



**THE EFFECT OF WORKING CAPITAL MANAGEMENT ON
THE PROFITABILITY OF SMALL RETAIL BUSINESSES
WITHIN THE EMFULENI LOCAL MUNICIPALITY**

by

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DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed.....

Date.....

STATEMENT 1

This dissertation is being submitted in fulfilment of the requirements for the degree of Masters degree: Cost and management accounting

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The dissertation is the result of my own independent work/ investigation, except otherwise stated. Other sources are acknowledged by giving explicit references. A bibliography is appended.

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DEDICATION

This work is dedicated to:

Martha Rahaba Koloko, my late grandmother, who saw a successful woman behind me. Even when she went blind, all she could see was me graduating from my studies and me shining like a star in the middle of the dark. She played the role of a person I needed each moment and taught me more than I could ever remember. Even though she is gone, the memories live within me forever.

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ABSTRACT

Managing cash flow and cash conversion cycle is a crucial component of the overall financial management within businesses, particularly small businesses. A business is required to maintain a balance between its liquidity and profitability while conducting its day-to-day operations. Monitoring of cash as an indicator of financial health is important in the view of its crucial role within businesses. This requires a business to run an effective working capital management efficiently and profitably. Hence, efficient working capital management includes decisions on how much to invest in customers, inventory and accounts receivable, and the extent of credit to accept from suppliers.

The purpose of the study was to examine the effect of working capital management on the profitability of small retail business with the Emfuleni Local Municipality. Three variables were used as a measure of working capital management, namely the number of days inventory on hand, number of days accounts payable, number of days account receivable. The return on assets was used to measure profitability. The study adopted the quantitative research approach using a structured questionnaire. A non-probability purposive sampling method was followed, where a total of 222 questionnaires were analysed.

Spearman's correlation analysis was conducted to examine the linear relationship between working capital management and the rate of return on assets. The results indicated that the period it takes the business to collect money from its customers impacts on the period it takes to pay the suppliers. A weak correlation was also reported between the number of days accounts are payable and the cash conversion cycle. Strong correlations also exist between day's accounts receivable and the cash conversion cycle and days inventory on hand with the cash conversion cycle. Regression analysis results show that days account receivables have made the largest impact on return on assets. Small businesses may have to decrease the cash conversion cycle in order to help maintain value within the business. The number of days for accounts receivable should be reduced to a reasonable period (shorter than the creditor's payment period). Small businesses may consider shortening the number of days inventory is held within the business, as this also will decrease the cost of obsolete stock.

Keywords: working capital management, profitability, small retail business, cash conversion cycle, SMMEs.

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CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

Managing cash flow and cash conversion cycle is a crucial component of overall financial management within businesses, particularly small businesses. A business is required to maintain a balance between liquidity and profitability while conducting its day-to-day operations. Liquidity ensures that a business is able to meet its short-term cash obligations and continued cash flow can be guaranteed from a profitable venture (Padachi 2006:45). The monitoring of cash as an indicator of financial health is important because of its crucial role within businesses. This requires that businesses must run an effective working capital management system efficiently and profitably (Correia, Flynn, Uliana & Wormald 2002:11). Efficient working capital management includes planning and controlling of current assets and liabilities and it plays a role in assisting and monitoring of excessive investments in current assets and prevents the business from working with few current liabilities, which may be insufficient to fulfill the functioning of small business operations (Deloof 2003:577).

Efficiency in working capital management usually includes decisions on how much to invest in customers, in inventory, in accounts receivable and the extent of credit to accept from suppliers. These are reflected in the businesses cash conversion cycle and represent the average number of days between the date a business must start paying its suppliers and the collection period from its customers (Garcia-Teruel & Martinez-Solano 2007:164). Working capital management ensures a business has sufficient cash flow in order to meet its short-term debt obligations and operating expenses. Implementing an effective working capital management system provides a chance for the business to increase profitability (Weetman 2006:238). The two main aspects of working capital management are first, current assets that include those assets that play a role in generating cash within a short period, ordinarily within a year. Such temporary investment may be readily converted into cash upon need, such as trade receivables and inventories (Erasmus 2010:2). The second component of working capital is current liabilities, which consist of all debts or credits that normally are repayable within a short period of time,

usually a year. Examples are bank overdrafts and trade creditors (Cloete & Marimuthu 2008:12).

The net working capital of a business represents its investment of the capital in current assets and the use of current liabilities to finance part of its investment needs (Erasmus 2010:2). Working capital management is important for the success of every business, particularly small businesses (Afza & Nazir 2008:25). Small business in South Africa can be defined as follows, according to the National Small Business Amendment Act No 102 of 1996 (South Africa 2003:102).

“a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, which can employ a minimum of 5 and a maximum of 100 employees, including its branches or subsidiaries, if any; is predominantly carried on in any sector or sub sector of the economy. Small businesses can be classified as micro, very small, small or medium enterprises (SMMEs). These SMMEs are not restricted to formally registered enterprises and include informal and non-VAT registered enterprises, such as survivalist street trading business, backyard manufacturing and services, and occasional home-based evening jobs. These businesses differ in terms of annual turnover which ranges from R0.15 million to R30 million.”

Small businesses are viewed as an essential element of a healthy and vibrant economy. Padachi (2006:46) mentions that small businesses play a crucial role in employment creation and income generation in many developing economies. This role is particularly critical in the national efforts to eradicate poverty (Kuzilwa 2005:132). Small business sector in South Africa has the potential to contribute to job creation and economic growth, whilst at the same time redressing historical imbalances and increasing black economic participation (Luiz 2011:55). The extension of business credit is problematic because of the information wedge between lenders and borrowers. Information capacity significantly affects business access to external finance and its cost, particularly for small businesses (Berger & Frame 2007:6).

The idea of SMMEs development was identified by the incumbent government in 2000 as a priority in creating jobs to solve high unemployment rates in South Africa (Abor & Quartey 2010:221). This ended up giving everyone in the country an opportunity to start individual businesses (Nieman 2001:445). Mboniyane (2006:10) and Resink (1988:183) state that the purpose of undertaking small business is to find management direction and

control of the business as well as improving the business and realising hidden profit potential. For small and growing businesses, efficient working capital is a vital component for success and survival (Peel, Wilson & Howorth 2000:17).

In businesses of all sizes, the basic aim of management accounting practices is to control vital areas, monitor and improve performance (Dent 1996:256). Small businesses particularly need to control and monitor their working capital, due to their association with a higher proportion of current assets relative to larger businesses (Howorth & Westhead 2003:94). Management of current assets and liabilities is particularly important in the case of small businesses, because their assets are in the form of current assets. Additionally, current liabilities are one of the businesses main sources of external finance since small businesses encounter difficulties in obtaining funding in the form of long-term capital (Petersen & Rajan 1997:669).

1.2 PROBLEM STATEMENT

Small businesses are the backbone of economies across the globe and in particular South Africa (Berger & Frame 2007:5). Small businesses create new jobs, open up opportunities for upward social mobility, foster economic flexibility and contribute to economic efficiency (Arasti 2011:7488). South Africa is faced with a problem of high unemployment, which also plays a significant role in increasing the rate of poverty and crime. In order to achieve sustainable growth and address the economic development challenges of the country, successful small businesses are required to enhance the business sector. Small businesses account for about sixty percent (60%) of the employment in the economy and more than thirty percent (30%) of South Africa's gross domestic product (GDP). To maintain a stable and growing level of small business sectors, careful monitoring and management of short-term assets and liabilities (working capital management) must be ensured due to its importance in small business profitability (Afza & Nazir 2008:25).

Working capital management is a crucial factor of financial management due to its credence in the day-to-day operations of the small business. To achieve the aim and objectives of small businesses, effective profit-making and financial standing is required (Qazi, Shah, Abbas & Nadeem 2011:11006). Tshabalala and Rankumise

(2011:113) reveal that South Africa has limited financial resources. This is because in most instances commercial banks are not willing to provide funds because small

businesses do not have collateral securities. Peel and Wilson (1996:52) discovered that one of the reasons why small businesses need to focus on the efficient management of working capital pertains to poor cash flow management and inventory control. Against this background, the research on the effect of working capital management on the profitability of small retail business is necessitated to help improve and maintain the continued existence of small businesses, particularly within the Emfuleni Local Municipality. The municipal area was chosen, considering the resources, time constraint and the ease of access of the businesses.

1.3 OBJECTIVES OF THE STUDY

The objective of this study is sub-divided into primary, theoretical and empirical objectives:

1.3.1 Primary objective

The main purpose of the study is to evaluate the effect of working capital management on the profitability of small retail business within the Emfuleni Local Municipality.

1.3.2 Theoretical objectives

In order to achieve the primary objective of the study the following theoretical objectives were formulated for the study:

- To conduct a literature review on working capital management;
- To conduct a literature review on the financial supply structure in small retail business;
- To conduct a review of the literature on financial viability of small retail business;
- To conduct a review on the challenges faced by small retail businesses in the management of working capital;
- To conduct a literature review on determination of profitability.

1.3.3 Empirical objectives

In line with the theoretical objectives and the primary objective of the study, the following empirical objectives were formulated for the study within the Emfuleni Local Municipality:

- To determine whether small retail business apply the principles of working capital management;

- To examine the relationship between working capital management and the profitability of small retail business;
- To find out the effect of working capital management on the profitability of small retail business.

1.4 THEORETICAL FRAMEWORK

Theory can be defined as a foundation for meaningful deliberation based on which phenomena can be explained (Gill & Johnson 2002:23). Evaluation of theory is the foundation of practical application, which assists with predicting and investigating relationships between events. Theories on working capital management were formulated by Lovemore and Brummer (2003:112) and chosen due to applicability to the study, which states that if the ratio between short-term capital and long-term capital changes, profitability and risk will change. To add to this theory, it is believed that total capital of a business is invested in both fixed and current assets, with long-term capital invested in fixed assets and a portion of both short and long-term capital invested in current assets.

Nevertheless, investment in working capital is determined by the scale of current assets required to facilitate a certain production level, taking into account that business profitability is influenced by a mix of current and fixed assets. This then leaves small businesses with an important task, which is to determine the level of working capital that should be maintained to assist in profit maximisation. Based on the theory by Lovemore and Brummer (2003:112), this study will determine the consistency of the theory and its implementation in relation to the study to determine its applicability.

1.5 RESEARCH DESIGN

Research design can be explained as a framework for the collection and analysis of data and research method as a technique for collecting data (Burns & Burns 2008:84). In the study, quantitative research design was used. Quantitative research can be defined as a process that is systematic and objective in using numerical data from selected subgroups of a universe or population to generate the findings about the universe that is being studied (Maree, Creswell, Ebersohn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Clark & Van Der Weidthuizen 2011:145). The reason for selecting a quantitative approach is that data can be analysed in a variety of ways using statistical packages, which may reduce potential error in the analysis of the findings.

1.5.1 Target population

Target population is the collection of elements or objects that possess the information sought by the researcher and about which inferences can be made. Target population consisted 430 of small retail businesses within the Emfuleni Local Municipality. The area was chosen, taking into account the resources, time constraints and the ease of access of the businesses. In addition, a larger number of small retail businesses were located within the Emfuleni Local Municipality.

1.5.2 Sampling frame

A sampling frame includes a list of all units in the population from which the sample may be selected (Pervez & Kjell 2005:147). A list of small retail businesses was obtained from the Emfuleni Local Municipality. In addition, the businesses telephone directory listing of small businesses within the Emfuleni municipality demarcation was used as a sampling frame.

1.5.3 Sampling technique

The process of sampling involves using a portion of a population to make conclusions about the population. A sample is a subset, or some part, of a large population (Zikmund & Babin 2007:267). A non-probability sampling method was used. In non-probability sampling the chances of selection for various elements are unknown (Kumar, 2014:424). Purposive sampling was used for the study. Purposive sampling may be used with caution and only for a specific purpose and it often uses surveys (Curtis & Curtis, 2011:134).

1.5.4 Sample size

The sample must be large enough to correctly represent a population (Goddard & Melville 2001:35). A sample size of 196 was obtained using a sample size calculator (refer to table 3.1). The chosen sample size was the most feasible and large enough to provide a representation of small retail businesses within the Emfuleni Local Municipality. Details of the sample size are elaborated on in Chapter 3 of the study.

1.5.5 Method of data collection

A survey was used to obtain relevant information for this study, which requires the measurement of several independent variables and a dependent variable (Tharenou, Donouhue & Cooper 2007:46). The survey was conducted by means of a self administered structured questionnaire. The questionnaire was divided into the following sections:

- Section A - Biographical/general information;
- Section B - Status of small businesses;
- Section C - Application of working capital management; and
- Section D - Determination of profitability.

1.5.6 Measurement of variables

1.5.6.1 Independent variables

Working capital management was measured using number of days accounts receivable (AR), number of days inventory on hand (INV) and number of days accounts payable (AP). AR was calculated $\text{average debtors} \div \text{credit sales} \times 365$ and INV calculated $\text{average inventory} \div \text{cost of sales} \times 365$ days of a year. AP was calculated by $\text{average creditors} \div \text{credit purchases} \times 365$ days of a year.

These three periods jointly constitute the cash conversion cycle. This variable was calculated as number of days accounts receivable plus number of days inventory on hand minus number of days accounts payable.

1.5.6.2 Dependent variable

Measures pertaining to profitability were engaged using the following studies as a guidance, Garcia-Teruel and Martinez-Solano (2007:167), Sharma and Kumar (2011:167) and Nazir and Afza (2009:32). These studies used return on assets (ROA) as a dependent variable to measure profitability. ROA can be explained as the ratio of earnings, before interest and tax, to total assets. The same dependent variable was used for the same purpose in this study.

1.6 STATISTICAL ANALYSIS

Data processing and analysis followed the survey research. Initially, descriptive statistics was undertaken to analyse the composition of the sample and break down questionnaire responses into meaningful data and this was done with the use of frequencies. Additionally, correlation and regression analysis was undertaken to examine relationships between the variables used in the study. Correlation analysis can be explained as a measure of degree between two associated variables within a series of objects (Bower 2000:295). This was used to assist in determining the relationship between working capital management and profitability. Regression analysis measures the average link between two or more variables (Gooddard & Melville 2001:58). A regression model was performed to assess which variables are considerable in predicting profitability, the Statistical Package for Social Sciences (SPSS), version 20.0 for Windows, was used for the data analysis.

1.7 RELIABILITY AND VALIDITY

Reliability is the extent to which a measuring instrument is repeatable and consistent in the results obtained (Maree *et al.* 2011:215). Internal consistency was established using Cronbach's alpha coefficient (Tharenou *et al.* 2007:152). An alpha coefficient ranges from zero to one and reliability measures that have alpha coefficient of 0.70 or greater are considered satisfactory.

Validity of an instrument refers to the extent to which an instrument measures what it is expected to measure (Maree *et al.* 2011:216). The following approaches to validity was examined: content, construct and convergent validity. Content validity is the extent to which the content of the item provides adequate coverage of the topic under study. Construct validity refers to how well the results obtained from the use of measure fit the theories around which the test is designed (Goddard & Melville 2001:47). While convergent validity examines the correlation analysis by determining the relationship between variables.

1.8 ETHICAL CONSIDERATION

Ethics are a set of moral principles, which are suggested by individuals or groups, which are subsequent and widely accepted and offer rules and behavioural expectations about

the most correct conduct towards experimental subjects and respondents (Strydom 2005:17). The following ethical issues are relevant and were applied in the study:

- Voluntary participation with the owners/managers was ensured.
- Ethical approval from specific and relevant institutions was obtained.
- Participants were not forced to reveal information of the business.
- Participants' personality, rights, wishes, beliefs, consent and freedom were respected.
- Collected data from participants remained anonymous.
- A detailed discussion of the ethical issues is reported in Chapter 3.

1.9 CHAPTER CLASSIFICATION

Chapter 1: Introduction to the study. The chapter comprised the introduction, problem statement, research objectives, research design and methodology.

Chapter 2: Literature review on working capital, profitability and small businesses. This chapter outlines an overview of working capital management and comprehensive discussions on small businesses in South Africa. The theoretical framework is also discussed.

Chapter 3: Research design and methodology. The chapter consists of the explanation of research methodology employed in the study. The sampling method and data collection method are discussed. Data analysis, statistical techniques that comprise the correlation and regression analysis as well as the regression model are analysed.

Chapter 4: Analysis and interpretation of results. The chapter discusses the analysis, interpretation and evaluation of the research findings for the study.

Chapter 5: Conclusion and recommendations on the effect of working capital management on the profitability of small retail businesses are provided. Areas of future research, limitations and implications for future research are highlighted. Linkage of the study's theoretical framework and outcomes generated in the study are discussed.

1.10 CONCLUDING REMARKS

The chapter introduced the topic to be researched, and highlighted the problem statement of the study. Then the research objectives, research design as well as the statistical

analysis for the study was discussed. It ended up with checking the reliability and validity, ethics to be considered while conducting the research, and classifying the chapters of the entire document.

The next phase of the research is chapter 2 which address the literature review of the study.

CHAPTER 2

OVERVIEW OF SMALL RETAIL BUSINESSES, WORKING CAPITAL MANAGEMENT AND PROFITABILITY

2.1 INTRODUCTION

The previous chapter provides the background of the study by highlighting the problem statement, research objectives as well as the sample design procedure in order to provide a logical structure for the study. The current chapter deals with the literature review. The literature review assist in providing detailed understanding and knowledge through a comprehensive overview of small retail businesses and working capital management. It begins with a theoretical background to the study and an exposition of generic definitions of small businesses. It then observes the characteristics of small businesses, as well as the contribution made by these businesses towards the South African economy. Additionally, the support provided by the South African government towards small businesses is addressed, as well as policies, together with the types of working capital and working capital management. The chapter then concludes by discussing the cash conversion cycle and return on assets.

2.2 BACKGROUND TO THE STUDY

Small businesses in Africa are regarded as essential in the role they play in the creation of employment and their contribution to economic growth. Van der Merwe and De Swardt (2008:449) confirm the importance of small businesses as the engine of sustainable job and wealth creation in South Africa. However, Haltiwanger, Jarmin and Miranda (2013:347) and Mbonyane and Ladzani (2011:552) state that the contribution of small businesses to employment and economic growth is merely a perception. Tshabalala and Rankhumise (2011:108) and Mbonyane and Ladzani (2011:550) posit that more than 80 percent of businesses in South Africa are classified as small businesses, contributing about 40 percent of economic activities within the country. Ladzani (2010:68) affirms that about 50 percent of South Africans are employed in the small business sector. Therefore, the sector is needed in promoting and achieving economic growth and for the development of employment as well as the creation of wealth.

The study intends to provide small businesses with information that will provide assistance in managing their finance, especially short-term finance, which will enable businesses to maintain their existence and a chance for growth as well as increased profitability. It is against this background that this chapter provides the literature supporting the contribution of small business in a country. The section that follows discusses the theoretical framework that underpinned the study.

2.3 THEORETICAL FRAMEWORK

A theory may be explained as an ordered set of assertions about a generic behaviour or structure assumed to hold throughout a significant broad range of specific instances (Walker 1964:22). The theory of working capital management confirms that if a business matches exactly the maturity structure of its assets and liabilities, it could result in the business having an average liquidity, average profit and average risk. This is supported by Walker and Petty (1986:235) who state that the greater the difference between maturities of the business' short-term debt instruments and its flow of internally generated funds, the greater the risk and *vice versa*. This is also in line with Lovemore and Brummer (2003:113) who assert that if the ratio between short-term and long-term capital changes, profitability and risk will change.

Against this background, this study determines whether small businesses apply working capital management and what effect working capital management has on the profitability of small businesses. The study is based on small business; hence, a detailed explanation on small business follows.

2.4 DEFINITION OF SMALL BUSINESS (RETAIL)

There is no uniform definition of a small business. Nieman (2001:5) mentions that the definition of a small business differs from country to country. The most commonly used definition comprises a combination of the following criteria:

- Number of employees;
- Turnover, and
- Total assets.

The United States Agency for International Development (USAID 2007:2) defines small business as an entity that employs between 10 and 49 employees, with a total turnover

and total assets of \$1,4 million. In South Africa, the National Small Business Act No. 102, of 1996 (South Africa 1996:8) as amended in 2003 and 2004 defines a small businesses as:

“...a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more, which, including its branches or a subsidiary, if any, is predominantly carried on in any sector or sub-sector of the economy.”

The National Small Business Amendment Act No. 102, of 1996 (South Africa 2003:102) describes a small retail business in the retail industry as an entity that has a staff headcount of up to 50 people, a total annual turnover of up to R19 million and gross assets valued of up to R3 million. Small businesses are classified as small, medium and micro enterprises (SMMEs) according to the National Small Business Act No. 102, of 1996 (South Africa 2003:26). Thus, this is sub-divided into the following:

- **Small sized business:** Employs less than 50 full-time employees with annual sales totalling less than R25m. The business is owner-managed, likely to operate from business or industrial premises, are tax registered and meet formal registration requirements.
- **Medium sized business:** Employs less than 200 full-time employees with annual sales totalling less than R50m. It is still viewed as owner/manager-controlled.
- **Micro sized business:** Employs less than five full-time employees with annual sales less than R0.15m. They usually lack formalities in terms of business licence, value added tax (VAT) registration, formal business premises, operating permits and accounting procedures. Many micro enterprises advance into viable small businesses.

These businesses differ in terms of turnover, assets and number of employees. Regulations, therefore, impact very differently on each of the categories and consequently customised and targeted interventions are recommended.

Consistent to the definition of small business in South Africa, Hess and Rust (2010:3691) affirm that small businesses, employing not more than 50 employees, are registered for tax purposes and other formal requirements. In South Africa, a retailer may be classified as a business deriving more than 50 percent of its turnover from sales of goods to the general public for household use, while a retail trade includes the resale (sale without

transformation) of new and used goods and products to the general public for household use (Statistics South Africa 2012). Retailers act as middlemen between producers and customers. Its main objective is to ensure customer satisfaction by providing goods and services to customers in an easy-to-reach location (Ju & Han 2008:240).

It can be deduced that in the study a small business may be regarded as any business operating in the normal capacity as prescribed by the National Small Business Act No. 102, of 1996 (South Africa 2003:109) which may have a maximum of 50 employees. The small business act definition was used as the basic definition for the study. The next section converses small retail business within the South African context.

2.5 SMALL RETAIL BUSINESS IN SOUTH AFRICA

Retailing may be explained as activities involved in the sale of goods and services to customers for their personal, family, or household use. Hence, every country depends on various business sectors in order to sustain its economic activities including the retail business. Small businesses in an economy with high unemployment are faced with challenges, which affect the survival of the business. This is because small businesses contribute to the GDP of the country, create job opportunities and are vital for poverty alleviation. Van der Merwe and De Swardt (2008:449), and Rocha (2005:366) highlight that the contribution by small businesses in terms of employment and income generation are seen as very important and increasingly being underscored around the world, South Africa in particular. Small business is unique in a sense that it has a different structure as compared to large business in terms of size, type of businesses and compliance with registration. The following section describes the characteristics of small businesses by focusing on the formality, infrastructure and contribution towards the economy by observing small businesses contribution to employment, GDP and the stimulation of economic growth.

2.5.1 Characteristics of small businesses

The majority of small businesses are usually locally owned and controlled, which often strengthens the extended family, other social systems and cultural traditions (Luiz 2002:2). Small businesses are different from large businesses in a sense that these businesses are easy to open or start. There are different elements that differentiate small businesses from large businesses, which are discussed in the foregoing sections.

2.5.1.1 Formality within small business

Formality of a business depends on its legal status; this means that a business may be registered with the Companies and Intellectual Property Registration Office (CIPRO). The legal status may result in a business being classified as a formal or informal business. The difference between the two types of businesses is that informal businesses represent all those businesses that are not registered with CIPRO, but derive their income from production of legal sales and production (Bruton, Ireland & Ketchen 2012:2). A large percentage of informal businesses operate in a survivalist mode, meaning that the purpose of these businesses is survival (DTI 2008b:1). On the other hand, formal businesses include all businesses, which abide by the law and are registered with CIPRO, with the aim of growth and continued existence within the business sector.

Issues pertaining to the level of skills of an employee in a small business influence its business formalities in terms of the type of services that the customers may receive from these businesses (Rogerson 2006:28). According to Charman, Petersen and Piper (2012:49), other indicators of informality within small businesses include aspects such as lack of business license, VAT registration, formal business premises, operating permits and accounting procedures. According to the Companies Intellectual Property Commission (CIPC) (2011:13) the most frequently mentioned reasons for non-registration of small business was the size of the business (being too small to be registered), not knowing how to register, not having money to register as well as the complication of registering a business. Yet small businesses have an economic role to fulfil, which includes contribution towards the country's gross national product (GNP) by manufacturing goods either of value, or through provision of services to both customers and/or other businesses. This encompasses the provision of products and to a lesser extent, services to foreign clients, thereby contributing to overall export performance. Yet this does not happen easily since support is required from government or financial institutions. In order to obtain this support, a business is required to be formal (Luiz 2002:55), namely when a business is recognised, meaning that it has been registered with CIPRO, tax revenue, VAT and other relevant bodies. In an attempt to resolve problems of unregistered business, CIPC has envisioned reducing regulatory burdens and costs, while increasing customer value (CIPC 2011:22).

A distinction could be established among small businesses; those that are registered for tax purposes and those that are not registered for tax purposes. Amongst other things

that contribute to the continued existence and growth of small businesses is the available infrastructure.

2.5.1.2 Infrastructure associated with small businesses

Infrastructural facilities are essential for ensuring the effective functioning of the economy, as it is an important factor determining the location of economic activity and the kind of activities or sectors that can develop in a particular economy (Delmon 2011:1). Due to poor infrastructure within businesses, it is important for any type of business to take into account the location of the business. Mohr and Fourie (2004:591) identify infrastructure facilities as one of the features and problems in developing countries. Mboniyane and Ladzani (2011:553) state that one of the reasons for the failure amongst small businesses is their lack of foresight in selecting a potential area for business operations. Infrastructure has been explained as basic facilities, services and installations needed for the functioning of a community or society, such as transportation and communication systems (Moteff & Parfomak 2004:2). Infrastructure facilities include road, power, generation facilities, communication systems, education, health and housing facilities. Infrastructure create access problem towards the market, as businesses have to first invest in infrastructure before starting with its operation.

According to the Department of Small Business Development (2015) small businesses avoid investing in infrastructure first, as most owners select a location for its operation based on convenience, which means that a location is chosen based on its availability. Without proper investigation and research on the accessibility of facilities required in order to operate the business, a small business may fail or struggle to expand. Ejembi and Ogiji's (2007:7) study reveals that poor infrastructural facilities hamper small business growth and development. Infrastructural needs may be internal and external. Internal infrastructures are those required by the business to perform particular tasks within the business, such as machines, telecommunication and business space. On the other hand, external infrastructure is infrastructure that the business requires in order to support its internal operations, which cannot be provided within the organisation. These infrastructures are not controlled by the owner of the business, but by the environment in which the business operates. These infrastructures include items such as electricity, roads, transport and network coverage (Limao & Venables 2001:2). Chong (2008:469) posits that lack of information and communication technology can lower customer satisfaction and seriously limit growth in small businesses. Bowen, Morara and Mureithi

(2009:16) agree that lack of external infrastructure is a problem that small businesses cannot solve alone, which affects operations of the business directly. For small business to be technologically advanced, electricity is one element mostly required by the business.

In summary, infrastructural facilities play an important role for a business's existence, success and growth. Thus, the majority of small businesses problems are linked with external infrastructure, which means that these variables are outside the control of the business.

2.5.1.3 An entrepreneur

Mohr and Fourie (2004:28) define an entrepreneur as the driving force behind production, who is seen as an initiator, inventor and risk taker. These authors further mention that the word entrepreneur comes from the French word *entrepredure*, which means to undertake. The Global Entrepreneurship Monitor (GEM) (2011:8) defines entrepreneurship as any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business. The entrepreneur is the one who develops new ideas, develops new markets, takes risk in pursuit of profit and who creates employment and income.

According to the 2010 survey of small businesses in South Africa (FinScope Small Business Survey 2010), there were an estimated 5.9 million small businesses operating in South Africa in 2010. Despite the large number of small businesses, South Africa is still regarded as having the smallest number of small businesses established within the country, compared with BRICS (Brazil, Russia, India, China, South Africa) which indicates that few jobs are being created, especially among the youth (Luiz & Mariotti 2011:49). According to GEM (2011:4), South Africa is still far below the average of comparable economies around the world with regard to early state economic activity. Entrepreneurs create value for themselves and society (Nieman & Nieuwenhuizen 2009:9; Cole 2013:782). If it were the perception that entrepreneurship, through the creation of small businesses, improves economic development through job creation, this would mean that South Africa should find a solution to improve small businesses and entrepreneurship development and growth.

The demand for entrepreneurial-driven economy in South Africa has increased particularly because of the employment creation benefit it offers. Research showed that the South African economy has declined over the past twenty years (Oldewage Theron & Slabbert 2010:2). The Vaal region, of which the Emfuleni Local Municipality is part, revealed that the population within this region consisted of 733 445 in 2016 compared to 721 663 in 2011. Unemployment in 2011 stood at 34.7 percent and 45.0 percent within the youth, unemployment rate in 2016 is not available. With regards to schooling percentage 4.1 percent represented to school, 36.1 percent represented matric and 11.9% represented higher education in 2016 (Emfuleni Local Municipality 2015) This scenario paints a bleak picture of the region, especially with regard to regional development.

In the next section, attention is given on small businesses and the role they play in a country's economy.

2.5.2 Small business contribution to the economy

Central to the growth of the economy is the development of a vibrant small business sector, which is the key for resolving part of societal challenges, including job creation, poverty alleviation, income generation and stimulating economic growth (Luiz 2011:55). Gauteng has been regarded as one of the leading provinces in terms of the number of SMMEs in both the formal and informal sectors and accommodates approximately 48 percent of the SMMEs nationally (DTI 2008a:1). Hess and Rust (2010:3693) posit that the retail sector hosts the greatest number of formal small businesses and is the third largest sector in the South African economy, as it contributes approximately 15 percent to the national GDP and accounts for 24,1 percent of the total employment.

2.5.2.1 Small business contribution towards employment

According to Trade and Industrial Policy Strategies (TIPS) (2002:25), the definition for employment may vary, depending on whether or not it includes domestic workers, public sector employment and self-employed persons. Statistics South Africa (1998) identifies an employed person as a person who performs work for pay, profit or family gain.

The Small Enterprise Development Agency (SEDA) (2012) annual report showed that survivalist businesses employed approximately 78.0 percent, while micro business employed 8.7 percent, with small business employing 1.0 percent of employees. Report from TIPS (2002:4) further states that small businesses have, in concept, the potential to generate employment and upgrade human capital. According to the GEM report (GEM

2011:4), compared to other developing countries, the contribution by South African small businesses to employment is very low. This relative poor performance is often associated with the racial misrepresentations inherited from the previous regime. While the DTI (2008a:1) confirms that economic growth has increased in recent years, it remains insufficient to reduce unemployment substantially, especially when compared with other middle-income countries, including Brazil, Russia, India and China (BRIC).

Employment growth has been regarded as a further constraint, among other challenges faced by the country, such as skills shortage and limited entrepreneurial capacity, as well as other social challenges like HIV/AIDS, which contribute to an environment that is less conducive for small business growth. The TIPS (2002:7) report stated that the overall production in developing economies could not be high as only a limited number of employees are required to operate the fixed amount of capital. Yet small businesses increase the average productivity of labour in the economy as a whole, by pulling into production unemployed low-skilled labour, whose skill levels are not sufficient to qualify for employment in larger businesses.

In conclusion, it is evident from the aforementioned that small businesses contribute to reducing unemployment problems within the country, South Africa. The next section concentrates on small businesses contribution to the GDP.

2.5.2.2 Small businesses contribution towards the GDP of South Africa

The contribution of small businesses towards economic growth and well-being may be measured through the GDP. This is a single best measure of the value of output produced within an economy. Mohr and Fourie (2004:63) define GDP as total value of all final goods and services produced within the boundaries of a country within a period (usually one year). Berger and Frame (2007:5) states that small business are an important part of the economy of virtually every nation, and that in the United States they account for more than half of all private-sector employment and non-farm gross domestic product. Tshabalala and Rankhumise (2011) cited in Ladzani (2010:68) affirm that more than 50% of all South Africans are employed in the small business sector, which means the sector is essential in promoting, achieving economic growth and development and creation of wealth and employment.

Luiz and Mariotti's study (2011) cited in Demirguc-Kunt (2007:429) revealed that in 76 countries, it was found that on average small business constitute 64 per cent of the

economy, while the informal economy on average accounts for 26 per cent of the GDP in their sample of developed and developing countries. The GDP-SMME ratio is a crude indication of the economic environment in which SMMEs operate and is simply the regions GDP divided by the number of SMMEs. Gauteng was one of the province where SMMEs growth outpaced economic growth (SEDA 2016:18). The report further highlighted that majority of SMMEs within South Africa operate in the domestic trade (wholesale & retail).

2.6 PROBLEMS ENCOUNTERED BY SMALL BUSINESSES IN SOUTH AFRICA

An understanding of problems faced by small businesses is of practical importance for those involved in small business operations. According to the Oxford English Dictionary (2016), problems are defined as issues difficult to deal with or understand. Small businesses are faced with a number of problems that hinder the growth or even cause permanent shut down. Small businesses suffer from structural weakness from the economy and a number of small businesses do not have a strong linkage with the rest of the economy (Thornhill & Amit 2003:497). This section, therefore, identifies and analyses some of the problems, in line with past research. According to Leonidou (2004:280), and Berger and Udell (2002:6), problems faced by small businesses include lack of cash flow management, lack of management education and lack of financial support. The problems identified here are in line with the study and directly related to management of short-term cash that is required to fulfil short-term cash obligations.

2.6.1 Lack of cash flow management

Cash flow management has to do with making sure that sufficient cash is available to meet short-term cash obligations, as well as the approach to follow in the management of funds within businesses. Cash flow should do with the balance of amounts of funds being received and paid by a business during a defined period (Els, Du Toit, Erasmus, Kotze, Ngwenya, Thomas & Viviers 2010:22). Making and receiving payment is at the heart of every business; hence, it is essential to have a system in place that is optimised to maximise cash flow within the business. Drodskie (2002:19-20) states that problems with cash flow within small businesses is caused by the fact that small businesses struggle to obtain capital and a guaranteed income.

Mbonyane and Ladzani (2006:557) are of the view that small businesses should keep a record for their finances, which may be evaluated monthly or weekly and draw up a proper financial plan. This record will help small businesses to have an idea of their financial status. A study in Canada indicates that 68 percent of small businesses, with fewer than five employees, failed within the first five years of operation (Monk 2000:12). Reasons for this occurrence include, amongst others, lack of adequate working capital, which deals with management of cash, in a manner of ensuring that the business has cash to fulfil its day-to-day cash obligation. Abuzayed (2012:156) also confirms that the failure rate among small businesses is very high compared to that of large business. Weak financial management, particularly poor working capital and inadequate long-term financing, are the primary causes of failure among small businesses.

Working capital management aims at maintaining a balance between liquidity and profitability while conducting the day-to-day operations of the business (Falope & Ajilore 2009:73). Liquidity, on the other hand, refers to the ability of a business to honour its short-term obligation and adequate liquidity means sufficient current assets are available to cover current liabilities (Gitman 2011:803). Profitability, on the other hand, refers to the efficiency with which a business utilises its capital to generate turnover (Gitman 2011:807).

It may be concluded that cash flow management is the overall management of cash within a business, while working capital has to do with the management of short-term cash obligations. Both have to be treated carefully as the success of every business lies on the cash available at the end of the trading period. In order for this to be possible, owners/managers of small businesses need educational training with regards to managing business finances.

2.6.2 Lack of managerial competencies, education and training

Education and training are viewed as critical to the success of establishing a culture of entrepreneurship. The needs for training and upgrading skills are critical themes for South African small business policy development (DTI 2008a:1). Skills development through education and training has always been a powerful lever for improving both individual opportunity and institutional as well as national competitiveness (Hess & Rust 2010:3692).

Arasti (2011:7490) mentioned that one of the causes of small business failure is due to the lack of managerial skills and appropriate managerial training. Moreover, the author further elaborates that numerous aspect of poor management are reported to be connected to several related issues, such as inadequate accounting records, limited access to necessary information and lack of good managerial advice, all of which contribute to the lack of education amongst small business owners/managers.

It is, therefore, evident that success of small businesses relies on the educational level of its management, which affects small businesses knowledge of handling customers or even suppliers as well as managing business finance. Researchers have also reported finance as a major problem experienced by a large number of small businesses in starting up the business as well expanding the business.

2.6.3 Inadequate financial support

Despite the growth in venture capital funding, access to funding remains a problem for small businesses, in particular for empowerment groups in South Africa. Most surveys among small businesses identified that provision for concessionary finance emerges as one of the most urgent needs (Luiz 2011:54). Yet extensive research reveals that access to financing is one of the several important factors that are critical for businesses to survive and grow (Thornhill & Amit 2003:498; Ejembi & Ogiji 2007:7). Lack of sufficient financing is a serious constraint during the formation of a new business as well as at a later stage, because businesses require additional inflow of capital to support expansion and growth.

According to Beck and Demirguc-Kunt (2006:2935), in both developed and developing countries, small business have been found to have less access to external finance and to be more constrained in its operation and growth. When small business finance is compared with larger business, the results revealed that these problems have almost twice the effect on the small business annual growth than in large businesses (Garcia-Teruel & Martinez-Solano 2010:217). The authors add that in countries with weak legal systems and consequently, weak financial systems, businesses obtain less external financing, which results in lower growth.

In summary, finance plays a crucial role in businesses of all sizes, as for every action that a business undertakes, funds are required in order to begin and to conclude a transaction. This involves investing in its assets or taking up an opportunity that will result in a return

to the business. Hence, finance is an important source needed in a business. In South Africa, the government is trying to lessen this burden for small businesses through various institutions that assist small businesses.

2.7 GOVERNMENT SUPPORT FOR SMALL BUSINESSES IN SOUTH AFRICA

Governments seek to create an entrepreneurial society because of the role of new and small businesses in creating economic growth and employment. The South African government, in its support for SMMEs, developed an integrated strategy aimed at contributing to the overall vision for South Africa. This strategy has been designed to address the needs and help in developing small, new and recently started-up businesses (SEDA 2016:5).

In line with the government support to small business, in March 1995 the Department of Trade and Industry published a white paper on the national strategy for the development and promotion of small businesses in South Africa. It encompasses the establishment of a support framework, in the form of enabling legislation, institutional reform, leveraging financial and other forms of assistance, for small business development. The South African government has established several institutions mandated to deliver a wide array of key services, including both financial and nonfinancial support services to small businesses (DTI 2008a:24)

For several decades, assistance has been provided to big businesses by way of financing infrastructure (Ladzani & Van Vuuren 2002:154). According to the SMME policy, which was outlined in the 1995 White paper on SMME development, the strategy was based on the following pillars, namely increasing supply of financial and non-financial support, creating demand for SMME product/services and reducing regulatory constraints (DTI 2008a:24). In this respect, institutions such as the Small Enterprise Development Agency (SEDA), Small Enterprise Finance Agency (SEFA) and the National Youth Development Agency (NYDA) play a meaningful role in assisting the SMME sector.

2.7.1 Small Enterprise Development Agency (SEDA)

SEDA is the Department of Trade and Industry's (DTIs) agency for supporting the development of small business in South Africa. It was launched formally in December 2004 through the National Small Business Act No. 102, of 1996. It replaces the previously

existing small business institution (Ntsika Enterprise Promotion Agency) and has representation at all levels of the government. SEDA is mandated to implement government's small business strategy, design and implement a standard and common national delivery network for small enterprise development and integrate government-funded small enterprise support agencies across all tiers of government. SEDAs mission is to develop, support and promote small enterprises throughout the country, ensuring its growth and sustainability in co-ordination and partnership with various role players, including global partners, who make international best practices available to local entrepreneurs (SEDA 2015:4).

SEDAs vision is to be the centre of excellence for small enterprise development in South Africa, and their values are:

- Customer centricity
- Nurturing
- Innovation
- Responsible conduct.

2.7.2 Small Enterprise Finance Agency (SEFA)

SEFA (SEFA 2012) was established in April 2012 as a result of the merger of South African Micro Apex Fund, Khula Enterprise Finance Ltd and the small business activities of IDC. The agency mandate is to foster the establishment, survival and growth of SMMEs and contribute towards poverty alleviation and job creation. SEFA has a regional footprint of nine offices around the country, with a vision of being a leading catalyst for the development of sustainable, survivalist, micro, small and medium enterprises through the provision of finance.

SEFAs mission is to provide access to finance to survivalist, micro, small and medium businesses throughout South Africa by (SEFA 2015:10):

- Delivering wholesale and direct lending
- Providing credit guarantee to small, medium and micro business
- Supporting institutional strengthening of financial intermediaries so that they can be effective in assisting SMMEs

- Creating strategic partnership with a range of institutions for sustainable SMMEs development and support
- Monitoring the effectiveness and impact of its financing credit guarantee and capacity development activities
- Developing (through partnership) innovative finance products, tools and channels to catalyse increased market participation in the provision of affordable finance.

2.7.3 National Youth Development Agency (NYDA)

National Youth Development Agency (NYDA) is a South African youth development agency aimed at creating and promoting the coordination of youth development matters. The NYDA resulted from the merger of the National Youth Commission and Umsobomvu Youth funds. NYDA was formally launched on the 16 June 2009, as pronounced by President Zuma. It is a development agency that empowers all South African youth socially and economically for a better life. NYDA aims to mainstream and integrate youth development for sustainable livelihood, with a mandate of advancing youth development through guidance and support to initiate interventions across sectors of society and spheres of government and to embark on initiatives that seek to advance the economic development of young people (NYDA 2009). NYDA is, therefore, a valuable agency to support the sustainability and growth of small business.

Having discussed some of the institutions that assist SMMEs in South Africa, it is also necessary to explore the working capital management attributable to small business, which is discussed in the ensuing section.

2.8 DEFINITIONAL APPROACH TO WORKING CAPITAL AND WORKING CAPITAL MANAGEMENT

According to Lovemore and Brummer (2003:107), working capital is the amount of funds invested in current assets. Net working capital is the difference between current assets and current liabilities, while management of working capital is referred to as the management of net current assets. Gitman (2006:628) posits that working capital consists of current assets, which represent the portion of investment that circulates from one form to another in the ordinary conduct of business and net working capital as the difference between the business current assets and its current liabilities, which can be positive or negative. According to Ajao and Nkechinyere (2012:55), working capital refers

to the amount of capital, which is readily available within the business to handle the daily business activities. Working capital is the difference between resources in cash and readily convertible into cash (current assets) and commitment for which cash will soon be required (current liabilities).

Weetman (2006:238) defines working capital as the amount, which a business must provide to finance current assets of the business, to the extent that these are not covered by current liabilities and is calculated by deducting current liabilities from current assets. Working capital policy refers to basic policy decisions on the optimal level of investments in and the optimal financing of current assets. Working capital management involves the administration, within policy guidelines, of current assets and current liabilities in a firm.

In summary, working capital management means funds available for use in the day-to-day operations of the business, which consists broadly of current assets and current liabilities. It furthermore refers to funds, which are used during an accounting period to generate income that is consistent with the major purpose of the business existence.

2.8.1 An overview of working capital management

Raheman and Nars (2007:279) emphasise that working capital management is an important component of corporate finance, because of its direct effect on the liquidity and profitability of the business. Profitability relates to the relationship between revenues and costs generated by using the business assets, while liquidity refers to the business ability to satisfy short-term cash obligations as they become due (Gitman 2011:807 and 803). The profitability-liquidity trade-off is important in a sense that if working capital management is not given considerable attention, then the business is likely to fail and face bankruptcy (Raheman, Afza, Qayyum & Bodla 2010:152).

Sustainability amongst small businesses is achieved through the careful management of the businesses finances. This is because small businesses use vendor financing when short of cash; hence, efficient working capital management is important to help these businesses manage their finances (Samson, Mary, Yemisi & Erekpitan 2012:61). Working capital entails the availability of resources that are on hand, which a business requires in its day-to-day operations. Therefore, management of working capital is the regulation, adjustment and management of balance between current assets and current liabilities of the business (Chhapra & Naqvi 2010:31). Efficient working capital management involves planning and controlling of current assets and current liabilities in

a manner that eliminates the risk of the business's inability to meet its due short-term cash obligation and avoid excessive investment in assets on the other hand (Mathuva 2010:2).

2.8.1.1 Working capital policy

Working capital management is often discussed against working capital policies. Kriek, Beekman and Els (2008:171) cite that small businesses need to decide on how working capital may be financed. Various alternatives are available, including long-term funding (a conservative policy) and short-term funding (aggressive policy) as well as a medium-term financing (moderate policy). With a conservative policy, long-term funding is used not only to cover fixed assets and permanent assets, but to cover also a portion of seasonal current assets, which results in risk-taking, thus causing unstable profitability (Skae & Vigario 2011:445). In an aggressive approach, short-term funding is not only used for seasonal current assets, but also for a portion of permanent assets (Marx, De Swardt, Smith & Erasmus 2009:185). With the moderate policy, long-term financing is used to finance fixed assets and permanent current assets, whereas shortterm financing is used to finance seasonal current assets. These policies are represented in Figure 2.1 and are then explained in detail in the section that follows:

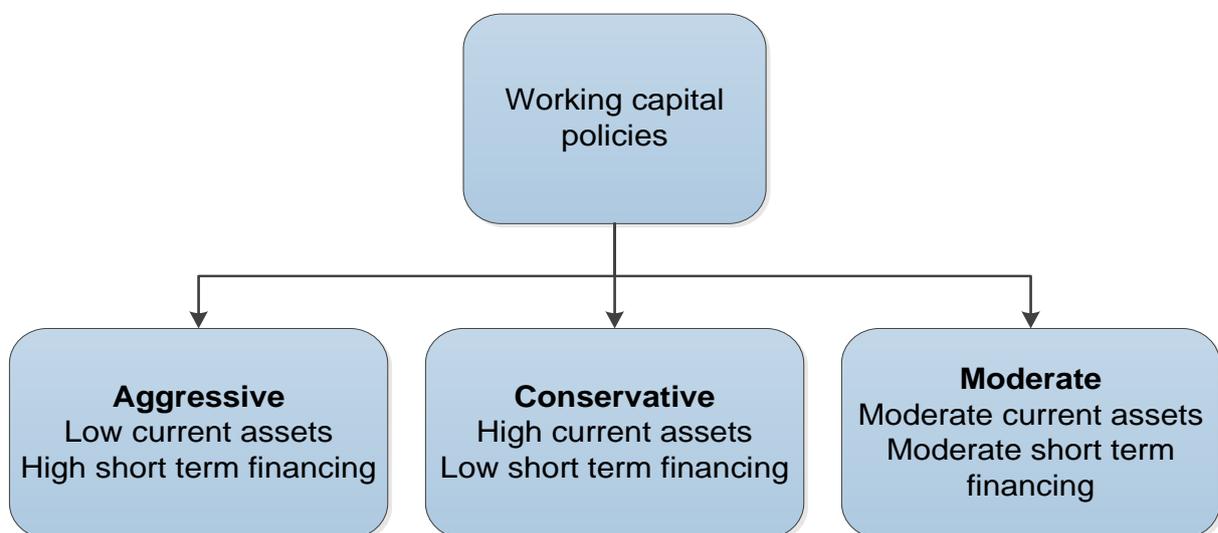


Figure 2.1: Working capital policies

Source: Mandala, Mahavidy-alaya and Goswamni (2010:23)

- **Aggressive policy**

Salawu (2006:294) explains the aggressive policy as a funding strategy under which the business funds its seasonal requirements with short-term debt and its permanent

requirements with long-term debt. This policy produces low liquidity, high profitability and high risk. In this approach, the business uses temporary funds to finance all its temporary current assets along with some or all of its permanent assets. Overall, the business has less working capital throughout its cycle and may in fact occasionally have a negative working capital (Weinraub & Visscher 1998:12).

Marx *et al.* (2009:185) maintain that a business that uses an aggressive approach operates with less net working capital, because only a proportion of permanent current assets are financed with long-term funds. In view of the lower net working capital level investment (low liquidity), the aggressive approach is more risky. Businesses may have to rely heavily on its short-term source of funds to meet seasonal fluctuations in its financing requirements. If total financing requirements turn out to be higher than anticipated, then a business with limited short-term borrowing may find itself in a position in which lenders may refuse to extend its financing further. Figure 2.2 provides a graphical presentation of the aggressive policy.

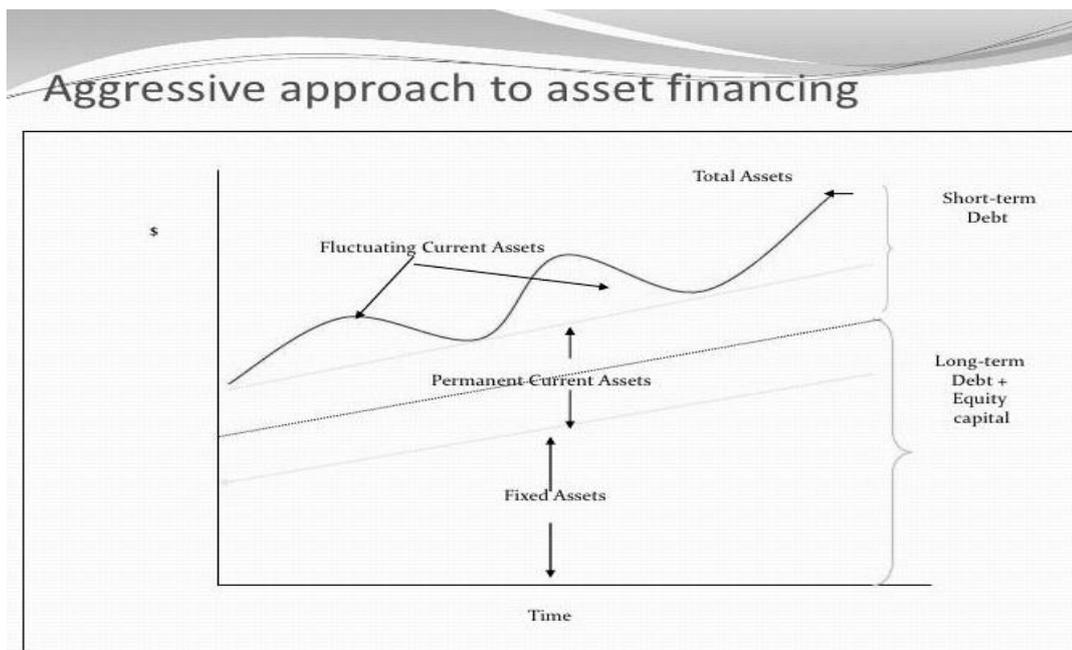


Figure 2.2: Aggressive approach

Adapted from: Marx *et al.* (2009:186)

According to Figure 2.2, the dashed line could lie below the line designating fixed assets, indicating that all current assets plus part of fixed assets are paid for by shortterm financing. This is an aggressive policy and the net current liabilities will be disclosed in the balance sheet.

- **Conservative policy**

Gitman (2006:634) states that a conservative policy results in the business funding both its seasonal and permanent requirements with long-term debt. Because of the higher interest attached to long-term financing, the costs attached to the conservative approach are higher than those of the aggressive policy are. Conservative policy may result in a high liquidity, low profitability and low risk. Here the business uses permanent funds to fund permanent current assets, as well as a portion of its temporary assets. The business may have a substantial amount of working capital throughout its cycle (Weinraub & Visscher 1998:12).

The conservative approach involves less risk for the business in the borrowing sense because the business would not be required to make extensive use of its short-term borrowing capacity. Sufficient short-term borrowing capacity should then be available to meet unexpected needs and to avert technical insolvency (Marx *et al.* 2009:187).

Figure 2.3 illustrates the conservative approach.

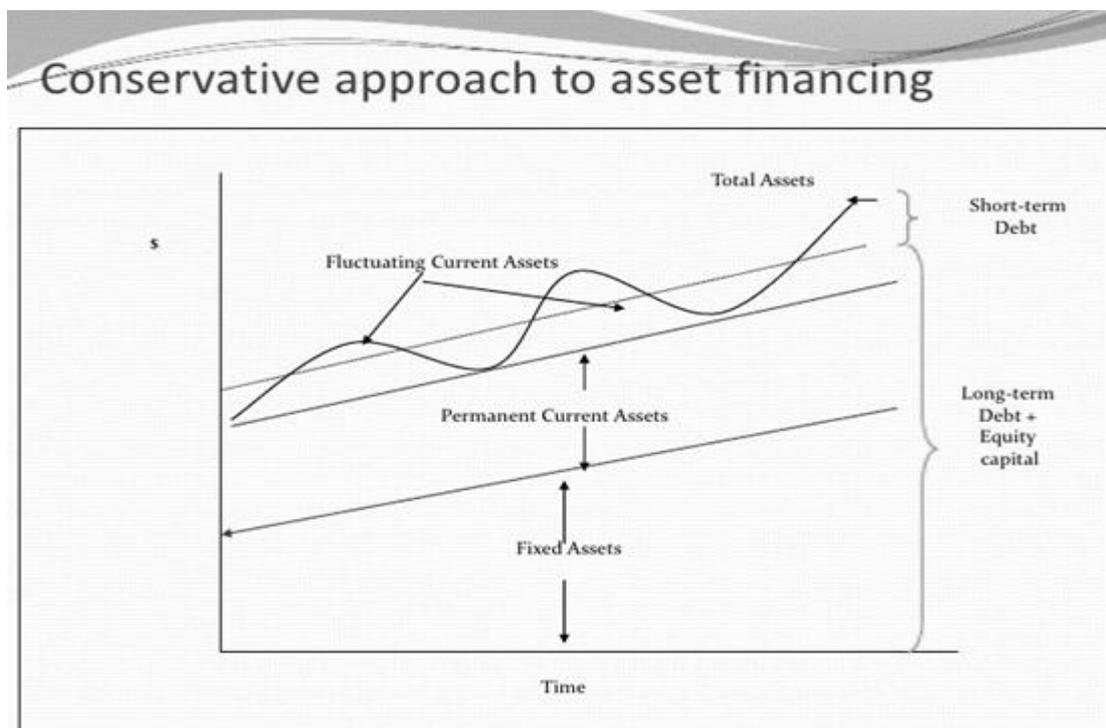


Figure 2.3: Conservative approach

Adapted from: Marx *et al.* (2009:186)

In examining Figure 2.3, the dashed line could lie above the permanent level of current assets. This indicates that long-term finance is being used to finance both permanent and some portion of fluctuating current assets. This policy is the least risky, but would generate the lowest return because the cost of long-term finance will be higher than that earned on short-term deposit.

- **Moderate or matching policy**

According to Nwankwo and Osho (2010:7), the moderate policy is a strategy that minimises the risk of a business in its inability to pay off its matured debt obligations. With this limit, a business could attempt to match exactly the maturity structure of its assets and liabilities. The moderate approach results in an average liquidity, average profitability as well as average risk. A business using this policy attempts to match the maturity of its sources of funds (liability) with its uses of funds (assets). Hence, the business may use more permanent funds to finance permanent current assets and long-term assets, while using temporary funds to finance temporary current assets.

The main objective of working capital management is to maintain an optimal balance between each component of working capital (Afza & Nazir 2007:12). A business's success depends heavily on the ability of effective management of receivables (debtors), inventories and accounts payable (creditors). Because funding is required either way, businesses should bear in mind that interest costs on long-term debt are relatively stable over a period, whereas the interest rates on short-term financing fluctuate rapidly, sometimes increasing to very high levels. A business that relies more on short-term borrowing may find itself unable to repay its loans (Marx *et al.* 2009:187).

Choosing a policy to follow is one of the most important decisions that a business has to make, since each policy brings about risks and profitability. Hence, a business needs to monitor its method of operation carefully in order to decide on the policy to follow. The business may also need to check if it prefers to be risk takers. Figure 2.4 provides a graphical illustration of a moderate policy strategy.

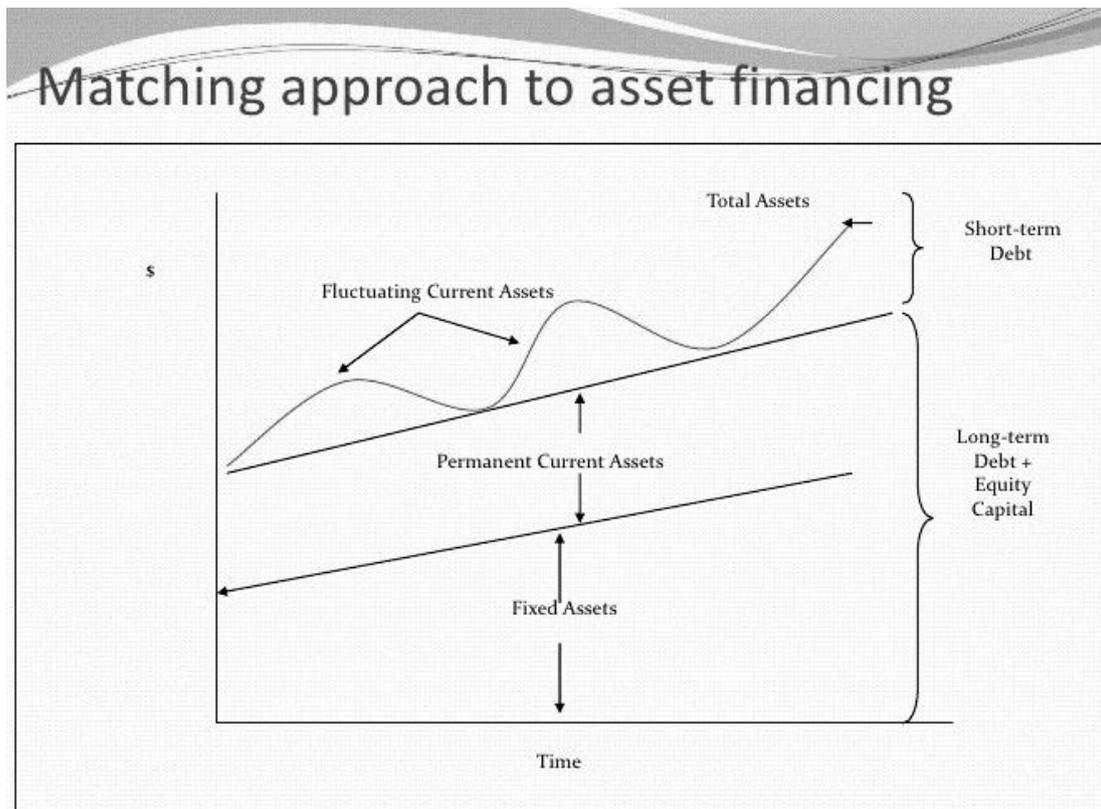


Figure 2.4: Moderate/matching approach

Adapted from: Marx *et al.* (2009:185)

In a moderate policy, a business tries to match the financing part of its permanent current assets with short-term finance. There may always be uncertainty and at best, the business attempts to match working capital investment and financing based on expected movements.

In summary, it is acknowledged that for a business to decide on the type of policy to adopt, it will have to first decide on whether it is a risk-taker or not, which may result in the business making a higher profit or average profit. Otherwise, a business may decide not to take risk, which may also reflect in a business profit. Once a decision has been made on the type of policy to adopt, it is imperative for businesses to evaluate the availability of working capital. The section that follows considers the different types of working capital.

2.8.1.2 Types of working capital

There may hardly be a business that does not require any amount of working capital and this requirement level differs based on the determinants of working capital such as the nature of the business, operating cycle, sales and demand conditions (Skae & Vigario

2011:443). Working capital management may be classified into two different types, namely permanent and seasonal/temporary working capital (Marx *et al.* 2009:184). This is an important part of working capital management, because it is at this stage that a decision has to be made as to how to fund working capital. For a business to decide on the type of policy to follow, it first has to determine its sales movement.

- **Permanent working capital**

Permanent working capital funding is explained as a constant investment in operating assets resulting from constant sales over time (Gitman 2006:633). If a business has constant sales, its investment in operating assets should also be constant and in such a case, the business may have only a permanent funding requirement. Skae and Vigario (2011:443) see this type as a Rand amount that persists over time, regardless of fluctuations in sales. The use of long-term financing limits the insolvency risk, as interest payment on debt is only periodic and capital amounts are not payable until maturity. For example, as a scenario: Ndube Trading holds, on average, R50 000 in cash and a short-term investments, R1 250 000 in inventory and R750 000 in trade receivables. The business is very stable over time, so its operating assets can be viewed as permanent. In addition, the business trade and other payables of R425 000 are stable over time. Thus, the business has a permanent investment in operating assets of R1 625 000 ($R50\ 000 + R1\ 250\ 000 + R750\ 000 - R425\ 000$). The amount would also equal its permanent investment requirement.

- **Seasonal/temporary working capital**

Seasonal or temporary working capital is the additional current assets required to meet variations in sales above the permanent level (Skae & Vigario 2011:443). Seasonal/temporary needs are attributable to the existence of certain temporary current assets and vary throughout the year (Marx *et al.*, 2009:184). If the business sales are cyclical, its investment in operating may vary over time with its sales cycles; the business may have seasonal or temporary funding. Using short-term finance increases the insolvency risk, as the ability to borrow is restricted. For example (refer to Figure 2.5 adapted from Gitman 2011) as a scenario (Gitman 2011:572) Shabalala's Trading produces bicycle pumps and has a seasonal funding need. The business has seasonal/temporary sales with peak sales being driven by summertime purchase of bicycle pumps. The business holds, at minimum, R25 000 in cash and short-term investments, R100 000 in inventory and R60 000 in trade receivables. During peak times

the inventory increases to R750 000 and trade receivables to R400 000. To capture production efficiency the business produces bicycle pumps at a constant rate throughout the year. Thus trade and other payables remain at R50 000 throughout the year. Accordingly, the business has a permanent funding required for its minimum level of operating assets of R135 000 ($R25\ 000 + R100\ 000 + R60\ 000 - R50\ 000$) and peak seasonal funding requirements (in excess of its permanent need) of R990 000 [$(R25\ 000 + R750\ 000 + R400\ 000 - R50\ 000) - R135\ 000$]. The business total funding requirements for operating assets vary from a minimum of R135 000 (permanent) to a seasonal peak of R1 125 000 ($R135\ 000 + R990\ 000$). Figure 2.5 provides an illustration of the funding requirements.

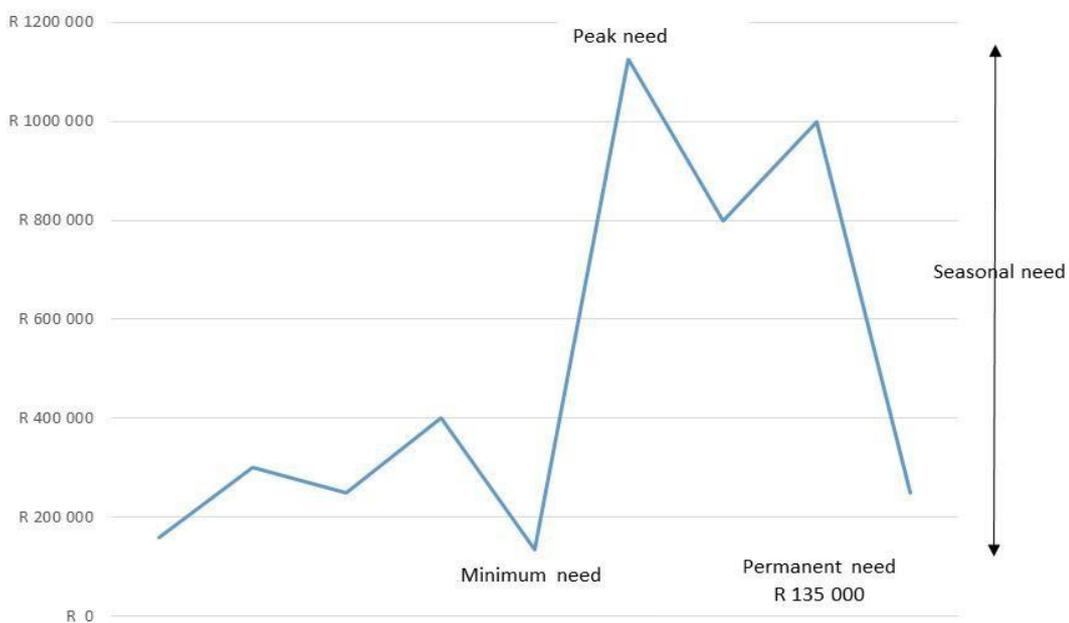


Figure 2.5: Shabalala pump trading company's total funding requirements

Source: Gitman (2011: 572)

Permanent investment in an asset takes place when a business expects to hold assets for a period longer than a year and this include not only fixed assets, but also the business minimum level of currents assets. Temporary investment consists of current assets that may be liquidated and not replaced within the current year.

From the foregoing discussion, the types of working capital provide businesses with an option to take a closer look on how to operate within different environments.

2.9 WORKING CAPITAL CYCLE

In order to understand the importance of working capital, an understanding of the working capital cycle is important and lies in the core of working capital management. Gitman (2006:632) maintains that working capital cycle includes all the major dimensions of business operations. The working capital cycle of the business involves the sequence of transactions and events, which involves current assets and current liabilities, through which the business makes a profit (Weetman 2006:237). This means that poor management of a single transaction in this cycle might cause problems for the business, which might lead to financial distress or termination. Hence, management of working capital is extremely important for the smooth operation of the business (Sharma & Kumar 2011:159). Because the basic aim of financial management is to maximise profit, an accurate management of working capital is required. Figure 2.6 shows the operating process of the working capital cycle.

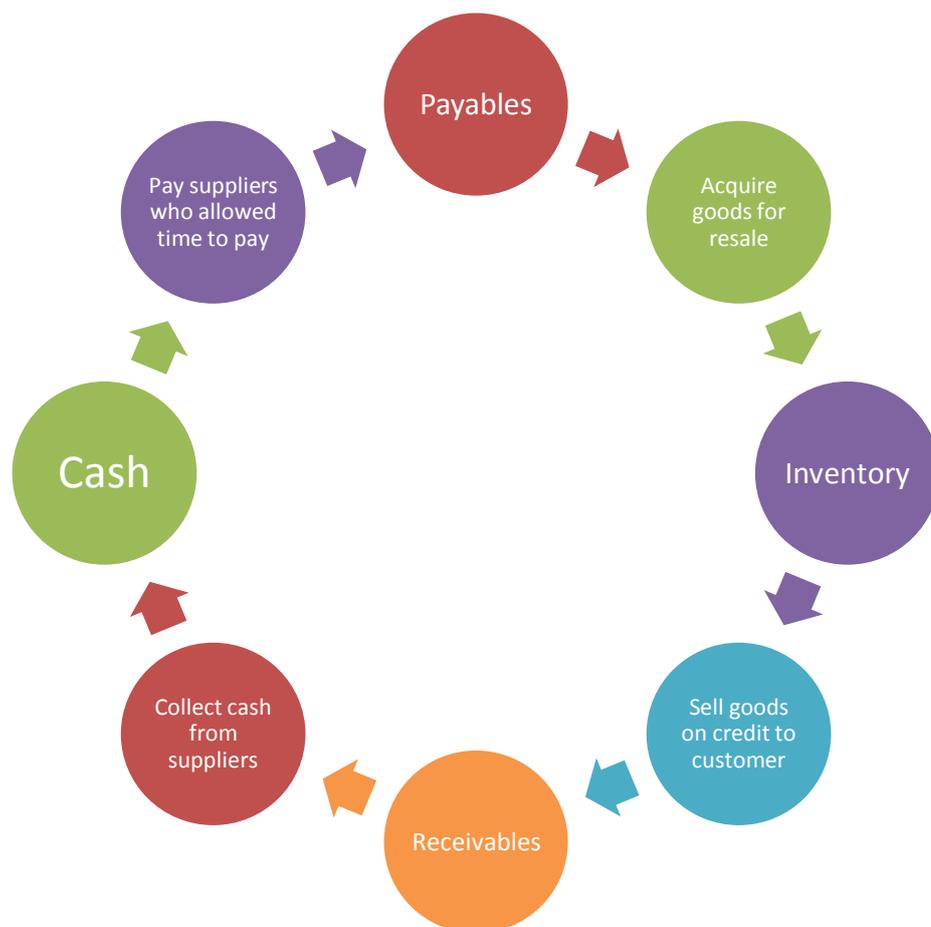


Figure 2.6: Working capital cycle

Source: Weetman (2006:238)

From Figure 2.6 it can be discerned that the working capital cycle begins when a supplier allows the business to obtain goods on credit terms. Suppliers waiting for payment of goods provided on credit terms are classified as trade creditors. The amounts owing to suppliers as creditors are called trade payables in the balance sheet, while goods obtained by the business are held for resale; these goods are referred to as inventories (stock-in-trade) within the business. The resulting product is sold to customers who may pay immediately in cash, or may be allowed time to pay later on agreed terms. If customers are allowed time to pay for goods obtained from the business, the business then creates debtors.

Debtors eventually have to come and pay the business at a later stage; hence, the business may obtain cash. In the balance sheet, the amount due from trade debtors is described as trade receivables. Cash is a general term used to cover money held in the bank and money held in notes and coins on business premises (Cornelius & Weyers 2010:193). Cash held in the bank may be in an account such as a current account, which allows immediate access. Finally, the cash may be used to pay suppliers who, as creditors, await payment from the business for goods obtained earlier (Skae & Vigario 2011:452).

The control of working capital ensures that the business has adequate cash to pay its debt and this may assist on saving on interest as well as on overdraft charges. Hence, businesses need to ensure that the level of inventories and trade receivables is not too large as this may result in funds that are tied up in assets with no returns (known as opportunity cost). The components of working capital management combined, enables the business to function efficiently, which in turn results in making a profit (Weetman 2006:238). However, each element of working capital has its parameters on how it should be managed. These components are identified as follows:

- Cash
- Inventory
- Accounts receivable (debtors)
- Accounts payable (creditors)
- Short-term liabilities

The level of working capital requirements is determined by operational factors such as size of the business, nature, availability of credit and attitude towards risk. Strong

consideration needs to be given to every component of working capital (current assets and liabilities) and how they work in synergy to sustain a business. Components and sub-components of working capital are alluded to in the following section.

2.9.1 Current assets

Current assets include all those assets that, in the normal course of business, return to the form of cash within a short period of time, ordinarily within a year and such temporary investment as may be readily converted into cash upon need (Raheman & Nars 2007:280). Current assets represent the source of short-term funds, thus a change in the level of current assets affects profitability-risk trade-off and this can be demonstrated by using the ratio of current assets to total assets ($\text{current assets} \div \text{total assets}$). When the ratio increases, that is, when current assets increase, profitability decreases. This is because current assets are less profitable than fixed assets and fixed assets are more profitable due to the fact that these assets add more value to the product than that provided by current assets (Gitman 2006:629). Elements of current assets are elucidated below:

2.9.1.1 Cash

Cash is acceptable to everyone, not only as an immediate economic reward for services rendered, but also as the ready means for acquiring goods, which may satisfy personal needs (Mohr & Fourie 2004:355). Cash is a term applied to represent money in circulation in a business and in the economy and consist of coins and bank notes. It is represented by the liquid funds, which flow in and out of the business as a result of its operation (Lovemore & Brummer 2003:10). Cash may have a positive or a negative balance; a positive balance means that funds are available to carry out the operations of the business, while a negative balance results in a short-term liability, which in most cases is granted by the bank in the form of an overdraft.

It is because of those two balances that cash needs to be carefully monitored, because the business needs to have both cash on hand and in the bank for transaction and speculative purposes. If a business improves its forecast and arranges its affairs so that cash inflows correspond with cash outflows, transaction balances may be reduced and the level of working capital may also be reduced. If working capital is financed from debt, reduction in the level of working capital will result in lower interest payment, which will give rise to improved profitability.

In summary, cash is an important element in the business because it assists in determining the position in which the business operates. Cash is more like the blood in a body; this is because every transaction that the business enters into requires cash. Whilst cash is an important component within the working capital cycle, there are various motives for holding cash in the business.

MOTIVES FOR HOLDING CASH

These are distinguishing features of cash as an asset, irrespective of the business in which it is held, is as it does not earn any profits for maintaining cash balances. The following are reasons a business might be willing to maintain a positive cash balance.

- **Transactional motive**

Transactional motive is the need for cash to meet payments arising in the ordinary course of the business (Marx *et al.* 2009:131). According to Bakes, Kahle and Stulz (2009:1988), a business derives an optimal demand for cash when it incurs transaction costs associated with converting a non-cash financial asset into cash and uses cash for payments. Since there are economies of scale with the transaction motive, large businesses hold less cash. There is much evidence supporting the existence of these economies of scale.

- **Precautionary motive**

A precautionary motive for holding cash has to do with maintaining a cushion or buffer to meet unexpected contingencies (Skae & Vigario 2011:446). Businesses hold cash to better cope with adverse shocks when access to capital markets is costly. The precautionary motive also suggests that businesses with better investment opportunities hold more cash because adverse shocks and financial distress are more costly for these businesses (Bakes *et al.* 2009:1988).

- **Speculative motive**

Speculative motive relates to holding cash in order to take advantage of unexpected profitable opportunities such as bargain purchase, and in the case of multinational business, exchange rate fluctuations (Skae & Vigario 2011:446).

In conclusion, the cost of holding cash is the opportunity cost of lost interest and to determine the goal for cash balance, a business needs to consider the benefit of holding cash against the cost. It will be best if the business could determine first how much cash

to hold to satisfy transaction needs. Another important element of current assets is inventory. This element is the reason for the retail business' existence, since it helps differentiate businesses by the type of inventory sold.

2.9.1.2 Inventory

Inventory comprises raw material stock, work-in-progress stock and finished goods, acquired with the intention of re-selling as well as processing and packing material and maintenance spares (Cornelius & Weyers 2010:106). In a purely retailing business, inventory would usually refer only to finished goods ready for sale to the customer. Thus, inventory would mean either stock on hand or stock in trade. The objective of inventory management is to convert inventory into cash as soon as possible without losing sales from stock-out. However, holding too much or too little inventory may also be costly for businesses (Gitman 2011:575).

The costs of handling too much inventory involves opportunity cost of forgone interest through storage cost, damage, obsolesce and insurance, while the cost of carrying too little stock involves stock-out cost and order cost (Le Roux & Lotter 2003:46). The decision for the acquisition of inventory needs to be compared against cost and uncertainty. Businesses also need to consider order cost, which is a cost incurred as a result of ordering materials and includes salaries and wages of employees working in the purchasing, receiving and inspecting materials sections (Gitman 2011:579). The following techniques are available for effective management of the business inventory.

- **Economic order quantity model (EOQ)**

The economic order quantity (EOQ) may be explained as an inventory management technique for determining an item's optimal order size, which is the size that minimises the total of its order and carrying cost (Le Roux & Lotter 2003:47). This model considers various costs of inventory and then determines what order size minimises total inventory cost. It also assumes that the relevant cost of inventory may be divided into order cost and carrying cost. Order cost is explained as cost of preparing, issuing and paying purchased orders, plus receiving and inspecting the items included in the order. Carrying cost (holding cost) is costs that arises when a business holds an inventory of goods for sale or raw materials to be issued to production and these costs include opportunity costs of investment tied up in inventory and costs associated with storage (Van Rensburg, Amber, Evangelou, Govender, Koortzen & Ziemerink 2008:39).

Order and carrying costs move in opposite directions: as annual order costs decrease, the size of orders increases, while annual carrying cost increases with increases in the order size. EOQ model analyses the trade-off between order costs and carrying costs to determine the order quantity that minimises the total inventory cost. A formula has been developed for determining businesses EOQ:

Formulae 2.1: Economic order quantity

$$\sqrt{\frac{2DO}{H(p \times I)}}$$

Source: Skae and Vigario (2011:459)

The formula is explained as follows:

2= Constant variable

D= Annual demand

O= Order cost per order

H= Annual carrying cost per unit

I= Required rate of return

P= Cost price per unit

Once the business has determined its EOQ, it must determine when to place another order, which is called the reorder level. The reorder level is said to be the point at which to reorder inventory, expressed as days of lead time x daily usage. Lead time is the estimated time interval between the placement of an order and the receipt of the order. It comprises several components such as set up time, waiting time, move time and queue time (Gholami-Qadikolaei, Mirzazadeh & Kajizad 2011:225). Because lead time usage rate is not constant, a larger percentage of businesses hold safety stock, which is the estimated minimum level of inventory needed to protect against stock out.

It may be deduced that because the aim of all businesses is to minimise costs and maximise profit, this model assists businesses in ordering at a point where it incurs minimum cost, at the same time ensuring that there is enough stock to satisfy customers' needs and not running out of stock.

- **Just-in-time model (JIT)**

Just-in-time (JIT) model may be explained as an inventory management technique that minimises inventory investment by having materials arrive at the exact time needed for production (Marimuthu, du Toit, Jodwana, Mungal, Du Plessis & Panicker 2016:61). The JIT model reduces inventory-carrying cost by requiring that raw materials be delivered just in time to be placed into production. In this system, the business would only have work-in-process inventory and keep no or very little safety stock. For this model to work successfully, a high degree of coordination and cooperation must exist between the suppliers and manufacturers and among manufacturing work centres (Van Rensburg *et al.* 2008:58).

Gitman (2011:578) mentions that many manufacturing functions that were performed in individual departments in a traditional manufacturing system are combined into work centres and manufacturing cells. Reducing inventory levels using JIT may increase processing speed, thereby reducing the time it takes for a unit to make it through production.

In summary, the use of this method may assist the small business in avoiding unnecessary extra cost that may be added to the product cost, which might end up causing a business to charge customers more for the product. It may also assist businesses in satisfying customers by delivering products faster, as it takes less time for business to make products available to consumers.

- **Activity-based costing model (ABC)**

Els, de Wet and van der Walt (2016:216) explains that ABC assumes that activities cause cost and that products are created by activities. Costs are therefore allocated on the basis of the utilisation of activities. Marimuthu, Du Toit, Jodwana, Mungal, du Plessis and Panicker (2017:105). This system is more applicable to manufacturing businesses.

Inventory valuation is the process of assigning costs to inventory and this can be done using a periodic inventory system or the perpetual inventory system. With the perpetual inventory system, the trading account is debited each time inventory is bought and credited each time inventory is sold. As a result, the cost of inventory on hand can be determined at any time. With a periodic inventory system, no continuous record of inventory on hand is kept and stocktaking is done at the end of the year to determine the cost of inventory on hand (Conradie, Ludwig & Moyce 2007:309).

In the end, businesses may monitor their inventory by looking at inventory turnover ratio in days, which indicates the number of times the stock has been turned over to sales during the period and evaluate the efficiency with which a business is able to manage its inventory. This ratio indicates whether investment in stock is within the proper limits (Gitman 2006:60).

The ratio is calculated by dividing cost of sales with inventory times 365:

Formulae 2.2: Inventory turnover

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Inventory}} \times 365$$

Source: Afeef (2011:176)

In conclusion, following the activity-based costing, businesses may easily control the stock that requires more investment, as the stock is categorised based on the investment requirement. The third element of current assets is accounts receivable (debtors).

2.9.1.3 Accounts receivable (debtors)

Accounts receivable (debtors) consists of customers who purchase goods on credit from a business and who still owe money to the business. This debt can be repaid monthly or as a once-off payment that may lead to a discount if the client settles the account before a specific date (Cornelius & Weyers 2010:102). While the purpose of credit sales is to motivate sales in order to expand market share and if possible, to improve production capacity, businesses have to decide whether to offer credit or not and thus, both sides uphold benefits and disadvantages. Granting credit means cheap and convenient payment for customers and if this benefit exceeds the cost of credit sales, business performance should improve and should reflect on key performance such as efficiency, productivity and profit. Nevertheless, this places pressure on the business liquidity as it will take longer until the money is collected (Marx *et al.* 2009:225).

Credit sales reduce finished goods inventory and create accounts receivable and when an account is paid, the receivables decline and the business cash balance may increase. Sales are probably the most important factor in determining the success of the business. In the long-term, there may be a positive contribution because greater turnover may lead to greater profitability. Sales level is determined by a number of factors, some of which are controllable by management and those, which are not. The controllable factors

include the quality of the product, pricing and credit policy (Correira, *et al.* 2002:12). Credit policy involves making decisions regarding creditworthiness, the collection policy and settlement discount.

In assessing the creditworthiness of a potential customer, the credit manager needs to consider the customer's credit history, financial position, security offered and the environment in which the customer operates. Credit collection policy of the business refers to the different procedures it uses to collect accounts receivable when they became due (Marx *et al.* 2009:241). Some of the methods available for the business to use in collecting accounts receivable includes invoices, statements, letters, telephone calls, debt collectors and the issuing of warrants of execution. For businesses to avoid receivables, a careful monitoring system should be maintained for accounts receivable.

In order to monitor accounts receivable, it is essential to keep adequate and accurate records of each debtor. Accounts receivable may first be examined as a whole and individual accounts may be checked if necessary. One method of monitoring payment behaviour of a customer is to relate receivables to assets or sales of the business by means of a formula of the percentage of total resources invested in accounts receivable (accounts receivable ÷ total assets). This financial ratio may be used to get an overall picture of how fast the credit management department collects accounts receivable. The average collection period represents the average number of days the business has to wait before its debtors are converted into cash. It is calculated by dividing trade receivables with average sales per day (Gitman 2011:52).

Formulae 2.3: Average collection period

$$\text{Average collection period} = \frac{\text{Trade receivables}}{\text{Average sales per day}}$$

AND

$$\frac{\text{Trade receivables}}{\text{Annual sales}} \times 365$$

Source: Bieniasz and Golas (2011:70)

This is one method that businesses may use to assist in selling inventory quickly. If managed accurately it may assist in improving business profitability, as

customers will enjoy easy payment on credit sales. The second component of working capital is current liabilities.

2.9.2 Current liabilities

Weetman (2006:265) states that a liability is a present obligation of the business arising from past events, the settlement of which is expected to result in an outflow from the businesses resources embodying economic benefits. Gitman (2011:42) posits that current liability represents short-term liabilities expected to be paid within one year or less. A current liability is a liability, which satisfies any of the following criteria:

- It is expected to be settled in the business' normal operating cycle;
- It is held primarily for the purpose of being traded;
- It is due to be settled within twelve months after the balance sheet date.

It is important to finance the permanent portion of current assets with long-term funds. It is only under conditions of stable demand and stable income, that a business may finance the majority of its current assets from short-term funds. Changes in the level of current liabilities, affects profitability-risk trade-off, which may be demonstrated by applying the current liabilities to total assets ratio. When this ratio increases, profitability increases, thus businesses use more of the less expensive current liabilities financing and less long-term financing, but if the ratio increases, the risk of technical insolvency will also increase, because an increase in current liabilities decreases net working capital.

In summary, current liabilities help businesses obtain products and they sell immediately and they only pay the supplier later. This is an important component as it is difficult for small businesses to obtain external sources of finance. Current liability has a main element, which is known as accounts payable (creditors).

2.9.2.1 Accounts payable (trade creditors)

A supplier who is waiting to be paid is called a trade creditor. Accounts payable consists of creditors, accrued wages, tax liabilities and short-term portions of longterm loans and other short-term debt (Weetman 2006:270). The decision to make use of supplier credit needs to be carefully assessed in terms of alternative sources of finance, discount, credit limits and transaction costs. If the availability and costs of supplier credit are better than other sources of finance, then supplier credit should be used. Once the decision has been

taken, the accounts payable management will investigate the extent to which it can extend accounts payable without jeopardising its credit status with suppliers.

Accounts payables are created when a business purchases some products for which payment has to be made no later than a specific future date (Gitman 2011:606). Account payables have some advantages, for example, it is available to all businesses regardless of the size and earlier payment may result in cash discounts. A business should manage its account payables because if it fails to fulfil its mature account payables, the situation may result in a negative impact on the business, which may jeopardise the chance of the business for buying on credit in the future. Therefore, one way of monitoring accounts payable is by calculating the average payment period, which is calculated by dividing trade and other payables with average purchases per day (Els *et al.* 2010:397). This is illustrated in the following section.

Formulae 2.4: Average payment period

$$\text{Average payment period} = \frac{\text{Trade and other payables}}{\text{Annual purchases}} \times 365$$

Source: Elfani and Lois (2010:65)

It may be concluded that accounts payable is an important form of obtaining finance for small businesses, in relation to creditors. It gives businesses the relief of obtaining goods and only paying for them later and at times also receiving a discount for on time payment. Components of working capital being current assets and liabilities, may be extracted from the business' statement of financial position. An extract of the statement is indicated in Table 2.1.

Table 2.1: Statement of financial position

STATEMENT OF FINANCIAL POSITION

ASSETS
Current assets
Cash
Inventory
Accounts receivable
EQUITY AND LIABILITIES
Current liabilities
Accounts payable

Source: Cornelius and Weyers (2010:199)

A statement of financial position may be used to determine the state of the business' financial position and business affairs for a particular period (Lovemore & Brummer, 2011:1). The calculation of inventory, accounts receivable (debtor) and accounts payable (creditors) results in what is called the cash conversion cycle (CCC). The cash conversion cycle is the time it takes the business to use its resources and convert them to cash. The section that follows concentrates on the cash conversion cycle.

2.10 CASH MANAGEMENT WITHIN THE BUSINESS

Gitman (2006:631) describes the operating cycle as the time from the beginning of the production process to collection of cash from sales of the finished product. Els *et al.* (2010:396) affirm that operating cycle is the total period from buying inventory to receiving the money back by selling the inventory to customers and collecting their debt. Mathuva (2010:2) posits that an operating cycle encompasses two major short-term asset categories: inventory and accounts receivable. It is measured in elapsed time by adding the average inventory period and the average collection period. Operating cycle, less (minus) the average payment period, is referred to as the cash conversion cycle, which represents the amount of time the business resources are tied up in stock.

According to Raheman and Nasr (2007:280), a cash conversion cycle is a popular measure of working capital management. They further accentuate that it includes the time lag between the expenditure for the purchase of raw material and the collection of sales for finished goods. Cash conversion cycle may be explained as a time span between the payment for raw material and the receipt from the sale of goods. GarciaTeruel and Martinez-Solano (2007:168) posit that a business typically follows a cycle in which it purchases inventory, sells goods on credit and collects accounts receivable. If the cash conversion cycle is long, the business will require more investment in current assets (Marx *et al.* 2009:3). A good cash conversion cycle is helpful for the business to pay its obligations at the right time, which will enhance goodwill for the business. In order to calculate the cash conversion cycle one has to first calculate average collection period, inventory turnover in days and average payment period. The cash conversion cycle is calculated using the following formulae:

Formulae 2.5: Cash conversion cycle

$$\begin{aligned}
 \text{CCC} &= \text{Average collection period} \\
 &+ \text{Inventory turnover in day} \\
 &- \text{Average payment period}
 \end{aligned}$$

Source: Falope and Ajilore (2009:76)

The cash conversion cycles may also be illustrated by means of Figure 2.7.

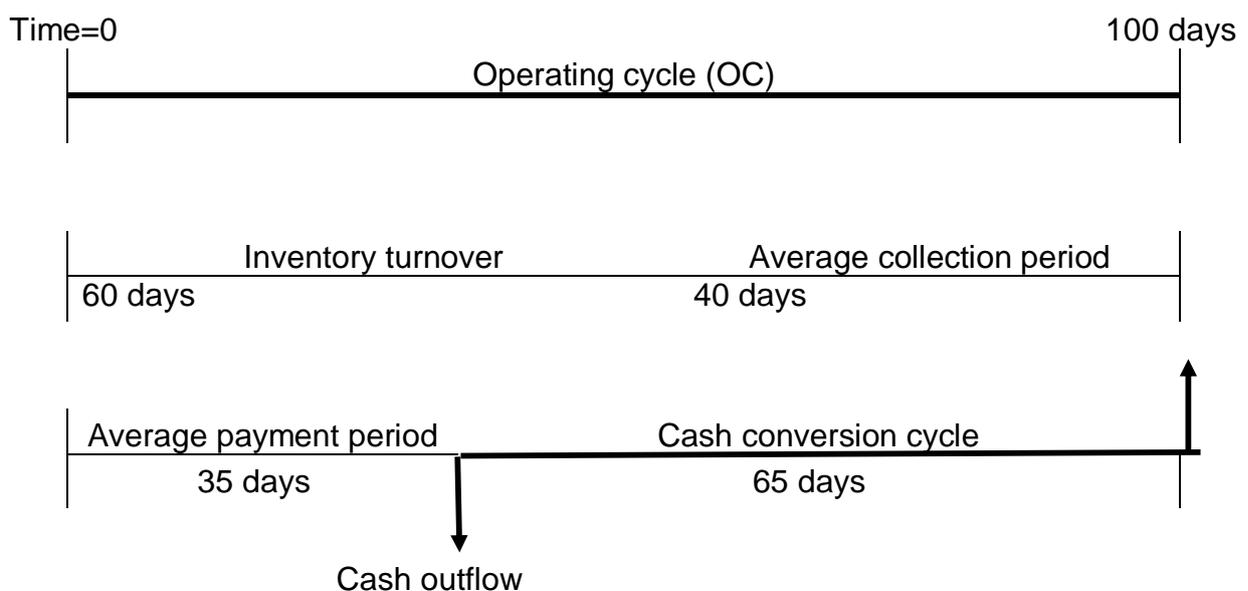


Figure 2.7: Cash conversion cycle

Source: Gitman (2011:571)

From Figure 2.7, (Gitman 2011:571) it may be assumed that a business, which produces dinnerware has annual sales of R10 million, a cost of goods sold of 75 percent of sales and purchases that is equal to 65 percent of cost of goods sold. The business has an inventory turnover of 60 days, an average collection period of 40 days and an average payment period of 35 days. Thus the cash conversion cycle of the firm is 65 days (60 + 40 – 35).

It is clear that working capital management has different components and for the business to be successful, each component has to be treated with consideration and that a change in one component affects the other. Businesses need to also look at the length of time it takes to convert its assets into cash when it is required to do so. In the foregoing section, maximisation of profit as the key to business success is discussed.

It is, therefore, vital to discuss measures of profitability used in this study.

2.11 MEASURE OF PROFITABILITY

Profit in a business represents a favourable or positive difference between income and cost. Profitability is used as a measure for earnings generated by the business during a period of time based on its level of sales, assets, capital employed and net worth (Kabajeh, AL Nu'aimat, Dahmash 2012:116). Profitability may be calculated by means of different measures, including ROA and return on equity, amongst other measures of profitability (Marx *et al.* 2009:72). ROA measures the profitability of the business as a whole in relation to the total assets employed, while return on equity represent the rate of return that all shareholders (both ordinary and preference) receive on the investment (Marx *et al.* 2009:72).

ROA may be calculated as net profit before interest taxes divided by total assets of the business. ROA measures the operating efficiency of a business based on profit generated by its assets. In support of the above statement, ROA was used in the study to measure profitability of small businesses. This is because a significant percentage of small business investments are in the form of its assets, as mentioned in Section 2.2. Return on equity measures the shareholders rate of return, whereas small businesses do not have shareholders.

Formulae 2.6: Return on assets

$$\text{ROA} = \frac{\text{Profit before interest and tax}}{\text{Total assets}}$$

Source: Garcia-Teruel and Martinez-Solano (2007:167).

According to Deloof (2003:573) the way in which working capital is managed will have a significant impact on the profitability of a business. Garcia-Teruel and Martinez-Solano (2007:164) report that shortening the cash conversion cycle improves the business profitability. According to Mohamad and Saad (2010:140) efficient working capital management increases businesses free cash flow, which in turn increases the business growth opportunity and profitability. Sharma and Kumar (2011:159) revealed that working capital management and profitability is positively correlated in Indian businesses. Iqbal, Ahmad and Riaz's (2014:14) results of regression analysis revealed that the coefficient of account receivables is negative, that is the increase or decrease in average collection period will significantly affect profitability of the business, and that inventory shows a positive relationship with operating profit which proved that working capital management has a positive effect on business profitability.

2.12 CONCLUDING REMARKS

This chapter commenced by observing the theoretical framework that the study is based on, as well as reporting on its significance and role within small businesses in determining its ability of increasing profitability. The chapter defined small business and overviewed small businesses within the South African context. Attention was also given to the characteristics of small businesses as well as the contribution made by these businesses towards South African economy. The problems faced by these businesses and the government support that is made available to assist them, were also elucidated.

The fundamentals of working capital management were discussed and a detailed discussion on working capital policies was undertaken. Emphasis was given to the components of working capital, which entailed current assets and current liabilities, as well as their elements. A review of the cash conversion cycle as a measure of working capital, and measure of profitability was also undertaken.

The next phase of the research is Chapter 3, which addresses the planning and an elucidation conduct of the empirical part of the research, *inter alia* the research methodology and context of the study is discussed entailed in this chapter.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The preceding chapter provided an overview on the theoretical framework on which the study was based. Review of the literature on working capital, working capital management and small businesses was undertaken in order to understand the topic at hand.

This chapter outlines the research methodology that was used in this study. It explains the rationale behind the methodology, how data were collected and analysed. In research, studies can follow either the deductive or inductive theory or both. Deduction theory represents the most common view of the nature of the relationship between theory and research (Bryman & Bell 2011:11). Figure 3.1 shows the process of a deduction theory:

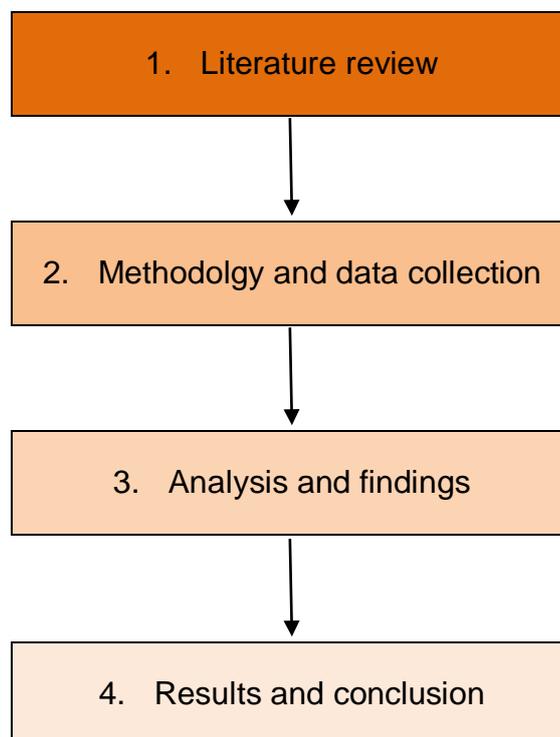


Figure 3.1: Process of deduction theory

Source: Adapted from Bryman and Bell (2011:11)

3.2 SCOPE OF THE STUDY

The scope of the study was to determine whether small retail businesses within the Emfuleni Local Municipality apply working capital management techniques in the day-to-day running of the business.

3.2.1 The study area

The research was undertaken in the Emfuleni local municipality. The municipality is one of three local municipalities, which constitute the Sedibeng District Municipality. It is the western and local municipality of the district, which covers the entire southern area of the Gauteng province, extending along a 120 kilometre axis from east to west. It covers an area of 987.45 km². Emfuleni shares boundaries with Metsimaholo Local Municipality in the Free State to the south, Midvaal Local Municipality to the east, the City of Johannesburg metropolitan area to the north and Westonaria and Potchefstroom to the west (Emfuleni Local Municipality 2015).

The Emfuleni Local Municipality has two main cities/towns, namely Vereeniging and Vanderbijlpark, within the area. The Emfuleni municipality also contains approximately six large peri-urban townships, namely Evaton, Sebokeng, Sharpeville, Boipatong, Bophelong and Tshepiso. The six areas lack facilities associated with towns of their own sizes. The other approximately ten small settlements tend to be suburban settlements within six kilometres of the above towns. They are Bonanne, Steel Park, Duncanville, Unitas Park, Arcon Park, Sonlandpark, Waldrift, Rust-ter-Vaal, Roshnee and Debonair Park. The area also comprises a number of large residential areas, all of which require considerable investment in infrastructure and environment upgrading. The Emfuleni Local Municipality is rich in history as it encapsulates the Sharpeville monument and the liberation struggle epitomised by the signing of the Constitution in 1996 in Sharpeville. Emfuleni's settlement patterns are dictated largely by the history of the area.

3.2.2 The study units

The study was carried out amongst small retail business owners/managers within the Emfuleni local municipality. Purposive sampling was used to identify the target population, which in this case was the small retail business.

3.2.3 Target population

The target population is the total collection of elements about which the researcher wishes to make some inferences (Cooper & Schindler 2006:402). From the whole population a target population is obtained, which may be explained as a specific group of people or objects for which questions can be asked or observations made to obtain information (Hair *et al.* 2008:33). Target population in this study consisted of owners/managers of small retail businesses within the Emfuleni district municipality. The area was chosen taking into account the resources, time constraints and ease of access to the businesses as well as industry size.

3.3 SAMPLE AND SAMPLING PROCEDURES

A sample is a subgroup of the population, which is the focus of the research enquiry and is selected in such a way that it represents the study population (Bryman & Bell 2011:179). A sample is composed of a few individuals, while sampling is the process of selecting a few individuals from the bigger group to become the bases for estimating the prevalence of information of the researcher's interest (Kumar 2014:382).

Procedures on how the sample was identified and selected are explained.

3.3.1 The sample

Samples are used because it often is not possible to record every data value of the population, mainly because of cost, time and possibly item destruction (Wegner 2012:5). Hair *et al.* (2008:138) mention that determining sample size is not an easy task and further elaborate that the researcher must consider how precise the estimate must be and how much time and money is available to collect data required, since data collection is generally one of the most expensive components of a study. Thus, the sample for this study consists of owners/managers of small retail businesses within the Emfuleni Local Municipality.

3.3.2 Sample frame

A sampling frame includes a complete list in which each unit of analysis is mentioned only once (Fox & Bayat 2007:52). The list of small businesses was obtained from the Emfuleni Local Municipality's database. The researcher then identified 430 small retail businesses from the list.

3.3.3 Sampling method

Sampling method may be distinguished between probability and non-probability sampling. With probability sampling, the researcher may determine the probability that any element or member of the population will be included in sample, while in non-probability the researcher cannot specify that probability (Welman, Kruger & Mitchell 2012:56). Non-probability sampling, namely purposive sampling, was used in the current study.

3.3.4 Purposive sampling

Purposive sampling is primarily guided by the convenience to the researcher; this is because of ease of accessibility, geographical proximity, known contacts, ready approval for undertaking the study, or being part of the group (Denscombe 2013:221). Kumar (2014:375) mentions that the primary consideration in sampling design is the researchers' judgement as to who can provide the best information to achieve the objective of the study. The sample was hand-picked by the researcher on the basis of knowledge and relevance to the study as specific types of businesses were required within a specific area, which consist of retail small businesses within the Emfuleni Local Municipality.

3.3.5 The research design

Fox and Bayat (2007:51) explain research design as the actual plan in terms of which the researcher obtains research participants or subjects and collect data from the object. The research process may be seen as the planning of research, visualisation of the data and the problem experienced with the use of such data in maintaining the final outcomes of the research project. Bordens and Abbott (2011:102) posit that this process tends to focus on two major types, namely the exploratory data collection and the hypothesis testing. The study followed an exploratory method of research design, which consists of evaluating potential explanations for the observed relationships.

In order to analyse the impact of working capital management on profitability, the study followed the following methods: (a) descriptive statistical analysis, wherein a description of features of the data in the study such as mean and standard deviation of each variable was presented; (b) correlation matrix, which measures the degree of association between all the variables under consideration. In essence, the matrix explores whether or not the relationship between variables is positive or negative, in addition to determining the

degree of the association between variables under consideration; and (c) regression analysis was used to gauge the extent to which a unit change, in each respective explanatory variable, has on profitability.

3.3.6 Sample size

Sample size is the number of individuals, usually denoted by the letter n , from whom a researcher obtains the required information. Hair *et al.* (2008:138) mention that determining sample size is not an easy task and further elaborate that the researcher must consider how precise the estimate must be and how much time and money are available to collect data required, since data collection is generally one of the most expensive components of a study.

3.3.6.1 Calculation of sample size

The sample was obtained using previous research studies and the use of Raosoft sample size calculation. This sample size is also in line with previous studies including Smith and Fletcher (2009:58) on the factors influencing working capital management in South Africa, Gill, Biger and Mathur (2010:458) on the relationship between working capital management and profitability and Sharma and Kumar (2011:101) on the effect of working capital management on firm profitability.

Table 3.1 shows an extract of the table for determining sample size from a given population (Krejcie & Morgan 1970:607). All samples were drawn at 95% confidence levels, at a 5.0% margin of error, which are the generally acceptable levels in research. Based on the population size of 430, the sample size for this study was in the region of 196 respondents.

Table 3.1: An Extract Table for Determining Sample Size

Population size	Confidence = 95%				Confidence = 99%			
	Margin of error				Margin of error			
	5%	3.50%	2.50%	1.00%	5%	3.50%	2.50%	1.00%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	211	186	198
250	152	190	215	244	182	246	229	246
300	169	217	251	291	207	246	270	295
400	196	256	318	387	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	206	369	526	739	363	503	615	763

Source: Krejcie and Morgan (1970:608)

3.4 DATA COLLECTION

The study followed a quantitative method for data collection. This method often employs measuring instruments, which may include a questionnaire with interviews. A questionnaire was used in the study as a data collection instrument. Questionnaires may be designed as structured or unstructured.

3.4.1 The questionnaire

A questionnaire is said to be a document consisting of a set of questions and scales to gather primary data (Hair *et al.* 2008:170). A questionnaire is a written list of questions, the answers to which are recorded by respondents (Kumar 2014:178). It is crucial that the data collected, and method used in a research work affects its outcomes. When designing a questionnaire, the researcher has to confirm the objectives of the study, select an appropriate data collection method, develop questions, scaling and question format. The format may either be structured (closed-ended) questions that will require the respondent to choose from a pre-determined set of responses; this reduces the amount of thinking and effort required by respondents and response process is fast, or unstructured (open-ended) questions formatted to allow respondents to reply in their own words. For the purpose of the study, a structured questionnaire was used.

The questionnaire was designed by the researcher through the use of past questionnaires designed within the field of the study. This was later checked and verified by the supervisor. The questionnaires were hand-delivered to the owners/managers of small retail businesses within the Emfuleni Local Municipality and later collected by the researcher to be analysed. A covering letter was placed in front of the questionnaire, providing the respondents with detailed information of the researcher and the topic under review as well as details of the institution from which the study is being undertaken.

3.4.2 Questionnaire design

The first step in the study was to design a questionnaire and asking the right questions is vital for the survey. The questions were set to meet the researcher's objectives as set out in Section 1.3.3. Questions were asked in four main categories: graphical information, status of small businesses, working capital management and profitability. Close-ended questions were used in the questionnaire. The researcher had to determine the layout and evaluate the questionnaire, obtain initial approval, pre-test, revise and finalise the questions. The questionnaire had four sections, namely Section A, B, C and D.

- **Section A: Biographical/general information**

The questions used within the section are close-ended questions, which allow the respondent to answer questions based on the questioned asked. The information enabled the researcher to gather general profiles about small retail businesses and the owners/managers of these businesses.

- **Section B: Status of small businesses**

In this section, close-ended questions were used. The questions only allowed the owners/managers of small businesses to answer the question based on the alternatives provided by the researcher. The questions were used to determine the status of the small business under the National Small Business Act No. 102, of 1996 (South Africa 1996:8) as amended in 2003 and 2004.

- **Section C: Working capital management**

This section made use of Likert scales, which required the owners/managers to respond to the statement provided by giving a rating from one to five, with one denoting strongly disagree, five denoting strongly agree and three denoting a neutral response.

The questions were based on the application of working capital management.

- **Section D: Determination of small business profitability**

The section made use of a five-point Likert scales, which gave owners/managers statement to rate from one to five. The questions enabled the researcher to determine small business owners/managers views of profitability through ROA as a basic measure of profitability.

3.4.3 Pilot testing of the questionnaire

A pilot test was conducted to detect weaknesses in the design of the questionnaire and to provide proxy data for selection of a sample (Cooper & Schindler 2006:76). A pilot test was conducted to verify whether the questionnaire was well formulated in terms of clarity, timeliness and difficulty. Twenty completed questionnaires were filled and used for this purpose.

3.5 DATA ANALYSIS TECHNIQUES

Data were analysed and depicted using tables and graphs. A summary was provided to each section of the questionnaire. Graphic presentations were utilised to elaborate the results further. Correlation and regression analysis was also conducted to determine the relation between working capital management and profitability. Correlation analysis was conducted through the guidance of past research papers in order to identify the dependent and independent variables. The variables used in the study are mentioned below:

3.5.1 Variables used in the study

Measures pertaining to profitability and working capital were undertaken using the studies of Garcia-Teruel and Martinez-Solano (2007:167), Sharma and Kumar (2011:167) and Nazir and Afza (2009:32). These studies used ROA as a dependent variable to measure profitability. ROA can be explained as a measure of profit before interest and tax to total assets at the end of the financial year. With regards to the independent variables, working capital was measured using number of days accounts receivable, number of days inventory and number of days accounts payable.

For the independent variable, the cash conversion cycle was estimated. The cash conversion cycle was used as a comprehensive measure of working capital as it shows the time lag between payment for purchase of raw material and collection of sales of finished goods (Sharma & Kumar 2011:165). The lengthier this time gap, the bigger the investment locked in working capital (Bagchi, Chakrabarti & Roy 2012:4). Table 3.1 provides an overview of how the above selected variables have been computed.

Table 3.2: Measure of selected variables

Variable	Method of computation
Cash conversion cycle	(No. of days acc receivable + No. of days inv) – No. of days acc payable
Days in account payable	(Acc payable/ cost of sales) × 365
Days account receivable	(Acc receivable/ sales) × 365
Days in inventory	(inventory/sales) × 365
Return on assets	PBIT/total assets

The independent variables in Table 3.2 may be explained as follows:

- Cash conversion cycle represents the average timing difference between paying suppliers and the time it takes to recoup amounts invested in debtors and inventory.
- Days accounts payable is the number of days it takes the firm to pay trade credit.

- Days accounts receivable is the number of days the firm takes to collect receivables from customers
- Days in inventory are the number of days in a year stock will be held in the warehouse of the business.

A detailed report on the correlation analysis is presented in Section 4.4 of Chapter 4 of the study.

Regression analysis was conducted using a working capital management model to help determine the effect of working capital management on the profitability of small retail businesses. This was actualised by applying the following model:

$$\text{ROA} = \alpha + \beta_1 \text{ days_ AP} + \beta_2 \text{ days_ AR} + \beta_3 \text{ days_ INV} \quad \text{Equation (1)}$$

$$\text{ROA} = \alpha + \beta_1 \text{ days_ INV} \quad \text{Equation (2)}$$

$$\text{ROA} = \alpha + \beta_1 \text{ days_ AP} + \beta_2 \text{ days_ INV} \quad \text{Equation (3)}$$

Explanation of variables used in the model:

Where: ROA = Return on assets (Profitability)

β_1 days_ AP = days accounts payable

β_2 days _AR = days accounts receivable

β_3 days _ INV = days inventory

Results obtained on the regression model are presented in Section 4.5 of Chapter 4 of the study.

3.5.2 Editing of data

Editing is the process by which data are checked for mistakes made by the interviewer (Hair *et al.* 2008:224). Editing was undertaken by the researcher to ensure that the questionnaires are completed and that they are suitable for further processing. The process was undertaken to ensure that all questions in the questionnaire are correctly answered. Editing of the questionnaire was done before the responses were processed to determine if data recorded in the questionnaire was acceptable for use and to prepare it for coding.

3.5.3 Coding of data

Coding involves assigning numbers or other symbols to answers so that responses can be grouped into a limited number of categories (Cooper & Schindler 2006:443). When one locates meaningful segments, one has to code them. The data were coded by the statistician, by coding numbers to questions such as one for female and two for male.

3.5.4 Processing of data

Upon data collection, several methods were used to process and analyse the data. All the data collected were checked for results on completion of the procedure. The questionnaire was sorted, edited, classified and coded by the researcher, who later handed the information over to the statistician for the analysis.

3.5.5 Statistical analysis

3.5.5.1 Descriptive analysis

According to Burns and Grove (2003:201), descriptive analysis “was designed to provide a picture of a situation as it naturally happens”. It may be used to justify current practice and make judgment and also to develop theories. Kothari (2013:2) mentions that descriptive analysis’s major purpose is description of the state of affairs as it exists at present and its characteristic is that the researcher has no control over the variables hence, it only reports what has happened or is happening. Descriptive analysis may be divided into a way of representing or describing data, either graphically, numerical or through tabulation (Mendenhall, Beaver & Beaver, 2013:4). The major types of descriptive analysis are measure of central tendency, measure of variability, measure of relative position and measure of relations. Only those used in the study will be explained.

- **Measure of central tendency**

Measure of central tendency provides a convenient way of describing a set of data with a single number. It enables the researcher to determine typical or average scores of a group of scores (Kothari 2013:132). There are three most frequently encountered indices of central tendency, which are the mode, the mean and median. Each of these indices was used with a different scale of measurement (Mendenhall *et al.* 2013:5254). Mode is the score that is attained by more subjects than any other scores, mean is the arithmetic average of the score and the median is that point, after scores are organised from low to

high or high to low, above and below, which are 50 percent of the score. Means are reported in Chapter 4 in Section 4.3.3 and 4.3.4 of the study.

- **Measure of variability**

Measure of variability is needed to measure the distribution of the scores that is how much variability there is (Kothari 2013:134). There are a number of descriptive statistics that serve this purpose and they are the range, the quartile deviation and the standard deviation. Range is simply the difference between the highest and the lowest score and is determined by subtraction. Quartile deviation is one half of the difference between the upper quartile and the lower quartile in a distribution and standard deviation works on the idea that if we wish to understand the dispersion of the data, it would be useful to know how far, on average, the values are varied from the mean (Denscombe 2013:252). Standard deviation is by far the most frequently used index of variability and is the most stable measure of variability and includes every score in its calculation. Standard deviations are reported in Chapter 4 of the study in Section 4.3.3 and 4.3.4.

- **Frequencies**

Frequencies represent data by enabling the researcher to see what the distribution of score looks like. Frequency analysis was conducted by means of graphs including bar and pie charts explaining data collected for sections A and B of the questionnaire. This was reported in Section 4.3.1 and 4.3.2 of Chapter 4.

3.5.5.2 Correlations analysis

Another type of descriptive analysis is called measure of relationship. This measure enables the researcher to determine the correlation amongst variables (Kothari 2013:138). Thus, the correlation matrix measures the degree of association between all the variables under consideration. In essence, the matrix explores whether or not the relationship between variables is positive or negative, in addition to determining the degree of the association between variables under consideration. The degree of relationship is expressed as a correlation coefficient, which is computed using two sets of scores from a single group of participants. Correlation coefficient provides an estimate of just how related two variables are, if two variables are highly related, a correlation coefficient near +1.00 (or -1.00) may be obtained. If variables are not related, a coefficient near 0.00 may be obtained (Denscombe 2013:259).

Researchers regard any correlation between 0.3 and 0.7 positive or negative as demonstrating some reasonable correlation between two variables, with 0.3 being reasonably weak and 0.7 being reasonably strong (Kothari 2013:138). Spearman's technique determines the degree of correlation between two variables in case of ordinal data, where ranks are given to the different values of the variable as discussed in Section 4.4.

3.5.5.3 Regressions analysis of the variables

According to Kothari (2013:141), regression analysis is the determination of a statistical relationship between two or more variables. In simple regression, only two variables are tested, namely the independent and dependent variable. In multiple regressions two or more independent variables are regressed against the dependent variable. Regression analysis studies the causes and the effects of relationships. ROA was regressed as the dependent variable and the number of days accounts payable, number of days inventory on hand as well as the cash conversion cycle were independent variables. A detailed discussion is presented in Section 4.5 of Chapter 4.

3.6 ETHICAL ISSUES

According to Kumar (2014:282) ethical means "in accordance with principles of conduct that are considered correct, especially those of a given profession or group".

Ethical behaviour is important in research as it is concerned with subject matters such as plagiarism and honesty in reporting of results (Welman *et al.* 2012:181). A number of ethical issues were considered for the study:

- **Permission to conduct research**

Participants were at all times asked permission to conduct research and no one was forced to participate in the research project. Participants in the study, which consisted of small retail business owners/managers within the Emfuleni Local Municipality, were asked to participate in the study. The importance of the study and the benefits it might bring to small businesses was clearly explained to the owners/managers.

- **Informed consent**

Securing informed consent from respondents is a matter of fully disclosing the procedures of the proposed survey or other research design before requesting permission to proceed

with the study (Cooper & Schindler 2006:119). Owners/managers were informed of the procedure involved in research and consent was obtained from the owners/managers before participation. Opportunity was granted to participants to withdraw at any stage of the study.

- **Confidentiality**

Confidentiality means that information involved in the research will not be shared with others (Zikmund & Babin 2007:87). When respondents truly believe that confidentiality will be maintained, it makes it easier to respond truthfully, even about potentially sensitive topics. Confidentiality was assured to owners/managers, by ensuring that the business names, location and financial position were not disclosed to a third party. The researcher further assured owners/managers of anonymity and confidentiality of the data collected.

3.7 RELIABILITY AND VALIDITY

3.7.1 Reliability

Reliability has to do with the accuracy and precision of a measurement procedure. It is concerned with the question of whether the results of a study are repeatable (Cooper & Schindler 2006:318). There are a number of different types of reliability; test-retest reliability, equivalent form validity, split-half reliability and internal reliability. The study followed the internal reliability, which is also called internal consistency. This was conducted using Cronbach's alpha coefficient, which is based on the inter-item correlations.

If the items are strongly correlated with each other, the internal consistency would be high and the alpha value would be close to one. When items are poorly formulated, the alpha value would be close to zero. Reliability estimates of 0.70 are regarded as acceptable in most applications, while values lower than 0.60 are regarded as unacceptable (Maree *et al.* 2011:216). Reliability test was conducted for both Section C and D of the questionnaire. This is evidenced in Section 4.5 of Chapter 4 of the study.

3.7.2 Validity

Validity is the extent to which a test measures what it is actually intended to measure and it is concerned with the integrity of the conclusions that are generated from a piece of research (Bryman & Bell 2011:42). There are a number of different types of validity,

namely face, content, construct and convergent validity. The study examined the following types of validity: content, construct and convergent validity.

- **Content validity** refers to the extent to which the instrument covers the complete content of the particular construct that it was set out to measure. To ensure content validity of instruments, the researcher usually presents a provisional version to experts in the field for their comments before finalising the instrument (Maree *et al.* 2011:217). Details of content validity are explained in Section 4.6.2 in Chapter 4.
- **Construct validity** is used for standardisation of the instrument and has to do with how well the construct covered by the instrument was measured by different groups of related items. This was examined by computing Cronbach's alpha coefficient for the scale, which was satisfactory and served as an indication of construct validity (refer to Table 4.8).
- **Convergent validity** is the extent to which a scale correlates positively with other measures of the same construct (Welman *et al.* 2012:143). Convergent validity was used to measure the relationship between ROA and working capital elements (number of days accounts receivable, number of days accounts payable, number of days inventory on hand and the cash conversion cycle). This was examined through correlation analysis, which was conducted to determine the relationship between the variables (return on assets, days account receivables, days account payable, days inventory on hand and the cash conversion cycle).

3.8 CONCLUDING REMARKS

This chapter discussed the research methodology and a brief overview on the statistical methods used in the collection and analysis of data. The chapter started by explaining the scope of the study, followed by a discussion of the study units, area and target population as well as the sample and sampling procedures. The study followed the non-probability sampling (purposive sampling) technique. Data collection was also discussed in this chapter. The chapter further discussed correlation and regression analysis for the study.

Editing, coding, processing as well as statistical analysis were discussed. Finally the reliability and validity of the research questionnaire were elucidated. This involved the discussion on internal consistency, content, construct and convergent validity used in the

study. Ethical consideration was also addressed with emphasis on respondents' information and confidentiality.

The next chapter provides analysis and interpretation of the empirical findings in line with objectives of the study.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In Chapter 3 of the study the research design and methodology used in collecting relevant data associated to the application of working capital management was discussed. The research design, empirical research and data collection through the use of a questionnaire was explained. Correlations and regression analysis was used to explain the relationship amongst the variables identified in the study. The reliability and validity of the research instrument was explained along with the ethical considerations applied in the study.

The main purpose of this chapter is to present empirical research and results that fortify the research objectives of the study. The aim of the empirical research was to determine the effect of working capital management on the profitability of small retail businesses. The current chapter focuses on the interpretation and discussion of the research results generated from the questionnaire. Descriptive statistics, correlation and regression analysis are reported and interpreted in this chapter.

4.2 STATISTICAL ANALYSIS

4.2.1 Response analysis

Data collection was carried out by the researcher during June, July and August 2014. The questionnaires were hand-delivered to the small retail businesses operating within the Emfuleni Local Municipality. A total of 222 completed questionnaires were used for analysis.

4.2.2 Pilot study

The questionnaire was constructed by the researcher, checked by the study leaders and the statistician for appropriate content inclusion. A pilot study was then conducted where the questionnaire was checked for reliability. The questionnaire was analysed using SPSS. The reliability check for Section C (working capital management) and Section D (profitability) was satisfactory (>0.70) for the scales.

4.3 ANALYSIS OF THE MAIN SURVEY

The data were collected from owners/manager and interpreted accordingly through the use of tables and figures. The discussion of the analysis is presented in the following manner:

- Section A: demographical data of respondents;
- Section B: status of the business;
- Section C: working capital management and;
- Section D: profitability.

4.3.1 Demographic and general information about the business

This section sought information on the biographical information of owners/managers and general information of the business operations. This includes information on position, gender, age, business operating period, tax registration and practices regarding working capital. The analysis of the demographic and general information follows with each heading representing a question asked in the questionnaire.

4.3.1.1 Does the business keep book of accounts?

This question aimed at finding the percentage of small businesses that keep books of accounts within the business. A significant percentage, 94 percent (n=222) of the small business participating in the sample indicated that the businesses do keep book of accounts, while 6 percent (n=12) of the participants indicated that the businesses do not keep books of account. The businesses that do not keep books of accounts were excluded from further analysis.

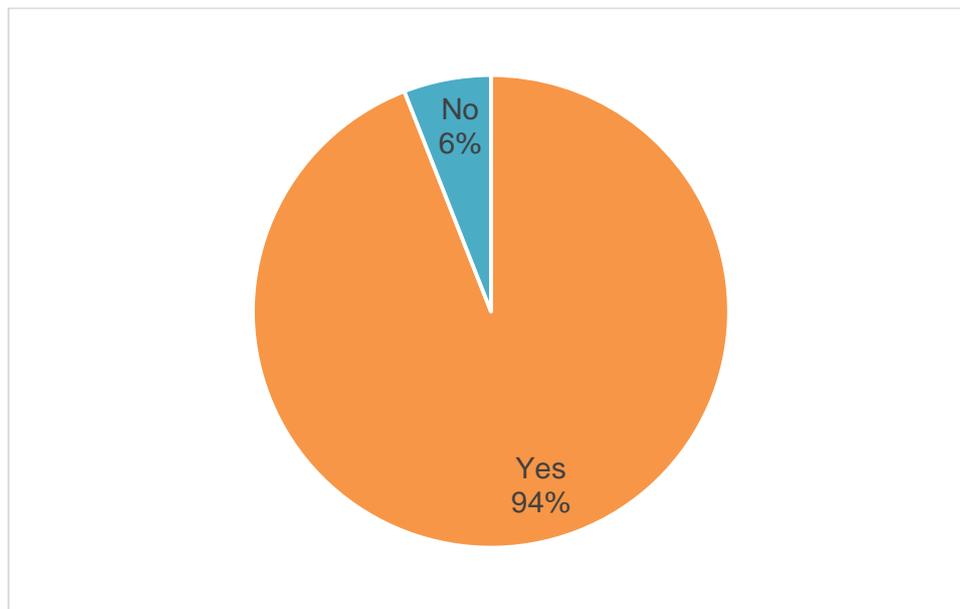


Figure 4.1: Keeping of books of accounts

4.3.1.2 Position held by respondents within the business

An analysis of the position held by the respondents within small businesses is shown in Figure 4.2. This question was necessary in order to enable the researcher to obtain information on whether the respondents are owners or managers of the business. According to Figure 4.2, 35 percent (n=77) of respondents were managers within the business, whereas 65 percent (n=145) of respondents were owners of the business. In South Africa, small businesses are mostly established as family businesses, which might be the reason most of the respondents are the owners. This implies that a large percentage of small businesses are under the control of its founders or owners who are responsible for the day-to-day running of the business (TIPS 2002:1).

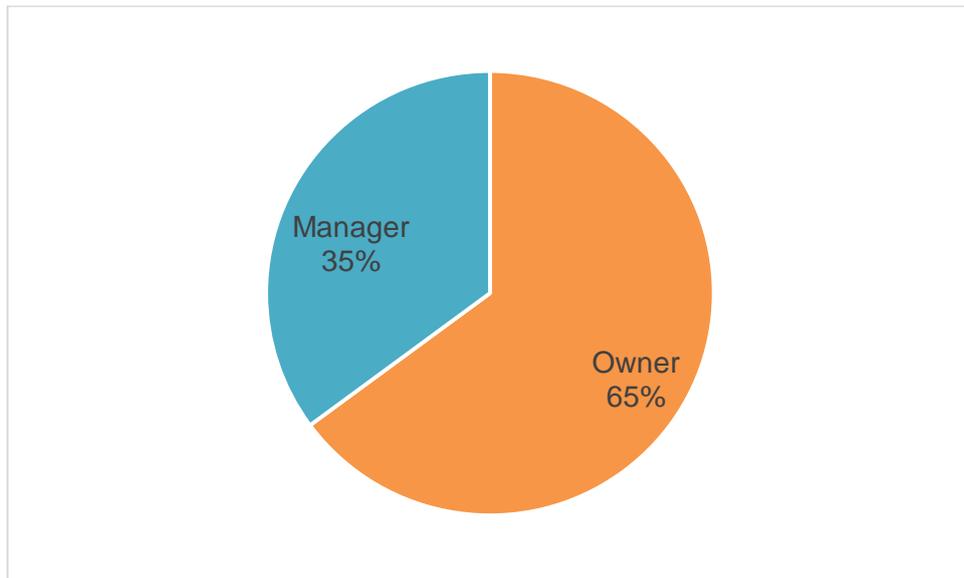


Figure 4.2: Position held by respondents within the business

4.3.1.3 Gender of respondents

This question was established to determine the gender of the respondents. Figure 4.3 indicates that 37 percent (n=83) of the owners/managers are females, while 63 percent (n=139) are males. Madzivhandila and Dlamini (2015:608) posit that research amongst woman-owned businesses within South Africa is unpopular and also discovered that family circumstances, economic pressure and a desire for economic-independence are amongst the motivations for women to be involved in starting small businesses. Consistent to this, FinScope South African Small Business Survey (2010:3) confirmed that females are more likely to be small business owners compared to males.

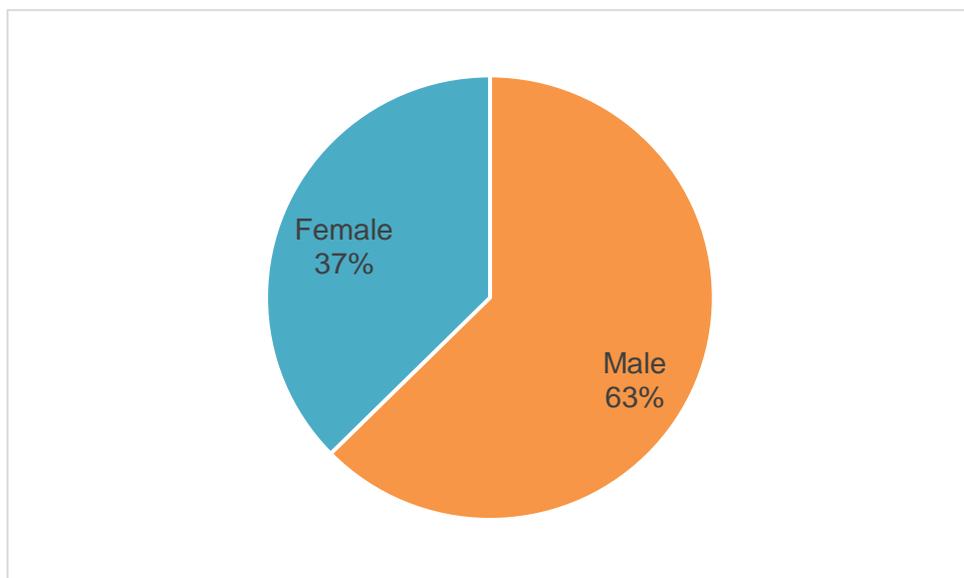


Figure 4.3: Gender of respondents

4.3.1.4 Age category of respondents

Figure 4.4 reveals that a large number of owners/managers are over the age of 41 years, 46.8 percent (n=104), followed by the age of 31-40 years, 43.2 percent (n=96). Owners/managers between the age of 20-30 years constituted 6.8 percent (n=15), of the sample and owners/managers under the age of 20 constituted the remainder of the sample, 3.2 percent (n=7). Consistent with GEM (2010:24), FinScope South African Small Business Survey (2010:20) and Rogerson (2006:68), the majority of small business owners or managers are over the age of 30.

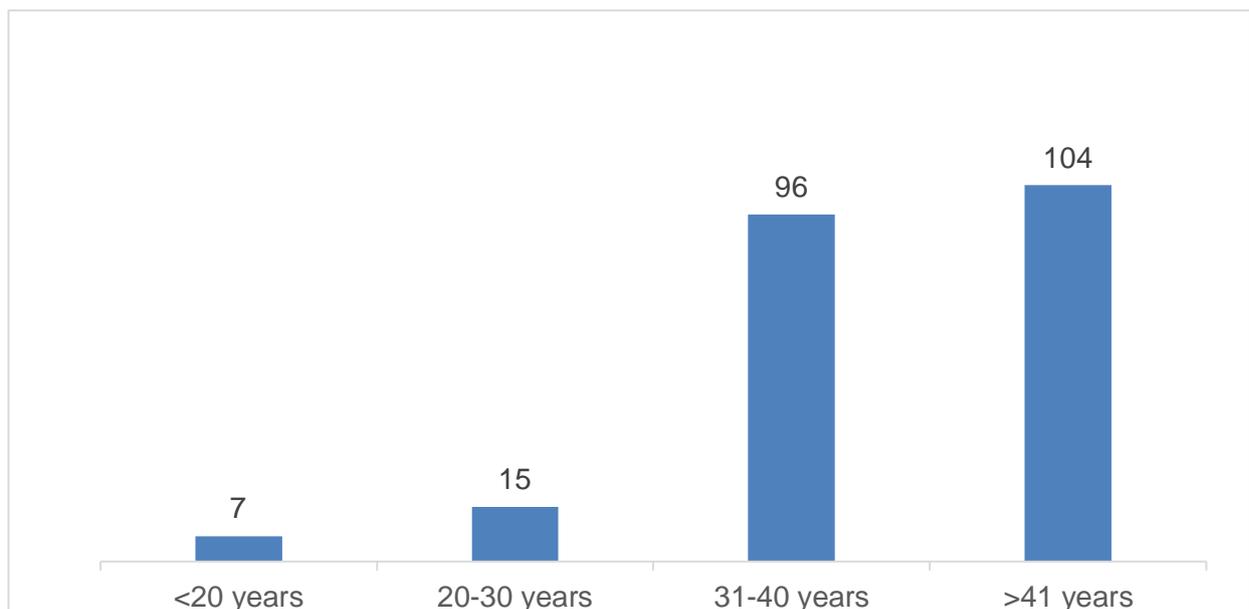


Figure 4.4: Age of the respondents

4.3.1.5 Ethnicity of respondents

Figure 4.5 reveals that 78.4 percent (n=174) of the respondents are African, followed by 7.7 percent (n=15), which represents Coloured, Whites represent 3.6 percent (n=8) and lastly Indians representing 2.7 percent (n=6) of the sample. A study conducted by Tshabalala and Rankhumise (2011:110) found that a larger number of small businesses in South Africa are owned by Africans. The DTI (2008b:30) reveal that participation of African people within the small business sector started increasing in 2005, a reason could be that small businesses are easy to start up with the current government emphasising start-ups as a means of solving unemployment and poverty in South Africa.

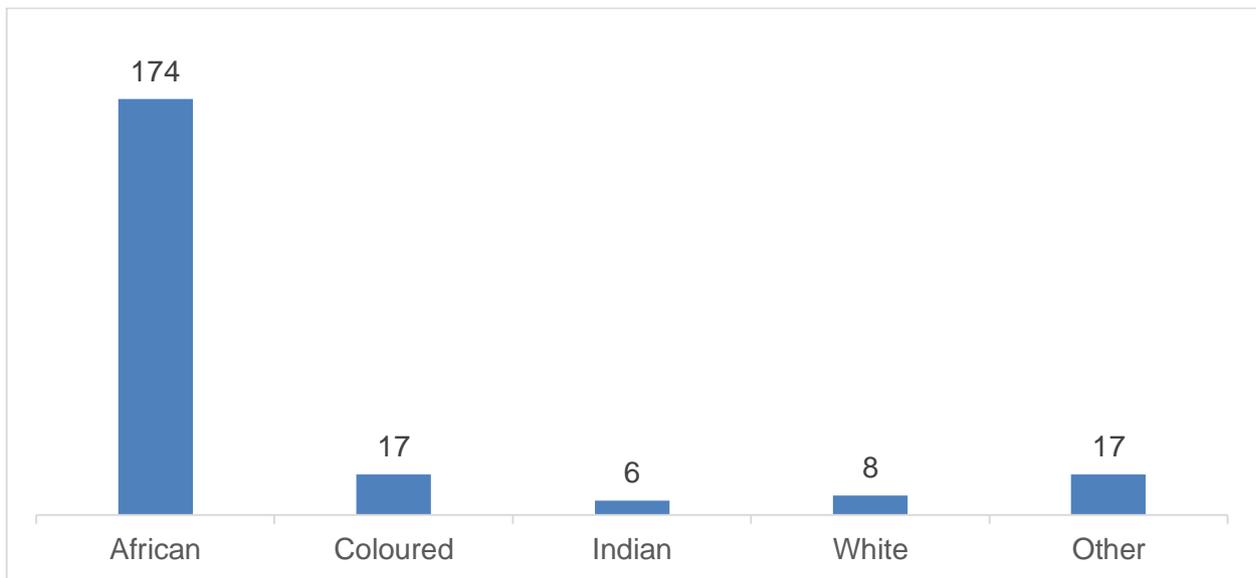


Figure 4.5: Ethnicity of respondents

4.3.1.6 Level of education

Figure 4.6 indicates the level of education of the owners/managers in the survey. Most of the owners/managers, 38.3 percent (n=85), were in possession of a diploma or certificate, while 36.5 percent (n=81) have a matriculation certificate. This is followed by those who are without a matric certificate, 14.4 percent (n=32) and those who were in possession of a bachelor's degree and other qualification, 5.4 percent (n=12) each. A study conducted by Hess and Rust (2010:3692) highlight that the low qualifications held by owners/managers of small businesses is the reason for small business failure.

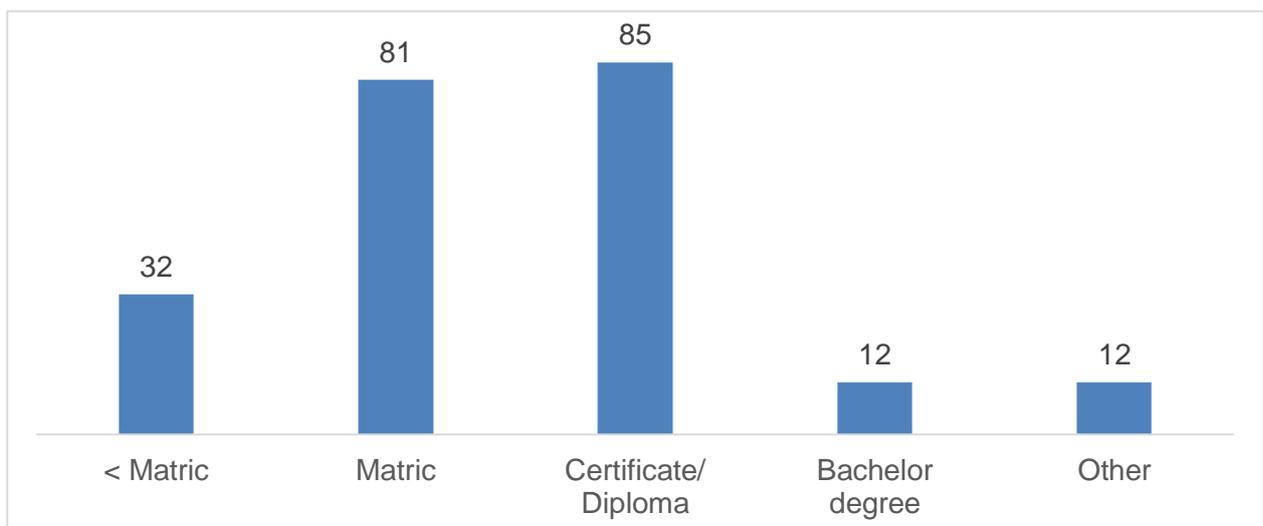


Figure 4.6: Level of education

4.3.1.7 Period of operation of the business

The question reports on the duration of the existence of small businesses. Figure 4.7 revealed that 35.6 percent (n=79) of the businesses have been operating for more than 2 years but less than 5 years, and that 31.5 percent (n=70) have been in operation between 5 and 9 years, this then reveal that 29.3 percent (n=65) of businesses have been in operation for less than 2 years. A small number of businesses, 3.6 percent (n=8) have been operating for more than 10 years. The results indicate that large numbers of small retail businesses included in the survey are in an early stage of existence, i.e. under five years of operation. Consistent to the study conducted by Strydom (2005:15) who discovered that even though small businesses are considered an important part in income generation within the country (South Africa), a large number of these small businesses are still maturing and having difficulty passing through the struggling stage.

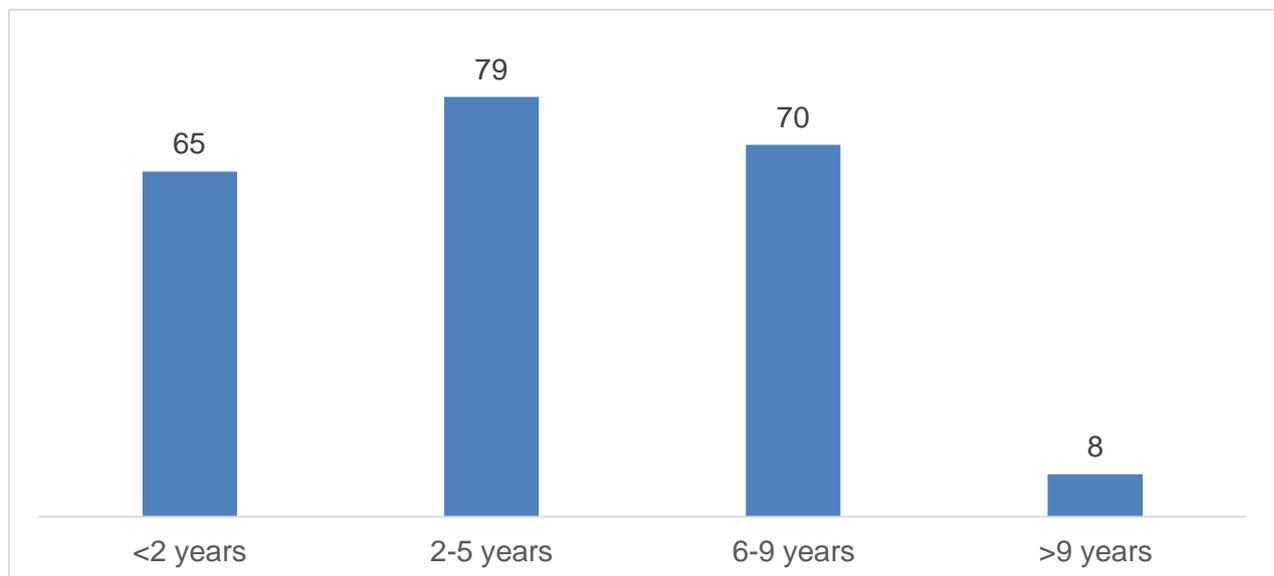


Figure 4.7: Business period of operation

4.3.1.8 Registration for tax purposes

Sookram and Watson (2008:1) mentioned that most of the unreported income from small businesses is as a result of deliberate attempts to evade taxes. This question tried to determine if small businesses within the Emfuleni Local Municipality are abiding with the tax law. Figure 4.8 indicates that 68 percent (n=151) of the businesses are registered for tax purpose and 32 percent (n=71) of the businesses are not registered for tax purposes. According to the South African Revenue Services (SARS) tax rates for the year 2015/16, small businesses that have a taxable income of R73 650 and less are not entitled to pay

tax, only a business that has a taxable income of more than R73 650 are expected or entitled to pay tax (SARS 2015:17). One of the reasons for many small businesses not being registered for tax purposes with SARS could be that a large number of small businesses' profits do not reach the minimum requirements as per the threshold.

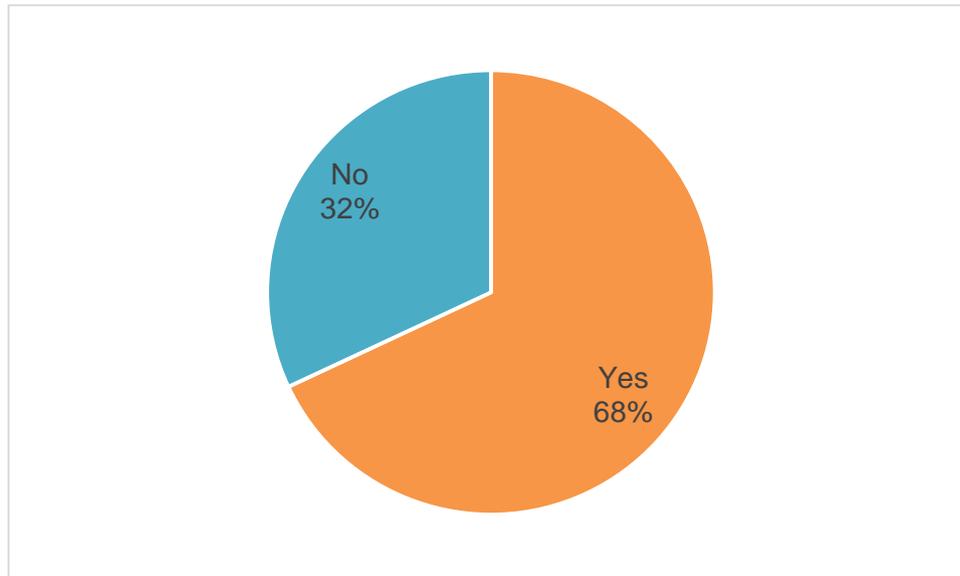


Figure 4.8: Registrations with SARS

4.3.1.9 Application of working capital management

This question is posed to examine if small retail businesses apply an accounting technique (working capital management) as a management tool in managing the business. Figure 4.9 indicates that 73 percent (n=163) of the owners/managers apply working capital as a management tool, while 27 percent (n=59) do not apply working capital as a management tool. Nazir and Afza (2009:20) posit that the application of working capital management is a fundamental part of the overall business strategy with an objective of maintaining an optimal balance between working capital components.

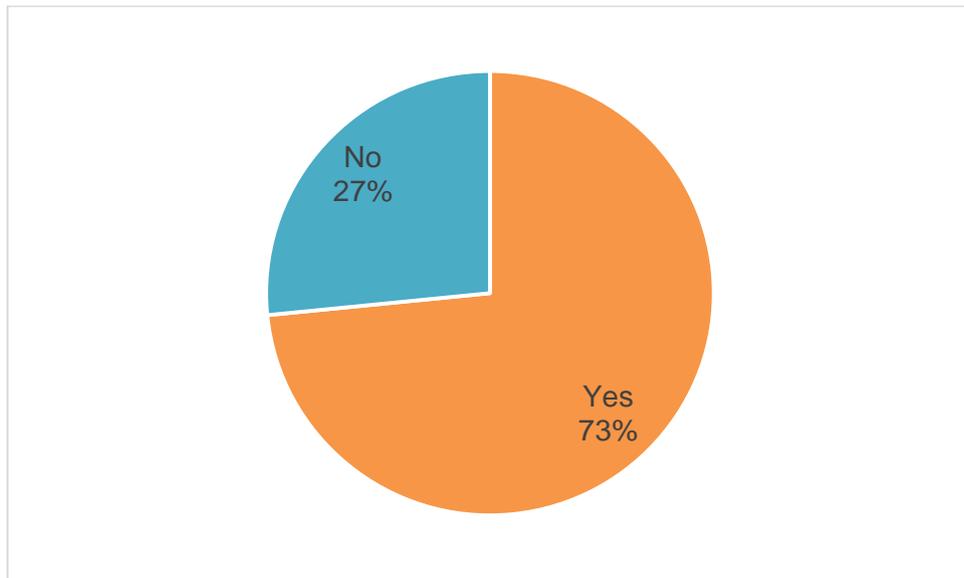


Figure 4.9: Application of working capital

4.3.1.10 Sources used to finance working capital

This question examined whether small businesses have funds available to meet daily business activities. Figure 4.10 revealed that 46 percent (n=103) of the owners/managers are not making use of other resources to finance working capital, while 54 percent (n=119) are making use of the resources (own funds, term-loan, overdraft) to finance their working capital. Padachi (2006:46) discovered that many business failures have been attributed to the inability of managing finance, especially within small businesses.

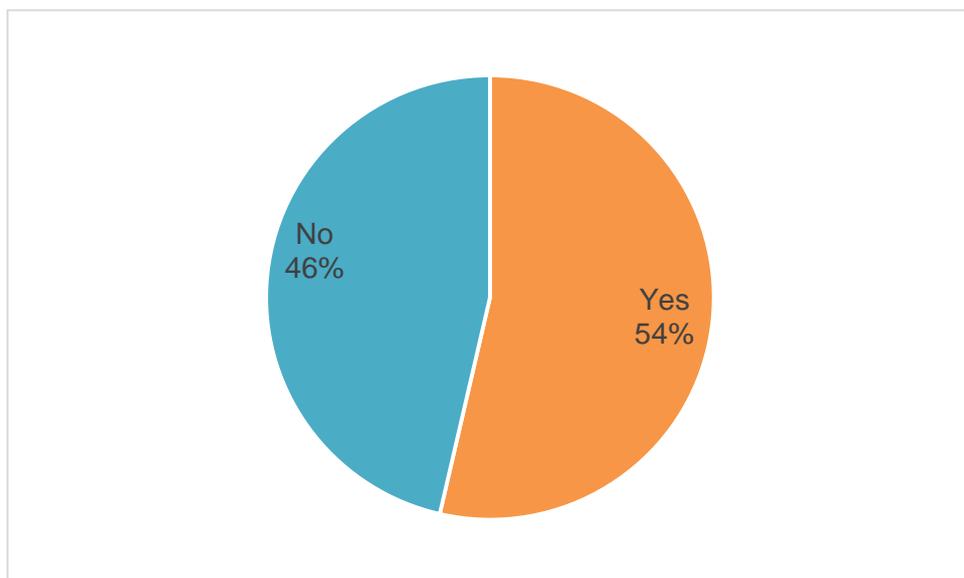


Figure 4.10: Sources used to finance working capital

4.3.1.11 Various sources used to finance working capital

This question identifies the sources small businesses use to meet its day-today business activities. Figure 4.11 elaborates on the various sources used by small businesses in financing working capital. The figure shows that 38.7 percent (n=86) of the owners/managers make use of their own funds in financing working capital, while 26.6 percent (n=59) make use of other forms of financing working capital, 15.3 percent (n=34) make use of trade credit to finance working capital, while 11.6 percent (n=28) make use of term loan and 6.8 percent (n=15) make use of overdrafts to finance working capital. Olutunla and Obamuyi (2008:197) affirm that according to the pecking order theory, businesses prioritise sources of financing from internal (cash flow or own funds) to external according to relative availability of funds. It appears that a large number of businesses consider making use of their own funds to finance working capital.

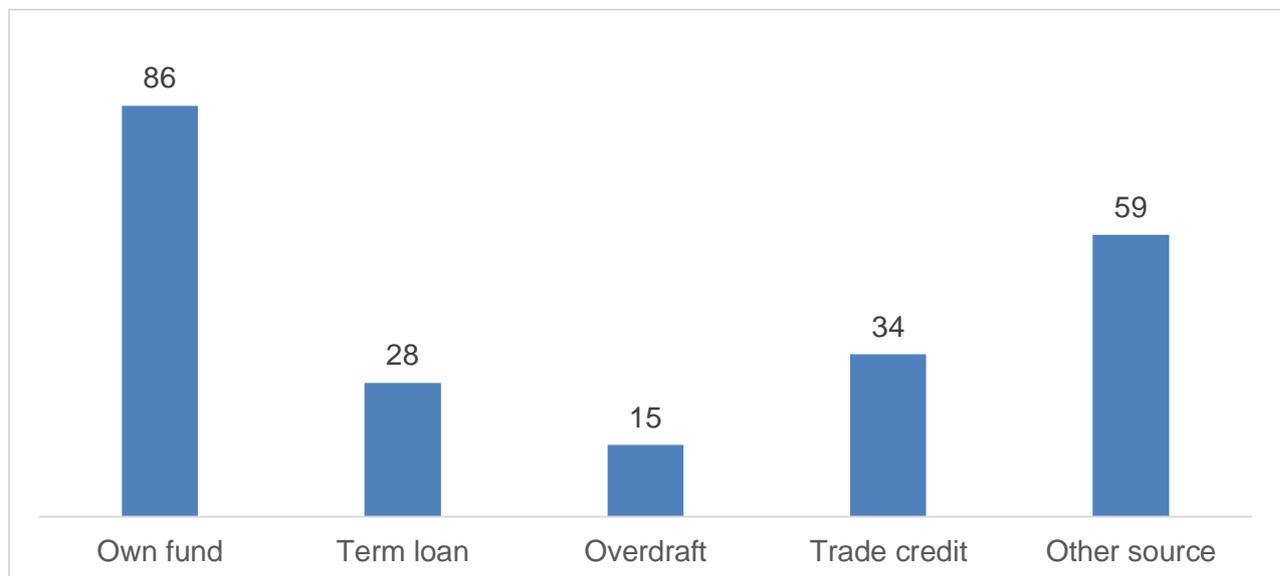


Figure 4.11: Various sources used to finance working capital

4.3.1.12 Application of working capital management policy level

This question tried to determine if small businesses follow any of the working capital policies (aggressive, conservative and moderate). Figure 4.12 revealed that 77 percent (n=171) of the owners/managers do not follow any of the working capital policies, while 23 percent (n=51) of the owners/managers do follow working capital policies in managing businesses. Howorth and Westhead's (2003:94) study further attests that relatively few small businesses utilise basic working capital policies and show preference to the ad hoc adoption of working capital policies as a decision-making tool.

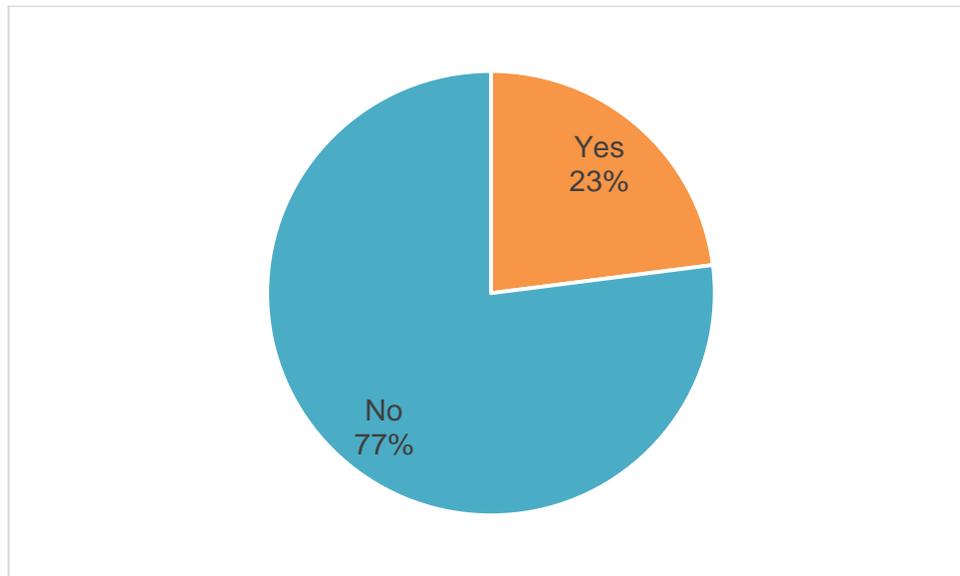


Figure 4.12: Application of working capital management policy level

4.3.1.13 Level of aggressiveness in working capital application

The questions sought to illicit responses from owners/managers on the level of application of working capital policies used within the businesses. A larger percentage, 77 percent (n=171) of the owners/managers do not pursue any level of aggression in the application of working capital policies. This resonates with the results obtained in the previous section (Section 4.3.1.12) whereby the majority of the owners/managers indicated that they do not use working capital policies as a decision-making tool within the businesses. A small percentage of the owners/managers, 14 percent (n=31) indicated that the businesses follow a moderate approach, with 8.1 percent (n=28) of the owners/managers indicating that their businesses follow the conservative approach, while 6.9 percent (n=2) of the owners/managers indicating that the business follow the aggressive approach regarding working capital management. Marx *et al.* (2009:184) identify these policies as a means for determining the appropriate mix of short-term and long-term financing.

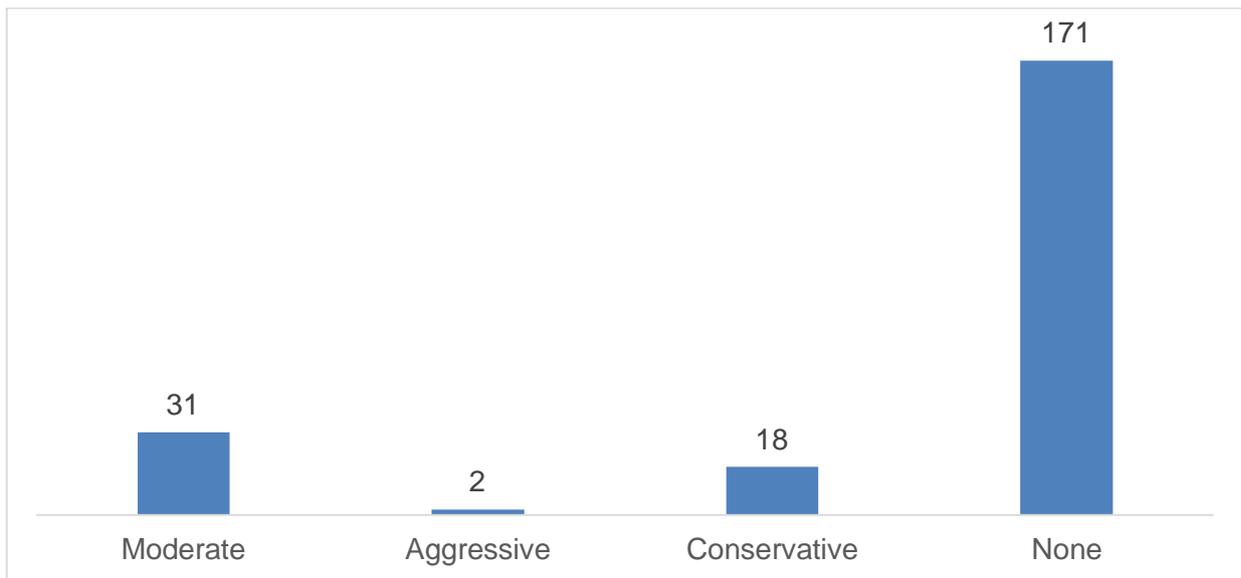


Figure 4.13: Level of aggressiveness in working capital application

4.3.1.14 Method used by small business to sell the products

The question sought to determine how small retail businesses sell products. Figure 4.14 elucidates on the methods of sales owners/managers use in small businesses. Most of the owners/managers indicated that the business sells for both cash and credit, 81 percent (n=179), while 19 percent (n=43) indicated that the business sells its products by means of cash only. Yiadom and Agyei's (2011:34) study reveals that the reason for businesses to sell on credit is convenience and to encourage customers to purchase items that they might not buy when buying for cash. This could increase competition amongst small businesses if sales are conducted by means of cash only, especially when selling identical products.

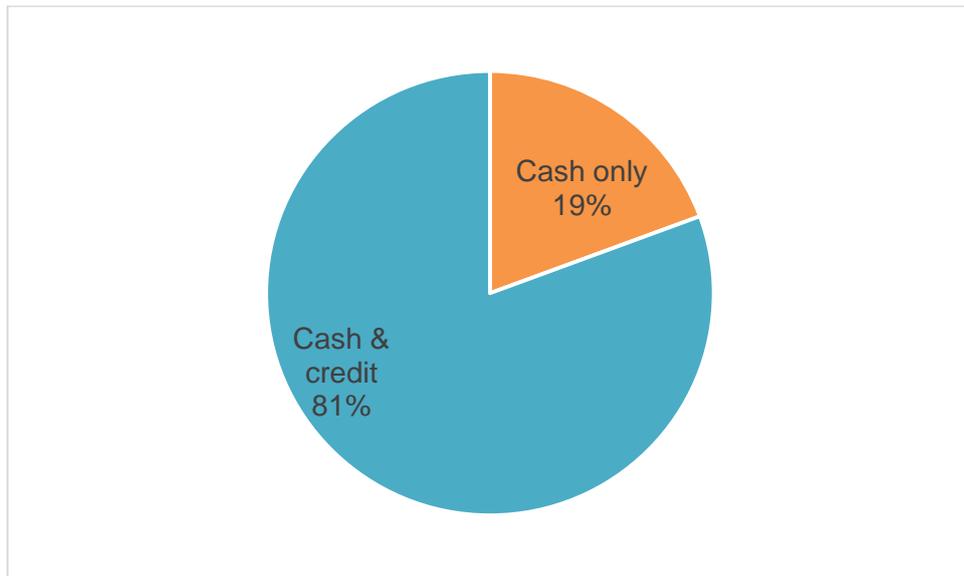


Figure 4.14: Methods used by small business to sell the products

4.3.1.15 Reason for using accounts receivable rather than cash

Figure 4.15 reports on the motives to use accounts receivable rather than cash and 23 percent (n=50) of the owners/managers indicated that the business has other motives besides the financial, transactional or operational motive. This is followed by 28.8 percent (n=64) who indicated the reason for using accounts receivable being operational, while 14.9 percent (n=33) and 14.4 percent (n=32) make use of account receivables for transactional and financial motives respectively. This is line with Section 4.3.1.14, which indicated that 19.4 percent (n=43) of the owners/managers use cash as a method of conducting business.

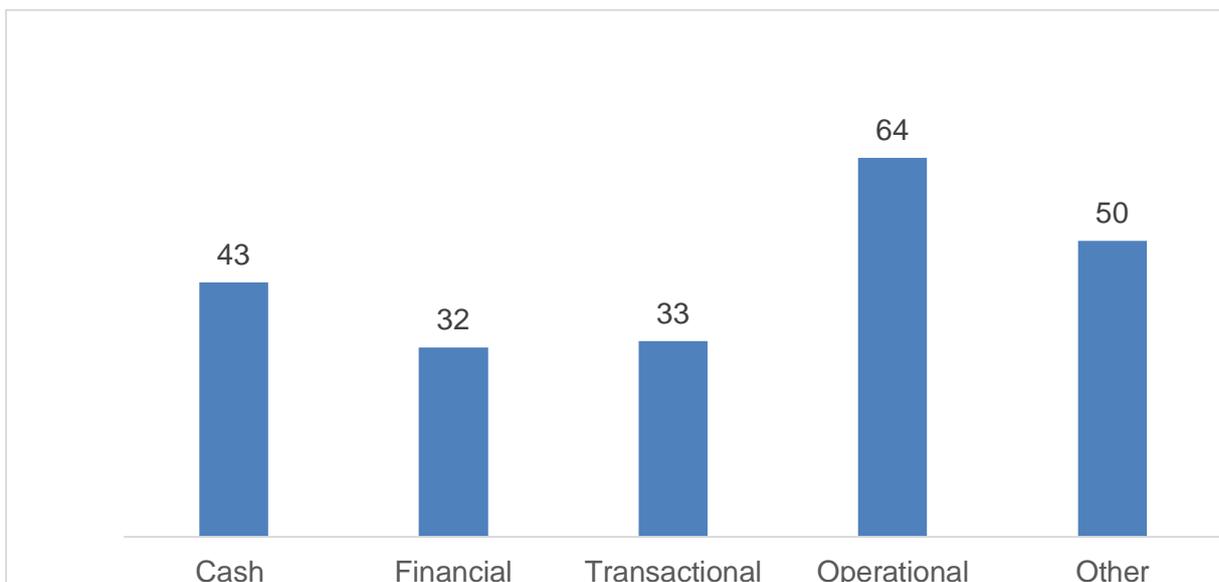


Figure 4.15: Reason for using accounts receivable rather than cash

4.3.1.16 Percentage of sales on credit

This question sought to find the percentage of sales that constitutes credit sales and according to Figure 4.16 only 9 percent (n=20) of the owners/managers indicated that 15 percent of business sales constitutes sales on credit, 17 percent (n=38) indicated that credit sales are between 16-30 percent of the total sales, while 55 percent (n=121) indicated that credit sales are more than 30 percent of the total sales. The findings support Section 4.3.1.13, which indicates 19 percent (n=43) small businesses prefer using cash only when conducting business.

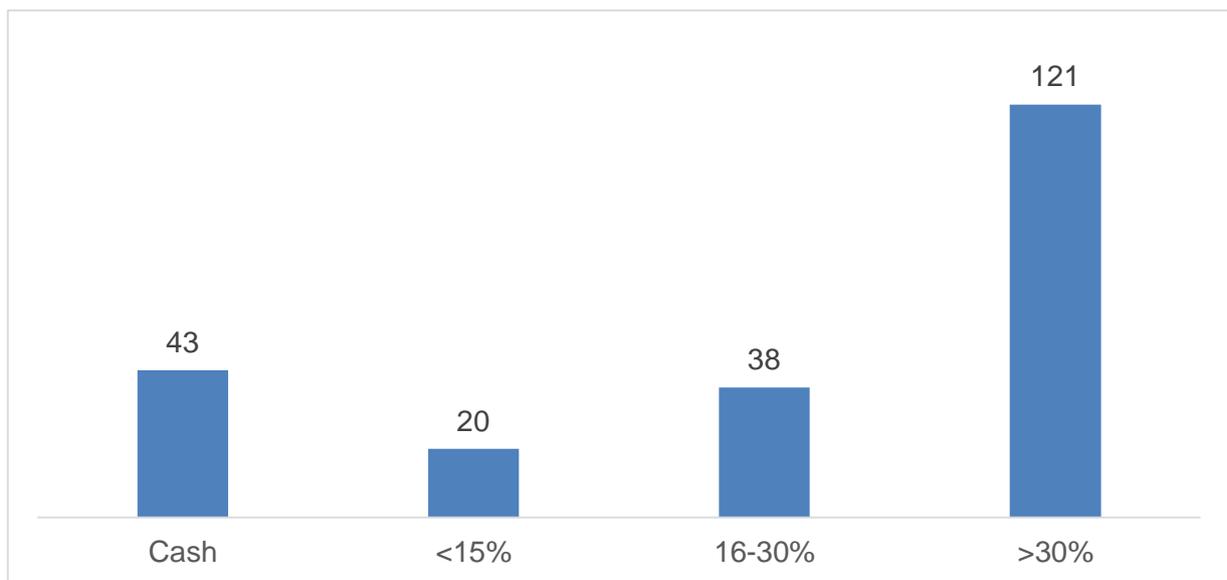


Figure 4.16: Percentage of sales on credit

4.3.1.17 Days allowed to collect credit sales

Figure 4.17 shows that 46 percent (n=102) of the owners/managers do not have a fixed period of collecting cash, and that 14 percent (n=30) collect cash from debtors between 15-30 days, with 13 percent (n=28) collect cash between 46-60 days, while 9 percent (n=19) collect accounts between 31-45 days. Marx *et al.* (2009:225) state that selling on credit puts pressure on the business' profitability as it takes a long time for money to be collected.

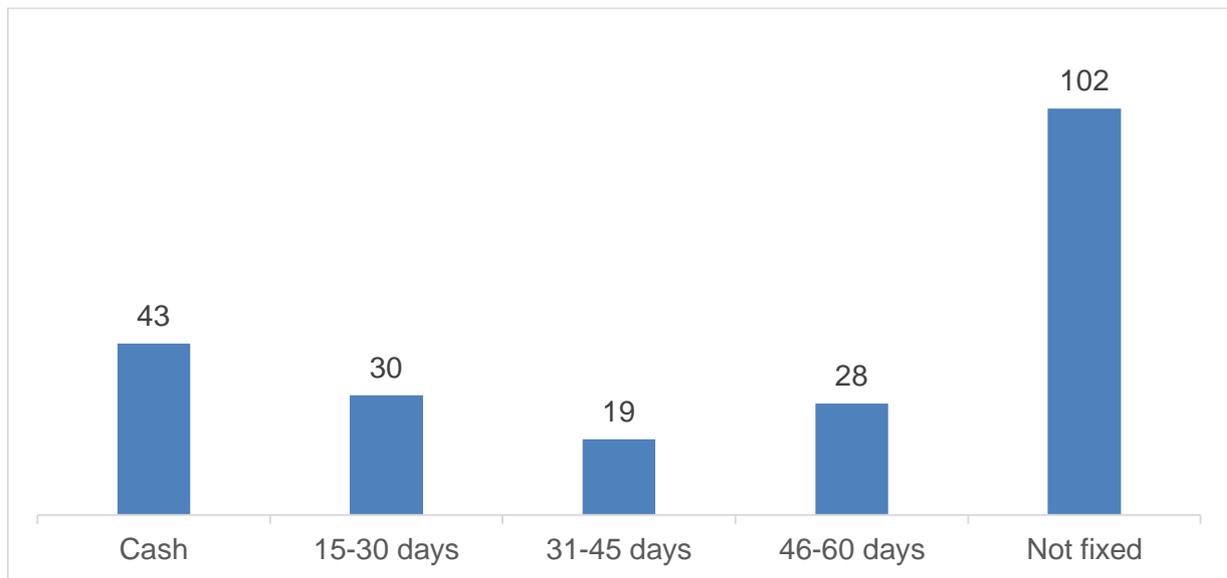


Figure 4.17: Number of days allowed to collect credit sales

4.3.1.18 Application of inventory management

Yiadom and Agyei (2011:32) consider inventory to be an important element in business, especially within retail business and proper management of inventory might mean the success or failure of the business. Since inventory is the main source of business within the retail sector, the owners/managers were asked whether their business makes use of inventory management as a decision-making tool. The response is highlighted in Figure 4.18, which indicated that 43 percent (n=96) of the owners/managers agreed that they make use of inventory management and 57 percent (n=126) were not making use of inventory management as a tool in managing the business. Van Rensburg *et al.* (2008:39) mention that holding too much or too little inventory may be costly and emphasise the importance of inventory management, especially within small businesses.

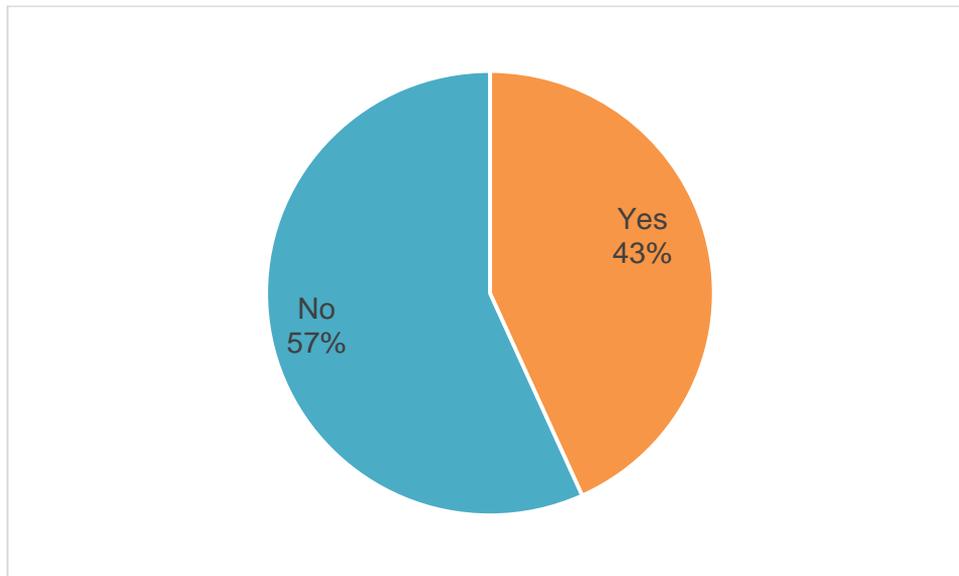


Figure 4.18: Application of inventory management

4.3.1.19 Inventory management model applied by small businesses

The above section identified the importance of inventory within businesses, especially with small business. This question is a follow-up on different inventory models that business may consider using. According to Figure 4.19, 18 percent (n=40) of the owners/managers indicated the business preference to use the just-in-time (JIT) method, while 9 percent (n=20) of the owners/managers indicated that the business use activity based costing (ABC) as a management tool, 16 percent (n=36) of the owners/managers indicated the businesses use the economic order quantity (EOQ) model as a management tool. Evidence from Section 4.3.1.18 indicated that 57 percent (n=126) of small businesses are not applying inventory management as a managing tool. According to Ngubane, Mayekiso, Sikota, Fitshane, Matsoso and Bruwer (2015:385), any effective inventory management model used may enable the firm to minimise cost pertaining to inventory purchasing, storage and cost, as market conditions are often not predictable.

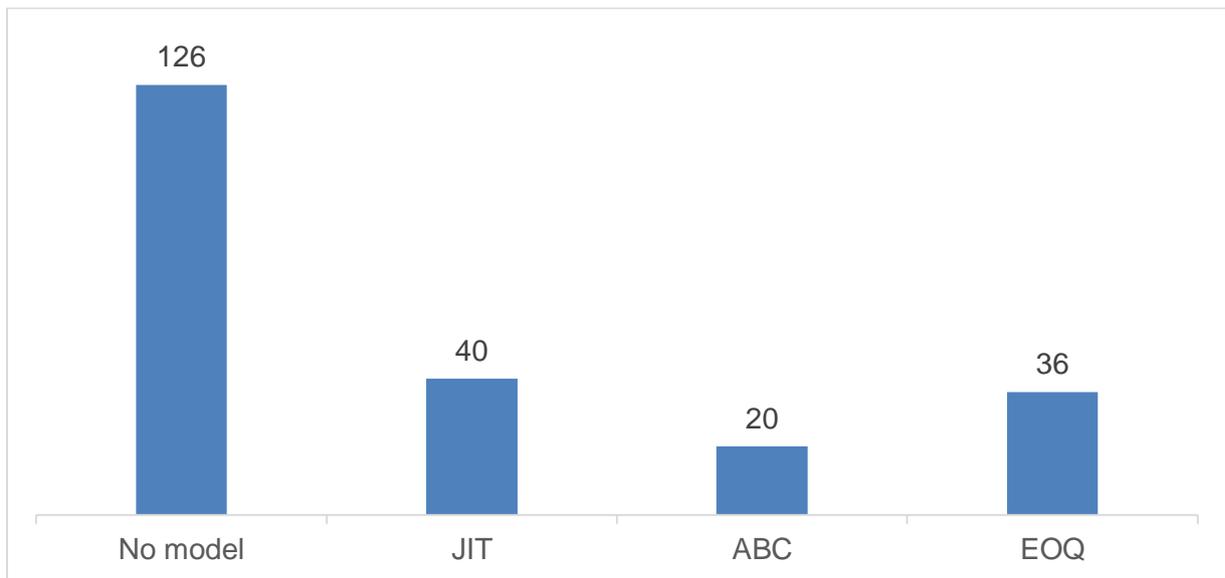


Figure 4.19: Inventory management model applied by small businesses

4.3.1.20 Factors considered when buying inventory

Since inventory is an essential element within businesses, especially retail businesses, owners/managers were asked to respond on the factors they consider before buying inventory. Figure 4.20 shows that 38 percent (n=83) of the owners/managers highlighted price discount is what the business considers before buying inventory and 33 percent (n=71) of the owners/managers consider availability of inventory before buying, while 23 percent (n=49) of the owners/managers buy because of the credit terms offered by the supplier and 16 percent (n=14) of the owners/managers consider storage cost before buying inventory. Ngubane *et al.* (2015:385) study revealed South African small businesses do not always possess the relevant resources to make use of formal inventory management systems like their larger counterparts.

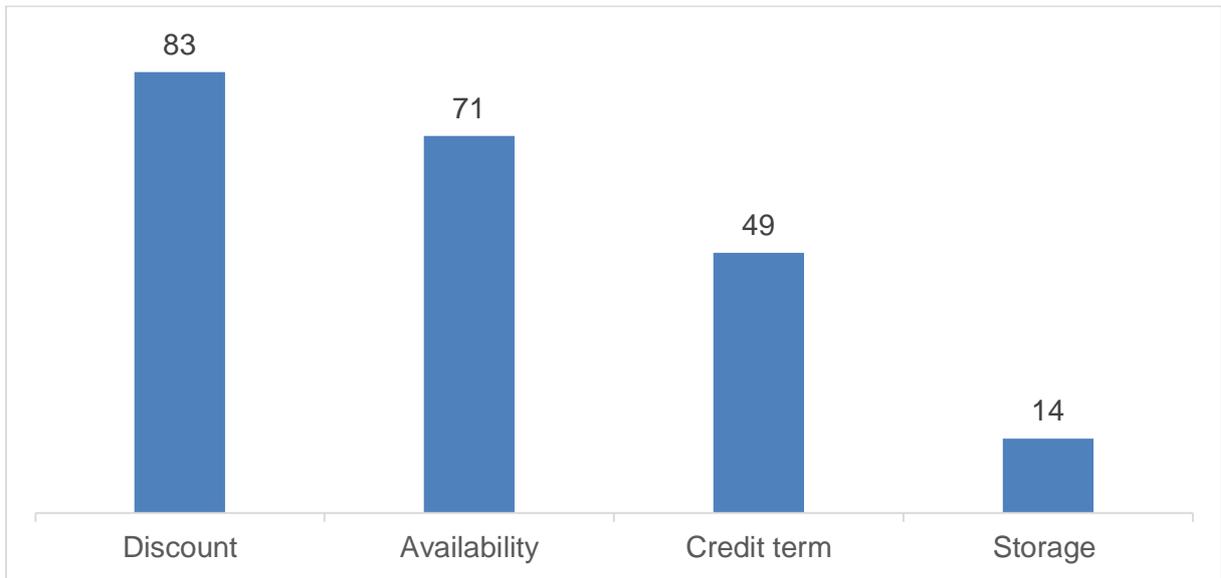


Figure 4.20: Factors considered when buying inventory

4.3.1.21 Annual inventory cost for the businesses

Figure 4.21 reports on the annual inventory cost of businesses. The findings indicated that 34.2 percent (n=76) of the owners/managers spend about R100 000 towards inventory purchases, 31.5 percent (n=70) of the owners/managers spend between R100 001 – R300 000 on inventory, while 34.2 percent (n=76) spend between R300 001 – R600 000 toward inventory purchases. Even though inventory is an important element within retail businesses it seems that very little is being invested in inventory.

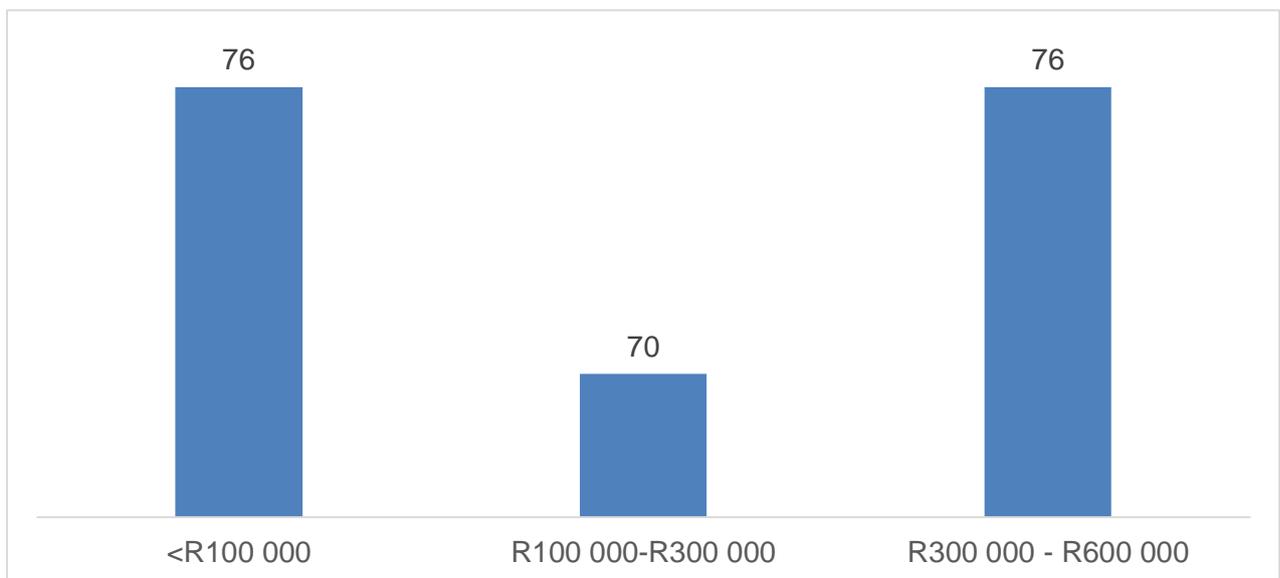


Figure 4.21: Annual inventory cost for the business

4.3.1.22 Method used to acquire inventory

This question was pursued to find out the methods used by small businesses in acquiring inventory. Figure 4.22 reveals that 29.3 percent (n=65) of the owners/managers indicated that the businesses acquire inventory by means of cash, while 68.9 percent (n=153) acquire inventory by means of cash and credit and only 1.8 percent (n=4) acquire the business inventory solely through credit purchases. Ellingsen, Burkart and Giannetti (2011:1262) mention that trade credit is an important source of funds for most small businesses and it is crucial for firms that are running out of bank credit. Even though most small businesses struggle to obtain credit from banks at least some are making use of accounts payable.

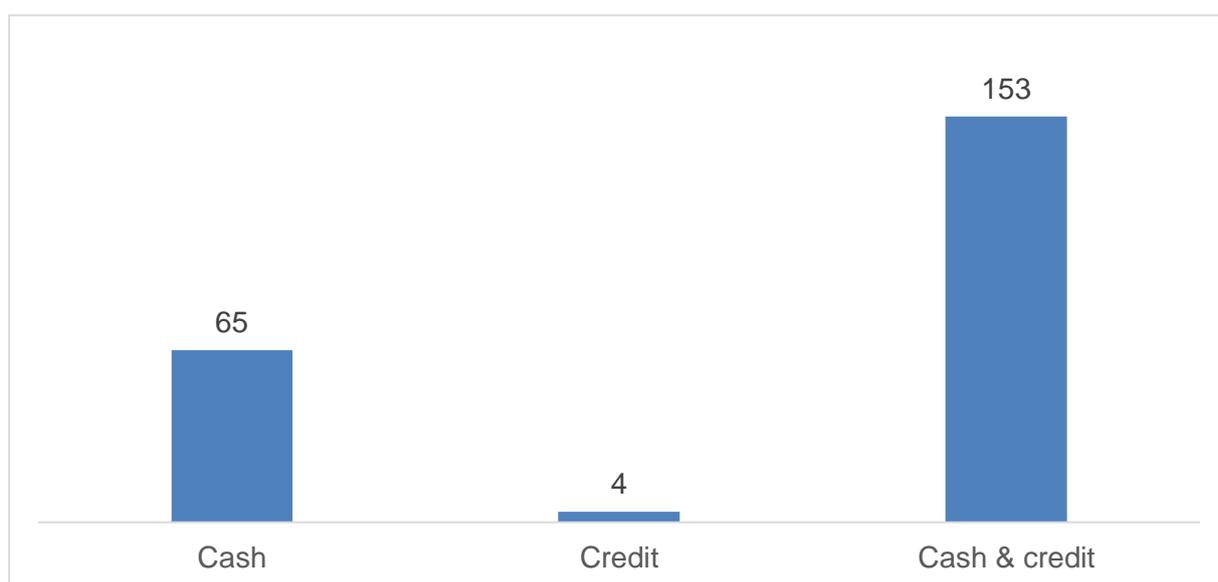


Figure 4.22: Methods used by small businesses to acquire inventory

4.3.1.23 Business credit purchases

The question that follows tried to determine how much of the small businesses purchases are in form of credit. Figure 4.23 indicated that 13 percent (n=28) of the owners/managers indicated that the business spent less than R100 000 towards buying inventory and 32 percent (n=72) spent between R100 000 – R300 000 towards inventory purchases, while 26 percent (n=57) spent between R300 001 – R600 000. With reference to Section 4.1.3.23, indicating that 29 percent (n=65) of the owners/managers indicating the preference of using cash.

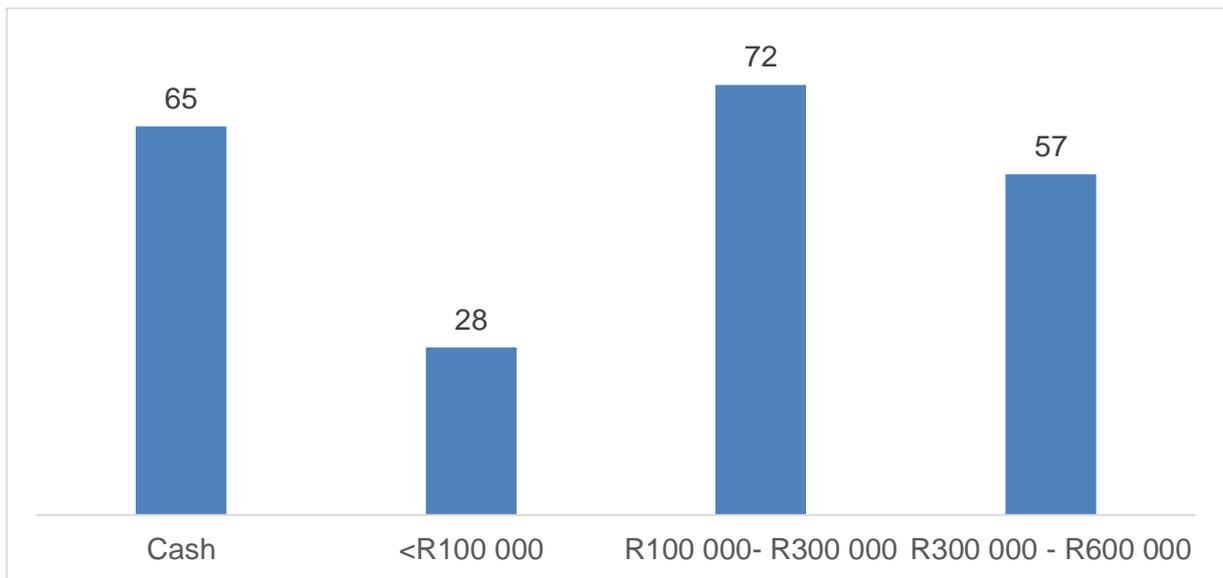


Figure 4.23: Annual credit purchases for small business

4.3.1.24 Period it takes to pay back suppliers

Section 4.1.3.22 highlighted that 29 percent (n=65) of small businesses prefer using cash. Figure 4.24 indicates that 50 percent (n=111) of the owners/managers pay back the business account after 30 days and 15 percent (n=32) pay back between 16-30 days, while 6 percent (n=14) takes 15 days or less to pay back the account. Weetman (2006:270) mentions that businesses need to take up earlier payment discount offered by the supplier for paying the business account on time or within a period. It is clear from the information obtained that many the owners/managers manage to pay the business accounts on time and some even qualify for prompt payment discount offered by the supplier.

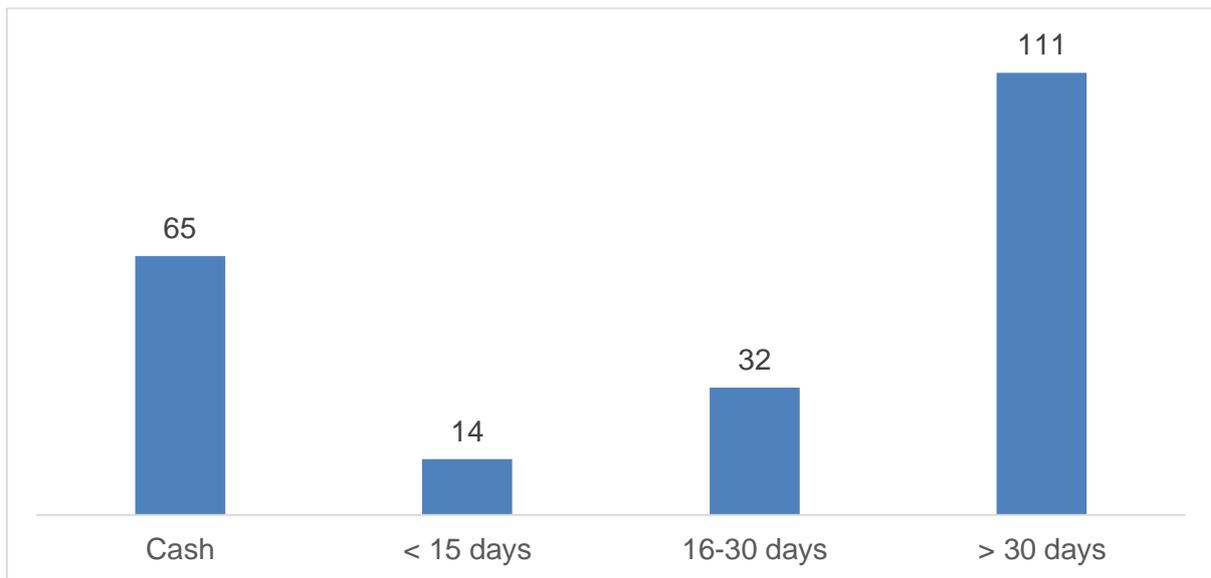


Figure 4.24: Period it takes small businesses to pay back the supplier

4.3.1.25 Total current liabilities of small businesses

Figure 4.25 indicates that 34.7 percent (n=77) of small businesses carry current liabilities of around R100 000 per annum, 32 percent (n=71) carry current liabilities of around R300 000, while 32.4 percent (n=72) are around R600 000 and that 0.9 percent (n=2) of the businesses were not sure how much the current liabilities are worth.



Figure 4.25: Total current liabilities of the business

4.3.1.26 Total current assets for small business

According to Weetman (2006:33), current assets are assets that are expected to be realised in, or intended for sale or consumption in the firm's normal operating cycle, that

is held for the purpose of being traded and is expected to be realised within 12 months after the balance sheet date. Figure 4.26 revealed that 41.4 percent (n=92) of the businesses have invested around R600 000 in current assets, while 33.3 percent (n=74) invested less than R100 000 and 25.2 percent (n=56) invested around R300 000.

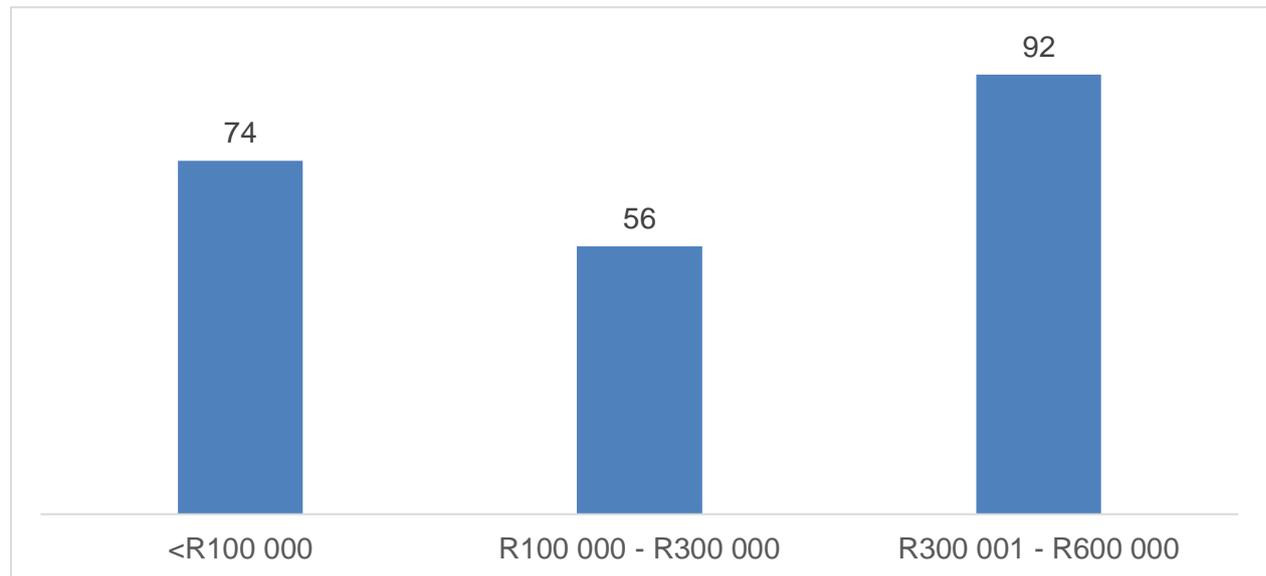


Figure 4.26: Total current assets for small business

4.3.1.27 Total fixed assets of the business

Figure 4.27 indicates that 45.5 percent (n=101) of the businesses total fixed assets is around R600 000 and 35.6 percent (n=79) are less than R100 000, while 18.9 percent (n=42) are around R300 000. According to Abor and Biekpe (2007:86), assets are an important determinant of capital structures and firms with more fixed assets exhibit greater liquidation value. Such firms will have a higher financial leverage since they borrow at lower interest rates and their debt is secured against assets.

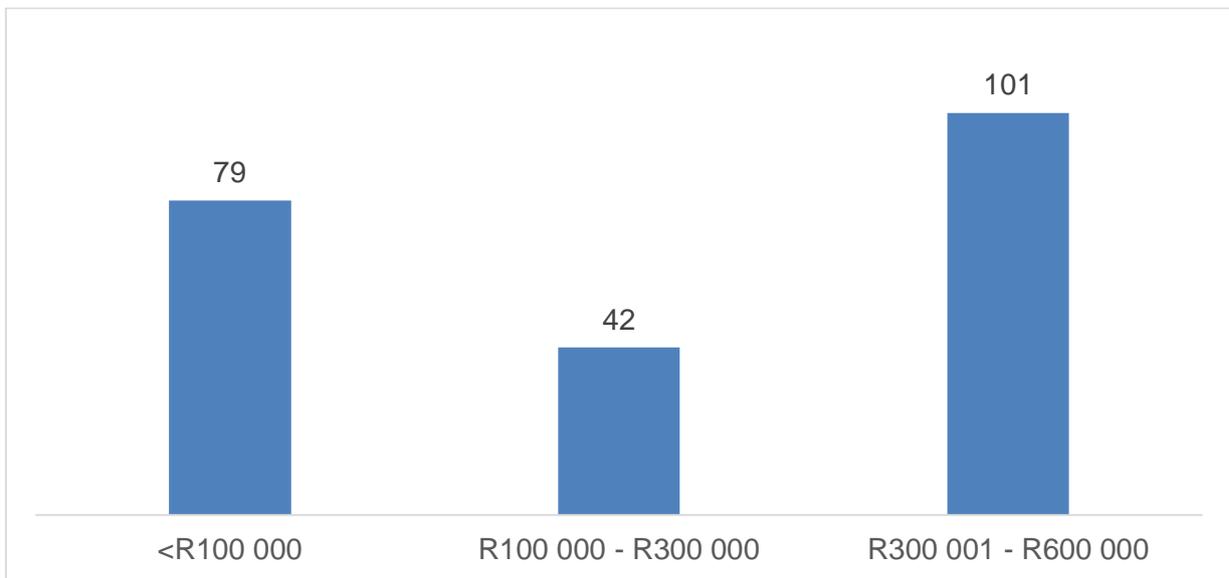


Figure 4.27: Total fixed assets of the businesses

4.3.1.28 Annual income of the businesses

Figure 4.28 highlighted that 37 percent (n=82) of the businesses indicated an annual income of around R600 000, while 32 percent (n=72) indicated an income less than R100 000 and 31 percent (n=68) indicated an annual income of around R300 000. This indicates that small business assets increase with a small amount as the majority of the business income is increasing by R100 000, it means businesses might have to work on ways to generate more income.

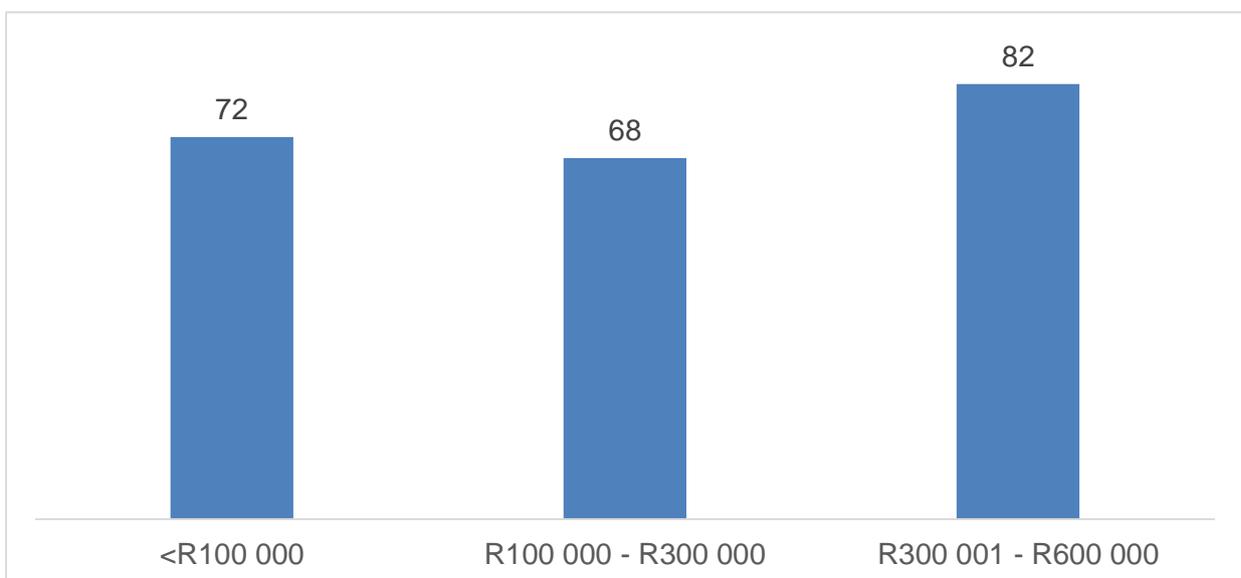


Figure 4.28: Annual income of the businesses

4.3.1.29 Annual expenses of the businesses

According to Weetman (2006:41), an expense is caused by a transaction or event arising during the ordinary activities of the business, which causes a decrease in ownership interest. Figure 4.29 shows that 41 percent (n=90) of the businesses indicated that their annual expenditure is around R300 000, 32 percent (n=71) indicated their expenditure is less than R100 000, while 27 percent (n=61) indicated their expenditure to be around R600 000.

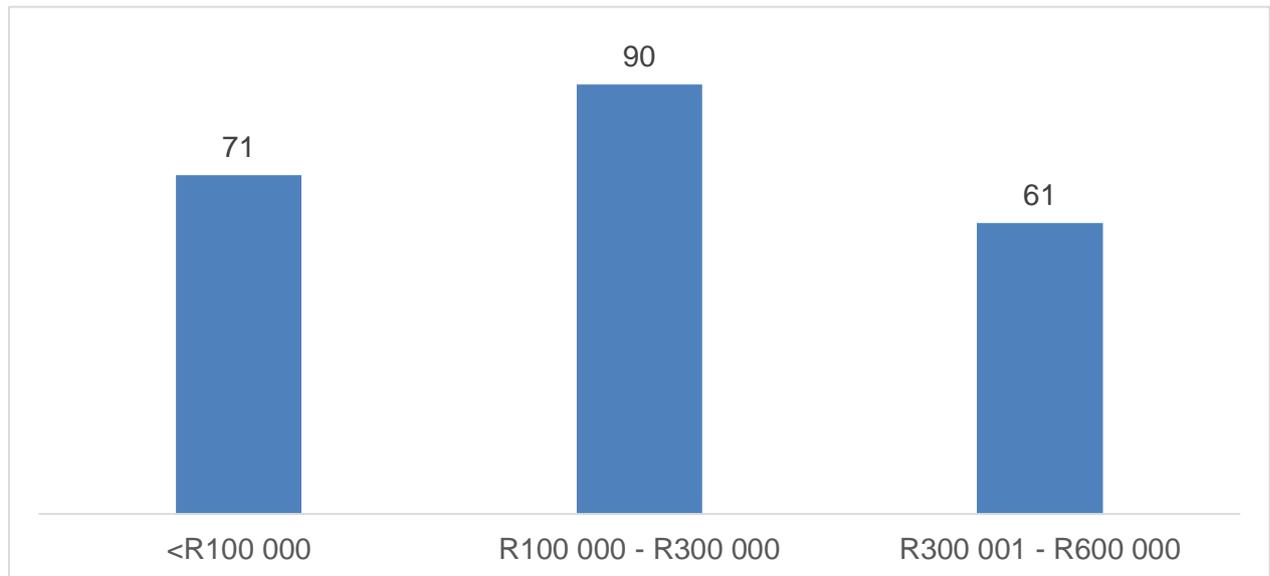


Figure 4.29: Annual expenses

4.3.1.30 Annual cost of sales of the businesses

Figure 4.30 highlights businesses cost of sales, which revealed that 36 percent (n=80) of the cost of sales is less than R100 000 and 35 percent (n=77) is around R600 000, while 29 percent (n=65) indicated cost of sales to be around R300 000. According to Cornelius and Weyers (2010:136), in a trading business, cost of sales forms part of the monthly accounts and represents the cost of products purchased by the business that will be sold at a profit.

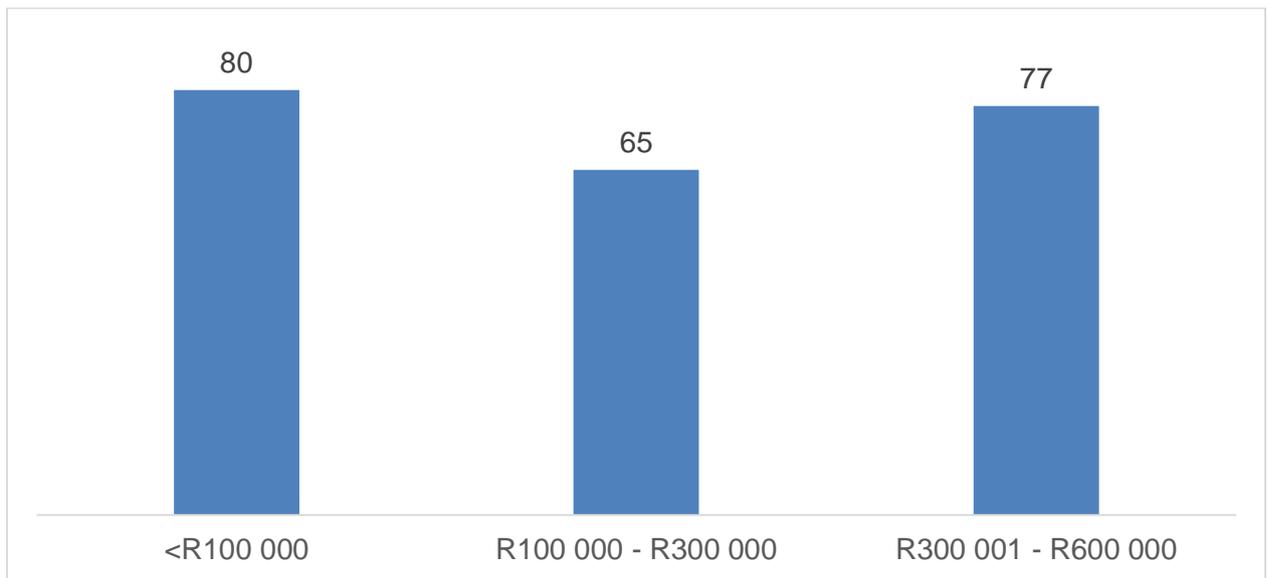


Figure 4.30: Annual costs of sales of the businesses

4.3.2 Section B: Status of the business

This section sought to establish whether small retail businesses in the study area conform to the requirements stipulated by the National Small Business Act No. 102, of 1996 (South Africa 2003:26). Information about number of employees, gross assets value and annual turnover of the business are discussed.

4.3.2.1 Number of employees

Table 4.1 indicates that 45 percent (n=100) of the small retail businesses mentioned that they have less than five employees and 44 percent (n=98) employed between 6 to 10 people, while 11 percent (n=24) employed between 11 to 50 people. According to the National Small Business Act No. 102, of 1996 (2003:26), a business is considered small if it has less than 50 employees.

Table 4.1: Number of employees

Number of employees	Frequency	Percent
0 - 5	100	45
6 -10	98	44
11 -50	24	11
Total	222	100

4.3.2.2 Gross assets value of the business

Figure 4.31 indicated that 56.8 percent (n=126) of the small businesses stated that their business' gross assets' value is around R2m and 32.4 percent (n=72) indicated that their business' gross assets' value is less than R1m, while 10.8 percent (n=24) indicated that their business' gross assets' value is around R3m. According to the National Small Business Act (26:2003), a business is considered small if its gross asset value does not exceed R3m.

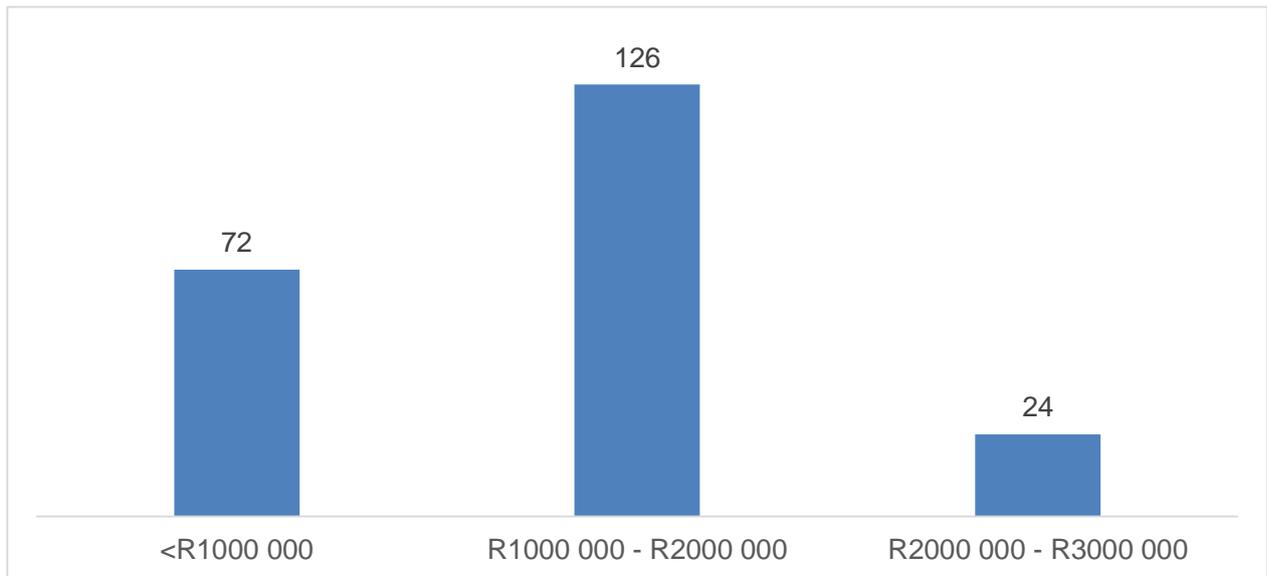


Figure 4.31: Gross assets value

4.3.2.3 Annual turnover of the business

This question assisted the researcher to establish the conformity by small retail firms with the National Small Business Act No. 102, of 1996 (South Africa 1996:8). The findings are indicated in Figure 4.32 as follows: 62.6 percent (n=139) of the businesses had turnover is around R3m and 28.4 percent (n=63) of the business turnover is around R1m, while 9 percent (n=20) of the businesses turnover was over R3m.

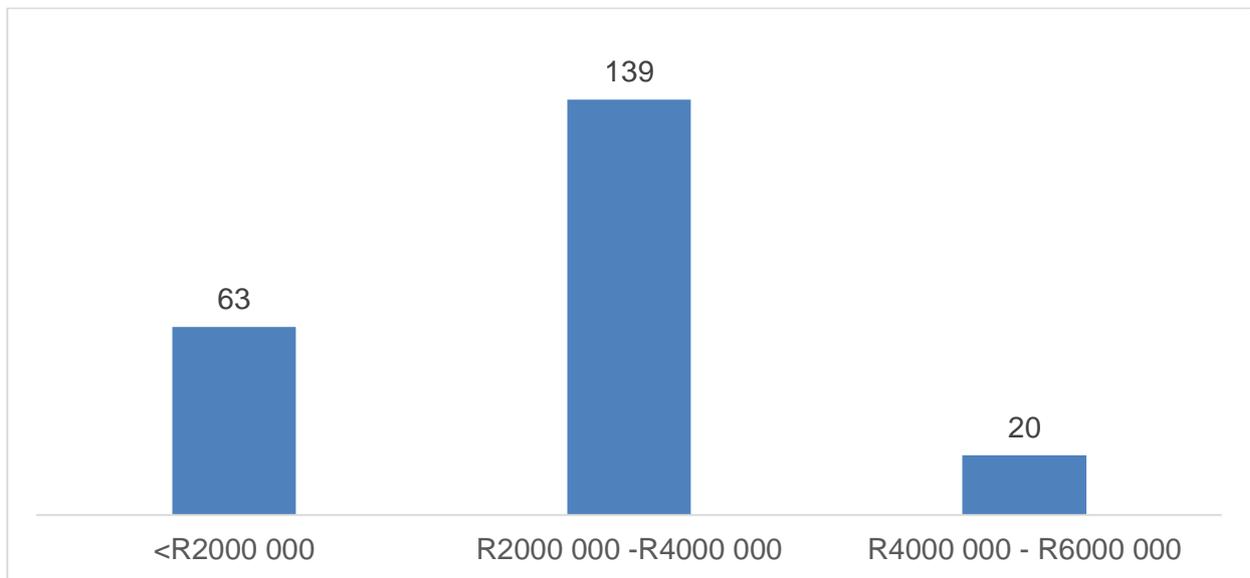


Figure 4.32: Annual turnover of small business

4.3.3 Section C: Working capital management

This section focuses on working capital as an essential element that needs to be in place in order to help businesses maintain their existence, make a profit and maximise their profitability. The questions solicited information on owners/managers' knowledge about working capital and working capital management. The section consists of seventeen questions and the questions are grouped to address the important origins of working capital management. The questionnaire is structured in the following manner:

- The first three questions focus on understanding working capital;
- The next seven questions, C5-C11, focus on working capital policies;
- Questions C12 and C13 focus on buying on credit and obtaining stock;
- Questions C14 and C15 focus on suppliers;
- The last two questions, C16 and C17, focus on cash cycle.

The analysis is conducted according to the grouping set out in Section 4.3.3. For each explanation, the questions will be grouped together and the composite means computed. The results are reported in Table 4.2. The section was prepared based on ve-point Likert scales with one (1) denoting strongly disagree, three (3) denoting a neutral response and five (5) denoting agree.

Table 4.2: Working capital management

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
C1	222	1	5	3.55	1.228
C2	222	1	5	3.63	1.203
C3	222	1	5	3.84	1.219
Average				3.67	
C4	222	1	5	4.01	1.229
C5	222	1	5	3.81	1.227
C6	222	1	5	3.73	1.272
C7	222	1	5	3.70	1.263
C8	222	1	8	3.58	1.251
C9	222	1	5	3.80	1.265
C10	222	1	5	3.67	1.213
C11	222	1	5	3.80	1.152
Average				3.71	
C12	222	1	5	3.59	1.304
C13	222	1	5	3.85	1.130
C14	222	1	5	4.03	1.057
C15	222	1	5	3.96	1.111
Average				3.40	
C16	222	1	5	3.93	1.113
C17	222	1	5	3.84	1.007
Valid N (listwise)	222				

Questions in this section were asked to obtain an insight of all the elements of working capital to view the owners/managers understanding about working capital as well as their view about working capital. The first three questions were asked to determine

owners/managers views about working capital. Question C1 was an explanation of working capital, which acquired a mean of 3.55 from the owners/managers and C2 was based on the calculation of working capital and acquired a response mean of 3.63, while C3 focused on positive working capital, which acquired a mean of 3.84. The responses from the three questions were averaged to obtain an overall mean of 3.67. This indicates that owners/managers response was closer to 4, which indicate knowledge of the description of working capital. A plausible reason for this could be attributed to the fact that 73 percent (n=162) of the owners/managers indicated that they do make use working capital management as a management tool while conducting business.

Question C4 and C5 focused on the impact of working capital on the success of the business with means of 4.01 and 3.81 respectively. This indicates that owners/managers of small businesses are aware of working capital management's impact on the success of the business, and that most of them agree that working capital management has an impact on business success, but are not quite positive about matching the business inflow period with the business outflow period.

Questions C6-C11 focused on working capital policies and financing of projects with means ranging from 3.58 to 3.80. The overall mean was 3.71. The response of the owners/managers seems to be neutral but closer to a mean of 4, providing some indication that retail businesses leverage working capital using short-term debt.

Question C12 concentrated on how small businesses view accounts receivable (debtors) and the mean was 4.03. The reason for the agree response might be because a large number of small businesses prefer selling products for credit and this means that these owners/managers are making use of the advantage of allowing customers to take goods and only paying later for the product. C13 focused on how owners/managers view inventory as a management tool and as a working capital element. The mean was 3.85. Owners/managers responses were closer 4, considering that in retail business, inventory is the main element within the business. Questions C14 and C15 focused on accounts payable, another component of working capital with means of 4.03 and 3.96 respectively. The response of the owners/managers agree that account payable is a form of short-term debt but are neutral and closer to a mean of 4 about the convenience of using account payables, providing some indication that retail business leverage working capital using accounts payable.

Questions C16 and C17 concentrated on the cash conversion cycle as another component of working capital, which is calculated through the use of the other three components of working capital, namely accounts receivable, inventory and accounts payable. A mean of 3.93 and 3.84 was obtained for each question respectively. The responses of the owners/managers seem to be neutral but closer to a mean of 4, providing some indication that retail businesses leverage their working capital through the use of the cash conversion cycle.

4.3.4 Section D: Profitability

This section focused on profitability by examining, in detail, the ROA as a measure of profitability. A five-point Likert scale was used in this section; an average value higher than three (3) will be interpreted as a situation where the owners/managers are in agreement with the statement. An average less than three (3) will be interpreted with a situation where the owners/managers are neutral with the statement.

Table 4.3: Profitability

	Descriptive	N	Minimum	Maximum	Mean	Std deviation
D1	Profitability is used to measure performance of the business to assess its financial position	222	1	5	4.22	0.998
D2	Total assets of the business may be used to generate turnover.	222	1	5	4.17	0.991
D3	The use of working capital management results in an increase in profitability of the business	222	1	5	4.17	1.084

Profitability is a measure to assess the financial position of the business with a mean of 4.22, while assets used to generate turnover showed a mean of 4.17 and the use of working capital management results in improving profitability showed a mean of 4.17. The mean is all closer to 5 on the scale and this indicates that the owners/managers are in agreement with the statements with regards to profitability and the fact that working capital management has an effect on the business profitability.

4.4 CORRELATION ANALYSIS

This section focused on determining the relationship between the variables, which consisted of ROA. The variable was calculated by dividing net profit, before income and tax, with the value of total assets; this was achieved by taking Question B3 and subtracting Question A30 in order to get the business gross profit and adding Question A28 and then subtracting Question A29 to get the small business net income, which was then divided by a total of questions A26 and A27.

The days accounts receivable (days_AR) was calculated by taking Question B3 and multiplying it with Question A16 in order to get the small business accounts receivable and then dividing it with Question B3 $\{(Acc\ receivable/ Sales) \times 365\}$. For the other variable days inventory (days_INV) was calculated by taking question A21 and dividing it with Question B3 $\{(inventory/ Sales) \times 365\}$ and for days accounts payable (days_AP), Question A23 was divided with Question A30 $(Acc\ payable/ cost\ of\ sales) \times 365$. For the cash conversion cycles the above-mentioned variables were used to determine it $(days_AR + days_INV) - days_AP$. Correlation analysis was conducted amongst those variables to determine the variable strength of relationship.

Spearman's correlation coefficient was used to measure the degree of correlation. Table 4.4 indicates the findings in this regard.

Table 4.4: Correlation analysis between variables

		ROA	days_AR	days_Inv	days_AP	CCC
Return on assets (ROA)	Spearman's Correlation	1	0.555**	0.156*	0.432**	0.369**
	Sig. (2-tailed)		0.000	0.020	0.000	0.000
Days accounts receivable (days_AR)	Spearman's Correlation	0.555**	1	0.457**	0.545**	0.852**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000
Days inventory (days_Inv)	Spearman's Correlation	0.156*	0.457**	1	0.217**	0.664**
	Sig. (2-tailed)	0.020	0.000		0.001	0.000
Days accounts payable (days_AP)	Spearman's Correlation	0.432**	0.545**	0.217**	1	0.193
	Sig. (2-tailed)	0.000	0.000	0.001		0.004
Cash conversion cycle (CCC)	Spearman's Correlation	0.369**	.852**	0.664**	0.193	1
	Sig. (2-tailed)	0.000	.000	.000	0.004	

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

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

The correlation analysis was conducted to examine the linear relationship between working capital management elements. The value of the correlation coefficient ranges from -1 to +1, when two variables have positive correlation coefficient, an increase in the value of one variable indicates a likely increase in the value of the second variable and *vice versa* (Beaumont 2012:8).

To establish the relationship between ROA and the elements of working capital, Spearman's correlation coefficients were computed. The results show a very weak correlation between ROA and the number of days inventory on hand ($r=0.156$; $p=0.020$; $p<0.050$). A moderate correlation was reported between ROA and the number of days account payables (0.432 ; $p=0.000$; $p<0.01$) and between the ROA and the cash conversion cycle ($r=0.369$; $p=0.000$; $p<0.01$). A strong correlation was reported between ROA and days account receivables ($r=0.555$; $p=0.000$; $p<0.01$); this indicates that the

period it takes the business to collect cash from debtors, has a positive impact on the profitability of the business.

The study further determined the relationship between the number of days account are receivables against the other elements and these were reported. Comparison between number of days accounts receivables and number of days accounts payables shows a strong correlation ($r=0.545$; $p=0.000$; $p<0.01$), and between number of days accounts receivables and the cash conversion cycle ($r=0.852$; $p=0.000$; $p<0.01$). This indicate that the period it takes for cash to be collected from debtors, influences the period that it takes the business to pay back their suppliers/creditors as well converting account receivables into cash for business operation.

Furthermore, the relationship was determined between the number of days inventory is on hand and the other elements of working capital. The results revealed that a moderate correlation was reported between days inventory is on hand and the number of days account receivables ($r=0.457$; $p=0.000$; $p<0.01$). This implies that the period it takes inventory in the business has an impact on the account receivables. However, a weak correlation was reported between number of days inventory is on hand and the number of days accounts payable ($r=0.217$; $p=0.001$; $p<0.01$). The correlation indicates that the period it takes the business to keep stock in the business influences the period it takes to pay back its suppliers. A strong correlation was reported between the number of days inventory is on hand and the cash conversion cycle ($r=0.664$; $p=0.000$; $p<0.01$). This indicates that the period it takes for stock to be in the business premises has an influence in way in which that stock need to be converted to cash to be used within the business daily operations. The results obtained in the study are consistent to those found by Enow and Brijjal (2014:12) who reveal that a very strong positive correlation exists between the cash conversion cycle and the number of days accounts receivable.

4.4.1 Multicollinearity

Multicollinearity refers to the case in which two or more explanatory variables in the regression model are highly correlated, making it difficult to or impossible to isolate their individual effect on the dependent variable (Salvatore & Reagle 2002:206). Collinearity diagnostic was also checked as part of the multiple regression procedure. This diagnostic is essential in analysis as it can pick up problems of multicollinearity that may not be evident in a correlation matrix. Tolerance value of <0.10 and $VIF > 10$ would suggest that multiple correlations with other variables are high, indicating the possibility of

multicollinearity (Pallant 2010:177). Based on these values multicollinearity (see Table 4.5) does not seem to pose a problem in the study.

4.5 REGRESSION ANALYSIS

Regression analysis is a statistical process for estimating the relationships amongst variables. Cash conversion cycle is a linear combination of the other three independent variables and therefore is not included in the regression. The aim of the study is to investigate the effect of working capital management on profitability of small businesses; hence, the following regression equation was formulated:

$$\text{ROA} = \alpha + \beta_1 \text{ days_ AP} + \beta_2 \text{ days_ AR} + \beta_3 \text{ days_ INV} \quad (1)$$

$$\text{ROA} = \alpha + \beta_1 \text{ days_ INV} \quad (2)$$

$$\text{ROA} = \alpha + \beta_1 \text{ days_ AP} + \beta_2 \text{ days_ INV} \quad (3)$$

Where: ROA = Return on assets (profitability)

β_1 days_ AP= days accounts payable

β_2 days AR = days accounts receivable

β_3 days _ INV= days inventory

Table 4.5 reports on the results of the regression analysis.

Table 4.5: Regression Model 1: ROA with days account receivables, days inventory on hand, and days accounts payable.

Model 1: Dependent variable (ROA)		Unstandardised Coefficients		Standardised Coefficients	T	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tol	VIF
Independent variables	(Constant)	1.991	0.239	-	8.314	0.000		
	Days_AR	0.001	0.000	0.449	6.543	0.000	0.652	1.534
	Days_Inv	-0.001	0.001	-0.142	-2.398	0.017	0.875	1.143
	Days_AP	0.002	0.000	0.236	3.622	0.000	0.719	1.391
R=0.576 R ² =0.332 Adjusted R ² =0.323 F=36.153 *significant at p<0.05								

In regression Model 1, the ROA was held as the dependent variable and the other three variables (days account receivables, days inventory on hand and days accounts payable) were entered the regression equation as independent variables.

The results show a multiple R-value of 0.576 and adjusted R² value 0.332, which indicates that approximately 30 percent of the variance on the ROA can be accounted for by the three dimensions. Dimension one indicated a positive Beta coefficient of 0.449 in days account receivables on the ROA. The dimension is significant as p-value <0.05. Deloof (2003:581) mention that profitability may be improved by the fast collection of account receivables and by keeping an optimal level of inventory.

Dimension two, days inventory on hand indicated a negative a Beta coefficient of -0.142 and the dimension is significant as the p-value <0.05. A study undertaken by Sharma and Kumar (2011:169) showed that an increase in number of days of inventory by one day is associated with a decrease in profitability (measured by ROA). Sharma and Kumar (2011:169) further mentioned that the findings are as per the corporate finance theory, the lessor the number of days of inventory holding, the higher the profitability of the business. Dimension three, days account payables indicated a positive Beta coefficient of 0.236, the dimension is significant (p value <0.05). Mathuva (2010:9) suggests that an increase in the number of days accounts payable by 1 day is associated with a return in profitability.

From the above information analysed, two further models were extracted and the results are revealed in Tables 4.6 and 4.7 respectively.

Table 4.6: Regression Model 2: ROA with days inventory on hand

Model 2: Dependent variable (ROA)		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
Independent variables	(Constant)	2.737	0.275	-	9.968	0.000
	Days_Inv	0.001	0.001	0.061	0.899	0.369
R=0.061 R ² =0.004 Adjusted R ² =-0.001 F=0.809 *significant at p<0.05						

In regression Model 2, the ROA was held as the dependent variable and number of days inventory on hand was entered the regression equation as an independent variable. The results revealed a multiple R-value of 0.061 and adjusted R² value of 0.004, which indicates that approximately 1 percent of the variance can be accounted for on the ROA. The number of days inventory on hand indicated a Beta coefficient of 0.061 on the ROA. The dimension is not significant as p-value >0.05. Raheman, Afza, Qauyyum and Bodla (2010:159) assert that profitability can be improved by reducing the inventory turnover days or by keeping inventory for a lesser period.

Table 4.7: Regression Model 3: ROA with days inventory on hand and days accounts payable.

Model 3: Dependent variable (ROA)		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
Independent variables	(Constant)	2.116	0.260	-	8.125	0.000
	Days_Inv	0.000	0.001	-0.023	-0.381	0.703
	Days_AP	0.003	0.000	0.452	7.357	0.000
R=0.448 R ² =0.201 Adjusted R ² =0.194 F=27.564 *significant at p<0.05						

In regression Model 3, the ROA was held as the dependent variable and the other two variables (days inventory on hand and days accounts payable) were entered the equation as independent variables. The results show a multiple R-value of 0.448 and adjusted R² value 0.201 which indicates that approximately 20 percent of the variance on the ROA can be accounted for by the two dimensions.

Dimension one indicated a negative beta coefficient of -0.023 in days inventory on hand on the ROA. The dimension is not significant as p-value >0.05. Dimension two indicated a positive Beta coefficient of 0.452 in days accounts payable on the ROA. The dimension is significant as the p<0.05.

The next section presented the results of the reliability and validity analysis.

4.6 RELIABILITY AND VALIDITY

4.6.1 Reliability

Reliability must do with the accuracy and precision of a measurement procedure; it is concerned with the question of whether the results of a study are repeatable (Cooper & Schindler 2006:318). Reliability results for the questionnaire are shown in Table 4.8.

Table 4.8: Overall reliability of the questionnaire

Source of questionnaire	Cronbach Alpha	Number of items
Section C: Working capital management	0.920	17
Section D: Profitability	0.867	3

Cronbach alpha coefficient was used to measure the reliability of the instruments. Cronbach alpha coefficient for Section C in the questionnaire was 0.920 and for Section D was 0.867. The instrument was reliable since the Cronbach alpha coefficient was > 0.70, which was above the benchmark level.

4.6.2 Validity

Validity may be defined as the ability of an instrument to measure what it is designed to measure (Kumar 2014:213). Several types of validity were considered and applied while conducting the study.

- **Content validity** was conducted through the pilot study by developing the research instrument (questionnaire) and giving it to 20 owners/managers in the region. Feedback was obtained from them. Based on the feedback revisions were made to the questionnaire.
- **Construct validity** was examined by computing Cronbach's alpha coefficient for the scale, which was satisfactory and served as an indication of construct validity (refer to Table 4.8).
- **Convergent validity** was examined through correlation analysis, which was conducted to determine the relationship between the variables (ROA, days accounts receivable, days accounts payable, days inventory on hand and the cash conversion cycle). The results obtained indicated that ROA positively converged with days accounts receivable and days accounts payable, while days accounts receivable positively converged with days inventory on hand, days accounts payable and the cash conversion cycle and days inventory on hand positively converged with cash conversion cycle (refer to Table 4.4).

4.7 CONCLUDING REMARKS

This chapter provided results based on the information gathered from the respondents through a questionnaire, which was divided into four sections (A, B, C and D). Data were analysed in the form of figures, tables and descriptive statistics. Through the results compiled, the researcher was able to ascertain the impact of working capital management on the profitability of small retail businesses. Correlation and multiple regression analysis were undertaken to show relationship between working capital management elements (days inventory on hand, days accounts receivable, days accounts payable and the cash conversion cycle) and profitability of small businesses.

In the next chapter, Chapter 5, recommendations and conclusion of the study are discussed. Limitations and implications for future research are alluded to.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter 4 of the study presented the analysis and interpretation of the empirical findings. Results obtained from the main survey were analysed and reported through correlation and regression analysis. The reliability and validity analysis were undertaken. This chapter focuses on the evaluation of the research findings in order to draw conclusions on the research. Recommendations from the study are discussed in this chapter. Research limitations are identified and opportunity for further research areas is discussed.

5.2 GENERAL REVIEW OF THE STUDY

The main purpose of this study was to determine the effect of working capital management on the profitability of small retail businesses within the Emfuleni Local Municipality. In the evaluation process of determining whether the theoretical and empirical objectives were achieved, the section that follows revisits those sections.

5.2.1 Theoretical objectives

Theoretical objectives in the study were achieved through the analysis and review of the relevant literature. These objectives were formulated at the beginning of the study (refer to Section 1.3.2):

- To review literature on working capital management;
- To review literature on small businesses in South Africa;
- To review literature on the challenges faced by small businesses;
- To conduct a review on government support available for small businesses and;
- Conduct a review on profitability.

With reference to **theoretical objective one, the literature review on working capital management**, a detailed review of working capital was done first to understand working capital and the objective was achieved in Chapter 2 of the study section 2.2, 2.7 and 2.8.

In Section 2.2, a theoretical framework relating to the study on working capital was discussed to provide a clear understanding of the concept. Policies as well as the types of working capital available for application were also examined and a theoretical as well as graphical explanation of these policies was provided in Section 2.8.

Working capital management together with aspects that enable the calculation of elements of working capital management (days accounts receivable, days accounts payable, days inventory on hand and the cash conversion cycle) were discussed under sections 2.9 and 2.10. The section commenced with a discussion of working capital management in Section 2.9. Section 2.10 examined the essential elements of working capital including the cash conversion cycle of the business.

With reference to theoretical objective two to review small businesses in South Africa, a detailed review on small business environment within South Africa was undertaken in Sections 2.3 and 2.4. The characteristics of small businesses with emphasis on formality, infrastructure and related concepts were discussed in Section 2.4.

With reference to theoretical objective three, namely challenges faced by small businesses, a review on the challenges faced by small businesses in South Africa was discussed in Section 2.5.

With reference to theoretical objective four, namely government support for small businesses, a review on small business support from the government was discussed in Section 2.6, which critically overviewed several government agencies in South Africa, *inter alia* the SEDA, NYDA, as well as SEFA.

With reference to theoretical objective five, namely measure of profitability, a review on what measures may be used by businesses to determine profitability was conducted in Section 2.12.

5.2.2 Empirical objectives

The following empirical objectives were formulated at the beginning of the study (refer to Section 1.3.3):

- To determine whether small retail businesses apply working capital as a management tool in managing the business;

- To examine the relationship between working capital management and the profitability of small retail businesses; and
- To evaluate the effect of working capital management on the profitability of small retail businesses.

Regarding **empirical objective one**, the conclusion was drawn based on the findings in Section 4.3.1.9. The results indicated that many small retail businesses within the Emfuleni Local Municipality apply working capital as a management tool in managing businesses.

Empirical objective two was to determine the effect working capital management has on the profitability of small retail businesses. Results obtained are indicated in Section 4.4 through correlations analysis. The results indicated a weak correlation between the ROA and the number of days inventory is on hand, while a moderate correlation was found between ROA and number of days account payables and the cash conversion cycle. Strong correlations were established between the ROA and the number of days accounts are receivables.

Empirical objective three determined the relationship between working capital management component and profitability of small retail businesses. The results obtained are indicated in Section 4.5, using regression analysis, where each element of working capital (days inventory on hand, days accounts receivable, days accounts payable and the cash conversion cycle) were regressed against profitability (ROA). Three models were then extracted and in the first model, where ROA was held as dependent variable and the days inventory on hand, days accounts payable and the days account receivables were treated as independent variables and the results indicated that approximately 30 percent of the variance on the ROA can be accounted for by the three dimensions. Model 2 used days inventory on hand that indicated that approximately 1 percent of the variance can be accounted for on the ROA and the last model, days inventory on hand and number of days accounts payable revealed that approximately 20 percent of the variance ROA can be accounted for by the two dimensions. This means that working capital elements have an impact on the profitability of the business.

5.3 RECOMMENDATIONS

Based on the findings of this study, a number of recommendations for small business owners/managers are suggested. These recommendations may assist in determining

how to implement working capital as a management tool, to assist small retail businesses to increase profitability, while continuing with the business operation.

These recommendations are alluded to in the foregoing section.

Owner/manager training on working capital management

A hallmark of good business management is the ability to utilise working capital management tools to maintain a solid balance between growth, sustainability, profitability and liquidity. Since working capital management is essential for any business' financial health and operational success as a business, owners/managers who are inextricably involved in their operations, adequate knowledge of working capital is essential for them. Knowledge of owner/managers of small retail businesses on working capital may be improved by providing workshops and short courses on financial accounting and management. There is an urgent need for short course development in working capital management. Another way of providing training to small business owners/managers could be by means of a mentorship by larger businesses.

Cash conversion cycle

Small retail businesses may have to shorten the cash conversion cycle in order to help maintain value within the business. This is because shortening the cash conversion cycle increases the profitability and *vice versa*, which is considered one of several measures of financial management effectiveness. Through the cash conversion cycle, the cash is first converted into accounts payable and inventory, through sales and accounts receivable and then back into cash, which gives the business an indication as to how long it takes a business to collect cash from credit sales of inventory. The shorter the cycle, the quicker the business can have cash to generate future purchases and meet short-term cash obligations. The shorter the cash conversion cycle, the healthier the business generally is, which can be achieved by a business attempting to shorten the cash conversion cycle by speeding up collection from customers and slowing down or negotiating better payment terms to the supplier.

Negotiating suppliers' payment

Small retail businesses may consider negotiating supplier payment terms regularly to help manage business cash flow. Businesses can benefit from discount through timely payment, bulk supply or regular orders. However, this does not come easily, but rather

starts with good and regular communication with the supplier coupled with on-time payments. Building relationships with suppliers by responding to their calls and meeting with them may assist in building a valued relationship and a favourable payment term. Whilst this is put in motion, alternative (backup) suppliers should also be contacted in order to get favourable payment terms, which can be used as a negotiation mechanism. In engendering a good relationship with suppliers, these negotiations should be based on honesty and trust.

Debtors (accounts receivable)

Cash flow can be significantly enhanced if the amounts owing to a business are collected faster. Every retail business needs to know who owes it money, how much is owed and for how long the amounts are owing. Slow collection has a crippling effect on the business, particularly on small businesses, who can least afford it and if not effectively managed could lead to bad debts. On a customer-by-customer basis, it is necessary to assess the creditworthiness and to establish limits in terms of amount and time they should be allowed to settle their debts, consideration should be given to assessing a customer's creditworthiness, especially for new customers. Small retail businesses, therefore, could develop appropriate procedures for handling late payments by developing a debtor's collection policy system that will ensure the accounts receivable period is shorter than the accounts payable period. It is also recommended that debtors in small retail business should be monitored and managed using a profile of ageing that segments the balance based on the number of days outstanding; being 30,60,90 and 120 days past due.

5.4 LIMITATIONS AND IMPLICATION FOR FURTHER RESEARCH

The scope of the study was limited by sample size, which included only owners/managers of the small retail businesses. The findings of the study may have been different if a larger sample size had been used. Research on other forms of business including manufacturing, service providers as well as non-profit organisations may be conducted within the Emfuleni Local Municipality in future studies. Response from owners/managers towards knowledge on working capital management was neutral; this had a negative impact towards businesses following any type of working capital and results obtained could have been a bit different if policies were applied within businesses.

The study was quantitative; a combination of both quantitative and qualitative is recommended for future research to obtain in-depth information on problems faced by small businesses in applying working capital management.

5.5 CONCLUSION

The study focused on the effect of working capital management on the profitability of small retail businesses within the Emfuleni Local Municipality.

Findings of the study indicated that owners/managers of small businesses might create value within the businesses by reducing the number of days in which inventory is held within the business, as well as shortening days accounts outstanding are to be paid. With regards to the components of working capital, accounts payable has a positive effect towards business profitability, while cash conversion cycle, days inventory on hand and days accounts receivable have no significance towards profitability.

Several recommendations were developed based on the results. The results of the study will assist small retail businesses as well as further researchers to understand the effect the management of working capital has within the business, as well as its effect on profitability of the business. Limitations, implications as well as recommendations of the study were addressed within the context of the study.

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APPENDIX A – CONSENT LETTER

Dear Respondents,

I am a post graduate student in the Department of Accounting at the Vaal University of Technology undertaking a Masters of Technology in Cost and Management Accounting. I am conducting a research study titled: **The effect of working capital management on the profitability of small retail enterprises within the Emfuleni district municipality**. This study is aimed at investigating the application of working capital management by small firms and its effect on the profitability. In order to accomplish this research objective, a questionnaire has been prepared to gather information on the working capital management details of the small retail firms. Your response in this regard will however be treated as confidential. If you have any question concerning the research study, please contact me at this number 073 648 8257, or my supervisor on 016 950 9568.

Thanks

Yours sincerely,

Belina Koloko (Student)

APPENDIX B – QUESTIONNAIRE

EFFECT OF WORKING CAPITAL MANAGEMENT ON THE PROFITABILITY OF SMALL RETAIL FIRMS WITHIN THE EMFULENI LOCAL MUNICIPALITY

I would like to find out what effect does working capital management has on the profitability of small retail firms around the Emfuleni district. Please select your response that best describes how important you think working capital management affect the firms' profitability.

Instructions on how to complete the questionnaire

1. For the multiple choice questions (where respondent select an answer from a number of choices) please indicate your answer by an (X).
2. Please indicate the extent of **agreement or disagreement** with the statements using the following rating scales. Strongly disagree = 1, disagree = 2, neutral = 3, agree = 4 and strongly agree = 5.

Section A: Biographical/ General information

The questions in this section will enable the researcher to gather information about the general profile of the firm and the respondent (owner/ manager).

A1	Does your business prepare books of account?	Yes	No
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A2	Position held in the business?	Owner	Manager
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A3	Gender	Male	Female
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A4	Age category	Less than 20 Years	20-30 years	31-40 years	Over 41 years
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A5	Ethical group	African	Coloured	Indian	White	Other
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A6	What is your level of education?	Below matric	Matric	Certificate/ Diploma	Bachelor degree	Other
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A7	How long has the business being in operation	below 2 years	between 2-5 years	between 6-9 years	More than 9 years
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A8	Is the business registered for tax purposes?	Yes	No
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A9	Does the business practice working capital management?	Yes	No
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A10	Does the business have any source of financing used for working capital?	Yes	No
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A11	Common source used to finance working capital is?	Own fund	Term loan	Overdraft facility	Trade credit	Other source
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A12	Does the business apply working capital policies?	Yes	No
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A13	Which of the following level of aggressiveness of working capital best describe the business financing?	Moderate	Aggressive	Conservative	None
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A14	Business sells goods for?	Cash only	Cash and credit
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If business sells for cash only go to A19

A15	What factors motivate the business to use accounts receivable.	Financial motive	Transactional motive	Operational motive	Other motives
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A16	What percentage of sales constitutes business credit sales?	15 % or less	between 16 – 30%	Above 30 %
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A17	How many days does the business allow to collect the credit sales?	15 - 30 days	31-45 days	46 - 60 days	Not fixed
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A18	Does the business practice inventory management?	Yes	No
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If business doesn't practice inventory management go to A21

A19	What approach does your business use for inventory management	Just-in-time (JIT)	Activity based costing (ABC)	Economic Order Quantity (EOQ)
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A20	What factors does the business considered when buying inventory?	Price discount	Availability	Credit term offered by supplier	Storage cost
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A21	The business annual inventory cost amounts to?	Less than R100 000	Between R100 000- R300 000	Between R300 001 - R600 000
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A22	The business buys stock for?	Cash only	Credit only	Both
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If business buys for cash only go to A26

A23	Business annual Credit purchases amounts to?	Less than R100 000	Between R100 00 - R300 000	Between R300 001- R600 000
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A24	How long does it take the business to pay creditors?	15 days or less	16 – 30 days	Above 30 days
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A25	Business annual current liabilities amount to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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A26	Business annual current assets amount to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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A27	Business total fixed assets amount to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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A28	Business annual income amount to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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A29	Business annual expenses amount to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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A30	Business annual cost of sales amounts to?	Less than R100 000	Between R100 00- R300 000	Between R300 001- R600 000
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Section B: Status of your business

The following questions are to determine the status of the business under the National Small Business Act (2003) of South Africa it also looks at managing the business

B1	How many employees do you have including you?	Below 5 employees	5 - 10 employees	11 - 50 employees	51 - 100 employees
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B2	Business gross assets value (fixed property excluded)?	Less than R1 000 000	Between R1000 001- R2 000 000	Between R2 000 001- R3 000 000
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B3	Business annual turnover?	Less than R200 000	Between R200 001- R4 000 000	Between R4 000 001- R19 000 000
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Section C: Working capital management

The questions in this section are based on working capital components and profitability.

Please indicate the extent of **agreement** with the statements using the following rating scales. Strongly disagree = 1, disagree = 2, neutral = 3, agree = 4 and strongly agree = 5.

C1	Working capital is described as a shortterm-assets and liabilities the business use to conduct day-to-day activities.	Strongly disagree	1	2	3	4	5	Strongly agree
C2	Working capital is calculated by subtracting current liabilities from current assets.	Strongly disagree	1	2	3	4	5	Strongly agree
C3	A business will have a positive working capital if its current assets exceed its current liabilities.	Strongly disagree	1	2	3	4	5	Strongly agree
C4	Managing working capital has an excellent impact on the business	Strongly disagree	1	2	3	4	5	Strongly agree
C5	Business should match the period of cash flow with that of cash outflow	Strongly disagree	1	2	3	4	5	Strongly agree
C6	It is important for the business to finance its seasonal project needs with short-term funds.	Strongly disagree	1	2	3	4	5	Strongly agree
C7	It is important for the business to finance its seasonal project with long-term funds.	Strongly disagree	1	2	3	4	5	Strongly agree
C8	It is important for business to finance portion of its permanent project with shortterm funds	Strongly disagree	1	2	3	4	5	Strongly agree
C9	It is important for the business to finance all its permanent projects with long-term funds	Strongly disagree	1	2	3	4	5	Strongly agree
C10	It is important for the business to finance all of its seasonal projects with long-term funds	Strongly disagree	1	2	3	4	5	Strongly agree
C11	It is important for business to finance a portion of its seasonal projects with longterm funds	Strongly disagree	1	2	3	4	5	Strongly agree
C12	Accounts receivable represents the amounts customers owe as a result of the business exchanging goods in return for promised payment	Strongly disagree	1	2	3	4	5	Strongly agree

C13	Inventory refers to stock that a business needs in order to conduct its operation.	Strongly disagree	1	2	3	4	5	Strongly agree
C14	Account payable is a form of a short-term debt that the supplier grants the business.	Strongly disagree	1	2	3	4	5	Strongly agree
C15	Making use of account payable as shortterm debt is easy because of its convenience.	Strongly disagree	1	2	3	4	5	Strongly agree
C16	The time it takes a business to pay for its inventory purchased on credit is known as average payment period	Strongly disagree	1	2	3	4	5	Strongly agree
C17	Cash conversion cycle is the difference between numbers of days resources are tied up in operating cycle plus number of days business can use spontaneous financing before payment has to be made.	Strongly disagree	1	2	3	4	5	Strongly agree

Section D: Profitability of the business

The questions in this section are based on profitability.

Please indicate the extent of **agreement** with the statements using the following rating scales. Strongly disagree = 1, disagree = 2, neutral = 3, agree = 4 and strongly agree = 5.

D1	Profitability is used to measure performance of the business to assess its financial position	Strongly disagree	1	2	3	4	5	Strongly agree
D2	Total assets of the business may be used to generate turnover.	Strongly disagree	1	2	3	4	5	Strongly agree
D3	The use of working capital management result in an increase in profitability of the business	Strongly disagree	1	2	3	4	5	Strongly agree

THANK YOU FOR YOUR CO-OPERATION

APPENDIX C – LANGUAGE EDITING

Ms Linda Scott

English language editing

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7 December 2016

To whom it may concern

This is to confirm that I, the undersigned, have language edited the **dissertation** of **Mapolo**

Belina Koloko

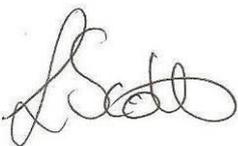
for the degree

Magister Technologiae in Cost and Management Accounting entitled:

The effect of working capital management on the profitability of small retail businesses within the Emfuleni Local Municipality

The responsibility of implementing the recommended language changes rests with the author of the dissertation.

Yours truly,



Linda Scott