UNIVERSITY OF KWAZULU-NATAL

ANALYSING THE NEED FOR FINANCIAL LITERACY IN MICRO-ENTERPRISES IN THE CITY OF UMHLATHUZE, KWAZULU-NATAL.

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Abstract

Small, Medium and Micro-Enterprises (SMMEs) have a fundamental role to play in the South African Government's National Development Plan. Jobs created by this sector are expected to alleviate poverty and drive economic transformation. Financial literacy is key to the sustainability of SMMEs. The main objective of the study was to establish the financial literacy needs of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. The participants' financial literacy level was measured, and areas of financial literacy weakness were identified. The possibility of a significant relationship between financial literacy and the gender, age, education, and years in business of micro-entrepreneurs was also explored. A quantitative research approach was used to gather and analyse primary data collected from fifty micro-entrepreneurs in the City of uMhlathuze. A non-probability sampling technique was used, and hence the results are unique to these participants and should not be generalised. The study revealed a high level of financial literacy. The weakest domains of financial literacy were financial planning, budgeting and control; risk management; and understanding funding sources. Additional weaknesses include insufficient use of digital technologies and inefficient use of financial investment products. Inadequate knowledge of external funding sources and prevalent macro-environmental conditions were also revealed. Lastly, the study concluded that the demographic factors tested do not serve as suitable predictors of an individual's financial literacy score. Financial education interventions are recommended to support the sustainability of SMMEs.

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List of Acronyms

SEDA	Small Enterprise Development Agency
SME	Small and Medium Enterprise
SMME	Small Medium and Micro-Enterprise
USAID	United States Agency for International Development

Chapter 1 Introduction

1.1 Introduction and background

Small and medium enterprises play a vital role in stimulating economies around the globe (Organisation for Economic Co-operation and Development, 2017). The South African Government has expressed that the Small, Medium and Micro-Enterprise (SMME) sector is an integral part of the country's plan to enhance economic growth through increased productivity and innovation, by stimulating investment in local industry (Department of Trade and Industry, 1995).

In 2004, the Small Enterprise Development Agency (SEDA) was founded to support and promote small businesses and stimulate local economic development. In 2009, however, SBP Business Environment Specialists (2009) reported that South Africa's efforts to support small businesses fell short of those in other developing countries. Stepping up its efforts, the South African government founded the Ministry of Small Business Development in 2014 to prioritise small business development as a tool to address poverty, unemployment, and economic transformation (Finmark Trust, 2015).

The National Development Plan 2030 (South African Government, 2012) exhibits parallel intentions by highlighting the need to reduce unemployment as a priority, aiming for SMMEs to employ 90% of the South African workforce. To this end, the Medium Term Strategic Framework of the South African Government, formulated for 2014 – 2019, tasked the Ministry of Small Business Development to grow the local small business sector and support rural industries (South African Government, 2014). According to the United States Agency for International Development, SMMEs employed only 60% of South Africa's workforce in 2019 and supplied half the nation's gross domestic product (United States Agency for International Development, 2019).

Trading Economics (2021) reports that South Africa's unemployment rate for the second quarter of 2021 is at 34.4%, which is the highest rate since comparative data was first made available in 2008. Statistics South Africa (2021) published provincial data for the same quarter, revealing that the corresponding rate for KwaZulu-Natal is 32.5%. This metric measures all job-seekers in the marketplace. Trading Economics (2021) also report that youth unemployment, which only considers individuals aged 15 to 24 years, has soared to 64.4% in the second quarter.

SMMEs have been shown to alleviate poverty by creating an income stream for business owners and their employees (Hassan and Ahmad, 2016). While the literature reports that SMMEs in South Africa have previously made a difference in the fight against unemployment (Makwara, 2019), more recent statistics reflect that the number of jobs supplied by SMMEs is decreasing. The SMME Quarterly Update 1st Quarter 2018 (Small Enterprise Development Agency, 2018) reports that the number of SMMEs has reduced from 2,48 million to 2,44 million over one year, with a corresponding drop of 1.68 million jobs. This is an astounding 20% fall in SMME employment. SEDA reports that most of the enterprises that closed during this time were fledgling businesses between two and three years old (Small Enterprise Development Agency, 2018). While alarming, this statistic is not surprising as new SMMEs are prone to high failure rates (Bushe, 2019), with as many as 75% of new ventures surviving for less than two years (Fatoki and Odeyemi, 2010).

The National Small Enterprises Act of 2004, read with Schedule 1 (amendment), sets out three categories of small businesses in South Africa: small, medium, and micro-enterprises. A review of the literature on the SMME sector in South Africa reveals that more research has been performed on small and medium enterprises and relatively little on micro-enterprises, despite these being the majority in the South African SMME sector (Finmark Trust, 2015). Micro-enterprises, which are at the centre of this research project, have no more than ten employees and an annual turnover within the maximum prescribed for the respective industry in which the business operates (ranges from R5m to R20m) (Department of Small Business Development, 2019). The owner of a micro-enterprise is known as a micro-entrepreneur.

The geographical context of the study

This research project is located in the City of uMhlathuze, which is a municipality in Zululand, a region of the Kwazulu-Natal province on the east coast of South Africa. The economic activities of the region range from subsistence farming to large-scale commercial farming, informal street trading, and manufacturing of goods for export. Despite being home to the largest harbour port (Richards Bay) in South Africa, the region is distinctly rural.

A community survey indicates that Zululand had approximately 900 000 people in 2016, of which 410 465 reside in the City of uMhlathuze (Statistics South Africa, 2016). This is the context of the study.

1.2 Problem statement

The City of uMhlathuze is the economic powerhouse of Zululand (City of uMhlathuze, 2020). However, the greater Zululand area is economically underdeveloped, and there are many economically inactive people in the City of uMhlathuze (uMhlathuze Local Municipality, 2019). It follows that the success of existing micro-enterprises is critical to the local and national economy.

The 2011 Census revealed that 37% of the adult population in the City of uMhlathuze was employed. However, The Final IDP Review 2018/2019 reports on a more recent survey by Global Insights in 2017 that indicates a drop in employment down to 24.6%. A reduction in the employment rate contrasts with the government's economic growth prerogative, presenting a significant challenge to the well-being of the municipality.

SMMEs in South Africa are reducing in number (Small Enterprise Development Agency, 2018), with many not surviving beyond the first two years of trade (Fatoki and Odeyemi, 2010). Scholarly literature reports that South Africa sees more SMME failures than most other countries in the world (Bruwer, Beck, Naidoo and Green, 2019). If SMMEs in the City of uMhlathuze do not thrive, the local economy will not grow to alleviate poverty through job creation and economic transformation.

Poor financial literacy is known as being a common factor that influences the failure of small businesses. The level of financial literacy of current micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal is unknown. Accordingly, the sustainability of existing micro-enterprises in this municipality is uncertain. This is a problem because the viability of existing micro-enterprises in the region is crucial to local and national economies.

An investigation into the financial literacy of these micro-entrepreneurs could provide insight into the likelihood of the sustainability of their enterprises. The investigation could also highlight the strengths and weaknesses of the micro-entrepreneurs' financial literacy skills. This knowledge could develop and assist future micro-entrepreneurs, thus strengthening the SMME sector in the City of uMhlathuze, Kwazulu-Natal.

Accordingly, the current project seeks to emulate a study undertaken by Fatoki (2014), which investigated the financial literacy of micro-entrepreneurs operating in the CBD of Johannesburg, South Africa. To my knowledge, no similar study has been done in the City of uMhlathuze, KwaZulu-Natal. This will add to the literature on the financial literacy of SMME owners in South Africa.

The University of KwaZulu-Natal granted ethical clearance to this research project (refer Appendix 4).

1.3 Research aim and objectives

1.3.1 Research aim

The study aims to determine whether there is a need for financial education to support the sustainability of micro-enterprises in the City of uMhlathuze, KwaZulu-Natal. This will be achieved through an investigation of the financial literacy of the owners thereof.

1.3.2 Research objectives

To establish the financial literacy needs of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal.

1.3.2.1 To establish the level of financial literacy of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal.

1.3.2.2 To establish financial literacy weaknesses in micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal.

1.3.2.3 To establish any significant relationships between financial literacy and the biographic and demographic information such as gender, age, education, and years in business of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal.

1.4 Research questions

What is the nature of, and the need for, financial literacy skills in micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal?

1.4.1 What level of financial literacy do micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal possess?

1.4.2 What financial literacy weaknesses exist in micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal?

1.4.3 Are there any significant relationships between financial literacy and the biographic and demographic information such as gender, age, education, and years in business of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal?

1.5 Significance of the study

The study adds to the body of literature on the financial literacy of business owners in South Africa. Financial literacy is a construct that is linked to the sustainability of small and medium enterprises (Bushe, 2019; Ye and Kulathunga, 2019). The study is of importance to those who live in the area because it deals with the economic health of the micro-enterprise sector in the City of uMhlathuze, Kwazulu-Natal. This is also of concern to those who govern the local municipality since industry drives economic welfare. Successful, sustained enterprises are needed to alleviate local poverty through job creation (Department of Trade and Industry, 1995).

In addition, the strengths and weaknesses in micro-entrepreneurs' financial literacy revealed by the study will provide insight for local educational institutions. These include schools, colleges, the University of Zululand, and government development agencies. Areas of financial literacy that require attention through skills training programmes will be identified, and the recommended remedial action may curtail future business failure in the City of uMhlathuze, Kwazulu-Natal.

1.6 Delimitations of the study

The study relies on honest feedback from participants. The legitimacy of the participants' responses may be affected by several factors. These include a misinterpretation or misunderstanding of the questions, especially in a respondent whose home language is not English, and pride or self-efficacy belief if they have misplaced confidence in their financial knowledge and capabilities.

The study is limited to micro-enterprises trading from a prominent business address in the City of uMhlathuze, KwaZulu-Natal, during 2021. Accordingly, it must be noted that not all the micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal, are suitable participants for this study.

The study results are not generalisable to other geographic areas since a non-probability sampling design is used.

Chapter 2 Literature review

2.1 Introduction

This study investigates the extent of the needs of existing micro-entrepreneurs in the City of uMhlathuze concerning financial literacy. In order to achieve this, the financial literacy levels of micro-entrepreneurs are measured, and weaknesses are identified. Firstly, the construct of financial literacy is defined in order to lay a conceptual foundation. Secondly, the factors contributing to financial literacy are discussed, and the relevance of financial literacy to micro-enterprises is investigated to establish a theoretical framework for the study. Finally, an empirical review of literature on the financial literacy of business owners in South Africa is reviewed to provide the reader with an understanding of what other researchers have already established.

2.2 Conceptual framework

2.2.1 Definition of financial literacy

Despite having been a growing area of research for several years, financial literacy does not have one consistent definition in the literature (Huston, 2010; Remund, 2010; Roberts, Struwig and Gordon, 2014; Musie, 2015).

Atkinson, McKay, Collard and Kempson (2007) posit that financial literacy, being more than a collection of basic skills, is a capability that involves acting on acquired knowledge in the pursuance of a particular objective. Their research shows that financial capability comprises money management, financial planning, discernment in financial product choices, and keeping abreast of information relating to finances.

Remund (2010) and Huston (2010) concur that financial literacy includes knowledge and skills relating to budgeting, saving, investing, and borrowing, while Lusardi and Mitchell (2014) describe it as an ability to comprehend financial data in order to make informed judgements relating to financial matters. The South African Financial Services Board recognises day-to-day money management, financial planning, choosing appropriate financial products, and financial knowledge and understanding as the four critical domains of financial literacy (Roberts *et al.*, 2014).

Derbyshire (2016), in her review of definitions of financial literacy, points out that knowledge of financial matters alone does not equate to financial literacy. Instead, it includes comprehension of this knowledge and applying such knowledge in effective money management. In addition, it encompasses basic literacy and numeracy skills and those required for prudent financial decision-making in the presence of risk (Derbyshire, 2016).

Fatoki (2014) differentiates between personal financial literacy and that which exists in a business context. He asserts that business financial literacy extends one's ability to manage personal finances into the business sphere.

Nadler (2009) in Eresia-Eke and Raath (2013) posits that a definition of business financial literacy should include skills such as understanding financial statements and using these to inform financial decisions. He cautions users to be aware of the limitations of financial statements and seek professional assistance on complex matters contained therein.

The Banking Association of South Africa expands on this in their application of the concept of financial literacy to a corporate context as follows: a financially literate business owner has entrepreneurial inclinations and basic business management skills; has reasonable personal finance practices; understands accounting systems and financial management principles such as those about capital structuring and the risk and cost implications of different sources of funding, and is aware of, and understands, financial regulations applicable to SMMEs, and assistance and relief options available to SMMEs (Banking Association of South Africa, 2019). This study adopts this definition of financial literacy due to its applicability to micro-entrepreneurs in South Africa.

2.2.2. Proposed constructs for measuring financial literacy

The measurement of financial literacy poses a challenge to researchers due to the lack of a standardised instrument for this purpose (Remund, 2010; Fatoki, 2014; Musie, 2015) and the difficulty associated with measuring this multi-faceted issue (Lusardi and Mitchell, 2011).

The concept of measuring financial literacy is relatively new, having become more common since 2000, and researchers have varied in their interpretation of the measurement constructs (Derbyshire and Fouché, 2018). One approach is to measure financial literacy using an unbiased knowledge-based test. The answers are assigned a grade and the respondent's financial literacy score will be the grade achieved for the test. Another approach is subjective, requiring respondents to rate their level of financial literacy personally through a process of self-assessment (Mutengezanwa, 2018).

Self-assessment is often criticised as it is indicative of the respondents' perceived levels of financial literacy, which may not correlate with their actual financial knowledge and ability. Despite this, it is contended that a self-assessment of financial literacy influences confidence and the consequential behaviour that stems from that confidence can be predictive. In other words, an individual who takes action in the belief that he or she is financially literate can reap the same rewards that would have accrued to a truly financially literate individual taking that same action. Conversely, a lack of confidence associated with perceived financial illiteracy would likely prevent the individual from taking any action at all, thus reflecting the behaviour of a truly financially illiterate individual. This suggests that actual and perceived knowledge and abilities manifest in similar behaviours (Hung, Parker and Yoong, 2009). Both measurement approaches are thus plausible.

The following scholars show the lines of questioning that have been used for measuring financial literacy in prior studies. Remund (2010) reviewed the literature on the definition of financial literacy and recommends that researchers employ questions on budgeting, saving, borrowing, and investing in measuring financial literacy. Huston (2010) found that participants were probed on their knowledge of budgeting, inflation, mortgages, retirement savings, insurance, and the use of credit cards.

In their research, Lusardi and Mitchell (2011) tested basic numeracy skills relating to compound interest and conceptual understanding of inflation and risk diversification. Oanea and Dornean (2012) asked questions that distinguished between financial knowledge, abilities, and awareness of financial matters when they measured the financial literacy of Romanian economics students. This approach agrees with the assertion of Hung *et al.* (2009) that it is necessary to distinguish between financial knowledge, financial ability, and financial behaviour as these are different constructs within financial literacy.

Oseifuah (2010) measured financial literacy by investigating mathematical and computer proficiency, financial attitude, financial knowhow, and financial conduct. Sucuahi (2013) rated participants' financial literacy based on their practices concerning record keeping, savings, debt management, and budgeting.

Fatoki (2014) used seven domains to measure the financial literacy of micro-entrepreneurs as follows: (1) financial planning, budgeting and control (2) bookkeeping (3) understanding of funding sources (4) understanding of business terminology (5) finance and information-related skills (6) use of technology and (7) risk management.

This study adopts Fatoki's measurement approach as it is broad-based and encompasses various financial literacy domains, thus generating a robust measure. Moreover, it contains questions that vary across those that address the respondents' financial knowledge, financial ability and financial behaviour, as recommended by Hung *et al.* (2009). The approach is relevant to this study as Fatoki also undertook his research in South Africa.

These domains will each be investigated in turn.

2.2.2.1 Financial planning, budgeting, and control as a financial literacy domain

Financial planning is a process of decision-making concerning investing and financing activities of a business to maximise the firm's value (Chinjova and Gara, 2021). A financial budget is a forecast used to project business income and expenses in future periods and is an essential management control instrument (Musie, 2015). Budgets should be written down, and performance should be monitored regularly against the budget (Sucuahi, 2013).

Kibor and Maina (2019) and Abongo (2018) report that budgeting positively and significantly influences the financial performance of Small and Medium Enterprises (SME). Warue and Wanjira (2013) posit that small businesses that do not budget remain small and stagnate over time. Chinjova and Gara (2021) found that financial planning is positively correlated to improved profitability, economic sustainability and growth of manufacturing SMEs. However, many SMEs neglect to budget (Mabhanda, 2015).

2.2.2.2 Bookkeeping as a financial literacy domain

Record-keeping assists owners to measure the performance of the business, manage cash flows, and establish the business's financial position at a point in time (Derbyshire, 2016). These records are an essential business management tool, critical for decision-making and risk management (Sucuahi, 2013).

Business owners who are more financially literate have been found to prepare financial statements more regularly (Wise, 2013). Improved bookkeeping ability was associated with improved access to formal debt finance (Cameron and Hoque, 2017). No business can run effectively without some form of accounting records (Mabhanda, 2015). Despite their importance, small business owners often do not keep records of transactions, or if they do, they are often incomplete (Mabhanda, 2015; Mandizvidza and Mapepeta, 2017).

2.2.2.3 Understanding of funding sources as a financial literacy domain

Start-up funding for small businesses often comes from the owner's funds, family members or bank loans. Venture capitalists are often only willing to advance funds once the business is in an established stage of development. Scarcity of external funding leads to underdevelopment as there is no money for necessary resources to grow the business. It is a problem that entrepreneurs are often not aware of alternative sources of funds (Staniewski, Szopiński and Awruk, 2016).

Saving, investing, and borrowing are activities that require an understanding of basic financial principles (Lusardi, 2019). The probability that an individual will invest savings in an interest-bearing account increases with financial literacy. Furthermore, access to formal credit and improved capital structuring also increases as financial literacy increases (Hasler and Lusardi, 2017). Inaccessible credit is the most significant barrier to growth in the SMME sector (Bureau for Economic Research, 2016; Wang, 2016; Worku, 2016).

2.2.2.4 Understanding of business terminology as a financial literacy domain

The National Council on Economic Education (2005 p 3) in Hung *et al.* (2009) includes "familiarity with basic economic principles and … an understanding of some key economic terms" in their definition of financial literacy. Hung *et al.* (2009) explain that financial knowledge is distinct from general knowledge.

2.2.2.5 Finance and information-related skills as a financial literacy domain

Strong accounting skills have been shown to have a positive, statistically significant impact on achieving an entity's fundamental financial goals (Bruwer *et al.*, 2019). Business owners who are more financially literate have been found to prepare financial statements more regularly. Regular preparation of financial statements leads to timeous debt repayments and fewer forced business closures due to debt mismanagement (Wise, 2013).

Information and Communication Technologies (ICT) aid SMEs to reach markets and network widely at low cost, improving competitiveness and enabling e-commerce. The internet can be leveraged to reduce fixed costs through outsourcing business information infrastructure, such as cloud accounting (Organisation for Economic Co-operation and Development, 2017).

2.2.2.6 Use of technology as a financial literacy domain

SMEs are trailing behind in digital transition. Cost efficiencies and new opportunities are forgone while existing market share is simultaneously threatened by the increased availability of competitors' goods and services on the internet. (Organisation for Economic Co-operation and Development, 2017).

2.2.2.7 Risk management as a financial literacy domain

Business insurance is a financial services product intended to reduce risk exposure. SME risk management may be strengthened by purchasing insurance cover (Nunoo and Andoh, 2011).

2.2.3 Factors that contribute to financial literacy

Lusardi and Mitchell (2011) assert that financial literacy should not be taken for granted. Derbyshire (2016) reports that one's financial literacy skills are determined and impacted by factors such as an essential ability to read, write and communicate, numeracy proficiency, and the extent of financial education previously received. She adds that psychological factors such as anxiety or stress can impede financial decision-making. This can negatively affect an assessment of financial literacy skills. In contrast, personal motivation to learn and improve money management skills and financial satisfaction derived from the successful application of financial literacy skills can positively influence an individual's financial literacy skills.

Several studies have investigated the possibility that demographic factors contribute to an individual's level of financial literacy. These factors include the gender, age, and level of education of the individual, and the number of years in business.

2.2.3.1 Gender as a determining factor of financial literacy

According to Abreu and Mendes (2010), men are better informed about financial matters than women. While Hasler and Lusardi (2017) propose that men display more confidence in their financial knowledge and are also more likely to borrow money than women. A persistent finding of financial literacy studies is that females are less financially literate than males, even when taking into account differences in education levels, years of maturity, nationality and earnings (Klapper, Lusardi and Van Oudheusden, 2015; Klapper and Lusardi, 2020). However, it has been observed that females will more readily admit that they do not know the answer when asked questions about their financial knowledge and skills than males (Lusardi and Mitchell, 2011; Lusardi and Mitchell, 2014; Klapper and Lusardi, 2020). Lusardi and Mitchell

(2011) posit that men keep up with economic and financial market developments better than women do.

In 2014, Standard & Poor's Ratings Service carried out a global financial literacy survey (S&P Global FinLit Survey) across more than 140 countries. This survey reported that 30% of women worldwide are financially literate as opposed to 35% of men. However, the same survey reported that in South Africa, gender did not impact financial literacy. In other words, an equal proportion of men and women were found to be financially illiterate (Klapper *et al.,* 2015; Klapper and Lusardi, 2020).

In contrast with the findings of other studies mentioned above, Sucuahi (2013) found no significant correlation linking gender and financial literacy in his study undertaken in the Philippines and thus concluded that gender could not predict the financial literacy of micro-entrepreneurs.

2.2.3.2 Age as a determining factor of financial literacy

Financial literacy is lowest in the very young and the very old, peaking in the middle age category (35 to 50 years of age); reflecting the notion that knowledge rises with experience and falls when it is no longer utilised and maintained (Lusardi and Mitchell, 2011). Abreu and Mendes (2010) found that financial literacy peaked at approximately 43 years of age. Klapper and Lusardi (2020) report that the S&P Global Finlit Survey elicited findings for advanced economies similar to those of Lusardi and Mitchell (2011). However, they highlight that the young adults (under 35) had the highest financial literacy levels of all age groups in emerging economies.

Level of education, age, and gender have all been found to impact an individual's financial literacy, regardless of whether the individual resides in a well-developed or an emerging economy (Klapper *et al.*, 2015; Klapper and Lusardi, 2020).

2.2.3.3 Education as a determining factor of financial literacy

Many researchers report a positive association between formal education levels and financial literacy (Lusardi and Mitchell, 2011; Sucuahi, 2013; Samkin, Pitu and Low, 2014; Klapper *et al.*, 2015; Klapper and Lusardi, 2020). Higher financial literacy is reported where an individual has post-high school education (Abreu and Mendes, 2010; Klapper *et al.*, 2015). Hakim, Oktavianti and Gunarta (2018) report that education is the most substantial determining factor that contributes to the financial literacy of a small business owner.

Danns and Danns (2017) agree that financial training is essential to develop financial literacy. Basic accounting skills such as record-keeping, budgeting, and managing cash flows, required for effective money management in a business environment, can be acquired through training (Derbyshire, 2016). Drexler, Fischer and Schoar (2014) found that financially illiterate business owners who received 'rule of thumb' financial training experienced improved financial performance in their businesses. 'Rule of thumb' training teaches simplified financial principles as common sense rules to be applied, rather than strict accounting training. Consequently, they suggest that 'rule of thumb' financial training may be more effective for business owners with low financial literacy.

In contrast to this, Skimmyhorn, Davies, Mun and Mitchell (2016) found little difference in the effectiveness of each of the above methods. However, they report that the principles-based method appeared to improve the participants' confidence in their abilities. In contrast, the rule of thumb approach appears to give licence to participants to go it alone and refrain from seeking professional assistance from competent practitioners. Both researchers, however, recognised the importance of upskilling the SMME owners, regardless of the method used.

2.2.3.4 Number of years in business

Self-employment positively impacts financial literacy (Ćumurović and Hyll, 2019). Informal education such as on the job training and skill transfers between peers in the workplace has also been noted to improve financial literacy levels (Lusardi and Mitchell, 2011; Samkin *et al.*, 2014). Klapper and Lusardi (2020) note that 'learning by doing' is another mechanism where experience drives financial literacy. This may explain why individuals who work or are self-employed are more financially literate than their counterparts who are not working (Lusardi and Mitchell, 2011). Bucher-Koenen and Lusardi (2011) found that familiarity with financial products enhances financial literacy. Examples of these products include bank accounts, credit and insurance.

2.2.4 The importance of financial literacy

The global financial crisis of 2008/2009 highlighted the susceptibility of the financial sector to poorly-informed financial decisions taken by investors. Financial literacy has subsequently been identified for its role in maintaining financial market stability (Klapper and Lusardi, 2020) and its role as a determinant of financial well-being (Yakoboski, Lusardi and Hasler, 2021).

An understanding of basic financial principles is needed for sound financial decision-making in the fields of saving, investing and borrowing (Remund, 2010; Klapper *et al.*, 2015; Lusardi, 2019). Financial literacy is positively correlated to formal savings. In other words, the likelihood of investing savings with an institution is higher for a financially literate individual than one who is not financially literate. However, research shows that many investors do not have the financial knowledge to benefit from the financial products (Hasler and Lusardi, 2017). This ignorance leads to the use of inefficient and informal financial services such as storing savings under the mattress, borrowing from friends or family, and investing in products or schemes that present greater risk than return (Mutengezanwa, 2018).

The ability to comprehend and use financial information and make informed financial decisions is more critical in the new financial age than ever before (Lusardi and Mitchell, 2011). Financial decisions can have favourable or unfavourable outcomes, both of which can impact one's financial standing far into the future (Yakoboski *et al.*, 2021).

Klapper and Lusardi (2020) point out that the cost of financial illiteracy is high since those who do not understand concepts such as the compounding of interest unwittingly pay higher transaction costs, accumulate more debt, and accept higher interest rates on loans. This can ultimately lead to financial ruin or bankruptcy. Conversely, financially literate individuals better plan and save for retirement (Lusardi and Mitchell, 2014) and diversify their risk by investing across multiple sectors (Abreu and Mendes, 2010).

Klapper and Lusardi (2020) caution that new financial products, which have elevated finance costs and complicated provisos, are becoming increasingly accessible in the market due to governments' efforts to make the availability of financial services more widespread. If those partaking in these financial instruments are financially illiterate, the financial market and the consumer face escalated risk. Financial fragility has been linked to a lack of financial literacy, which negatively affects an individual's ability to cope with unanticipated expenses (Hasler and Lusardi, 2017; Hasler, Lusardi and Oggero, 2018).

The Covid-19 pandemic is a recent example of unexpected financial hardship. It has highlighted the importance of financial literacy to cope with turbulent economic conditions and the importance of savings (Lusardi, Hasler and Yakoboski, 2020; Yakoboski *et al.*, 2021).

Lusardi et al. (2020) reveal that financial literacy is positively linked to financial resilience. When asked whether it would be possible to raise $2 000 in one month, only one in every five respondents from those ranked as having low financial literacy answered in the affirmative. In contrast, four out of every five respondents ranked as financially literate responded positively (Lusardi *et al.*, 2020).

Lusardi (2019) explains that financial literacy is as important as reading and writing as it is needed for sound financial decision-making.

2.2.5 Importance of financial literacy in micro-enterprises

Freudenberg, Chardon, Brimble and Isle (2017) assert that the level of financial literacy required to navigate commerce successfully is more demanding than that required to run one's personal finances. They emphasise that financial literacy in a business context is very relevant in identifying and avoiding financial problems before they occur, if possible, or in addressing financial problems when they occur.

The business owner's ability to understand the business's financial position and performance and effectively manage associated cash flows also acts as a tool for risk management (Derbyshire, 2016). Wise (2013) identified the lack of financial management skills as a significant factor contributing to the failure of SMEs. Dahmen and Rodríguez (2014) report similar findings in their analysis of 14 small enterprises in New Zealand. Seven of these businesses were experiencing financial difficulty. It was established that six of the seven owners/managers did not review the business's financial statements due to a lack of understanding thereof. Their inability to understand the financial statements and take decisive, corrective action was concluded to have contributed to the weak financial position of the business.

Detection of problems through a heightened understanding of business finances can reduce the likelihood of an unexpected financial crisis. Financial literacy is necessary and carries great relevance for small business owners (Derbyshire and Fouché, 2018).

Nunoo and Andoh (2011) researched how financial literacy influenced Ghanaian SMEs. They found that financial literacy is crucial in stimulating the SME sectors and that financial literacy positively affects SME performance. Many subsequent studies have confirmed these findings (Ngek, 2016; Engström and McKelvie, 2017; Siyanbola, 2018; Bruwer *et al.*, 2019).

Maintaining income and expense records and keeping expenses under control are crucial business practices (Samkin *et al.*, 2014). In particular, expertise in financial planning, working capital management, fixed asset management, and financial reporting and control procedures were noted for their favourable impact on SME performance (Karadag, 2015). Siyanbola (2018), who undertook his research in Nigeria, was so convinced that he concluded that if more small business owners had adequate financial literacy levels, small businesses would be able to generate sustainable development in the Nigerian economy.

Kotzè and Smit (2008) report that a lack of financial literacy has been associated with poor financial management decisions such as overspending, incomplete record-keeping of business transactions, failure to plan and budget and contradictory investment approaches. They report that this contrasts with behaviours of successful business owners who are confident in their management of personal and business financial resources.

Bruwer *et al.* (2019) found that where owner-managers of small businesses possessed accounting skills, this had a positive, statistically significant impact on achieving the entity’s fundamental financial goals. They extended their findings to suggest that the consequence of meeting these financial goals is to enhance the business's future viability. It can also be concluded that financial literacy supports business sustainability since satisfactory business performance neutralises negative external factors, reducing threats to the business’ viability (Ye and Kulathunga, 2019).

Financial literacy has been found to mediate access to credit (Hakim *et al.*, 2018; Ye and Kulathunga, 2019) and positively influence attitudes to financial risk (Ye and Kulathunga, 2019). This is very important since SMMEs need access to credit to expand their businesses (Wang, 2016; Derbyshire and Fouché, 2018). Inaccessible credit is the most significant barrier to growth in the SMME sector (Bureau for Economic Research, 2016; Wang, 2016; Worku, 2016). The resulting use of debt resources supports the sustainability of an enterprise and improves financial performance (Ngek, 2016).

Wise (2013) found that increased use of financial ratio analysis resulted in the more regular perusal of financial reports, which prompted timeous debt repayments and reduced the risk of a business closure. Good management of debt resources, including timeous repayments, promotes business survival (Wise, 2013). This is supported by Kotzè and Smit (2008), who report that consumers who are more financially literate are more likely to observe debt repayment terms. This is yet another way financial literacy positively impacts the sustainability of SMEs (Ye and Kulathunga, 2019) and can be said to enhance the relationship between access to credit and enterprise growth (Adomako, Danso and Ofori Damoah, 2016).

Hussain, Salia and Karim (2018) investigated the relationship between financial literacy, credit access and SME growth in Britain. Their findings confirm those of Hasler and Lusardi (2017) that greater financial literacy correlates with greater access to formal credit and improved capital structuring. Ngek (2016) reports that greater financial literacy is linked to improved financial performance primarily when mediated by the availability of financial capital. This use of financial gearing creates a conducive environment for business growth (Adomako *et al.*, 2016), creating employment and stimulating economic growth (Mutengezanwa, 2018).

In contrast, Chimucheka and Rungani (2011) report that no statistically significant association was detected between the growth of small businesses and the financial literacy of the related owners. Engström and McKelvie (2017) caution that financial literacy does not predict business growth in the case of informal traders. Nonetheless, it is fair to say that in an environment of high unemployment and poverty, sustainability is a desirable outcome in the absence of growth.

Klapper and Lusardi (2020) report that governments encourage more ready access to financial products to promote economic growth through the successful use of credit, as discussed above. However, the authors caution that a lack of understanding of interest and its compounding puts borrowers, and the financial sector, at risk. In other words, borrowers may not realise the extent of the amount owing if they do not understand compound interest (Hasler and Lusardi, 2017). This can lead to significant debt problems that are not easy to recover from (Mutengezanwa, 2018). Financial literacy capacitation is vital to avoid the over-indebtedness of vulnerable members of society (Klapper and Lusardi, 2020). High financial literacy of market participants will prevent excessive debt levels and promote financial stability in the economy as a whole (Mutengezanwa, 2018).

Another significant benefit of financial literacy to the economy is that sound financial decisions result in the efficient market allocation of financial resources, which has a positive effect through increased economic growth rates and financial stability. In addition, financial markets operate more efficiently where financially savvy investors understand the risks associated with financial product offerings and compare and choose financial products and services that are cheaper and offer better returns (Mutengezanwa, 2018).

Making financial decisions is a critical financial literacy component for small business owners (Ngek, 2016). Mudzingiri, Mwamba, Keyser and Bara (2019) explored the relationship between financial literacy and decision-making. They report that indecisiveness in making risk and time preference choices dropped as financial literacy increased. This corroborates that financial literacy enhances confidence for effective financial decision-making. Past research reveals that many small business owners lack this skill (Drexler *et al.*, 2014; Fatoki, 2014; Derbyshire, 2016; Freudenberg *et al.*, 2017).

Derbyshire and Fouché (2018) report that many SMEs in South Africa are begun out of necessity, and owners invest their private capital in financing their businesses. These business owners are exposing themselves to significant financial risk in doing so. For this reason, individuals who are less financially literate will be less likely to embark on self-employment (Ćumurović and Hyll, 2019). Those who are more financially literate will have greater entrepreneurial skills as a result of their enhanced financial literacy level (Saptono, 2018). Financial literacy is thus also relevant in establishing start-ups.

In conclusion, the literature has found that financially literate micro-entrepreneurs have more savings, borrow and invest more wisely, utilise financial products more effectively, and experience improved business performance and sustainability. It is thus argued that more financially literate SMME owners are needed in order to stabilise and grow the economy to fulfil the national development goals.

2.3 Theoretical framework

Pioneered by Sen in the late 1900s, Capability theory suggests that individuals who have opportunities to attain specific achievements and outcomes develop the capability to achieve a superior state of functioning and thus a greater state of well-being (Robeyns, 2006). As discussed above, the attainment of financial knowledge and skills through education and skills transfer is an essential factor in increasing the financial literacy of micro-entrepreneurs.

The literature review above has revealed that improved financial literacy of business owners has many positive outcomes for the enterprise. In summary, these are improved financial decision making and business performance; more accessible credit; heightened understanding of financial reports; better attitude to and management of risk management; improved achievement of business goals; and a greater chance of business sustainability or growth.

It is argued that improved financial literacy of a micro-entrepreneur will positively impact the overall well-being and sustainability of the micro-enterprise. This is the theoretical perspective of the study.

2.4 Empirical review

This study intends to evaluate the financial literacy of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. In the sections that follow, the empirical literature from studies relating to financial literacy in South Africa is reviewed, and significant findings and results are discussed.

2.4.1 Financial literacy: On the global front

In 2014, the S&P Global FinLit Survey used a measurement instrument that was developed by Lusardi and Mitchell in 2011. Basic numeracy skills relating to interest rates, knowledge of compound interest, and conceptual understanding of inflation and risk diversification were investigated. The survey revealed that only one-third of the global adult population is financially literate. In countries with advanced and developed economies, 55% of adults were financially literate, compared to 28% in emerging economies. The S&P Global FinLit survey reported that 42% of South African adults were financially literate (Klapper *et al.*, 2015; Klapper and Lusardi, 2020).

2.4.2 Financial literacy: South Africa

Nanziri and Leibbrandt (2018) measured and profiled the financial literacy of the South African population, using data collected by Finscope surveys carried out between 2005 and 2009. They utilised this data to develop a financial literacy index to measure the financial literacy of individuals. They concluded that South Africans had an average financial literacy score of 48.4%. More specifically, the population of KwaZulu-Natal exhibited a score of 48.9%. In addition, they reported that education, income, geographical location, marital status and race exerted the most notable influence on the dispersion of financial literacy of South Africans.

It is necessary to now narrow our focus to the results of studies performed to measure the level of financial literacy of business owners in particular.

A review of the literature reveals six previous research projects undertaken in South Africa to measure the financial literacy of business owners. Three of the studies found that these business owners had low levels of financial literacy (Fatoki, 2014; Derbyshire, 2016; Ngek, 2016), and three studies reported above-average financial literacy across the respondents (Oseifuah, 2010; Chimucheka and Rungani, 2011; Eresia-Eke and Raath, 2013).

Fatoki (2014) surveyed 34 new micro-entrepreneurs operating in the CDB of Johannesburg. He tested seven domains of financial literacy being (1) financial planning, budgeting and control, (2) bookkeeping, (3) understanding of funding sources, (4) understanding of business terminology, (5) finance and information-related skills, (6) use of technology, and (7) risk management.

Derbyshire (2016) distributed questionnaires and interviewed 50 small and micro-enterprise owners in Potchefstroom, North West Province. The domains investigated included (1) financial concepts, knowledge and products, (2) financial decision-making, (3) enterprise management, strategy and planning, and (4) business administration, financial education and other.

Ngek (2016) surveyed 200 small and medium business owners in the Mangaung metropolitan municipality in the Free State, testing only whether bookkeeping functions were performed. All three of these studies elicited unfavourable results.

On the other hand, Oseifuah (2010), who surveyed and interviewed 39 youth entrepreneurs in the Vhembe District of Limpopo, reported above-average financial literacy using a self-assessment research instrument. Mathematical and computer proficiency, financial conduct, financial attitude and financial knowhow were the aspects assessed.

Chimucheka and Rungani (2011) researched the effects of a lack of financial management knowledge on SMMEs in Buffalo City Municipality, Eastern Cape. They report that 100% of the 109 respondents rated themselves as financially literate. However, only 44% were confident that their financial management skills were adequate for running a business.

Eresia-Eke and Raath (2013) researched whether the financial literacy of SMME owners impacted their business growth. They report that 50% and 44% of their respondents perceived themselves to be ‘fairly’ financially literate and ‘very’ financially literate, respectively.

In another South African study, Musie (2015) sought to establish whether South African SME business owners in Mpumalanga used the financial concepts of budgeting, investing and borrowing in their corporate management processes. In addition, Musie (2015) researched how the use of these concepts impacted the performance of the SME. It was found that all three concepts were used. Furthermore, there exists a positive correlation between the use thereof and SME performance. This demonstrates the benefits of financial knowledge in corporate success.

A study by Moloi and Madikizela (2018) undertook to measure the financial literacy of students studying towards an accountancy degree in South Africa. Their focus was on financial decision making concerning debt and spending. Using the methodology set out by the Jump$tart Coalition for Personal Finance in the USA, which requires a pass mark of 60% to indicate an individual is financially literate, they found that the students' average result was only 63.49%. Thus the students only passed by a very thin margin. The research study concluded that if the accountancy students meet the criteria but do not exceed them significantly, the majority of the population of South Africa would fall far below the criteria (Moloi and Madikizela, 2018).

Indeed, many South African micro-entrepreneurs would not have had the benefit of such financial education. There is a great need to increase the financial literacy of small business owners through an improved understanding of finance and financial constructs (Derbyshire, 2016; Ngek, 2016).

These various studies point to a low to medium level of financial literacy amongst South African SMME owners, providing little confidence that the SMME sector can fulfil its intended role in the South African economy.

2.5 Summary

A review of the literature has revealed that financial literacy directly impacts the financial performance, sustainability and growth of a micro-enterprise: the greater the level of financial literacy of the business owner, the greater the likelihood that the business will prosper and grow. The past research results provide the conceptual framework within which this study will be carried out. Cresswell and Cresswell (2018) explain that a theory arises when several researchers produce consistent results when testing the same principle but in different circumstances. The financial literacy of the business owner was found to be an independent variable. The strength of this variable has a bearing on the success and sustainability of the micro-enterprise.

Several researchers have found that financial literacy levels in SMMEs in South Africa are low (Fatoki, 2014; Derbyshire, 2016; Ngek, 2016). Other studies found that their respondents perceived themselves to have above-average financial literacy (Oseifuah, 2010; Chimucheka and Rungani, 2011; Eresia-Eke and Raath, 2013).

These past research findings are discouraging given that the financial literacy of business owners impacts the economic viability and sustainability of their enterprises. The implication is that small and micro businesses are unlikely to produce the levels of job creation, income tax revenue, and economic growth as was hoped for in the National Development Plan. Following this theoretical perspective, the study measures the financial literacy of micro-entrepreneurs in the City of uMhlathuze. The results indicate the likelihood of the sustainability and growth of micro-enterprises in the City of uMhlathuze.

To my knowledge, the financial literacy levels of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal, have not been investigated previously. Accordingly, this study focuses on measuring the financial literacy of micro-entrepreneurs in the City of uMhlathuze and identifying weaknesses in their financial literacy.

Chapter 3 Research Methodology

3.1 Introduction

This chapter describes the process used to collect and analyse data in response to the research questions. The research design, research population, research sample, and data collection methods and instruments are discussed, and grounds for selecting the chosen methodology are provided. In addition, the data analysis procedures used are described.

3.2 Research design

All research must be undertaken in a disciplined, systematic way, and the results must be verifiable (Hancock, Ockleford and Windridge, 2007). Bougie and Sekaran (2020) explain that a research design is a blueprint for the process to be followed in collecting, measuring, and analysing data to formulate a response to research questions.

This study used a quantitative research design. In quantitative research, theory is presented as a set of variables concerning which the data is gathered (Cresswell and Cresswell, 2018). Bryman and Bell (2011) explain that the researcher devises measures of these variables. The research process is used to investigate correlational relationships between and among the numerical variables to answer theory-guided research questions (Cresswell and Cresswell, 2018).

The literature review revealed a number of relevant aspects of financial literacy which are used to measure respondents' levels of financial literacy, and to identify their shortcomings. The focus of the study is thus not to identify new factors or determine why respondents score in a certain way, but rather to assess their financial knowledge and skillset. A quantitative design is thus appropriate for this study. This approach was used by Fatoki (2014) and Derbyshire (2016) in related fields of study.

Due to its quantitative nature, this research study is located in the positivist paradigm. A research paradigm can be understood as a belief system that holds particular assumptions concerning (1) reality and what can be known about it (ontology), (2) characteristics of knowledge and how it can be acquired or shared (epistemology), (3) data production approaches (methodology) and (4) data collection and analysis techniques (methods) (Rehman and Alharthi, 2016).

The positivist paradigm holds the following assumptions:

- Ontology: there is one reality, which is objectively based on cause and effect (Rehman and Alharthi, 2016).
- Epistemology: research is scientific and seeks to explain observed outcomes or patterns of behaviour to predict future outcomes or patterns of behaviour (Rehman and Alharthi, 2016).
- Methodology and methods: data production approaches and data collection and analysis methods are robust and replicable. (Bougie and Sekaran, 2020).

These assumptions apply to this study since there are no multiple realities, and the concept of financial literacy is based on a theory of cause and effect. The methodology to be used is designed to be replicable.

The nature of this study is descriptive. Saunders, Lewis and Thornhill (2007) explain that a descriptive research study results in a profile of people, events or situations. This strategy is appropriate since this study intends to establish facts about a particular population.

3.3 Research population

The research population of the study was that of micro-entrepreneurs operating a micro-enterprise from a prominent business address in the City of uMhlathuze, Kwazulu-Natal, in 2021. These comprised a broad range of product retailers, such as those selling clothing, food and convenience items, cell phones, and motor vehicles; and service operators, such as hairdressers, laundromats, and motor repair operators.

Collectively, these made up the population of the study. Gatekeeper's permission was not required for the study since the population members are not required to belong to a particular body or association to be valid members of the study population. They are in a position to provide individual informed consent to participate. The population was diverse in gender, age, race, years in business and turnover, and generated relevant data for the study.

As outlined previously, a micro-enterprise has no more than ten employees and an annual turnover within the maximum prescribed by the National Small Enterprises Act of 2004, read with Schedule 1 (amendment) for the respective industry in which the business operates (this ranges from R5 to R20m).

3.4 Research sample

Taking guidance from similar studies undertaken in Johannesburg and Potchefstroom by Fatoki (2014) and Derbyshire (2016), convenience sampling was used to choose the respondents. This non-probability sampling design was suitable since an exhaustive list of all micro-enterprises in the City of uMhlathuze is unavailable. The total population was unknown. This means that the population members had no probabilities attached to their chance of being chosen as a subject of the study, and the results produced are not generalisable to represent the population (Bougie and Sekaran, 2020). Despite the lack of generalisability, the study obtained preliminary information about the population's financial literacy in a time and cost-effective manner (Bougie and Sekaran, 2020).

Fatoki (2014) distributed 76 questionnaires in Johannesburg and retrieved 34 responses, and Derbyshire (2016) engaged with 50 participants in Potchefstroom, all of whom responded. Taking guidance from these similar projects, the sample size for this research study was determined as 50 participants.

A high response rate was expected for this study as the questionnaires were to be hand-delivered and completed straight away. If a participant could not complete the questionnaire immediately, an arrangement was made to collect the completed questionnaire later.

3.5 Data collection methods and instruments

Primary data was collected for this study through the use of a survey. Bougie and Sekaran (2020) explain that a survey is a method that is used to collect information about individuals, incidents or situations. This strategy enables the collection of a large volume of quantitative data (Saunders *et al.*, 2007). Cresswell and Cresswell (2018) affirm that surveys can be used to investigate correlational relationships between and among numerical variables to answer theory-guided research questions. Accordingly, a cross-sectional survey was selected as an appropriate method to collect empirical data, using a printed questionnaire.

A questionnaire is a list of questions to which the participant must respond (Bougie and Sekaran, 2020). Bougie and Sekaran (2020) explain that the questionnaire should be neat and well structured, using unambiguous language to ensure that participants understand and complete it quickly. A poorly constructed questionnaire may frustrate participants, result in errors due to misunderstanding, and reduce the participation rate (Bougie and Sekaran, 2020).

This research instrument was chosen because it is inexpensive, can be completed by multiple participants simultaneously, and they can remain anonymous. The printed instrument was hand-delivered with a consent letter to participate in the study (refer to Appendices 2 and 3). Hand delivery was selected over email distribution to ensure that business owners who do not use computer technology were not excluded from the sample. In addition, it was hoped that personal delivery of the instrument would increase the likelihood of participation by business owners, and assistance could be provided to participants who experienced difficulty due to the questionnaire being presented in a language other than his/her mother tongue. Printed questionnaires were considered preferable to online surveys because online surveys are more easily ignored and are known to have a low response rate (Bougie and Sekaran, 2020). Participants received a written declaration that strict confidentiality over the data would be maintained.

The questionnaire (refer to Appendix 3) comprised two parts:

Section A gathered background information using close-ended questions in order to create a profile of each respondent. Close-ended questions provide a selection of predetermined responses from which the participant must select the most applicable answer (Bryman and Bell, 2011).

The data collected in Section A includes socio-demographic characteristics of the respondents, *among other things*, gender, home language group, age, and their business characteristics such as entity employee count, entity revenue, and years in business. This information was used to determine if any relationships exist between these and the respondents' level of financial literacy.

Section B replicated the questionnaire developed by Fatoki (2014) to measure the level of financial literacy of micro-entrepreneurs in Johannesburg, South Africa.

Past researchers have utilised several approaches to measure the financial literacy of individuals in South Africa (Oseifuah, 2010; Chimucheka and Rungani, 2011; Eresia-Eke and Raath, 2013; Fatoki, 2014; Derbyshire, 2016; Ngek, 2016; Nanziri and Leibbrandt, 2018).

As no standardised instrument for use in measuring financial literacy has been developed as yet, the questionnaire developed by Fatoki was selected for use in Section B of the instrument due to its applicability to the South African small business context. It is broad-based and encompasses a wide variety of financial literacy domains, as follows: (1) financial planning, budgeting and control (2) bookkeeping (3) understanding of funding sources (4) understanding of business terminology (5) finance and information-related skills (6) use of technology and (7) risk management (Fatoki, 2014). Moreover, the questions vary across those that address the respondents' financial knowledge, financial ability, and financial behaviour, as Hung et al. (2009) recommended.

The questions were all close-ended, containing a mix of Yes/No and Likert-style questions, which required the participant to select a response from a scale of possible responses. These questions all related to the respondent's personal and business financial practices and enterprise administration. Close-ended questions facilitated quick and easy completion of the questionnaire, thus increasing the likelihood of participation in the study.

This study did not make use of open-ended questions which provide opportunity for respondents to answer questions in detail using their own words without limitation (Bryman and Bell, 2011). Bryman and Bell (2011) explain that open-ended questions are frequently used for qualitative or mixed-method studies.

Completed questionnaires were scanned to electronic format for safekeeping, and the hard copies were filed in a lever arch file.

3.6 Data validity and reliability

The questionnaire was distributed to five micro-entrepreneurs as a pilot run to determine whether the document's layout was suitable, whether the questions were clear and understandable to the respondents, and whether they achieved the intended purpose. The pilot run assessed the need for any changes to the instrument before distribution thereof to the remaining study participants. The pilot test did not identify any changes to be made to the questionnaire.

Section B of the questionnaire originated from a study by Fatoki (2014). Accordingly, the validity and reliability of the instrument had already been established through Fatoki's successful use. This is evidenced by his journal publication arising from the study.

3.7 Data presentation and analysis plan

Data analysis was performed using Microsoft Excel 2016 and Statistica v12 and presented using frequency distribution tables and charts created in Microsoft Excel 2016. Statistica v12 was selected for use since it is specifically designed for statistical analysis. However, it is quite rigid regarding chart design and modification. Microsoft Excel 2016 was thus selected for this purpose as it has greater flexibility regarding chart design and modification, but it is not as comprehensive for statistical analysis. Descriptive statistics were employed to present the data in a meaningful way to allow for a straightforward interpretation of the results.

Section A:

The characteristics of the respondents, such as gender, level of education, age, entity employee counts, entity revenue, and years in business, were analysed using frequency distribution tables to provide a profile of the subjects.

Section B:

The questions were grouped into the seven domains identified as specified in 3.5 above. Five domains (2, 3, 4, 6, and 7) were assessed using Yes/No questions and two domains (1 and 5) employed Likert-style questions.

An overall evaluation of the results of the questions in the seven domains was undertaken to measure and score the financial literacy of the population tested (research question 4.1). The average score calculation per domain was calculated as follows:

For the five domains that employed Yes/No questions, the percentage of "Yes" responses per domain was calculated.

For the two domains that employed Likert-style questions, a mean was calculated to represent the average response of the population.

- Domain 1 used Likert-style questions which were scored as follows:
  0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, and 4 = Always.
  Percentages were calculated using these scores.
- Domain 5 also employed Likert-style questions which were scored as follows:
  1 = Very poor, 2 = Poor, 3 = Satisfactory, 4 = Good, and 5 = Very good.
  Percentages were calculated using these scores.

A final overall financial literacy score for the sample tested was arrived at by averaging the scores across the seven domains. A one-way ANOVA at a 5% significance level was performed for the financial literacy scores across all the domains. This was performed to determine whether any statistically significant differences existed between the domain scores.

For each domain that utilised Yes/No questions, the results for each question were tabulated, showing percentages of respondents who selected Yes and No, respectively. A chart was generated from this data depicting frequency in descending order of Yes responses. The questions with the highest frequency of Yes responses point to the areas where financial knowledge, ability and behaviour is strong. Those with a lesser frequency of Yes responses point to the areas of financial literacy weakness. (research question 4.2).

A score for each financial literacy domain was also calculated for the various sub-groups within each socio-demographic field. These were analysed to identify if any association exists between financial literacy and socio-demographic information such as gender, age, education, and years in business (research question 4.3). This analysis was presented in a colour-coded chart, allowing for easy comparison among sub-groups within each field. The analysis facilitated comparison with results of past research findings in the literature.

A main-effects regression analysis was also carried out to determine the effectiveness of gender, education, age, and years in business, in modelling the overall Financial Literacy scores.

3.8 Summary

This chapter described the research methodology used for this project. A quantitative design was selected and was descriptive in nature. The study aimed to establish the level of participants' financial literacy and any relationships between socio-demographic variables and the level of financial literacy.

The population comprised of micro-entrepreneurs conducting business within the City of uMhlathuze, KwaZulu-Natal. A non-probability sampling technique was used to select 50 participants as guided by similar studies by other South African researchers. Questionnaires were employed to collect empirical data from participants.

Microsoft Excel 2016 was used to record and analyse the data, produce frequency distribution tables and charts and quantify financial literacy scores. Scores were first calculated per financial literacy domain, then on an overall basis, and lastly per socio-demographic subcategory.

Chapter 4 Data Presentation and Analysis

4.1 Introduction

This chapter presents the findings of the data analysis process. Data was gathered using questionnaires in a survey format. The respondents answered 27 questions covering seven domains of financial literacy (refer to Appendix 3 for the complete research questionnaire). Responses were recorded and analysed using Statistica v12 and Microsoft Excel 2016. The results are presented to address each research question in chronological order. Tables and charts summarise and present the results of the study.

4.2 Description of the sample

Fifty micro-entrepreneurs conducting business in the City of uMhlathuze, KwaZulu-Natal, in 2021 participated in the study. A 100% response rate was achieved as all questionnaires were returned and included in the analysis. The raw data are contained in Appendix 1.

Table 4.1 provides profile statistics of the participants of the study. The majority of the respondents (54%) are male, and 60% of the respondents are educated beyond high school level. The majority (78%) of the participants are aged between 30 and 59 years. Nearly half (46%) of the participants have 1 to 3 employees, while 34% have 4 to 7 employees. Concerning annual turnover, a relatively uniform spread is represented across all categories, with the highest representation in a single category being 27% in the group reporting annual turnover of R100 001 to R300 000. Concerning business survival, 48% of the businesses represented have been in operation for six years or more.

4.3 Research question 1

What level of financial literacy do micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal possess?

4.3.1 Results for research question 1

This study used a questionnaire developed by Fatoki (2014) when he researched the financial literacy of new micro-entrepreneurs in the central business district of Johannesburg, South Africa. The questionnaire included 27 questions encompassing a wide variety of financial literacy domains, as follows: (1) financial planning, budgeting, and control (2) bookkeeping (3) understanding of funding sources (4) understanding of business terminology (5) finance and information-related skills (6) use of technology and (7) risk management (Fatoki, 2014).

Table 4.1: Biographical summary

Characteristic	N	%
Gender		
Male	27	54
Female	23	46
Education		
Up to high school	20	40
Post high school	30	60
Age in years		
18 – 29	6	12
30 – 44	22	44
45 – 59	17	34
60+	5	10
Number of employees		
None	4	8
1 – 3	23	46
4 – 7	17	34
8 – 10	6	12
Annual turnover		
R100 000 or less	8	17
R100 001 – R300 000	13	27
R300 001 – R500 000	8	17
R500 001 – R1 000 000	8	17
R1 000 001+	11	23
Years in business		
0 – 1	5	10
2 – 3	13	26
4 – 5	8	16
6+	24	48

Five domains (2, 3, 4, 6, and 7) were assessed using Yes/No questions, and two domains (1 and 5) employed Likert-style questions. To answer research question 1, an overall evaluation of the results of the questions in the seven domains was undertaken to measure and score the financial literacy of the population tested. The average score per domain was calculated as follows:

For the five domains that employed Yes/No questions, the percentage of "Yes" responses per domain was calculated.

For the two domains that employed Likert-style questions, a mean was calculated to represent the average response of the population.

- Domain 1 used Likert-style questions which were scored as follows:
  0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, and 4 = Always.
  Percentages were calculated using these scores.
- Domain 5 also employed Likert-style questions which were scored as follows:
  1 = Very poor, 2 = Poor, 3 = Satisfactory, 4 = Good, and 5 = Very good.
  Percentages were calculated using these scores.

Figure 4.1 depicts the scores obtained per financial literacy domain assessed. Bookkeeping and Understanding business terminology scored the highest at 81% each, while Financial planning, budgeting, and control scored lowest at 62%.

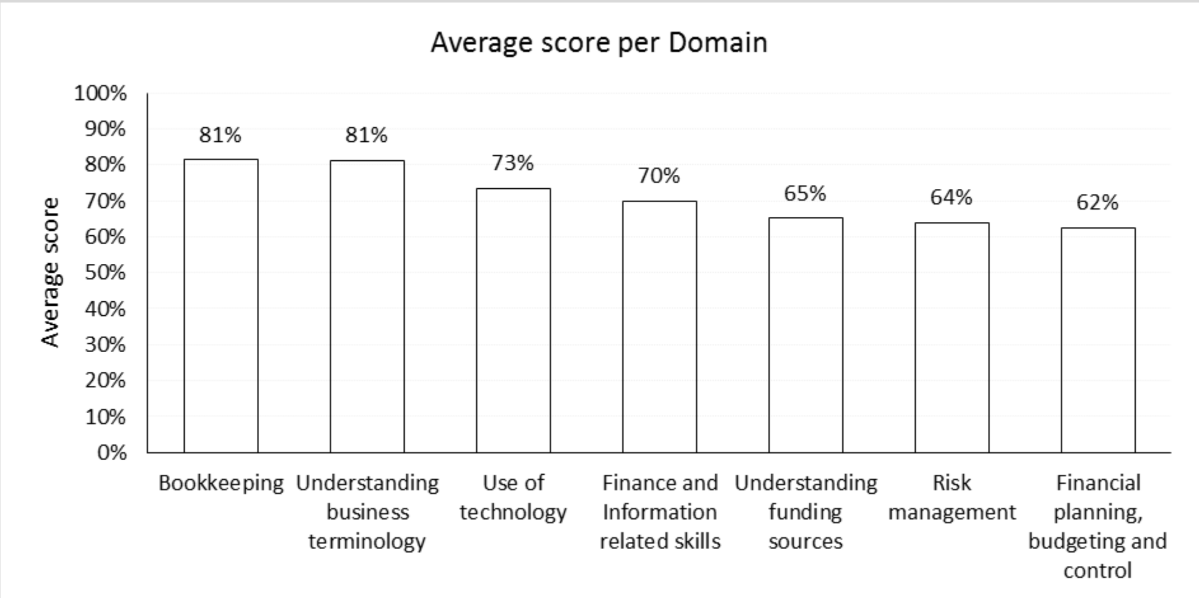

Figure 4.1 Average score per domain

A final overall financial literacy score of 71% for the sample tested was arrived at by averaging the scores across the seven domains. Table 4.2 contains the average scores with standard errors per domain and the grand average score in the last row.

Table 4.2 Financial literacy scores

Domain	**Mean(%)**	**Standard error(%)**
Bookkeeping	81.4	2.9[a]
Understanding business terminology	81.3	2.4[a]
Use of technology	73.3	2.7[a,b]
Finance and Information related skills	70.0	2.7[a,b]
Understanding funding sources	65.2	2.7[b]
Risk management	64.0	6.9[b]
Financial planning, budgeting and control	62.3	3.9[b]
Total	**71.1**	**1.5**

Oseifuah (2010), who surveyed and interviewed 39 youth entrepreneurs on their perceptions of their mathematical and computer proficiency, financial conduct, financial attitude, and financial knowhow, found that the respondents perceived their financial literacy above average.

Similarly, Chimucheka and Rungani (2011) reported that all 109 SMME owners and managers who participated in their study in Buffalo City Municipality, in the Eastern Cape rated themselves as financially literate. However, only 44% were confident that their financial management skills were adequate for running a business.

Eresia-Eke and Raath (2013) also reported in their study, that 50% and 44% of the Gauteng-based SMME owners perceived themselves to be 'fairly' financially literate and 'very' financially literate, respectively.

These findings contrast with those of Fatoki (2014), Derbyshire (2016) and (Ngek, 2016). Fatoki (2014) assessed the same seven domains as the current study without quantifying a financial literacy score for his sample. Using descriptive analysis only, he concluded that the new micro-entrepreneurs researched in Johannesburg, Gauteng, had low financial literacy. Derbyshire (2016) found an average financial literacy score of 44% among small and micro-enterprise owners in Potchefstroom, North West Province. Ngek (2016) surveyed SME owners in the Mangaung Metropolitan Municipality in the Free State, using the bookkeeping function as a proxy for financial literacy. His findings conclude that the owners have a low level of financial literacy.

4.3.2 Conclusion to research question 1

This study revealed an overall financial literacy score of 71% for the micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. This is a high financial literacy score. The literature review revealed that good financial literacy is associated with increased business profitability and sustainability. Accordingly, a score of 71% supports the likelihood that these micro-enterprises are economically sustainable.

The high financial literacy level of micro-entrepreneurs in the City of uMhlathuze may be explained by the gender, age, and level of education of the individual and the average years in business. The association between these factors and financial literacy will be investigated in section 4.5.

Oseifuah (2010) records that financial literacy programmes have been a focus of policymakers worldwide to encourage household savings and financial market participation in an effort to reduce poverty and enhance prosperity. It is argued that the participants of this study may have benefited from improved numeracy and basic financial literacy education in the primary and secondary school system due to these initiatives.

4.4 Research question 2

In what particular areas of financial literacy are micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal weak?

4.4.1 Results for research question 2

A one-way ANOVA at a 5% significance level was performed for the Financial Literacy scores across all the domains. The results are recorded in Table 4.3. The resulting p-value of 0.00022 indicates a statistically significant difference between domain scores since the p-value is less than 0.05. The observed power of 0.98541 indicates that this conclusion is reliable. However, the effect size (partial eta-squared) of 0.07278 indicates a negligible practical significant difference between domain scores.

Table 4.3 ANOVA test results

ANOVA results	**P-value**	**Partial eta-squared**	**Observed power (α=0.05)**
Between Domains	*0.00022	0.07278	0.98541

Based on the statistically significant p-value, Tukeys HSD post hoc test was performed to determine homogeneous domains at the 5% level. The results are displayed in Figure 4.2. All domains with the same index a or b are homogeneous at the 5% level. Where both a and b are used, it implies an overlap in groups. Group a comprises the domains with the higher average scores, and group b the domains with the lowest scores. These two groups are significantly different to each other. However, the domains in each group are not. The two domains in the middle are not significantly different to either of these groups.

In answering research question 2 more fully, a detailed analysis of each domain was undertaken to identify specific financial literacy areas in which the micro-entrepreneurs of the City of uMhlathuze, KwaZulu-Natal are weak. The domains will be addressed in ascending order of the average domain score.

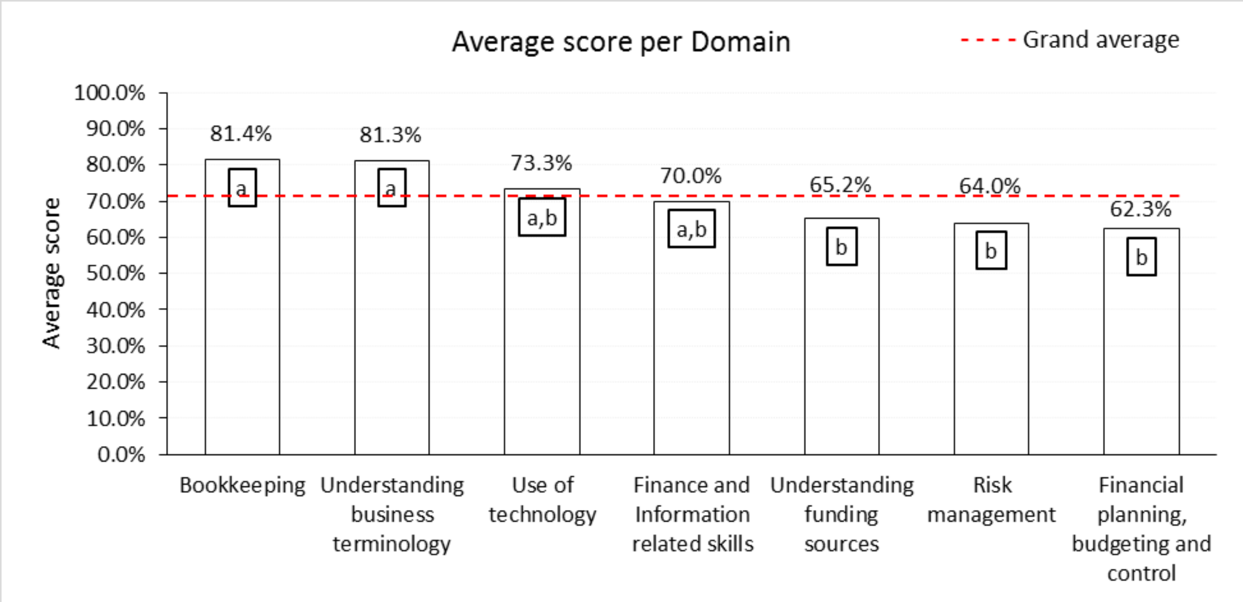

Figure 4.2 Average score per domain with a grand average line

4.4.1.1 Financial planning, budgeting, and control

This domain assessed the respondents' ability and behaviour concerning financial planning, budgeting, and control. As shown in Figure 4.3, only 54% of the participants consistently prepare an annual written income and expenditure budget for their business. Furthermore, only 50% of the participants regularly write down an annual financial objective for their business. In terms of control, 62% indicate that they compare their financial performance to their previously set financial objectives.

Oseifuah (2010) reports that 67% of the 39 youth entrepreneurs in his study, undertaken in the Vhembe District of Limpopo, did budget and monitored their spending against the budget. In contrast, Fatoki (2014), found that the overwhelming majority of his Gauteng-based respondents did not undertake any form of financial planning through budgeting, nor control through monitoring and comparison to expectations.

Derbyshire (2016) found that 78% of her 50 respondents in Potchefstroom, North West Province, know that budgeting is an integral part of business strategy. However, only 4% understood the process of setting goals.

The results of this study suggest that planning for the future and setting budgets are not as crucial to micro-entrepreneurs as reflecting on their historical business performance. The rate of respondents who claim to compare their results to their objectives is higher than the number who assert they write down their objectives. This suggests that some respondents do not formally write down their objectives but have an expectation nonetheless, to which they compare their performance.

Budgeting is reported to have a positive and significant impact on the financial performance of SMEs (Abongo, 2018; Kibor and Maina, 2019). Many SMEs neglect to budget (Mabhanda, 2015). This stunts their growth (Warue and Wanjira, 2013), profitability, and economic sustainability (Chinjova and Gara, 2021).

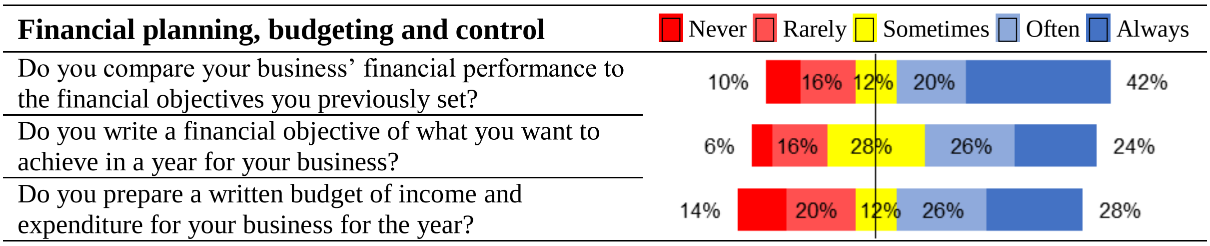

Figure 4.3 Financial planning, budgeting and control

4.4.1.2 Risk management

This domain assessed whether the participants manage risk using insurance cover as a proxy for risk management. As depicted in Figure 4.4, more than a third of the participants do not insure their business against loss. While low, this is more favourable than the findings of Fatoki (2014). He reported that only 2 out of 34 new micro-entrepreneurs in Johannesburg, Gauteng, insured their businesses. Nunoo and Andoh (2011) assert that a financial product such as insurance cover may strengthen SME risk management.

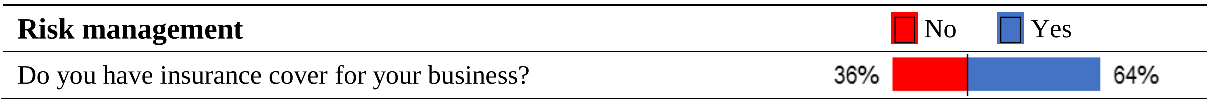

Figure 4.4 Risk management

4.4.1.3 Understanding of funding sources

This domain assessed the participants' understanding of the sources of business funding. The results depicted in Figure 4.5 reveal that 96% of the participants have a separate business bank account from their personal bank account. Derbyshire (2016) found that 78% of her 50 respondents in Potchefstroom, North West Province, operate a separate business bank account. In contrast, Fatoki (2014) found that most of his respondents in Johannesburg, Gauteng, utilised their personal accounts to bank business funds.

As depicted in Figure 4.5, 76% of the respondents have prepared a business plan. This contrasts with results from prior studies. Derbyshire (2016) found that 56% of her 50 respondents in Potchefstroom, North West Province, prepared business plans for their businesses, while

Chimucheka and Rungani (2011) report that 28% of their 109 SMME owner participants in Buffalo City Municipality, Eastern Cape, prepared business plans. Fatoki (2014) reported that only 6% of his 34 respondents had ever done so.

Budgeting and goal-setting are ways to drive the company forward, provide direction and act as a performance monitoring tool (Derbyshire, 2016). Based on the high frequency depicted in Figure 4.5, micro-enterprises in the City of uMhlathuze perceive business plan preparation to be necessary and important.

Figure 4.5 reveals that participants in this study are more aware of debt funding available from a commercial bank (94%) than from government agencies such as SEFA/SEDA (64%), micro-finance (64%), and stokvel initiatives (62%). Participants were least familiar with business angels (34%) and venture capitalists (40%). This is consistent with the results of Fatoki (2014). Chimucheka and Rungani (2011) report that 23% did not know what sources of debt finance existed, while 53% did not know how to apply for finance.

External funding can provide resources to develop and grow a business. Entrepreneurs are often not aware of alternative sources of funds (Staniewski *et al.*, 2016). Business angels are equity investors who provide business advice and networking prospects to the entrepreneur. Their association with the business brings credibility to the SME, paving the way for new, previously inaccessible opportunities (Madill, Haines and RIding, 2005).

Venture Capitalists also play an active role in the businesses in which they invest. Their goal is to profit from the eventual sale of their investment. SME financial performance has been shown to benefit from this relationship through transferred managerial skills, established customer and supplier networks, and access to additional bank finance (Alperovych and Hübner, 2013). Venture capitalists, however, are often only willing to advance funds once the business is in an advanced stage of development. (Staniewski *et al.*, 2016).

Derbyshire (2016) assessed knowledge of formal credit availability only. She reported that her respondents' knowledge of banking, banking products, and financial institutions was high. In addition, 78% of them knew that the credit application process relies on carefully maintained financial records.

Figure 4.5 reveals that 50% of participants do not bank their cash daily, and 56% do not invest excess cash in investments that yield better returns than their bank account. Consistent with the findings of this study, Fatoki (2014) reports that new micro-entrepreneurs in Johannesburg, Gauteng, do not bank cash daily and do not invest excess cash. In contrast, Oseifuah (2010) noted that 56% of the youth entrepreneurs he researched in the Vhembe District of Limpopo regularly contributed to a savings account.

Financial products can benefit investors who have the financial knowledge to understand the terms and conditions and make appropriate financial decisions (Hasler and Lusardi, 2017). Diversification by investing across multiple sectors can reduce the risk associated with investing excess cash (Abreu and Mendes, 2010). Savings are essential to reduce financial fragility in the face of unexpected hardship (Lusardi *et al.*, 2020; Yakoboski *et al.*, 2021). Informal financial services such as storing savings at home and investing in products that present greater risk than return is an inefficient investment practice (Mutengezanwa, 2018).

Understanding funding sources	No	N/A	Yes
Do you have a personal bank account?	2%	0%	98%
Do you have a business bank account?	6%	0%	94%
Are you aware of the requirements of commercial banks in lending money to businesses?	18%	0%	82%
Have you ever prepared a business plan?	24%	0%	76%
Are you aware of some government agencies that can provide financial and non-financial assistance to you (SEFA, SEDA)?	36%	0%	64%
Have you ever checked the websites of commercial banks for you to see the credit products and their requirements?	50%	0%	50%
Do you bank your takings on a daily basis?	50%	2%	48%
Do you invest the excess cash in your bank account?	56%	2%	42%
Are you aware of the following finance providers if you need to borrow money for your business?			
Commercial banks	6%	0%	94%
Microfinance	36%	0%	64%
Stokvel	38%	0%	62%
Venture capitalists	60%	0%	40%
Business angels	66%	0%	34%

Figure 4.5 Understanding funding sources

4.4.1.4 Finance and information-related skills

This domain addressed the participants' skills concerning bookkeeping, business plan preparation, and information communication technology. As depicted in Figure 4.6, most participants perceive themselves to have good computer and internet skills. This is consistent with the Oseifuah (2010) findings, which record that 61% of the 39 youth entrepreneurs respondents in his study in the Vhembe District of Limpopo rated their computer literacy as above average. Fatoki (2014) notes weak information-related skills among his 34 micro-entrepreneur participants in Johannesburg, Gauteng.

Figure 4.6 reveals that 74% of the participants in this study believe their finance skills are satisfactory or better than satisfactory. This is consistent with Derbyshire (2016), who found that 74% of her respondents knew how to draw up basic financial statements. In contrast, Fatoki (2014) reported weak finance skills.

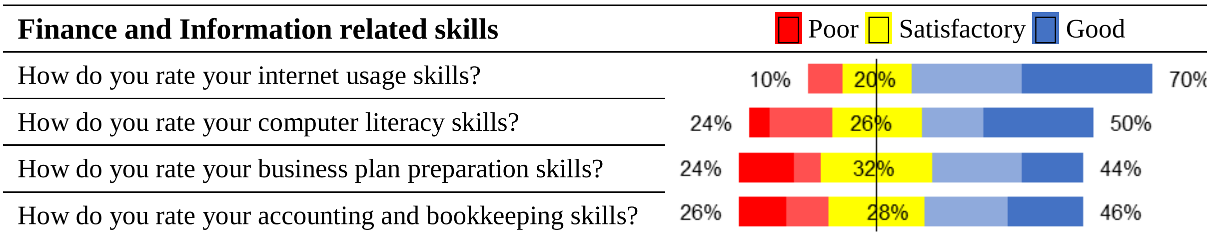

Figure 4.6 Finance and information related skills

4.4.1.5 Use of technology

This domain addressed the extent to which the participants use technology. As depicted in Figure 4.7, the vast majority have internet access at work and an email address for electronic communication. This contrasts with the Fatoki (2014) findings, which reported that very few new micro-entrepreneurs in Johannesburg, Gauteng, had either. On the other hand, both studies found that few participants have developed an online presence in the form of a website for their business.

Only 30% of the participants in this study have a website. This is consistent with the findings of the Organisation for Economic Co-operation and Development (2017) that SMEs are trailing in the digital transition. The rise of e-commerce presents a threat to SMEs who do not participate. Customers no longer rely on local providers of goods and services. Competition for market share is high, and the use of ICT and a business website is necessary for SMEs to remain competitive (Organisation for Economic Co-operation and Development, 2017).

Use of technology	No	Yes
Do you have an email address?	0%	100%
Do you have access to the internet at work?	10%	90%
Does your business have a website?	70%	30%

Figure 4.7 Use of technology

4.4.1.6 Understanding of business terminology

This domain assessed the participants' understanding of business terminology and associated market conditions. As depicted by Figure 4.8, most of the participants in this study understand basic financial terminologies such as credit cards, savings, taxes, and loans. More complex constructs such as asset-based lending, collateral, and debtor finance are known to a minority of the participants. These findings are consistent with those of Fatoki (2014), who researched Johannesburg-based new micro-entrepreneurs.

Asset-based lending provides working capital finance with the SME's accounts receivable and inventory as collateral. An SME with a high-risk profile that has considerable debtors and inventory can benefit from this type of finance arrangement (Udell, 2008).

Oseifuah (2010) asked his respondents in the Vhembe District of Limpopo whether they have knowledge about interest rates, the National Credit Act, Insolvency, Value Added Tax, and the stock exchange and found that only the term 'stock market' was unfamiliar to the majority.

Figure 4.8 reveals that the exchange rate to the US Dollar was known by 73% of the respondents, and 59% knew about their tax obligations. Only 53% knew the current inflation rate in South Africa, and 42% knew the local repo rate. While low, these findings reflect a greater awareness of current market conditions than the corresponding 9% and 18% reported by Fatoki (2014). In contrast, Mashizha, Maumbe and Sibanda (2019) investigated the financial literacy levels of entrepreneurs in neighbouring Zimbabwe and reported that 71.6% of the respondents were knowledgeable about inflation.

Derbyshire (2016) found that her 50 respondents in Potchefstroom, North West Province, were moderately knowledgeable on taxation with a score of 51% for the taxation category of her study. Only 18% of respondents knew the prime overdraft rate, and the same proportion knew the inflation rate. In general, Derbyshire (2016) reports that the SMME owners in her study have below-average knowledge and understanding of financial concepts.

SME owners need to be aware of macro-environmental changes, including inflation, interest rates and government regulations such as tax law. This positions them to reduce threats from negative changes or to benefit from positive changes. Most SMEs have an element of debt finance and are thus vulnerable to interest rate fluctuations (Cant and Wiid, 2013). Individuals who are not savvy about interest and compounding may enter borrowing contracts with high interest charges and encounter problems with debt (Lusardi and Mitchell, 2011).

Inflation affects the pricing of goods and influences customer demand. Inflation also affects the cost of expenses incurred by the SME, impacting profits. Similarly, tax rates impact cash flows. Inflation, interest rates and government legislation are among the major external challenges impacting the survival of SMEs (Cant and Wiid, 2013).

Understanding business terminology	No	Yes
Do you understand the following terms?		
Saving	0%	100%
Taxes	0%	100%
Credit card	0%	100%
Loan	2%	98%
Insurance	2%	98%
Business plan	2%	98%
Investment	4%	96%
Interest rate	6%	94%
Hire purchase	12%	88%
Stock market	20%	80%
Debtor finance	29%	71%
Collateral	34%	66%
Asset-based lending	41%	59%
Do you know South Africa's current exchange rate to the US$?	27%	73%
Do you know what tax bracket you currently fall into?	41%	59%
Do you know South Africa's current inflation rate?	47%	53%
Do you know South Africa's current Repo rate?	58%	42%

Figure 4.8 Understanding business terminology

4.4.1.7 Bookkeeping

This domain assessed the extent to which the participants engaged in bookkeeping activities to record business transactions. The results depicted in Figure 4.9 reveal that sales, purchases, and expense records are maintained for more than 90% of the participants. Consistent with this study, Derbyshire (2016) found that 76% of her 50 respondents in Potchefstroom, North West Province, kept sales records, and 90% kept track of expenses.

Figure 4.9 also reveals that 96% of the participants in this study keep records of cash receipts and payments. Records of debtors and creditors are maintained by 79% and 81% of the participants, respectively, while less emphasis is placed on stock records (73%). The fixed asset register is the least used book of account, utilised by only 58% of the respondents. These results indicate that the participants are aware of the need for essential records that impact day-to-day operations. However, the frequency of use recedes for the more complicated or specialised records.

Oseifuah (2010) reports similar results from his study of youth entrepreneurs in the Vhembe District of Limpopo. He found that 38% maintain essential records only, while 47% prepare detailed records. Eresia-Eke and Raath (2013) found that Gauteng-based SMME owners kept different combinations of financial records, with 94% of their participants keeping the most common source documents such as sales and purchase invoices and bank statements. They also report that 86% have financial statements for their business.

Fatoki (2014) found that very few new micro-enterprises in the Johannesburg central business district kept bookkeeping records other than invoice and expense books.

Ngek (2016) adopted bookkeeping practices as a proxy for financial literacy in his study of 200 SMEs in the Mangaung metropolitan municipality of the Free State. He recorded that SME owners did not maintain complete records and concluded that this was due to a lack of accounting knowledge.

Bookkeeping	No	N/A	Yes
Do you keep the following books of account for your business:			
Invoice book (record of sales)	4%	0%	96%
Purchases book (record of purchases)	4%	0%	96%
Cashbook (record of cash receipts and payments)	4%	0%	96%
Expenses book (record of expenses)	10%	0%	90%
Creditors book (record of suppliers you owe)	15%	4%	81%
Debtors book (record of customers who owe you money)	19%	2%	79%
Stock book (record of inventory on hand)	20%	6%	73%
Fixed asset register (list of property, plant and equipment)	35%	6%	58%
Do you use a computer to record your business transactions?	40%	0%	60%

Figure 4.9 Bookkeeping

Of concern, this study found that two out of every five participants do not use a computer to record business transactions. Fatoki (2014) reported that only 2 out of 34 respondents in his study of new micro-enterprises in Gauteng used a computer. The Organisation for Economic

Co-operation and Development (2017) cautions that SMEs that are not keeping up with the digital transition are missing out on cost efficiencies and new opportunities.

4.4.2 Conclusion to research question 2

This study identified financial planning, budgeting and control; risk management; and understanding funding sources as the study participants' three weakest financial literacy domains. A detailed analysis of all the domains exposed several specific areas of financial literacy weakness, some of which arise in the domains with more substantial scores. These are the insufficient use of ICT and digital technologies; inefficient use of financial investment products to protect and grow cash resources; inadequate knowledge of venture capitalists, business angels and asset-based lending as external funding sources; and insufficient knowledge of interest, inflation, and tax rates.

This means that notwithstanding their high overall financial literacy score, micro-entrepreneurs could strengthen their businesses even further by embracing ICT; implementing new digital methods to reach customers, suppliers and investors; and seeking more efficient financial products. Micro-entrepreneurs are limiting the potential of their businesses to survive and grow by persisting with outdated business practices in these areas.

4.5 Research question 3

Are there any significant relationships between financial literacy and biographic and demographic information such as gender, age, education and years in business of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal?

4.5.1 Results for research question 3

This question attempted to establish whether demographics impact the financial literacy of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. Firstly, a regression analysis was performed to determine the effectiveness of the biographical and demographical factors in modelling the overall Financial Literacy scores. Secondly, a descriptive analysis was performed whereby the mean financial literacy score per sub-group within each demographic variable was compared per financial literacy domain and on an overall basis to record the relationships evident within the sample population.

4.5.1.1 Regression analysis

A main-effects regression analysis was performed to determine the effectiveness of the biographical and demographical factors in modelling the overall Financial Literacy scores. No interactions were tested due to the small number of respondents in the cross categories. The biographical and demographical factors that were used are Gender (X_1), Education (X_2), Age (X_3), and Years in business (X_4):

$$\hat{Y} = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \hat{\varepsilon}$$

Thus

$$Score = b_0 + b_1 \times Gender + b_2 \times Education + b_3 \times Age + b_4 \times Years\ in\ business + error$$

where the b's are referred to as the *regression coefficients*. These coefficients indicate how much the predicted average score will change through a change in the level of the relevant factor. The overall results are contained in the tables below.

Table 4.4 Main-effects regression model fit

	Adjusted - R²	**p-value**
Main–effects regression model overall fit	-0.02383	0.55926

The main-effects model explains very little of the variation in the Financial Literacy scores since Adjusted R^2 = -0.02383. This implies a poor model. The overall effect of the four factors on the Financial Literacy score has a p-value of 0.55926. This result is not significant at the 5% level and supports the conclusion from the Adjusted R^2.

The main-effects regression analysis was done to determine which factor levels significantly affect the predicted average scores at the 5% level. The results are displayed in the table below, where *b* represents the regression coefficients and s.e. denotes the *standard error*.

Table 4.5 Results of the main-effects regression analysis

Factor	**Factor level**	**b**	**s.e.**	**p-value**
Gender	Male	-4.1	2.3	0.08627
	Female	4.1	2.3	0.08627
Education	Up to high school	0.3	2.3	0.90724
	Post high school	-0.3	2.3	0.90724
Age in years	18 to 29	-3.4	5.0	0.50470
	30 to 44	3.0	3.4	0.39325
	45 to 59	-0.8	4.0	0.84110
	60+	1.2	5.4	0.81985
Years in business	0 to 1	-3.3	5.3	0.53357
	2 to 3	-0.4	3.8	0.91046

	4 to 5	2.5	4.4	0.57977
	6+	1.2	3.3	0.70948

There are no significant factors at the 5% level since all p-values exceed 0.05. However, by ranking the p-values, it is noted that gender has a greater effect on the average score than the other factors. Male scores are 4.1% below the grand average, whereas female scores are 4.1% above the grand average. This means that female scores are on average 8.2% higher than males. Other factor levels with moderate effect include age group, where 18 to 29 year olds have scores that are on average 3.4% below the grand average, and years in business of 0 to 1 that have scores of on average 3.3% below the grand average. If this model was proven to be statistically significant (adequate model), then, for example, a male (-4.1%) with a post-high school qualification (-0.3%) who is 18 to 29 years old (-3.4%) and who has been in business for 0 to 1 year (-3.3%), will score on average 11.1% below the grand average.

In conclusion, the main-effects regression model consisting of the four listed factors is unsuitable for predicting Financial Literacy scores since there is no significant relationship between the factors in the main-effect model and the Financial Literacy scores.

4.5.1.2 Descriptive analysis

4.5.1.2.1 Gender

As shown in Table 4.1, males made up 54% of the micro-entrepreneurs where females constituted 46%. Figure 4.10 reveals that females consistently achieved a higher score than their male counterparts across all seven of the financial literacy domains assessed in this study. The average financial literacy scores for females and males were 77% and 68%, respectively.

These results contradict those of Mashizha *et al.* (2019), who investigated the financial literacy levels of entrepreneurs in neighbouring Zimbabwe and reported that there was no significant difference in financial literacy across the gender divide, with men scoring a mean of 72% and women scoring 67%. Musie (2015), Alhenawi and Elkhal (2013), and Wagland and Taylor (2009) also found that gender was insignificant in financial literacy determination.

This study also contradicts the findings of many studies around the world that have found women to have significantly lower financial knowledge and ability than men (Monticone, 2010; Lusardi and Mitchell, 2011; Fonseca, Mullen, Zamarro and Zissimopoulos, 2012; Xu and Zia, 2012; Lusardi, Mitchell and Curto, 2014; Hasler and Lusardi, 2017; Murendo and Mutsonziwa, 2017; Cupák, Fessler, Schneebaum and Silgoner, 2018; Fonseca and Lord, 2019).

In recent years there has been an increased focus on women's participation in economic development activities in developing countries (Musie, 2015). Furthermore, Fonseca and Lord (2019) found that being self-employed positively affects financial literacy, especially in the case of women. This is relevant since the female participants in this study are all self-employed. It is posited that these factors may have contributed to the current findings, which contradict previous research in this field.

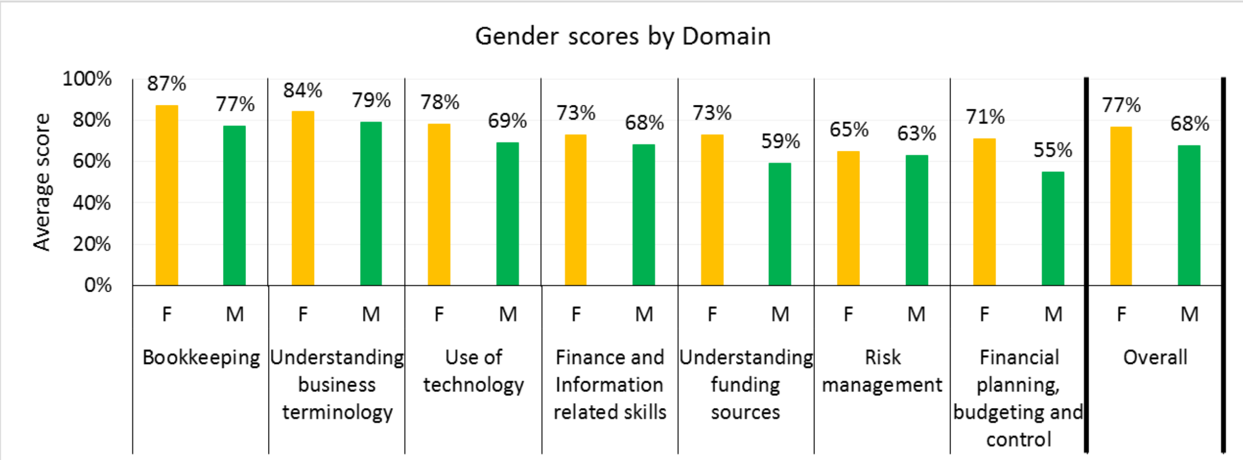

Figure 4.10 Gender scores by domain

4.5.1.2.2 Age

As shown in Table 4.1, 78% of the participants are aged between 30 and 59 years. Those aged 30 to 44, and 45 to 59, constituted 44% and 34% of the micro-entrepreneurs, respectively. The micro-entrepreneurs aged 18 to 29 comprise 12%, and 10% are older than 60 years. Figure 4.11 reveals that none of the sub-groups was consistently dominant in all the financial literacy domains assessed. However, micro-entrepreneurs aged 30 to 44 placed first or second in each domain and scored the highest overall. The oldest and youngest age groups were the two lowest-scoring age categories. This is consistent with reports in the literature that financial literacy has followed an inverted U-shape for age (Monticone, 2010; Xu and Zia, 2012).

Figure 4.11 reveals that the oldest age category (over 60s) scored consistently higher than the youngest age category (18 to 29 years). This contradicts the results of studies by Mashizha *et al.* (2019), Murendo and Mutsonziwa (2017), Musie (2015), and Lusardi *et al.* (2014). They all report lower financial literacy in the older age groups than in the younger. It has been argued that this may be due to a deterioration of cognitive ability with age (Korniotis and Kumar, 2011; Gamble, Boyle, Yu and Bennett, 2015). The conflicting results of this study may be because the individuals are still engaged in business activity and are thus stimulating cognition, delaying the likely deterioration usually expected in advanced years.

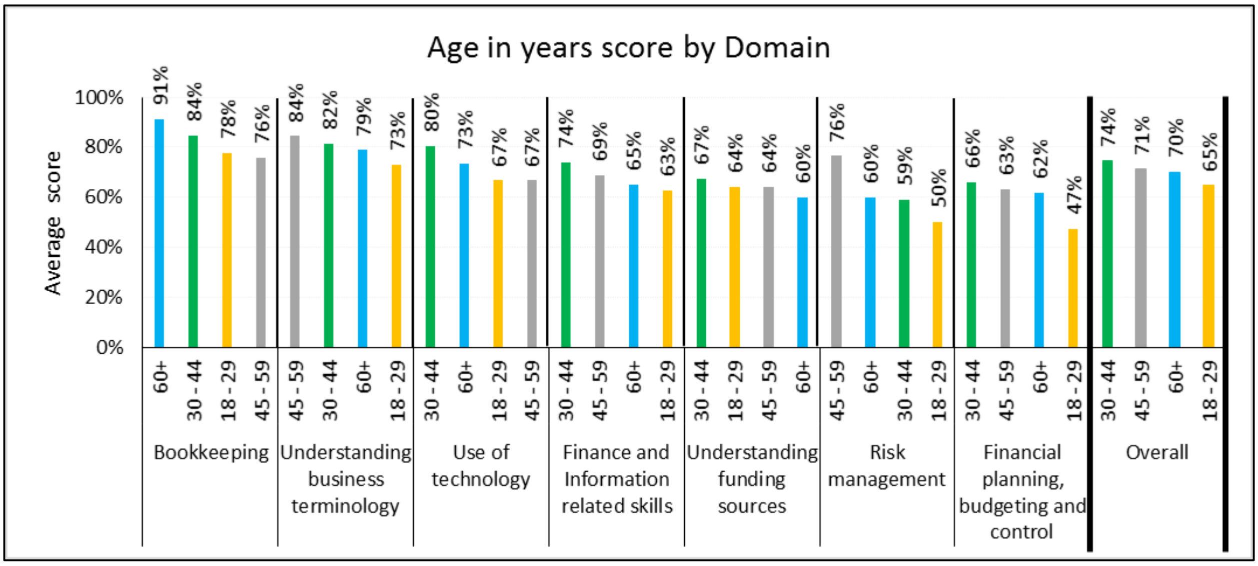

Figure 4.11 Age in years score by domain

4.5.1.2.3 Education

As shown in Table 4.1, 40% of the micro-entrepreneurs had matric as their highest qualification, while 60% were educated beyond high school. Figure 4.12 reveals that neither of these sub-groups was consistently dominant in all the financial literacy domains assessed. Overall, participants with post-high school education scored an average of 73%, while those with no more than secondary education scored 70%.

This finding agrees with many studies worldwide that have found that financial literacy increased with higher levels of education (Monticone, 2010; Xu and Zia, 2012; Alhenawi and Elkhal, 2013; Lusardi *et al.*, 2014; Fonseca and Lord, 2019; Mashizha *et al.*, 2019).

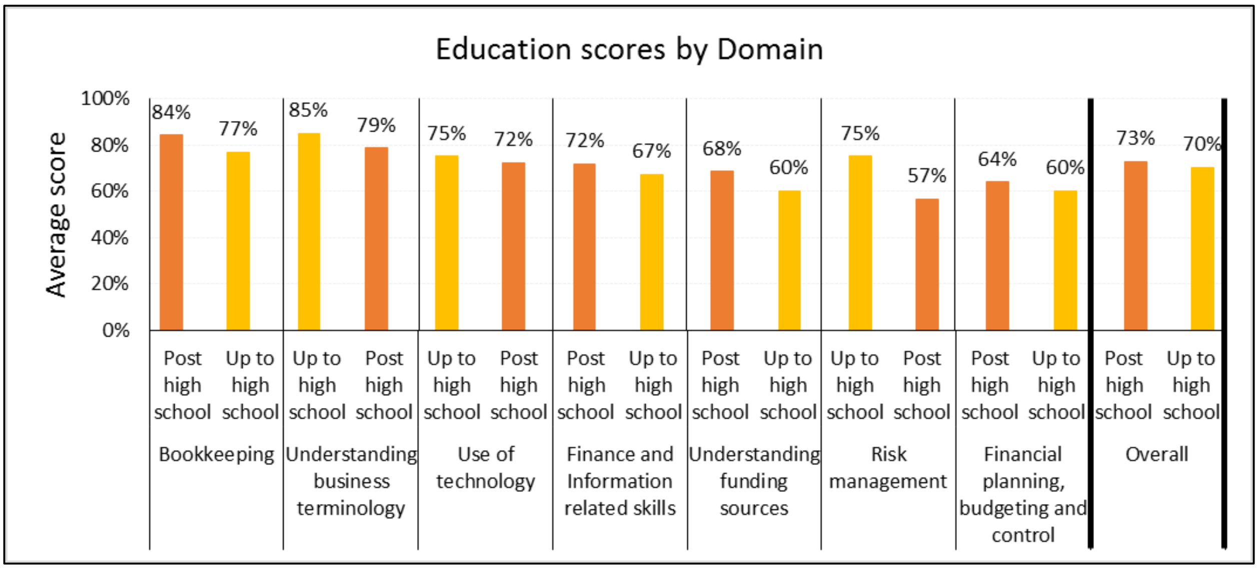

Figure 4.12 Education scores by domain

4.5.1.2.4 Number of years in business

As shown in Table 4.1, 48% of the micro-entrepreneurs had been in business for over six years, 16% were in business for four to five years, 26% were in business for two to three years, and 10% had less than one year of business experience. Figure 4.13 reveals that the two sub-groups with more years in business were ranked higher than those with less experience.

Fonseca and Lord (2019) found that being self-employed has a positive effect on financial literacy, especially in the case of women. Ćumurović and Hyll (2019) found that wageworkers had a lower probability of being financially literate than their employers. This concurs with the findings of Bucher-Koenen and Lusardi (2011) that familiarity with financial products and learning ‘by doing’ has a positive impact on financial literacy.

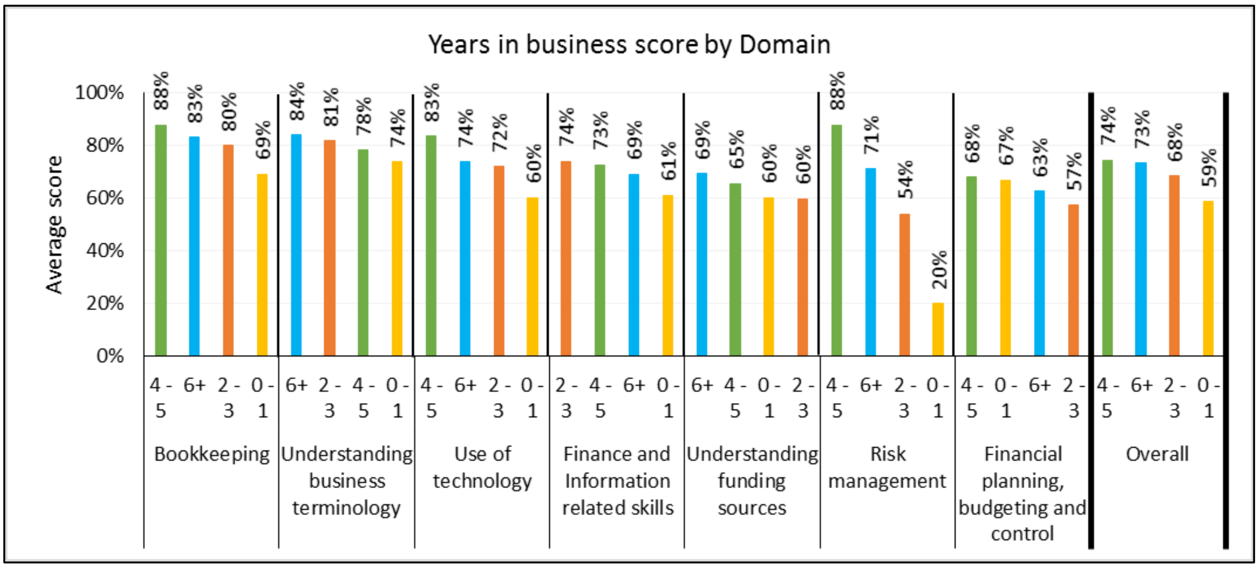

Figure 4.13 Years in business score by domain

4.5.2 Conclusion to research question 3

This study established no statistically significant relationship between gender, education, age and years in business, and financial literacy scores. Accordingly, this study did not establish that these factors can be used to predict financial literacy scores. However, for the sample collected, females scored a higher average financial literacy than males. It also found that financial literacy was highest in participants aged 30 to 59 years, with a declining trend above and below this range. Financial literacy scores were higher for those educated beyond matric, and micro-entrepreneurs with four years or more experience in business exhibited greater financial literacy than those with less business experience.

4.6 Conclusion

This study established an overall financial literacy score of 71% for the micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. This is a good score, indicating above-average financial literacy. Oseifuah (2010), Chimucheka and Rungani (2011), Eresia-Eke and Raath (2013), Fatoki (2014), Derbyshire (2016), and Ngek (2016) each studied the financial literacy of small business owners in different geographical areas of South Africa. Of these, Oseifuah (2010), Chimucheka and Rungani (2011) and Eresia-Eke and Raath (2013) reported high levels of financial literacy. The results of the other three researchers contrasted with this finding.

The three weakest financial literacy domains were financial planning, budgeting and control; risk management; and understanding funding sources. Additional weaknesses include insufficient use of digital technologies and inefficient use of financial investment products. Inadequate knowledge of external funding sources and prevalent macro-environmental conditions were also revealed.

Lastly, the study concluded that gender, education, age, and years in business do not serve as suitable predictors of an individual's financial literacy score. Notwithstanding this, the associations observed between these factors and financial literacy scores confirmed reports in the literature that higher levels of education and more years in business strengthen financial literacy. Moreover, they confirm that financial literacy peaks between 30 and 59 years and diminishes with old age. In contrast to the literature, this study found that female micro-entrepreneurs were more financially literate than their male counterparts.

Chapter 5 Summary and Conclusion

5.1 Introduction

This chapter will summarise the entire research project and conclude the study. Several recommendations will be made to significant stakeholders such as the local government, the national government, the private sector, educational institutions and micro-entrepreneurs. Suggestions for further study in this field will also be presented.

5.2 Summary of the study

Economies around the world rely on the stimulation of SME's (Organisation for Economic Co-operation and Development, 2017). South Africa is no different. The SMME sector is key to enhancing economic growth through increased productivity and innovation, thereby stimulating investment in local industry (Department of Trade and Industry, 1995). In 2004, the Small Enterprise Development Agency was founded to support and promote small businesses and stimulate local economic development.

The National Small Enterprises Act of 2004, read with Schedule 1 (amendment), provides three categories of small businesses in South Africa: small, medium, and micro-enterprises. Micro-enterprises are owned by micro-entrepreneurs and have no more than ten employees and an annual turnover within the maximum prescribed for the respective industry in which the business operates (ranges from R5m to R20m) (Department of Small Business Development, 2019)

The South African National Development Plan 2030 (South African Government, 2012) highlighted reducing unemployment as a priority. Despite this, the South African unemployment rate in the second quarter of 2021 was 34.4%. This is the highest it has been since 2008 (Trading Economics, 2021). Provincial data published for the same quarter revealed that the corresponding rate for KwaZulu-Natal was 32.5% (Statistics South Africa, 2021).

The South African National Development Plan 2030 (South African Government, 2012) also aims for 90% of the South African workforce to be employed by SMMEs. However, in 2019 SMMEs employed only 60% of South Africa's workforce and provided half the country's gross domestic product (United States Agency for International Development, 2019). Small Enterprise Development Agency (2018) reports that the number of SMMEs are reducing in South Africa, jeopardising the government's job creation and economic transformation goals.

Micro-entrepreneurs in the City of uMhlathuze, a municipality in KwaZulu-Natal, are the focus of this study. The Final IDP Review 2018/2019 of the City of uMhlathuze reported that the most recent survey by Global Insights in 2017 revealed that only 24.6% of the adult population in the municipality was employed. Census 2011, however, had reported that 37% were employed. A reduction in the percentage of the employed population contrasts with the government's economic growth goals and threatens the municipality's welfare.

Financial literacy is a factor that positively influences the financial performance and sustainability of small businesses (Karadag, 2015; Ngek, 2016; Engström and McKelvie, 2017; Siyanbola, 2018; Bruwer *et al.*, 2019; Bushe, 2019; Ye and Kulathunga, 2019).

The research aim of this study was to determine whether there is a need for financial education to support the sustainability of micro-enterprises in the City of uMhlathuze, KwaZulu-Natal. This was achieved through an investigation into the financial literacy of the owners thereof.

The main research objective was to establish the financial literacy needs of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal. The secondary objectives were

1. To establish the level of financial literacy of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal;
2. To establish in what particular areas of financial literacy micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal are weak; and
3. To establish any significant relationships between financial literacy and the biographic and demographic information such as gender, age, education, and years in business of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal.

Financial literacy does not have one universally accepted definition in the literature (Huston, 2010; Remund, 2010; Roberts *et al.*, 2014; Musie, 2015). This study adopted the definition outlined by The Banking Association of South Africa due to its applicability to micro-entrepreneurs in the City of uMhlathuze; the study population. This definition describes a financially literate business owner as having entrepreneurial inclinations and basic business management skills. He or she also has reasonable personal finance practices; understands accounting systems and financial management principles, such as those about capital structuring and the risk and cost implications of different sources of funding; and is aware of and understands financial regulations applicable to SMMEs, and assistance and relief options available to SMMEs (Banking Association of South Africa, 2019).

The measurement of financial literacy poses a challenge to researchers since there is no standardised instrument for this purpose (Remund, 2010; Fatoki, 2014; Musie, 2015). This study adopted the measurement approach developed by Fatoki (2014) as it is broad-based and encompasses seven financial literacy domains, thus generating a robust measure. Moreover, it contains questions that vary across those that address the respondents’ financial knowledge, financial ability and financial behaviour, as recommended by Hung *et al.* (2009). The approach is relevant to this study as Fatoki also undertook his research in South Africa.

Accordingly, the seven financial literacy domains used to measure the financial literacy of micro-entrepreneurs were: (1) financial planning, budgeting and control, (2) bookkeeping, (3) understanding of funding sources, (4) understanding of business terminology, (5) finance and information-related skills, (6) use of technology, and (7) risk management.

A quantitative research design was used for the study. The research population consisted of micro-entrepreneurs operating a micro-enterprise from a prominent business address in the City of uMhlathuze, Kwazulu-Natal, in 2021. The size of the population was unknown. Convenience sampling was employed to choose fifty respondents for the study. This non-probability sampling design was suitable since a complete list of all micro-enterprises in the City of uMhlathuze was unavailable. This means that the population members had no probabilities attached to their chance of being chosen as a subject of the study. The results produced are thus not generalisable to represent the population.

A cross-sectional survey was utilised to collect primary data through a printed questionnaire containing 27 questions. The questions were all close-ended, containing a mix of Yes/No and Likert-style questions, which required the participant to select a response from a scale of possible responses. These questions all related to the respondent's personal and business financial practices and enterprise administration.

The questionnaires were hand-delivered to ensure that the use of email did not exclude any business owners from the sample. It was hoped that personal delivery of the instrument would increase the likelihood of participation by business owners. In addition, assistance could be provided to participants who experienced language difficulties.

The data captured from the questionnaires was recorded and analysed using Microsoft Excel 2016. Frequency distribution tables and charts were produced to present the results. Descriptive and inferential statistics were used to interpret the results. The results for each research question will be summarised in turn:

1. What level of financial literacy do micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal possess?

A scoring system was devised to arrive at a quantifiable financial literacy score for the sample population. The Bookkeeping and Understanding business terminology domains scored the highest at 81% each, while Financial planning, budgeting, and control scored lowest at 62%. A final overall financial literacy score of 71% for the sample tested was arrived at by averaging the scores across the seven domains.

2. In what particular areas of financial literacy are micro-entrepreneurs in the City of uMhlathuze, Kwazulu-Natal weak?

Financial planning, budgeting and control; Risk management; and Understanding funding sources were the three domains with the lowest average score. Accordingly, these were identified as the study participants' three weakest financial literacy domains.

A detailed analysis of all seven domains was undertaken to identify specific financial literacy areas in which the micro-entrepreneurs of the City of uMhlathuze, KwaZulu-Natal, are weak. Charts created from the frequency tables in Annexure A were used for this purpose. The analysis exposed the following specific areas of financial literacy weakness:

- the insufficient use of ICT and digital technologies;
- inefficient use of financial investment products to protect and grow cash resources;
- inadequate knowledge of venture capitalists, business angels and asset-based lending as external funding sources; and
- insufficient knowledge of interest, inflation, and tax rates.

3. Are there any significant relationships between financial literacy and biographic and demographic information such as gender, age, education and years in business of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal?

A main-effects regression analysis was carried out to determine the effectiveness of gender, education, age, and years in business in modelling the overall Financial Literacy scores. No significant relationship between the factors in the main-effect model and the Financial Literacy scores was found. This indicates that these factors do not effectively predict financial literacy scores.

A descriptive analysis was facilitated by colour-coded charts derived from the frequency tables. These charts provided insight into any trends or patterns concerning the financial literacy scores achieved by different sub-groups within a category. In contrast with past research, females scored higher average financial literacy than males. Consistent with Xu and Zia (2012) and Monticone (2010), participants aged 30 to 59 scored higher than those above and below this range. Consistent with Fonseca and Lord (2019), Mashizha *et al.* (2019), Lusardi and Mitchell (2014), Alhenawi and Elkhal (2013), Xu and Zia (2012), and (Monticone, 2010), participants educated beyond matric achieved higher scores than those with lesser education. Those with more than four years of business experience elicited greater financial literacy than those with fewer years of experience. This is consistent with the findings of Fonseca *et al.* (2012) and Ćumurović and Hyll (2019).

5.3 Conclusions

This study aimed to determine whether there is a need for financial education to support the sustainability of micro-enterprises in the City of uMhlathuze, KwaZulu-Natal. This was achieved through an investigation into the financial literacy of the micro-entrepreneurs.

The study revealed a high financial literacy score of 71% for the members of the sample population. Oseifuah (2010), Chimucheka and Rungani (2011), Eresia-Eke and Raath (2013), Fatoki (2014), Derbyshire (2016), and Ngek (2016) each studied the financial literacy of small business owners in different geographical areas of South Africa. The finding of this study is consistent with those of Oseifuah (2010), Chimucheka and Rungani (2011) and Eresia-Eke and Raath (2013).

Notwithstanding the high financial literacy score, several weaknesses were identified, as summarised above. These are evidence that there are areas that could benefit from interventions intended to strengthen the financial literacy of micro-entrepreneurs.

Despite the regression analysis revealing that demographic factors such as gender, education, age, and years in business could not effectively predict an individual's financial literacy, the frequency tables generated for the sample population revealed expected patterns of association for all the factors except gender. Based on these observations, the individuals in this population who would benefit the most from a financial education intervention would be male micro-entrepreneurs who do not have tertiary education, are older than 60 or younger than 30 years old, and who have been in business for less than four years.

It can be concluded that, notwithstanding the high average financial literacy of micro-entrepreneurs in the City of uMhlathuze, there is a need for financial education to support the sustainability of these micro-enterprises.

5.4 Recommendations

Stakeholders in the sustainability of South African micro-enterprises include the local and national government, the private sector, educational institutions and micro-entrepreneurs. Each of these groups can convert their interest in the well-being of micro-entrepreneurs into a meaningful contribution to enhance the financial literacy of micro-entrepreneurs.

5.4.1 Local and national government

Government organisations such as SEDA and the Industrial Development Corporation ("IDC") should encourage greater uptake by micro-entrepreneurs in the financial education training courses they host from time to time. Incubator programmes should be run on a large scale to assist fledgling businesses to get through the first two years at a minimum. The local and national economy would prosper as a result of the job creation and poverty alleviation derived through increased sustainability of the micro-enterprises.

5.4.2 The private sector

Established large businesses in the private sector have a responsibility to stimulate local economies by buying locally. These relationships could be leveraged for maximum benefit to the economy if memoranda of the agreement were signed to lock in trading relationships for a fixed term. The guaranteed trading volume would stabilise the micro-enterprise and enable the micro-entrepreneurs to create a basis for trading budgets and operational forecasts. The private sector could benefit from investing in financial training programmes for their trading partners to ensure the sustainability of their supply chain.

5.4.3 Educational institutions

Tertiary education institutions could develop financial management clinics as a community outreach programme of their Commerce Faculties. Micro-entrepreneurs could receive assistance whilst simultaneously exposing graduate students to real-world business challenges and whetting their appetite to start a business of their own.

5.4.4 Existing micro-entrepreneurs

Micro-entrepreneurs that have been in business for longer than six years have a wealth of experience to share with early-stage business people. A mentorship programme could be developed whereby an experienced, successful micro-entrepreneur is coupled with one who needs assistance. Guidance through regular advisory consultations would provide a platform for the less experienced micro-entrepreneurs to ask questions and pinpoint the areas where they need the most help. A consultative process is preferable to hands-on involvement as it would prevent the advisor's relationship from becoming onerous. An agreement of this kind may be an effective way to transfer skills from successful business people to those with lower financial literacy.

5.5 Limitations of the study

The study relied on honest feedback from participants. Participants' responses may also have been affected by a misinterpretation or misunderstanding of the questions, especially if the respondent's home language is not English, and pride or self-efficacy belief where respondents have misplaced confidence in their financial knowledge and capabilities.

The study was limited to micro-enterprises trading from a prominent business address in the City of uMhlathuze, KwaZulu-Natal, during 2021.

The results of this study should not be generalised to other populations such as that of South Africa or even the KwaZulu-Natal province because the sample was not randomly drawn.

5.6 Suggestions for further study

This study only considered micro-enterprises in the City of uMhlathuze in 2021. A future study could investigate the financial literacy of small business owners across an entire province.

A mixed methods research design could be pursued, adding open-ended questions to the questionnaires instead of only close-ended questions. This would provide an opportunity for more depth and detail in the responses from participants, allowing for qualitative data analysis.

A longitudinal study could be performed to track the impact of financial education interventions on SMMEs' performance over a period of time during which such training or corporate mentorship occurs. This would supply rich data to support or refute the claim that financial education interventions are an effective strategy to improve the performance and sustainability of SMMEs.

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Appendix 1: Raw Data - Frequency Tables

Domain 1: Financial planning, budgeting and control	Never (%)	Rarely (%)	Sometimes (%)	Often (%)	Always (%)
Do you compare your business' financial performance to the financial objectives you previously set?	5 (10)	8 (16)	6 (12)	10 (20)	21 (42)
Do you write a financial objective of what you want to achieve in a year for your business?	3 (6)	8 (16)	14 (28)	13 (26)	12 (24)
Do you prepare a written budget of income and expenditure for your business for the year?	7 (14)	10 (20)	6 (12)	13 (26)	14 (28)

Domain 2: Bookkeeping	No (%)	N/A (%)	Yes (%)
Do you keep the following books of account for your business:			
Invoice book (record of sales)	2 (4)	0 (0)	48 (96)
Purchases book (record of purchases)	2 (4)	0 (0)	47 (96)
Cash book (record of cash receipts and payments)	2 (4)	0 (0)	47 (96)
Expenses book (record of expenses)	5 (10)	0 (0)	43 (90)
Creditors book (record of suppliers you owe)	7 (15)	2 (4)	39 (81)
Debtors book (record of customers who owe you money)	9 (19)	1 (2)	38 (79)
Stock book (record of inventory on hand)	10 (20)	3 (6)	36 (73)
Fixed asset register (list of property, plant and equipment)	17 (35)	3 (6)	28 (58)
Do you use a computer to record your business transactions?	20 (40)	0 (0)	30 (60)

Domain 3: Understanding funding sources	No (%)	N/A (%)	Yes (%)
Do you have a personal bank account?	1 (2)	0 (0)	49 (98)
Do you have a business bank account?	3 (6)	0 (0)	47 (94)
Are you aware of the requirements of commercial banks in lending money to businesses?	9 (18)	0 (0)	41 (82)
Have you ever prepared a business plan?	12 (24)	0 (0)	37 (76)
Are you aware of some government agencies that can provide financial and non-financial assistance to you (SEFA, SEDA)?	18 (36)	0 (0)	32 (64)
Have you ever checked the websites of commercial banks for you to see the credit products and their requirements?	25 (50)	0 (0)	25 (50)
Do you bank your takings on a daily basis?	25 (50)	1 (2)	24 (48)
Do you invest the excess cash in your bank account?	28 (56)	1 (2)	21 (42)
Are you aware of the following finance providers if you need to borrow money for your business?			
Commercial banks	3 (6)	0 (0)	47 (94)
Micro finance	18 (36)	0 (0)	32 (64)
Stokvel	19 (38)	0 (0)	31 (62)
Venture capitalists	30 (60)	0 (0)	20 (40)
Business angels	33 (66)	0 (0)	17 (34)

Domain 4: Understanding business terminology	No (%)	Yes (%)
Do you understand the following terms?		
Saving	0 (0)	50 (100)
Taxes	0 (0)	50 (100)
Credit card	0 (0)	50 (100)
Loan	1 (2)	49 (98)
Insurance	1 (2)	49 (98)
Business plan	1 (2)	48 (98)
Investment	2 (4)	48 (96)
Interest rate	3 (6)	47 (94)
Hire purchase	6 (12)	44 (88)
Stock market	10 (20)	40 (80)
Debtor finance	14 (29)	35 (71)
Collateral	17 (34)	33 (66)
Asset-based lending	20 (41)	29 (59)
Do you know South Africa's current exchange rate to the US$?	13 (27)	36 (73)
Do you know what tax bracket you currently fall into?	20 (41)	29 (59)
Do you know South Africa's current inflation rate?	23 (47)	26 (53)
Do you know South Africa's current Repo rate?	28 (58)	20 (42)

Domain 5: Finance and Information related skills	Very poor (%)	Poor (%)	Satisfactory (%)	Good (%)	Very good (%)
How do you rate your internet usage skills?	0 (0)	5 (10)	10 (20)	16 (32)	19 (38)
How do you rate your computer literacy skills?	3 (6)	9 (18)	13 (26)	9 (18)	16 (32)
How do you rate your business plan preparation skills?	8 (16)	4 (8)	16 (32)	13 (26)	9 (18)
How do you rate your accounting and bookkeeping skills?	7 (14)	6 (12)	14 (28)	12 (24)	11 (22)

Domain 6: Use of technology	No (%)	Yes (%)
Do you have an email address?	0 (0)	50 (100)
Do you have access to the internet at work?	5 (10)	45 (90)
Does your business have a web site?	35 (70)	15 (30)

Domain 7: Risk management	No (%)	Yes (%)
Do you have insurance cover for your business?	18 (36)	32 (64)

Appendix 2: Participant Informed Consent Declaration

INFORMED CONSENT DECLARATION
(Participant)

Project Title: Analysing the need for financial literacy in micro-enterprises in the City of uMhlathuze, KwaZulu-Natal.

Mrs Anne Soldat, a student registered for a Master in Accountancy qualification with the University of KwaZulu-Natal, student number 972121507, has requested my permission to participate in the above-mentioned research project.

The nature and the purpose of the research project, and of this informed consent declaration have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to establish the financial literacy needs of micro-entrepreneurs in the City of uMhlathuze, KwaZulu-Natal.

2. The University of KwaZulu-Natal has given ethical clearance to this research project and I have seen/ may request to see the ethical clearance certificate.

3. By participating in this research project I will be contributing towards academic literature regarding this topic.

4. I will participate in the project by responding to a written questionnaire.

5. My participation is entirely voluntary and should I at any stage wish to withdraw from participating further, I may do so without any negative consequences.

6. I will not be compensated for participating in the research.

7. The researcher intends publishing the research results in the form of an Academic Journal. However, confidentiality and anonymity of records will be maintained and my name and identity will not be revealed to anyone who has not been involved in the conduct of the research.

8. I will receive feedback in the form of an email or journal article regarding the results obtained during the study by requesting this from the researcher.

9. Any further questions that I might have concerning the research or my participation will be answered by Mrs Anne Soldat (972121507@stu.ukzn.ac.za).

10. This study is being supervised by Mrs K Gurr (gurr@ukzn.ac.za) and co-supervised by Dr M Doorasamy (doorasamym@ukzn.ac.za).

11. Details of the research office are as follows:
HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office
Westville Campus Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, South Africa
Tel: +27 31 2604557
Fax: +27 31 2604609
Email: HSSREC@ukzn.ac.za

Research Office HSSREC Administrator
University of KwaZulu-Natal. Westville Campus
Tel: +27 31 260 3587

12. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.

13. A copy of this informed consent declaration will be given to me, and the original will be kept on record.

I, ………………………………………………………………………….. have read the above information / confirm that the above information has been explained to me in a language that I understand and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above-mentioned project.

………………………………….	………………………………….
Participant's signature	**Date**

Appendix 3: Research Questionnaire

UNIVERSITY OF KWAZULU-NATAL

INYUVESI YAKWAZULU-NATALI

RESEARCH QUESTIONNAIRE

Section A

Business name	

Please complete the table below by marking your selections with a cross on the appropriate choice on each row:

Gender	Male	Female	Prefer not to answer		
Race	Black	Mixed race	Indian	White	Other - please specify:
Home language			English	Afrikaans	Other - please specify:
Education		No education	Primary school	High school	Post high school
Age		18-29 yrs	30-44 yrs	45-59 yrs	60+ yrs
Marital status		Single	Divorced	Widowed	Married
Number of employees		None	1-3	4-7	8-10
Annual turnover	R0 – R100 000	R100 001 – R300 000	R300 001 – R500 000	R500 001 – R1 000 000	R1 000 001+
Years in business		0-1	2-3	4-5	6+

Section B

Please answer “Yes” or “No” to the following questions by placing a cross in the relevant column:

			Yes	No
1.	Do you keep the following books of account for your business:			
	1.1	Invoice book (record of sales)		
	1.2	Purchases book (record of purchases)		
	1.3	Expenses book (record of expenses)		
	1.4	Fixed asset register (list of property, plant and equipment)		
	1.5	Stock book (record of inventory on hand)		
	1.6	Cash book (record of cash receipts and payments)		
	1.7	Debtors book (record of customers who owe you money)		
	1.8	Creditors book (record of suppliers you owe)		
2.	Do you use a computer to record your business transactions?			
3.	Do you have a personal bank account?			
4.	Do you have a business bank account?			
5.	Do you bank your takings on a daily basis?			
6.	Do you invest the excess cash in your bank account?			
7.	Are you aware of the following finance providers if you need to borrow money for your business?			
	7.1	Commercial banks		
	7.2	Micro finance		
	7.3	Stokvel		
	7.4	Business angels		
	7.5	Venture capitalists		
8.	Are you aware of the requirements of commercial banks in lending money to businesses?			
9.	Have you ever checked the websites of commercial banks for you to see the credit products and their requirements?			
10.	Have you ever prepared a business plan?			
11.	Are you aware of some government agencies that can provide financial and non-financial assistance to you (SEFA, SEDA)?			
12.	Do you understand the following terms?			
	12.1	Saving		
	12.2	Loan		
	12.3	Investment		
	12.4	Collateral		
	12.5	Taxes		
	12.6	Insurance		
	12.7	Interest rate		
	12.8	Credit card		
	12.9	Hire purchase		

	12.10	Stock market		
	12.11	Asset-based lending		
	12.12	Debtor finance		
	12.13	Business plan		
13.	Do you know South Africa's current Repo rate?			
14.	Do you know what tax bracket you currently fall into?			
15.	Do you know South Africa's current inflation rate?			
16.	Do you know South Africa's current exchange rate to the US$?			
17.	Do you have an email address?			
18.	Do you have access to the internet at work?			
19.	Does your business have a web site?			
20.	Do you have insurance cover for your business?			

Please answer the following questions with a cross in the relevant column:

		Never	Rarely	Sometimes	Often	Always
21.	Do you write a financial objective of what you want to achieve in a year for your business?					
22.	Do you prepare a written budget of income and expenditure for your business for the year?					
23.	Do you compare your business' financial performance to the financial objectives you previously set?					

Please rate yourself on a 5-point scale where 1 = very poor and 5 = very good.

		1	2	3	4	5
24.	How do you rate your accounting and bookkeeping skills?					
25.	How do you rate your business plan preparation skills?					
26.	How do you rate your computer literacy skills?					
27.	How do you rate your internet usage skills?					

Thank you for completing this questionnaire.

Appendix 4: Ethical Clearance Certificate

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

14 September 2020

Mrs Anne Margaret Soldat (972121507)
School Of Acc Economics&Fin
Westville Campus

Dear Mrs Soldat,

Protocol reference number: HSSREC/00001822/2020
Project title: Analysing the need for financial literacy in micro-enterprises in the City of uMhlatuze, KwaZulu-Natal.
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 04 September 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted FULL APPROVAL

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 14 September 2021.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,

[redacted]

Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: http://research.ukzn.ac.za/Research-Ethics/

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Appendix 5: Turnitin Report

Final Chapters 1 to 5 Soldat

ORIGINALITY REPORT

6%	4%	4%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Olawale Fatoki. "The Financial Literacy of Micro Entrepreneurs in South Africa", Journal of Social Sciences, 2017 Publication	2%
2	ijecm.co.uk Internet Source	1 %
3	uir.unisa.ac.za Internet Source	<1 %
4	repository.up.ac.za Internet Source	<1 %
5	mdpi-res.com Internet Source	<1 %
6	sjes.springeropen.com Internet Source	<1 %
7	Jelita Noviarini, Andrew Coleman, Helen Roberts, Rosalind H. Whiting. "Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand", Pacific-Basin Finance Journal, 2021 Publication	<1 %