How financial literacy and impatience shape retirement wealth and behaviours. *Journal of Pension Economics and Finance* 1: 1–20

Hazzi, O. & Maldoan, I. 2015. A pilot study: Vital methodological issues. *Business: Theory and Practice,* 16:53–60.

Heale, R and Twycross, A. 2015. Validity and reliability in quantitative studies. Retrieved from http://ebn.bmj.com/ [Accessed 22 February 2019].

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, A., Singh, H., Teece, D.J. & Winter, S.G. 2009. *Dynamic capabilities: Understanding strategic change in organizations.* Malden, MA: Blackwell.

Hitt, M.A., Carnes, C.M. & Xu, K. 2017. A current view of resource based theory in operations management: *Journal of Operations Management,* 41:107–109.

http://www.statssa.gov.za/publications/P0211?Presentation_QLFS_Q1_2019.pdf [Accessed 29 April 2019].

http://www.worldbank.org/en/about/annual-report-2015 [Accessed 7 October 2018].

https://www.worldbank.org/en/topi/financialinclusion [Accessed 15 June 2018].

Hung, A.A., Parker, A.M. & Young, J.K. 2009. *Defining and measuring financial literacy*. Rand Labor and Population working paper no. WR-70. Santa Monica, CA: Rand Corporation.

Huston, S.J. 2010. Measuring financial literacy. *The Journal of Consumer Affairs*, 44(2):296–316.

Ibrahim, M. 2015. The art of data analysis. *Journal of Allied Health Sciences*, 1(1):98–104.

Jeray, K.J. & Tanner, S.L. 2012. Pilot randomized trials: Is there a need? *Journal of Bone Joint Surgery,* 94(5):15–18.

Joppe, M. 2008. *The research press.* http://scholar.google.com.citations. Retrieved from http://www.ryersonica/~mjoppe/rp.htm [Accessed 26 June 2018].

Kalof, L., Dan, A. & Dietz, T. 2008. *Essentials of social research.* New York, NY: McGraw-Hill.

Karadag, H. 2016. The impact of industry, firm age and education level on financial management performance in SMEs: Evidence from Turkey. *Journal of Entrepreneurship in Emerging Economies,* 9(3):300–314.

Kellermans, F., Walter, J., Russel Crook, T., Kemmer, B. & Narayan, V. 2016. The RBV in entrepreneurship: A content analytical comparison of resources and entrepreneurs views. *Journal of Small Business Management,* 54(1):26–48.

Ketokivi, M. & Mantere, S. 2010. Two strategies for inductive reasoning in organisational research. *Academy of Management Review,* 35(2):315–333.

Kim, Y. 2017. The pilot study in qualitative inquiry: Identifying issues and learning for cultural component research. *Qualitative Social Work,* 10(2):190–206.

Kimiyaghalam, F. and Safari, M. 2015. "A review of the definition of financial literacy and its measurement", Strategic *Management Journal*, 19(6): 112-130.

Kimundu, G. & Erick, O. 2016. A study on the influence of financial literacy on financial performance of SMEs in Ruiru Town, Kiambu County, Kenya. *International Journal of Economics, Commerce and Management,* 5(11):1–38.

Kimutai, C.J. & Ambrose, J. 2013. Factors influencing credit rationing by commercial banks in Kenya. *International Journal of Humanities and Social Sciences,* 3(20):244–252.

Kira, A.R. & He, Z. 2012. The impact of firm characteristics in accessing of financing by small and medium sized enterprises in Tanzania. *International Journal of Business Management,* 7(24):108–119.

Klapper, L., Lusardi, A. & Van Oudheusden, P. 2013. *Financial literacy around the world: Insights from the Standards and Poor's Rating Services Global Financial Literacy Survey.* Standard and Poor's. Retrieved from http://gflec.org/wpcontent/uploads/2015/11/Finlit_paper_16_F2_singles.pdf [Accessed 29 May 2018].

Knapp, T.R. & Mueller, R.O. 2010. Reliability and validity of instruments. In Gregory, R., Hancock, G.R. & Mueller, M. O & Stapleton, L.M. (eds.). *The reviewer's guide to quantitative methods in social sciences*. New York: Routledge, 338–341

Kongolo, M. 2010. Job creation versus job shedding and the roles of SMEs in economic development. *African Journal of Business Management* 4(11): 2288-2295.

Korb, K. 2012. Concluding educational research validity of instruments. *Nigerian Psychological Research* 1: 25-33.

Kothari, C.R. 2011*. Research methodology: Methods and techniques.* New Delhi: New Age International.

Kotzè, L. & Smit, A. 2008. Personal financial literacy and personal debt management: The potential relationship with new venture creation. *Southern African Journal of Entrepreneurship & Small Business Management*, 1(1):35–50.

Kraaijenbrink, J., Spender, J.C. & Groen, A. 2009. The resource based view: A review and assessment of its critiques. *Journal of Management,* 36(1): 349–372

Laery, M.T. & Roberts, M.R. 2010. The pecking order, debt capacity and information asymmetry. *Journal of Financial Economics,* 95(3):332–335.

Leon, A.C., Davis, L.L. & Kraemer, H.C. 2011. The role and interpretation of pilot studies in clinical research. *Journal of Psychology Research,* 45(5):626–629.

Lewis, S. 2015. Qualitative inquiry and research design: Choosing five approaches. *Health Promotion Practice,* 16(4):473–475.

Lopez, M., Gracia, J. & Sorgorb Mira, F. 2008. The pecking order, debt capacity and information asymmetry. *Journal of Financial Economic,* 95(3):332–358.

Lubanga, L.S.N. 2016. The relationship between financial literacy and access to credit among youth in rural areas: A case of Kimilili constituency. Unpublished MA dissertation. Windhoek: University of Namibia.

Lusardi, A. & Mitchell, O.S. 2011*. Financial literacy and planning: Implications for retirement well-being*. Working Paper 17078. University of Pennsylvania: National Bureau of Economic Research.

Lusardi, A. & Scheresberg, C.D.B. 2013. *Financial literacy and high cost borrowing in the United States.* Working paper no. 18969. Cambridge, MA: National Bureau of Economic Research.

Lusardi, A. & Tufano, P. 2009. *Debt literacy, financial experiences, and over indebtedness*. Journal of Pension Economics and Finance, 14(4): 332–368.

Lusardi, A., Mitchell, O.S. & Curto, V. 2010. Financial literacy among the young. *Journal of Consumer Affairs,* 44(2):358–380.

Mabula, J.B. 2016. Reviewing financial literacy for SMEs and enterprises in developing economies. *International Journal of Science and Research,* 5:6882–6886.

Mae, S. 2015. Pros and cons of surveys: The Survey Guide. Retrieved from: https://explorable.com [Accessed on 18 August 2018].

Makgoe, P. 2008*. Government procurement policy and SMME development successes and challenges*. Unpublished MA dissertation. Bloemfontein: University of Free State.

Makina, D., Fanta, A.B., Mutsonziwa, K., Khumalo, J. & Maposa, O. 2015*. Financial access and SME size in South Africa*. Paper prepared for FinMark Trust. Pretoria: University of South Africa.

Mandell, L. & Klein, L. 2009. "The impact of financial literacy education on subsequent financial behavior", *Journal of Financial Counseling and Planning*, 20(1) : 15–24.

Mandell, L. & Klein, L.S. 2009. The impact of financial literacy education on subsequent financial behaviour. *Journal of Financial Counselling and Planning,* 20(1):15–24.

Maree, K., Creswell, J.W., Ebersohn, L, Eloff, I., Ferreira, R., Ivankova, N.V., Jansen, J.D., Nieuwenhuis, J., Pietersen, J & Plano Clark, V.L. 2016. *First steps in research.* Second edition. Pretoria: Van Schaik.

Mark, S., Philip, L. & Adrian, T. 2009. *Research methods for business students*. Harrow: Prentice Hall.

Markova, S. & Petkovska-Mircevska, T. 2009. Financing options for entrepreneurial ventures. *Economic Interferences*, 11(2):89–96.

Mertler, C.A. 2018. *Introduction to educational research*. Thousand Oaks, CA: Sage.

Minola, T., Cassia, L. & Criaco, G. 2013. Financing patterns in new technology-based firms: An extension of the pecking order theory. *International Journal of Entrepreneurship and Small Business Management*, 19(2):327–338.

Moloi, G. & Ntshakala, T. 2016. Micro-finance institutions (MFIs): Assessing their performance through the lens of an entrepreneur. *Journal of Management and Administration,* 2:65–83.

Mukumba, T. 2014. Overcoming SMEs challenges through critical success factors: A case of SMEs in the Western Cape Province, South Africa. *Economical and Business Review,* 16(1):19–38.

Mulega, A.N. 2013. Analysis of external financing used: A study of SMEs in Malawi. *International Journal of Business Management*, 8(7):54–68.

Musie, L. 2015. The use of financial literacy concepts by entrepreneurs in the small to medium enterprise sector in Mpumalanga Province, South Africa. Unpublished MA dissertation. Pretoria: University of Pretoria.

Mutezo, A. 2013. Credit rationing and risk management for SMEs: The way forward for South Africa. *Corporate Ownership and Control*, 10(2):153–163.

Myers, M.D. 2013. *Qualitative research in business management*. Thousand Oaks, CA: Sage.

Myers, S.C. & Majluf, N.S. 1984. Corporate financing and investment decisions when firms have information investors do not have. *Journal of Financial Economics,* 13(2):187–221.

Myers, S.C. 1984. The capital structure puzzle. *The Journal of Finance*, 39(3):575–583.

NCR (National Credit Regulator). 2011. *Literature review in SME access to credit and support in South Africa*. Pretoria.

Nguyen, H.T., Alam, Q., Perry, M. & Prajogo, D. 2009. The entrepreneurial role of the state and SME growth in Vietnam. *Journal of Administration & Governance,* 4(1):60–71.

Nichter, S. & Goldmark, L. 2009. Small firm growth in developing countries. *World Development,* 37(9):1453–1464.

Nieman, G. & Nieuwenhuizen, C. 2009. *Entrepreneurship: A South African perspective.* Pretoria: Van Schaik.

Njoroge, R.M. 2012. Relationship between financial literacy and entrepreneurship success in Nairobi, Kenya. Unpublished MA dissertation. Nairobi: University of Nairobi.

NPC (National Planning Commission). 2011. Diagnostic Overview*.* Retrieved from www.gov.za/sites/defaults/files/gcis_document/201409/npcdiagnosticoverview1.pdf [Accessed 30 April 2018].

OECD (Organisation for Economic Co-operation and Development). 2017. *South African economy*. Retrieved from www.oecd.org/economy/South-africa-economic-snapshot/ [Accessed 8 September 2018].

Okpukpara, B. 2009. Strategies for effective loan delivery to small scale enterprises in rural Nigeria. *Journal of Development and Agricultural Economies*, 1(27):41–48.

Osano, H.M. & Languitone, H. 2016. Factors influencing access to finance by SMEs in Mozambique: Case of SMEs in Maputo central business district. *Journal of Innovation Entrepreneurship*, 5(13):1–16.

Oseifuah, E.K. 2010. Financial literacy and youth entrepreneurship in South Africa. *African Journal of Economic and Management Studies,* 1(2):164–182.

Penrose, E. 1959. Contributions to the resource-based view of strategic management. *Journal of Management Studies,* 41(1):183–191.

Petraf, M. & Barney, J. 2003. Unravelling the resource based tangle. *Managerial and Decision Economics*, 24(4):309–323.

Porta, M. 2008. *A dictionary of epidemiology*. Fifth edition. Oxford: Oxford University Press.

Rahi, S. 2017. Research design and methods: A systematic review of research paradigm, sampling issues and instruments development. *Journal of Economic Management Sciences*, 6(2):1–5.

Redmund, D. 2010. "Financial literacy explicated: The case for a clearer definition in an increasingly complex economy", *Journal of Consumer Affairs*, 44(2): 276-295.

Resnik, D.B. 2011. What is ethics in research and why is it important? National Institute of Environmental Health Sciences, 1(10): 49–70.

Ridwan, J. & Bakri, S. 2017. Strategic resources for sustainable competitive advantage. *International Journal of Advanced Research,* 5(3):237–241.

Robb, C.A. & Woodyard, A.S. 2011. Financial knowledge and best practice behaviour. *Journal of Financial Counselling and Planning*, 22(1):60–70.

Roberts, B., Struwig, J., Gordon, S., Viljoen, J. & Wentzel, M. 2012. *Financial literacy in South Africa: Results of Baseline National Survey.* Pretoria: Financial Services Board.

Rogerson, C.M. 2008. Consolidating local and economic development in post-apartheid South Africa. *Urban Forum,* 19(3):307–328.

Rumelt, R.P. 1984. Competitive strategic management. *Toward a Strategic Theory of the Firm,* 7:556–570.

Sabri, M.F. & MacDonald, M. 2010. Savings behaviour and financial problems among college students: The role of financial literacy in Malaysia. *Cross Cultural Communication,* 6(3):103–109.

Salkind, N.J. 2014. *Exploring research*. Eighth edition. Upper Saddle River, NJ: Pearson Education.

Saunders, M., Lewis, P. & Thornhill, A. 2012. *Research methods for business students.* London: Pearson Education.

Schuchardt, J., Hanna, S., Hira, T., Lyons, A., Palmer, L. & Xiao, J. (2009). "Financial literacy and education research priorities", *Journal Of Financial Counseling And Planning*, 20, (2): 84–95.

Schweinbacher, A. & Larralde, B. 2010. *Crowd funding of small entrepreneurial venture*. Handbook of entrepreneurial finance. Midrand: Oxford University Press.

Scott, R.H. III. 2010. Credit card ownership among American high school seniors: 1997–2008. *Journal of Family and Economic Issues,* 31(2):151–160.

Seifert, B. & Gonenc, H. 2009. The international evidence on the pecking order hypothesis. *Journal of Multinational Financial Management*, 18(3):244–260.

Senderovitz, M. 2009. "How are SMEs defined in research?" *Strategic Management Journal*, 19 (8): 709-728.

Serrasqueiro, Z. & Caetano, A. 2015. Trade-off theory versus pecking order theory: Capital structure decisions in a peripheral region of Portugal. *Journal of Business Economics and Management,* 16(2):445–466.

Sha, S. An investigation into problems facing small-to-medium sized enterprises in enhancing the strategy for developing 'small growth potential' firms in the Eastern Cape. Retrieved from: http://eprints.ru.ac.za/288//sha-TR06=146.pdf [Accessed 22 September 2018].

Shuttleworth, M. 2012. *Internal consistency-reliability*. Shuttleworth. Retrieved from https://expolrable.com./internal-consistency-reliability [Accessed 27 June 2018].

Sirmon, D.G., Hitt, M.A., Ireland, R.D. & Gilbert, B.A. 2011 Resource orchestration to create competitive advantaged: Breadth, depth and life cycle effects. *Journal of Management,* 37:1390–1412.

Stadler, C., Helfat, C.E. & Verona, G. 2013. The impact of dynamic capabilities on resource access and development. *Organisational Science*, 24(6):1782–1804.

Stango, V. & Zinman, J. 2009. Exponential growth bias and household finance. *Journal of Finance,* 64:2807–2849.

Stapleton, L.M. 2009. An assessment of practical solutions for structural equation modelling with complex sample data. In R. Gregory, R. Hancock & R.O. Mueller (eds.). *The reviewer's guide to quantitative methods in social sciences*. New York: Routledge, 28–58.

Stats SA (Statistics South Africa). 2019. *Quarterly Labour Force Survey- QLFS Q1:2019-Statistics South Africa.* Retrieved from

Stiglitz, J. & Weiss, A. 1981. Credit rationing in markets with imperfect information. *American Economic Review*, 71:393–410.

Sucuiaha, W.T. 2013. Determinants of financial literacy of micro-entrepreneurs in Davao City. *International Journal of Accounting Research,* 1(1):45–58.

Tadesse, B. 2014. Access to finance for micro and small enterprises in Debre Marko, Ethiopia. *Global Journal of Current Research,* 2(2):36–46.

Taherdoost, H. 2016. Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in research. *International Journal of Academic Research in Management,* 5(3):28–36.

Tamaki, R. 2011. Opening remarks. OCED-FSB Conference on Financial Literacy: Financial Education for All, Cape Town, 4 June.

Teece, D. J. 2012. "Dynamic capabilities: routines versus entrepreneurial action." *Journal of Management Studies*, 49(8): 1395–1401.

Terblanche, B. 2009. "SME financial literacy program: Development of a program framework", *Journal of Entrepreneurship*, 16(1): 53-76.

The Banking Association. 2014. *Youth Development Summit.* Retrieved from https://www.banking.org.za/multimedia/youth-development-summit-2014/ [Accessed 20 October 2018].

The Sowetan Live. 2019. State of the Nation Address. Retrieved from www.soetanlive.co.za/news/south-africa/2019-02-07-in-full-state-of-the-nation-address/ [Accessed 4 April 2019].

The World Bank. 2008. *Financial Inclusion.* Retrieved from

The World Bank. 2015. *Annual Report* Retrieved from

Trade and Industry Policy Strategies. 2016. Towards a single definition of small businesses. Prepared for Business Unity South Africa. Retrieved from: www.tips.org.za

Vaishnavi, A., Capelletti, M., Le A.T., Kako, S., Butaney, M., Ercan, D., Mahale, S., Davies, K.D., Aisner, D.L., Pilling, A.B. & Berger, E.M. 2013. Oncogenic and drug sensitive NTRK1 rearrangements in lung cancer. *Nature Medicine*, 19(11):1469–1477.

Van Rooij, M., Lusardi, A. & Alessie, R. 2011. Financial literacy and stock market participation. *Journal of Finance and Economics*, 101(2):449–472.

Van Tonder, L. 2010. *Entrepreneurship in South Africa.* Google scholar. Retrieved from http://www.lohexsi.co.za/about-business/feiq/27-starting/55-enterprenuirship-in-south-africa.html [Accessed 30 April 2018].

Vanacker, T.R. & Marnigart, S. 2010. Pecking order and debt capacity considerations for high-growth companies seeking financing. *Small Business Economics,* 35 (1):53–69.

Wachira, M.I. & Kihiu, E.N. 2012. Impact of financial literacy on access to financial services in Kenya. *International Journal of Business and Social Science,* 3(19):1–45.

Walliman, N. 2011. *Research methods: The basics*. New York, NY: Routledge Taylor & Francis.

Wayhuni, D. 2012. The research design maze: Understanding paradigms, cases, methods and methodologies. *Journal of Applied Management Accounting Research*, 10(1):69–80.

Wenerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal, 5*(2):171–180.

Wenerfelt, B. 2013. On the role of the RBV in marketing. *Journal of Academic Marketing Science,* 42(1):22–23.

Willeinse, J. 2010. *SME failure statistics.* The Forum South Africa. Retrieved from http://www.theforumsa.co.za./forums/showthread/.php?t=7808 [Accessed 31 March 2018].

Wise, S. 2013. The impact of financial literacy on new venture survival. *International Journal of Business Management*, 8(23):30–39.

Xu, L. & Zia, B. 2012. *Financial literacy around the world: An overview of the evidence with practical suggestions for the way forward.* Policy research working paper no. 6017. The World Bank: Harvard Kennedy School.

Yin, R. 2017. *Case study research and applications: Design and methods.* Beverly Hills, CA: Sage.

APPENDIX A: QUESTIONNAIRE

The relationship between financial literacy and financial access among SMEs in the Ekurhuleni Metropolitan Municipality, South Africa

Dear SME owner/manager

Thank you for taking time to participate in this survey. The purpose of the survey is to determine the relationship between financial literacy and financial access among SMEs in the Ekurhuleni Metropolitan Municipality. The information obtained here will be held in the strictest confidentiality.

Please answer all questions by marking the appropriate selected blank block with an "X". There are no right and wrong answers.

SECTION A: Owner/Manager and company demographic characteristics.

A1. Please indicate your age group:

Below 30	1	
30-39	2	
40-49	3	
50-59	4	
Above 60	5	

A2. Please indicate your gender:

Male	1	
Female	2	

A3. What is your highest level of education?

None	1	
Standard 8/Grade 10	2	
Standard 9/Grade 11	3	
Standard 10/Grade 12 (Matric)	4	
Diploma/Certificate	5	
Professional (CA, CFA, CIMA)	6	
University Degree	7	
Postgraduate Degree	8	

A4. Is the business owner or manager run? ______________________________

A5. What is the firms' current legal status?

Sole proprietor	1	
Private company	2	
Partnership	3	
Limited Partnership	4	
Franchise	5	
Non-profit making organisation (NPO)	6	
Other	7	

A6. How long has the business been in operation?

At most a year	1	
2-3 years	2	
4-5 years	3	
6-10 years	4	
More than 10 years	5	

A7. In which industry sector do you operate in?

Agriculture, forestry and fishery	1	
Construction (General construction including general building & civil engineering)	2	
Electricity, gas and water	3	
Finance, Insurance, real estate and business services	4	
Manufacturing	5	
Mining and Quarrying	6	
Transport and logistics	7	
Wholesale, retail trade, hotel and restaurant	8	
Other, please specify	9	

A8. What was your business turnover in the last financial year as shown in the bands below?

Up to R50 000	1	
R50 001-R100 000	2	
R100 001-R200 000	3	
R200 001-R300 000	4	
R300 001-R400 000	5	
R400 001-R500 000	6	
R500 000+	7	

A9. Please indicate the number of employees in your firm, with you included ______________________

SECTION B: FINACIAL LITERACY

Indicate to what extent you agree or disagree with the following statements in the sections below:

(i) Financial Knowledge	**Strongly disagree 1**	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
B1. I understand basic financial concepts					
B2. We prepare monthly company financial statements (income statement and balance sheet).					
B3. We review monthly financial statements					
B4. We perform financial analysis on monthly financial statements					
B5. We have an understanding of the company's gross profit ratio and its contribution to the overall profit.					

(ii) Financial Behaviour	**Strongly disagree 1**	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
B6.I always budget my money before spending it.					
B7.Before I buy something, I carefully consider whether I can afford it.					
B8.I pay my bills on time					
B9.I keep a close personal watch on my financial affairs.					
B10.I set long term financial goals and strive to achieve them.					

(iii) Financial Attitude	**Strongly disagree 1**	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly agree 5**
B11. I find it more satisfying to spend money than to save it for the long term.					
B12. I tend to live for today and let tomorrow take care of itself.					
B13. Money is there to be spent.					
B14. I am prepared to risk some of my own money when saving or making investments.					
B15. I have a tendency to initiate and act proactively.					

(iii) Financial Awareness	**Strongly disagree 1**	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
B16. We are capable of understanding and handling various financial mix strategies.					
B17. We are aware of different external service providers					
B18. We are aware of the various financial product offering by financial institutions					
B19. We understand are familiar with the comprehension of the financial products.					
B20. We maintain these financial products with the financial institutions to reduce their likelihood of financial problems					

SECTION C: FINANCIAL ACCESS

Do you agree with the following statements below?

	Strongly disagree 1	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
C21. Access to finance is a major obstacle for our current business operations					
C22. We have easy access to finance to support business operations.					
C23. Our business operations are better financed than our key competitors operations.					

The following sources of finance are significant in financing our business activities:

	Strongly disagree 1	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
C24. Internal funds or retained earnings					
C25. Owners contributions or issued new equity share					
C26. Borrowed from bank (private and state owned)					
C27. Borrowed from non-bank financial institutions (micro-finance, credit unions, credit corporations, etc.)					
C28. Purchases on credit from suppliers and advance from customers					
C39. Business angels, venture capital					
C30. Other (money lenders, friends, family, bonds)					

Should you want to obtain a loan from a financial institution, how important are the following factors?

	Strongly disagree 1	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
C31.Convenient location of financial institution.					
C32. Quick processing of loan.					
C33. Staff efficiency (Quality of service).					
C34. Low interest rates					
C35.Convenient repayment period.					
C36. Absence of requirement for fixed property as collateral.					
C37. Availability of financial services from the same financial institution.					

What kind of Government action would assist your business the most amidst this current economic climate?

	Strongly disagree 1	**Disagree 2**	**Neither Nor 3**	**Agree 4**	**Strongly Agree 5**
C38. Lowering taxes					
C39.Simplification of the registration process					
C40. Government loans					
C41. Subsidies to keep employees on payroll					

Thank you for taking part in this survey.

If you would like to receive a report on the findings, please e-mail the researcher, as it is on request.

41832515@mylife.unisa.ac.za

APPENDIX B: ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

UNISA DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING ETHICS REVIEW COMMITTEE

Date: 16 NOVEMBER 2018

ERC Ref #2018/CEMS/FRMB/020
Name : Ms M Changwesha
Student #: 50663399

Dear Ms M Changwesha

Decision: Ethics Approval from 16 November 2018 to 31 October 2023

Researcher(s): Name Ms M Changwesha

E-mail address **memoryc337@gmail.com**, telephone 0627566723

Supervisor (s): Name Prof a Mutezo

E-mail address muteza@unisa.ac.za, telephone 012 429 4595

Working title of research:

The relationship between financial literacy and financial access among SME's in the Ekurhuleni metropolitan municipality, South Africa

Qualification: MCOM Financial Management

Thank you for the application for research ethics clearance by the Unisa DFRB Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period

16 November 2018 to 31 October 2023

*The Negligible **risk application** was **reviewed** by the DFRB Ethics Review Committee on 16 November 2018 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment*

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the DFRB Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No field work activities may continue after the expiry date 31 October 2023 Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 2018/CEMS/FRMB/020 *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

16/11/2018

Signature

Chair of DFRB ERC : Prof K Tsaurai

E-mail: tsaurk@unisa.ac.za

Tel: (012) 429-2140

Signature

Executive Dean: Prof T Mogale

E-mail:mogalemt@unisa.ac.za

Tel: (012) 429-4805

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX C: LETTER OF APRROVAL

OFFICE OF THE CITY MANAGER

City of Ekurhuleni

HEAD OFFICE
Cnr Cross and Roses Streets
Germiston
Private Bag X1069
Germiston 1400
South Africa
Tel: (011) 999-1070
Fax: (011) 999-1811
city.manager@ekurhuleni.gov.za
www.ekurhuleni.gov.za

To: Ms Memory Changwesha

From: Dr Imogen Mashazi
City Manager

Enq: **Thabo Nzoyi**
Thabo.Nzoyi@ekurhuleni.gov.za

Tel: 011 999 0796

RESEARCH ON THE RELATIONSHIP BETWEEN FIANCIAL LITERACY AND FINANCIAL ACCESS AMONG SME'S IN THE CITY OF EKURHULENI.

Dear Mr Changwesha,

The Office of the City Manager acknowledges your request to conduct research on the relationship between financial literacy and financial access among SME's in the City of Ekurhuleni.

Permission to conduct the research is hereby granted provided it does not interfere with assigned responsibilities.

You are welcome to engage with the Head of Department: Strategy and Corporate Planning Department Mr Anathi Zitumane who will assist you in coordinating the people you wish to interview.

Yours Sincerely,

Zanele Katembo
Functional Specialist

2a/10/2018
Date

Dr. Imogen Mashazi
City Manager

30/10/2018
Date

APPENDIX D: SIMILARITY REPORT

Turnitin Originality Report

Processed on: 30-Aug-2019 12:00 SAST

ID: 1165231116

Word Count: 21868

Submitted: 1

Similarity Index	Similarity by Source	
8%	Internet Sources:	4%
	Publications:	1%
	Student Papers:	7%

Complete Dissertation Revision 3 By Memory CHANGWESHA

< 1% match (student papers from 28-Dec-2015)
Submitted to University of the West Indies on 2015-12-28

< 1% match (Internet from 08-May-2019)
http://ir.jkuat.ac.ke/bitstream/handle/123456789/1709/SANG%2c%20WOTHAYA%20HELLEN-PHD%20HRM-2015.pdf?isAllowed=y&sequence=3

< 1% match (student papers from 04-Apr-2019)
Submitted to Heriot-Watt University on 2019-04-04

< 1% match (student papers from 31-Jan-2018)
Submitted to University of Cape Town on 2018-01-31

< 1% match (Internet from 21-Mar-2019)
http://uir.unisa.ac.za/bitstream/handle/10500/23527/dissertation_swart_c.pdf?isAll=&sequence=1

< 1% match (student papers from 14-Nov-2016)
Submitted to North West University on 2016-11-14

< 1% match (Internet from 17-Dec-2018)
https://docplayer.net/81359609-The-integration-of-talent-management-and-knowledge-management-in-the-south-african-public-service.html

< 1% match (student papers from 17-Nov-2018)
Submitted to Taylor's Education Group on 2018-11-17

< 1% match (student papers from 18-Dec-2015)
Submitted to Segi University College on 2015-12-18

APPENDIX E: PROOF OF LANGUAGE EDITING

Juanita du Toit

Language Editor and Translator

8 Linpark Crescent

George Street

STRAND 7140

☎ +27+21-850 8200   076 821 2588

11 September 2019

DECLARATION

I hereby certify that the thesis by **MEMORY CHANGWESHA** was properly language edited but without viewing the final version.

The track changes function was used and the author was responsible for accepting the editor's changes and for finalising the reference list.

Title of thesis:

THE RELATIONSHIP BETWEEN FINANCIAL LITERACY AND FINANCIAL ACCESS AMONG SMEs IN THE EKURHULENI METROPOLITAN MUNICIPALITY, SOUTH AFRICA

……………………………………….

JUANITA DU TOIT

Strand

South Africa

11 September 2019