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Evaluating the information technology-based financial literacy strategy of small businesses in Umhlathuze Municipality

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Abstract

This study explores the financial literacy strategies of small businesses in Umhlathuze Municipality, South Africa, with a focus on their use of Information Technology (IT). Small businesses play a critical role in economic development, and their ability to manage financial resources effectively is vital for sustainability and success. Using a mixed-methods approach, quantitative data were gathered from 389 small businesses across diverse sectors, while qualitative insights were obtained from 13 IT and finance specialists. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were employed to analyze the integration of IT into financial literacy programs. Findings reveal the growing importance of IT in enhancing financial literacy. Many small businesses have adopted tools such as accounting software, online banking, and financial management applications to strengthen their financial practices. These IT integrations have improved financial management, enhanced decision-making, and contributed to stronger financial positions. The study underscores the evolving landscape of financial literacy in small businesses within Umhlathuze Municipality, emphasizing the transformative role of IT. It provides actionable insights for policymakers, business support organizations, and stakeholders aiming to enhance small business resilience through IT-driven financial literacy programs. Ultimately, fostering IT adoption and financial literacy can significantly contribute to the success and sustainability of small businesses, driving broader economic growth in the region.

Keywords: Financial Literacy; Small Businesses, Information Technology (IT); Umhlathuze Municipality; Economic Development; Financial Management; Structural Equation Model (SEM) and Sustainability

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1. Introduction

In agreement with prior studies, the first step to be able to access the financial literacy level of small businesses would be to survey the owners themselves on their knowledge regarding financial management (Lusimbo, 2016). Previous studies in the area, which have used survey method to dissect the knowledge of financial literacy in correlation with micro and small business owners' financial behavior, have found that the data collected was sufficient in order to make conclusions regarding the owners' overall financial status of the business (Derbyshire, 2016).

According to the recent survey conducted on small businesses around the world, it is found that over the years, many entrepreneurs have been obligated to exit the business industry due to the failure to manage finances incurred from the business itself (Cherugong, 2015). While other entrepreneurs comprised of beginning and experienced business owners have hindered their own business growth with the lack of financial management costing them the loss of potential profit and effective business growth (Gaudence et al., 2018).

The unending struggle for survival and competition in the business environment has made the significance of financial literacy level among small businesses greater than before, and the success of the business largely depends on the financial literacy level (Bushe, 2019). Unfortunately, it is found that a large number of small businesses lack financial literacy and these low levels of financial literacy are associated with adverse consequences for the survival and growth of small businesses (Tuffour, Amoako and Amartey, 2022). Knowledge about financial issues can help small business owners to manage their firms more effectively, avoid failure, especially in the early years, and increase the likelihood of growth (Hussain et al., 2018).

1.1. Background

Small businesses are one of the most important sectors in South Africa, which contributes significantly to the economy activity, employment creation, and equitable income distribution. However, entrepreneurs face a lot of struggles when it comes to managing the financial aspect of their business (Ayandibu and Houghton, 2017). Managers have different levels of financial literacy and most of them are not equipped with financial knowledge (Plakalović, 2015). This is due to the fact that the manager or the owner has an additional role to play compared to managers in large firms. Roles of small business managers are usually multi-tasking and handling a wide area of functional areas of the business (Plakalović, 2015). Limited resources in terms of money, time, and human capital also contributed to the necessity of contracting out some of the functions or combining them with others, thus limiting the owner's ability to perform a particular function in a professional manner (Hayton, 2005). This includes functions related to financial management (bookkeeping, accounting, internal control, and financial reporting) and the preparation of financial statements. Due to the lack of specific management in the financial areas and the combination of the owner's personal finances with the businesses, it is not uncommon for the financial management of the business to be given minimal attention (Hayton, 2005).

This study examined the financial literacy strategies of small businesses in the area of Umhlathuze Municipality. The term financial literacy refers to an individual or a group's ability to make informed decisions based on the understanding of the financial concepts (Remund, 2010). The focus will be on financial reporting, financial statement preparation, internal control, and cash management. The study looked at the methods used and sought by small business owners to increase their financial competency. This includes hiring professional help such as accountants or accounting students and attempts at self-education in the financial areas. The study attempts to gauge the level of competency in the aforementioned financial areas and discover any correlations between the financial literacy and the financial success of the businesses.

1.2. Problem statement

This paragraph has a number of critical elements to be teased out. First is the concept of financial IT decisions. IT users must make a wide array of information technology decisions that can have varying effects on the financial literacy competency of their small business and/or themselves. An IT decision is simply the act of choosing between two or more methods of obtaining an IT goal (Hwang and Masud, 2012). This can be anything from choosing which software to use, weighing up the costs and benefits of an IT solution, to determining how best to use an existing IT tool. It can be a deliberate decision to pursue an IT goal with specifically allocated resources or simply the decision to continue the status quo of an IT activity. A method is a way of doing something or an act of procedure often involving an input and producing an output. IT methods can have massive impacts on financial literacy competency but it may not always be immediate or intended (Mcbride and Philippou, 2022). For example, a method of automating a record-keeping process may free up time and resources but be an opportunity forgone to develop staff financial literacy competency in doing the task manually and learning from the output. This must be realized and weighed up when making method decisions.

An information technology (IT) financial literacy strategy is a planned and integrated course or effort by an Umhlathuze small business to teach its information technology users how to understand and use financial literacy skills and concepts for the purpose of developing competent financial technology decisions. This is the strategic issue facing small businesses within Umlathuze Municipality. Small business IT users must understand financial literacy concepts, terms, and skills and know how to integrate them into information technology decisions to achieve a desired financial literacy outcome. Currently, there is no clearly defined understanding of what constitutes financial literacy skills and concepts for generic IT users and how to best integrate this understanding into information technology decisions for small businesses. Conversely, small businesses are struggling to develop generic financial literacy skills and concepts into a practical course or integrated effort that will teach IT users how to use IT to functionally improve their financial literacy competency. As stated by Ayandibu and Vezi-Magigaba (2021), SMEs face many challenges but the financial and It issue is one of the paramount ones they face. Therefore, this paper will evaluate the Information Technology-Based Financial Literacy Strategy of Small Businesses in Umhlathuze Municipality.

1.3. Research objectives

The aim of this article is to assess how small business enterprises in the uMhlathuze Municipality can benefit from having a well-defined financial literacy strategy primarily focused on the use of information technology (IT). There has been increasing evidence to suggest that there is a direct relationship between improved financial management and improved survival and success rates of small enterprises. While many small enterprises may be practicing good day-to-day financial management, very few have a defined financial strategy. The purpose of this study is to define the financial management practices of small business enterprises with the ultimate aim of designing an effective financial literacy program.

The specific objectives of this research study are:

- To determine the general financial management practices of small business enterprises.
- To identify strengths and weaknesses in financial management.
- To ascertain financial training needs.
- To assess the extent of IT usage in financial practices.
- To provide general insights into possible methods of improving financial management.

2. Literature review

Literature surrounding small businesses, financial literacy, and information technology, individually, is prevalent. However, an intersection of the two has sparse coverage. Dahmen and Rodríguez, 2014, for example, covered the small business and financial literacy area thoroughly, but only scratched the surface when mentioning "this new computer technology". This gives insight into the IT aspect in financial decision making, but does not detail an understanding of how specifically IT has influence. The article also fails to mention the shift from traditional pen/paper record-keeping method to a more IT-oriented method and how this affects financial literacy. On the information technology side, Street, and Cameron (2007), covered an array of IT topics in small businesses, but only in relation to its effect on business success. This article does, however, emphasize that IT is a critical investment for any small business, which gives a clear indication that any financial decision on investment should include considering an investment in IT. A study by Caldeira and Ward, (2003) takes a look into the effect of the IT investment decision process itself and the difference between successful and unsuccessful IT adopter companies. This study gives some insight into the thought process of a manufacturing SME when considering an IT investment, but does not detail the investment decision process compared to other types of investment, and ultimately how it correlates to financial literacy.

2.1. Financial literacy in small businesses

Understanding of accounting is an important aspect of overall financial literacy. Lack of accounting knowledge can result in failure to organize financial information and use financial resources optimally. This includes categorizing costs and revenue in order to understand the profitability of specific products or services, which is crucial to the decision-making process in small businesses. Accounting knowledge also aids in the preparation of financial statements and budgets. These are tools which Damayanti et al. (2018) stated can help small business owners to obtain financing and plan for the future. Finally, a greater understanding of accounting should enable small business owners to understand and prepare their tax returns. This may help to prevent unnecessary loss of resources due to penalties incurred from ignorance of tax laws.

Financial literacy is of paramount importance in the context of small businesses. When the business ventures into its operations, it needs sufficient capital to sustain its growth. However, a lack of financial literacy among small businesses can mar their capability to obtain financing. Studies like Mutegi et al. (2015); Okello-Candiya Bongomin et al. (2017), have shown that having low levels of financial literacy can lead to a higher probability of loan defaults and thus constrain the access to financing. Therefore, one of the main reasons that small businesses do not survive is their lack of understanding of how money works in the business. An important consideration is the prevailing crisis in South Africa, of the high rate of fatal small business closures that may be due to the lack of an understanding of the financial environments in which these businesses operate. High levels of financial literacy give small business owners a better chance of their businesses continuing to survive and grow.

2.2. Importance of information technology in small businesses

An article on Forbes suggests that without the implementation of IT, many of the tasks and processes that are involved in the operation of a business are performed manually. This includes record keeping, calculating, and financial analysis. These automated processes can provide small businesses with time to check the accuracy of the data, time to analyze information to better understand the financial position of their business, and identify potential cost savings and efficiency improvements (Ramaswamy, 2019). Financial management in almost every business scenario is about the management of an enterprise to better understand its financial health and improve the firm's profitability (Shaheen et al., 2020). Furthermore, ATandT released a poll with small business owners who claimed that IT helps them serve the customer better, stay in touch while out of the office, and make their business more efficient (Atandt, 2013). These indirect effects of IT can greatly assist small businesses in managing their finances and mapping out a strategy to improve their financial literacy.

Another concept that has been identified is that IT enables greater learning and understanding. Fiksel and Fiksel, 2015 understands that learning is essential for better human performance and an essential aspect of survival in fast-moving, risky, and uncertain environments, including small businesses. IT and the internet can be educational tools for businesses to acquire more financial know-how as a means of self-learning. IT can provide access to online financial information, tutorials, and software. A recent trend is the use of internet-based software known as "cloud computing" that provides users with services over the internet rather than application software and access to digital storage that eliminates the need for hard copies. This can be a relatively cheap and efficient way to store and access financial data and learn to use various financial management tools.

A forthcoming and interesting notion to come out of a New Zealand government report is the effect that IT has on the life and well-being of business owners (Roberts et al. 2015). The idea of improving life quality and reducing stress resulted in Frederiks et al. (2015) proposing that by reducing the cognitive efforts we put into decisions, problem-solving, and actions, we can achieve goals with lesser cost and energy. The computer has changed the way people deal with information and accomplish tasks and, to an extent, taken the load off humans. This cause and effect situation would suggest that by a small business owner investing time into learning to use IT for financial management, they can achieve a greater understanding of their financial position, without being overwhelmed and stressed by the process.

2.3. Previous studies on financial literacy and information technology

Abdullah et al. (2019) studied the relationship between money attitude, materialism, and debt on the financial literacy of households. It is not exactly a study on how to improve financial literacy, but it provides insight into the condition of people who do not have enough financial literacy. A conclusion from this research is that there is a negative relationship between debt and financial literacy. This is one finding on the importance of financial literacy for a person or a household. Debt management is a part of financial management that requires someone to have knowledge of the best strategy to reach the ultimate goal, which is to minimize the cost. Debt that occurs due to a lack of information will burden a person because it costs too much. This will reduce the ability of a person to hold emergency funds and face any unexpected events that require a cost. As for small business owners, unexpected events that require a cost may damage the business if the owner does not have enough preparation. Lusardi and Tufano (2015). also conducted another research that investigates the debt literacy condition around the globe. It provides a detailed comparison between countries on debt literacy and debt behavior. Debt literacy is a concept that involves the understanding of debt terms and conditions. This study measured debt literacy by questionnaires that cover the basic knowledge of interest rates, inflation, and risk diversification on debt. This study found evidence that people who understand debt terms have better debt management compared to those who do not understand it and borrow money at high interest rates. Debt literacy also has a close relationship with debt behavior.

Several studies investigate the effectiveness and the effect of financial literacy and the role of information technology on financial management. Kulathunga, Ye, Sharma and Weerathunga, (2020) conducted a study to investigate the spread of financial literacy around the globe and the impact on saving behavior. The result of this study has provided evidence that people who are more financially literate are more likely to save before consuming and are more likely to compare prices before making decisions. This study also found evidence that those with higher financial literacy are less likely to engage in impulse buying, borrow at high interest rates, and manage their debt.

2.4. Theoretical framework

Information technology (IT) has now become a commodity and is essential in the business industry. It is a firm's main tool to achieve competitive advantage in the global market. IT is transforming the way business is done. It is facilitating the businesses to conduct RandD, advertise and reach new customers. It is enhancing the production of new products and services, and finally, IT is leading to improvements in the logistics and supply chain management. These factors were identified by small business owners within the Umhlathuze municipality as ways in which they can grow their businesses. The increasing intensity of IT employment by small business owners makes it ever more important for them to understand and make better use of their IT investment. This is supported by evidence which shows that in every sector, IT-intensive firms tend to enjoy better productivity, profitability, and growth relative to their peers (Chang and Gurbaxani, 2013). With the combination of financial literacy and IT being essential in the way business is done, it is important to note that there is a gap between the two concepts. There are limited resources on the best way to manage IT using financial management and cost analysis. This study looks on providing a solution for this gap within the context of the Umhlathuze Municipality.

The theoretical framework utilized for this study includes e-learning, p-learning, financial literacy, information technology, and small business, all streamed down from the general framework of the study. This study is solidified under the research topic "Assessing the Financial Literacy strategy of small businesses utilizing information technology within Umhlathuze Municipality". Financial literacy is a prerequisite for an entrepreneur and small business owner. Practically, it is the ability to read and understand basic financial statements such as balance sheets, profit/loss statements, and to cost and financial management in ways that improve the likelihood of business success, and the ability to effectively carry out this task (Vuković et al., 2022). A financially literate entrepreneur is empowered to access, use, and produce financial information that guides the business to growth and sustainability.

3. Methodology

The approach was to validate the proposed strategy to improve financial literacy by:

- Testing the knowledge and understanding of the target group regarding financial management.
- Consulting with relevant stakeholders to attempt to identify the challenges and enablers relevant to the target group.
- Describing the characteristics of the Financial Literacy program/service that would best enable the target group to more effectively manage their finances.
- Analyzing the attributes of IT that would potentially enable the target group to more effectively manage their finance, and deduce the IT know-how and resources of the target group.
- Using this info to design the most effective way of bridging the gap between the current and desired financial management ability using IT. A follow-up study can then validate this strategy.

3.1. Research design

The study was exploratory, descriptive, and analytical. Descriptive research is used in the first browsing for the level of some phenomenon, and analytical research tries to explain why and how there is a change in the level of the phenomenon. Exploratory research is most generally unstructured, "informal" research that is used to gain background information about the general nature of the research problem. These methods are using both qualitative and quantitative methods to give a broad understanding of the financial literacy levels of small business owners within Umhlathuze Municipality and to provide an understanding of how IT is being used to assist these entrepreneurs with both their financial management and their general levels of financial literacy. Interviews are generally more informal than surveys and they are structured around set questions and allow for follow-up questioning to gain clarity or to gain a deeper understanding of the current question. They were conducted with both business owners and IT consultants in order to get a full understanding of the current environment. Questionnaires were used to gather the background and general information about the small business in order to assist in choosing a sample for both the in-depth research and the case studies. The choice of using questionnaires also allows for easier comparison of responses with a larger group of people.

The in-depth research began with case studies into the businesses of the IT consultants. This gave a good understanding of the levels of financial literacy compared to other educated professionals as well as giving some insight into the levels of literacy prior to the introduction of the IT consultant. A case study was followed into the entrepreneurs IT consultants, again with the similarities of the educated professional it can give insight into the levels of understanding of the entrepreneurs as they attempt to mirror the success of these consultants. The final case study was that of a comparison of businesses that are currently employing IT consultants, to those that are not. An in-depth understanding was gained as to the change in financial literacy levels as a direct result of the IT. This determined if IT is an effective tool in improving financial literacy.

3.2. Sample Selection

The sample selection stages involved a process of isolating businesses that are small in nature and predominantly are one-man owned enterprises. The logic behind this is that one-man businesses are usually run by individuals who, at some stage in their life, embarked on prioritizing asset building and financial planning for the future. Practice of some sort of financial planning or strategy in the past provides a basis for a health check into the current business practices. Small business was classified according to the European Union (EU) definition, that being a business employing less than 50 people. This limit is sufficient for separating small enterprise from large enterprise without using the criteria of turnover or profit. This is a fair indicator for business size in South Africa due to large black economic empowerment policies and affirmative action value chains which often classify businesses on their employee numbers rather than their turnover. This often means there are many businesses with large turnovers but still using small business strategies.

The municipality of Umhlathuze was selected as the research environment due to its classification as a microcosm of South African in terms of first, second, and third worlds existing simultaneously. This is due to contrasts of wealth stemming from industrialization with 1st world in affluent areas and upper working-class suburbs, 2nd world in standard lower-class suburbs, and mostly rural 3rd world in the peri-urban and tribal authority area. A plethora of information technology resources were employed such as broadband, ADSL, IDSN, GPRS, 3G, WIFI, and even VPN with the overall aim of providing municipality inhabitants greater accessibility to technology resources for IT facility purposes. This allows for a larger business scope as the rapid rise in internet usage in South Africa has made access to global information and markets more feasible for these business owners.

3.3. Data collection

Second step includes a General Financial Literacy Test and Specific IT assessment. The purpose of this type of testing is to enable the diagnosis of small business owners' individual needs and provide direction for subsequent decisions in the program design. In other words, the tests are going to help the association figure out what level of financial and IT literacy the small business owner has, so the appropriate form and amount of help may be administered. The general financial test has been taken from the International Adult and Literacy Survey (IALS), consisting of math-based questions which are specific to the testing of financial management skills. An example of a question which the IALS believes measures a low level of financial literacy is, "If you buy a R100000 car on credit at an annual interest rate of 10%, how much will you have to repay if you decide to pay off the loan in two years' time?". This should take no longer than 10 minutes and will be done in a group testing environment.

First step of data collection involves the arrangement of semi-structured interviews with various Financial and IT specialists. This involves conducting interviews with open-ended questions based around the issues and objectives contained within this study. The sample size suggested for this specific study was between 10 and 15 Finance and IT specialists as greater insight may be gathered with a selection of small business owners through questionnaires rather than an entire population. The saturation principle was employed and the qualitative data collection stopped at 13 since no more information was being obtained (Aguboshim, 2021). Interviews was recorded to ensure consistency in the data. This then allows for the informed consent of the respondents, providing them with a sheet of paper which informs them of the nature of the interview and that their responses will be tape recorded and kept confidential, taking into consideration their rights of anonymity. Sample size of 389 was used for the quantitative study.

3.4. Data analysis

The researcher first looked at the data obtained from the baseline with regards to small business owners' financial literacy using IT. Frequency analysis was carried out for this data to determine whether small business owners' financial literacy using IT is predicted by their demographic characteristics. In particular, cross-tabulations were performed for demographic variables including age, education level, digital literacy skills, household income level, and business size. Analysis was elucidated whether there are any particular groups of small business owners with low financial literacy using IT and whether it would be worthwhile to target these groups in future financial literacy initiatives. A second method of analysis was through IT and Financial specialist's interviews with those identified as having an inadequate awareness of financial literacy programs being offered. These individuals was sampled purposefully based on their responses to the baseline survey and questions asked primarily open-ended. The goal of these interviews was to assess why these small business owners have low financial literacy using IT, whether they perceive a need for financial literacy education, and the challenges they face in improving their financial literacy. The demographic data is below:

Demographic Data: This section covered the participants' level of education, gender and age. The personal data helped contextualise the findings and the formulation of appropriate recommendations.

Level of Education: Of the 389 participants, the median category was matric qualification with 39.8% while only 1.1% of participants had a qualification of an honour's degree or higher.

Table 1. Frequency table for Q1 variable

Variable	*n*	%
Level of Education		
Below matric	141	36.2
Matric	155	39.8
Diploma	60	15.4
Bachelor's degree	29	7.5
Honour's degree	3	0.8
Masters	1	0.3
PhD	0	0.0
Total	389	100

Note. Due to rounding errors, percentages may not equal 100%.

Table 2. Frequency table for Q2 variable

Variable	*n*	%
Gender		
Males	202	51.9
Females	187	48.1
Total	389	100

Note. Due to rounding errors, percentages may not equal 100%.

Gender: Of the 389 participants, males were the most frequently observed category with 51.09%.

Age: Of the 389 participants, 42.2% is between the age group of 41-50 years.

Table 3. Frequency table for Q3 variable

Variable	*n*	%
Age		
21-30	46	11.8
31-40	96	24.7
41-50	164	42.2
51-60	80	20.6
61-70	3	0.8
Total	389	100

Note. Due to rounding errors, percentages may not equal 100%.

3.4.1. Organisational Performance (Financial stability / IT)

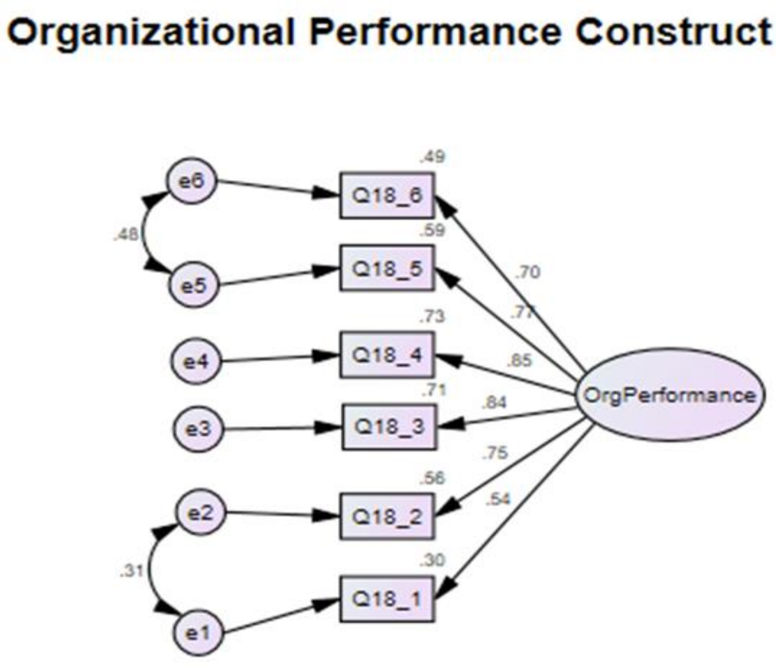

Figure 1. Organizational performance construct (Source: Author's compilation)

Convergent validity was achieved when all items in a measurement model are statistically significant and verified by computing the Average Variance Extracted (AVE) for every construct. According to Hu and Bentler (1999), the value of AVE should be 0.5 or higher to achieve the Convergent Validity.

Table 4. Validity analysis

	CR	AVE	MSV	MaxR(H)	OrgPerformance
OrgPerformance	0.883	0.562	0.00	0.902	0.750

Construct validity is achieved when the Fitness Indexes for a construct achieved the required level. Table 5 reports the goodness-of-fit indexes for each of the constructs namely Organizational Culture and Organizational Performance.

Table 5. Confirmatory factor analyses: fit indexes for constructs.

Model	**χ^2**	***df***	**CFI**	**RMSEA**	**SRMR**
Organization Performance	11.76	7	0.99	0.042	0.01

4. Results and findings

The findings suggest that the majority of the small business owners are male, between the ages of 25-45, and have completed at least a matric/grade 12 qualification. Although there is a high level of educational background, it does not necessarily translate to a better understanding of bookkeeping and accounting practices. This is also evident in the lack of financial planning and record keeping done by these business owners. Around 90% of the respondents have not undertaken any financial management courses as they felt that it was irrelevant to them at that time. The younger generation of business owners seems to have a different attitude, as they attribute the success of their business to financial management and planning. This suggests that financial literacy may not be a problem at present for them, but it still poses a significant threat to the sustainability of their business in the future. IT can also be seen as something of great influence, as the older generation of business owners did not utilize it as much compared to the younger generation. IT could be a potential tool to enhance financial knowledge, but it is still uncertain at this stage.

The research findings are presented in terms of the study objective, which aimed to identify and assess the financial literacy levels of small business owners and to determine the strategies used to enhance financial literacy by utilizing IT. A total of 389 small business owners in Umhlathuze Municipality participated in the survey. These findings are useful because they identified the needs and aspirations of small business owners in enhancing their financial knowledge in order to sustain and expand their business.

4.1. Financial literacy levels among small businesses

Using a variety of statistical tests like descriptive, inferential and Factor Analysis, this provides evidence of differing levels of financial literacy among many different groups within the community. This evidence suggests that there are quite a few individuals who could benefit from small increases in financial knowledge to avoid negative financial events. This includes people with low-income jobs, elderly people, and single women with children. This should be used in the future to develop targeted education programs for the benefit of those groups.

The clusters of demographic groups indicate two variables. The first is age, measured in three groups: 18-29, 30-49, and 50-64. The second variable is household income, and measures three groups: less than R200,000, between R400,000 and R500,000, and more than R500,000. The results suggest that the age of an individual does not affect financial literacy; however, there is a strong indication that household income does. The findings are consistent with other studies of financial literacy. This would suggest that younger people can still be targeted to increase financial literacy, but it would be most effective for those in higher-income households (Johnson and Sherraden, 2007).

4.2. Utilization of information technology in small businesses

Based on the responses from this line of questioning, it was indicated that the level of utilization of information technology was quite low, as computer technology is quite complex and difficult to understand. This may stimulate further research in having to assess the levels of computer literacy in the small businesses sector. This will help to find out if the understanding of information technology has any effects on financial literacy in small businesses. This line of questioning to specify exactly how information technology was being used helped to give a solid understanding that information technology is indeed a broad field and many things fall under that category (Omrani et al., 2022). This will help in future research on whether different forms of information technology have different effects on financial literacy in small businesses.

The small businesses that indicated that they were using information technology were asked to specify exactly how they were using it. A large majority of the respondents stated that they were using information technology to assist in the day-to-day running of their businesses. This included the storing and sending of business documents; as it is stated by one respondent "I am using a computer to keep all my quotes and invoices, it's much easier than keeping all the paperwork." Other common uses of information technology included marketing and advertising, and about 30% of the small businesses using information technology indicated that they were using it to help gain knowledge on how to expand or improve their businesses. Only 5% of the businesses using information technology stated that they were doing it for research purposes.

The primary focus of this research was to assess the financial literacy strategies of small businesses using information technology. However, before conducting research in assessing financial literacy, it was necessary to determine whether small businesses were indeed using information technology and in what ways they were utilizing it. Out of the 389 small businesses that filled the questionnaires, 95% indicated that they did use information technology in their business. When asked to specify what they considered to be information technology, many of the respondents listed computers, internet, software, and cellular phones; 25% of the respondents indicated that they did not understand what information technology was. Since small businesses are generally attributed as the leaders of economic development, it is vital that if they are trying to incorporate information technology, which is the key to pulling South Africa into the information age, that they have an understanding of what they are trying to do.

4.3. Relationship between financial literacy and information technology

As outlined in the rationale, the study was aimed to assess the financial literacy strategies of small businesses utilizing information technology within the Umhlathuze Municipality. Generally, entrepreneurs were found to require information technology for information seeking and learning purposes. This supports the theory where people often acquire information for the purpose of enhancing knowledge which in turn leads to informed decisions (Sitaridis and Kitsios, 2024). In this instance, it is recognized knowledge enhancement will lead to informed financial decisions. Information technology provides a vast array of knowledge resources; from online articles and tutorials to interactive software. This is evident from the survey where more than 95% respondents agreed information technology provides access to a range of free and easy to use resources. The easier the access to the resources, the more frequent they will be utilized. This was supported by the 72% of the respondents who mentioned information technology resources save time. Time saving resources may have a compounding effect to knowledge acquisition and decisions on the business long term. Finally, it is documented that one of the fundamental aspects of financial literacy is the ability to make informed decisions regarding money management (Oppong et al., 2023). The decisions made are over a wide range of issues such as whether to take a loan, investment for the business or preparation of an emergency fund. The better decisions are often those that are well informed. Although a detailed assessment was beyond the scopes of the study, it may be possible to compare decisions made by entrepreneurs who utilize information technology to those who do not, and an evaluation of which has a greater impact on their relative issues in the long term. This may provide a clearer understanding of what aspects of information technology have the greatest impact on financial literacy.

5. Discussion

Identification of areas of improvement will enable business owners to focus on specific areas in which they lack knowledge. This can inhibit detrimental decisions being made through a lack of knowledge. In order to compete with large businesses, small businesses need to adopt modern technologies. However, the repercussions of this strategy could be negative if business owners do not have the correct knowledge on how to use financial software tools. This may lead to incorrect record keeping and thus produce inaccurate financial statements. It has been noted that most entrepreneurs have a lack of knowledge on how to approach and use IT effectively. Through the automation of financial tasks, it is essential for entrepreneurs to be financially literate in order to carry out the correct interpretation of financial information (Alshebami, and Al Marri, 2022). This supports the argument that the more complex the accounting activities of a business, the greater the level of financial literacy needed.

Financial literacy for entrepreneurs has gained prominence as a significant area for investigation. The financial literacy program has been adopted by most governments, including Durban, South Africa, through the "Financial Literacy Strategy of Small Businesses Utilizing Information Technology within Umhlathuze Municipality." The findings of the study are expected to aggrandize the awareness of financial literacy as an essential element for the success of small businesses.

5.1. Implications of the findings

A very interesting result we found was that the younger and more highly educated entrepreneurs displayed a lower tendency to apply for financing as well as a lesser need for further training in financial matters, whereas the older and less educated entrepreneurs showed a higher tendency to both apply for financing and have a need for training. This is contradictory to the assumption that the younger and more educated would have a higher need to acquire resources as well as enhance and make use of their financial literacy to ensure the success of their businesses. This result requires further investigation, however with regards to the entire study what this suggests is that the financial literacy strategy for small businesses need to be aimed towards the older and less educated entrepreneurs, without discouraging the younger and more highly educated entrepreneurs from doing so. In any case, improvement in the financial literacy of all small business entrepreneurs can only be beneficial.

One of the key findings of this research is that small businesses often delegate their financial matters to someone else, which often means that they don't have full control over the financial literacy of their business (Benedic, 2024). This finding is rather alarming given that we know from the literature review that the understanding and use of financial information is crucial for the sustainability, growth and survival of small businesses, but is also consistent with research conducted in both Australia and the United States which showed that small businesses often neglect their financial management duties due to the overwhelming nature of other aspects of their business (Yew Wong and Aspinwall, 2004). What this implies is that there is an opportunity for small businesses within Umhlathuze Municipality to better their financial literacy by taking part in training programs such as the SEDA course, and that the effectiveness and content of the training must be relevant and easy to apply to their own personal business situations. Failure to do so could result in small businesses resorting back to old habits of delegating the finance management role.

5.2. Comparison with previous studies

In the context of small businesses, no other studies were found which utilized exactly the same strategy. Hence, the study's findings could not be compared directly with other similar research. However, the study's findings indicate several comparisons with studies involving similar strategies on different topics. The key similarity between this study and other literacy strategies is the strong indication of cause and effect between the introduction of the strategy and an increase in knowledge and understanding. Most studies involving a literacy strategy refer to literacy as learning, knowledge, and understanding in a particular area. Knowledge and understanding are broad terms but are directly related to the daily tasks involved in running a small business. The strategy usually takes the shape of a skills mix and an increase in resources to provide a certain level of knowledge and understanding to all. This also applies to a Cronbach and Associates research model from 2001, which states that training employees to use IT is the most significant IT innovation to apply in an organization. This can be directly related to the strategy undertaken by SMB's in that IT training for employees will be the first step, aiming to increase employee knowledge and use of IT in order to progress in the literacy levels outlined in the key findings. This is supported by the strong indication of perceived changes, in that before and after the strategy, there was a significant change in employee IT knowledge and understanding. Though this wasn't the main focus of the strategy, a mix of personal and working IT use has forced employees to increase IT literacy in order to do tasks. This also indicates some form of informal learning, which according to Hamilton's 2006 research, is a key feature of literacy learning in that employees could be picking up IT knowledge and skills in their own time, which is directly related to work-related tasks. This change was evident at all levels of literacy and is an indicator of the strategy having an effect across the whole organization.

5.3. Limitations of the study

There were numerous limitations to this study, the most prominent being time and access to businesses. The time given to conduct the research was not enough to collect substantial quantitative data as some businesses did not have accountants to take part in the questionnaires, and this led to many questionnaires being handed out but not completed. The time constraint also forced the researcher to use a non-probability sampling method, which may have questioned the representation of the population, as those who did not respond to the questionnaires may have had different results. The use of a non-probability sampling method may have led to some of the smaller businesses being under-represented as they could not afford an accountant, and the larger business might have been over-represented. The response rate to the questionnaires also caused a major limitation, as more than 50% of the questionnaires handed out were not returned or incomplete. This led to the data collected not being as accurate as anticipated.

Access to businesses was another major limitation, with the most significant aspect being the fact that some accountants did not take part in the semi-structured interviews. This was due to a variety of reasons ranging from either the accountant just did not have the time to take part or a failure to call back and arrange a time for the interview. This limited the researcher to only three interviews that were conducted. Another aspect of lack of access to businesses was the fact that many businesses who were targeted to participate in the study had changed details or were not operating when the researcher had come round to give them the questionnaires. This had a follow-on effect on the questionnaire response rate in that many questionnaires remained uncompleted.

6. Conclusion

6.1. Summary of findings

Financial literacy of small businesses in the study appeared to be at a low level. This is evident from the fact that almost all the owner-managers use on-the-job learning and external consultants to increase their financial knowledge. Generally, they were not interested in educating themselves for the sake of it because they believed time is money. There appeared to be an overconfidence effect in their competence with managing the finances of the business. They scored themselves higher than we scored them for their ability to perform such tasks as record keeping, financial statements analysis, and ratio calculation. This has strong implications because overestimation of ability can lead to failure to seek help and subsequently poor decision making. Many felt that their banks did not understand their businesses and were not meeting their needs. This concurs with the debt and equity issues of the businesses. The small businesses were more inclined to use debt as a financing option, yet they perceived it as less available. The debt users' debts were usually unsecured, and they had difficulty in obtaining finance, so they used their personal assets or distributed profits. On the whole, the owners did not like owing money, and they were risk-averse. This is not necessarily a bad thing, but the debt users were not making risk-return considerations compared to equity users, and it is possible that a cost of debt capital was not determined. This should be a point of focus for improving financial literacy. The overall situation at present is damaging to these businesses because they are not using the most suitable finance mix in capital structure, and they are not making informed investment decisions. This is impeding potential business growth.

6.2. Recommendations for small businesses and policy makers

The most significant recommendation to small businesses resulting from this research is that technology should be utilized as a means to better understand the customer and not only to increase profit. The method of surveying the residents using the website will fulfill this recommendation. It will enable the company to build a better understanding of the local residents and their needs and, in turn, will be an aid to making more informed decisions. This too will change the way in which the products or services are marketed and how the company will go about reaching the residents.

Internal training should be conducted from time to time on Financial Literacy. This can be done by employing a Financial litrate person or inviting an external financial expert to do this.

6.3. Areas for future research

The impact of IT on firm performance can vary between different types of IT and firm environment. The current research considered all forms of IT as equal and the firm environment was regarded as a single collective variable. A more intricate study would disentangle the complex relationship between IT and firm performance and identify the moderating and mediating factors. An interesting study would be to follow a sample of traditional business owners who intend to adopt IT over a period of time. This observation of IT adoption would also be able to track changes in business performance over time.

Lack of financial management and business knowledge was identified by the business development agency as the main reason that businesses fail. This highlights the importance of understanding the knowledge levels of the business owners and their commitment to enhancing their financial skills. An in-depth study of the financial knowledge of the business owners would provide insight into the services most needed by the small business community.

The areas highlighted for future research in this paper provide a framework for extending the current research into a larger scale with more diverse and complex variables. It is important to note the limitations of the current study and areas which can be improved upon to provide a more comprehensive understanding of the impact of financial literacy strategy and IT on firm performance.

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