DETERMINANTS OF CAPITAL STRUCTURE OF SMALL AND MEDIUM ENTERPRISES IN THE BUFFALO CITY MUNICIPALITY, EASTERN CAPE PROVINCE, SOUTH AFRICA

BY

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ABSTRACT

This study investigated the determinants of capital structure of small and medium enterprises (SMEs) in the Buffalo city municipality in the Eastern Cape Province of South Africa. The objectives of the study were, to ascertain whether the use of internal equity (retained profits) was positively or negatively related to the size, age and profitability of the firm. Furthermore the study examined if the use of external equity (capital from owners) was negatively or positively related to the age, size and profitability of the firm. Finally the study wanted to establish if the use of debt was positively or negatively related to the size, age and profitability of the firm. To achieve these objectives, the study hypothesised that age, size and profitability amongst other factors were determinants of capital structure. The study further hypothesised that the use of retained profits by SMEs was negatively related with age, size and profitability of the firm. Furthermore the study hypothesised that the use of external equity by SMEs was negatively related with age, size and profitability of the firm. Finally, the study hypothesised that the use of debt by SMEs was negatively related to the size, age and profitability of the firm. The results revealed that size, age and profitability of the firm were some of the major determinants of capital structure. Finally, the study recommended that SMEs, commercial banks and the South African government take measures to improve access to capital by SMEs. Such measures included government intervention in reducing discrimination from the banks as well as encouragement of SMEs training and education so that they are empowered with business and financial management skills.
DECLARATION

I, the undersigned, Ellen Chenesai Rungani hereby declare that this dissertation is my own original work and it has not been submitted, and will not be presented at any other University for a similar or any other degree award.

..............................................................

Signature

..............................................................

Date
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DEDICATION

I dedicate this project to the Lord God Almighty. You are my rock and fortress; In you, I find strength and purpose to live.

To my dear, the late Tadi. You will always be in my heart: Tears may dry but treasured memories will always be forever.

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LIST OF ACRONYMS

CBOs……………………Community Based Organisations
CSBP……………………Centre for Small Business Promotion
ECDC……………………Eastern Cape Development Corporation
DTI……………………Department of Trade and Industry
GDP……………………Gross Domestic Product
GEM……………………Global Entrepreneurship Monitor
IDC……………………Industrial Development Corporation
JSE……………………Johannesburg Stock Exchange
SAS……………………Statistical Analysis System
SEDA………………….Small Enterprise Development Agency
SMEs…………………Small and Medium Enterprises
SPSS………………….Statistical Package for Social Sciences
POT……………………Pecking Order Theory
OECD…………………Organisation for Economic Cooperation and Development
MACs…………………Manufacturing Advisory Centres
NEPA…………………Ntsika Enterprise Promotion Agency
NGOs…………………Non Governmental Organisations
UNCDF………………United Nations Capital Development Fund
UNCTAD………………United Nations Conference on Trade and Development
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CHAPTER ONE
INTRODUCTION TO THE STUDY
1.1 INTRODUCTION AND BACKGROUND

Small and Medium Enterprises (SMEs) represent a vast portion of the population of firms of almost every country. They are defined as separate and distinct entities including cooperative enterprises and non-governmental organisations managed by one or more owners, including its branches or subsidiaries and are predominantly carried out in any sector or sub sector of the economy (National Small Business Act of South Africa of 1996). SMEs remain the backbone of virtually all economies of the world. They are the foundation of socio-economic stability, gender and minority-gap empowerment and equitable distribution of opportunities and incomes across the world (Zingales, 2000:1623).

SMEs dominate both developed and developing economies in terms of employment creation and yet their full potential remains untapped. These trends need to be changed since SMEs have a positive contribution to economies. This is important in order that economic objectives and social objectives (poverty alleviation and improving standards of living) can be realised. In South Africa SMEs contributes fifty six percent (56%) of the private sector employment and thirty six percent (36%) to the gross domestic product (GDP). GDP is defined as the total market value of all final goods and services produced within the country in a given period of time (Glen, 2004). This implies a very high labour absorption capacity and highlights the job creation potentials of this sector and its importance to the reduction of the unemployment in South Africa (Ntsika, 2002).

Despite the important contributions of SMEs to the economy as analysed above, the failure rate of SMEs in South Africa is very high, with about ninety percent (90%) of SMEs failing within the first few years of operation (Glen, 2004). Various challenges and impediments prevent SMEs, especially in South Africa, from growing to their full potential. Access to the formal sector financing is often a major handicap to their development, particularly in the early growth stages (Glen, 2004:45).
Zingales, (2000:1629) has argued that: “empirically, the emphasis on large firms has led us to ignore (or study less than necessary) the rest of the universe: the young and small firms, who do not have access to public markets”. In effect, there have been many empirical studies about financial decisions of large and listed firms relative to those for SMEs. It is very important to shed some light on the capital structure that is the way a company finances itself through some combination of equity and debt in view of their importance to the South African economy. Rajan and Zingales, (2004:143) indicate that the capital structure of listed and large firms may be of importance to the financial community but the interests of academics are broader. Academics are interested in studying the whole universe of firms not only large firms. Consequently, corporate finance that applies to large firms may not hold for SMEs. Barbosa and Moraes, (2004:15) suggested that one of the reasons why SMEs have not been thoroughly studied is that they have always posed methodological difficulties in research. SMEs that are not listed on the Stock of Exchange are not obliged to publish annual financial statements that can be used to analyse their performance. Hence, it is important to study the determinants of capital structure of SMEs.

The determinants of capital structure are either quantitative or qualitative. The quantitative determinants are the factors that can be explained in numerical values, such as size, asset structure, profitability, volatility of earnings, risk, age of the firm and collateral amongst other values. On the other hand the qualitative determinants give detailed descriptions about experiences, attitudes, beliefs and thoughts of the respondents in question. The qualitative determinants of capital structure encompasses; culture, need for control, risk propensity, experience, social norms, and personal worth. The study at hand concentrated on selected quantitative determinants of the capital structure. The researcher selected quantitative factors since empirical studies pertaining the developed countries and large firms concentrated on these. It was therefore convenient for the researcher to compare the results of this study with previous studies when
testing for consistency. Secondly, the quantitative data could allow easier data analysis especially by testing for significance as well as presenting results graphically and comparing measures of dispersion and central tendency.

Studies of capital structure in the SME sector in South Africa are virtually non-existent (Glen, 2004:45). This is the fundamental motivation of this study. Hence, an understanding of the determinants of capital structure in the SME sector will contribute greatly to the capital structure puzzle.

The objective of this study was to investigate empirically the selected determinants of SMEs’ capital structure based on well known capital structure theories. A set of theories such as the Static Trade-Off theory of capital structure, (refer. Sec.1.6 p.8), Modigliani & Miller, (1963:261), (ref. sec. 1.6 p.7), the Pecking Order theory (Myers, 1984:575) (ref. sec.1.6 p.8) and The Agency theory (Jensen & Meckling, 1976:360) (ref.sec.1.6 p.9) have attempted to understand and explain the capital structure of firms. However, most of these theoretical and empirical works on capital structure focus on large firms and more recent attempts to generalise these capital structure theories have put the empirical focus on other contexts, especially SMEs.

The following section will address the nature of the problem.

1.2 STATEMENT OF THE PROBLEM

The small and medium sized business sector is seen as an important force in generating employment, income distribution, to advocating competition, exploit niche markets, enhance productivity and technical change, and thereby stimulate economic development. However, SMEs suffer from a high failure rate, with about ninety percent (90%) failing within the first few years of operation; access to finance being the major reason for the failure (Boateng, 2004:66).
Financing and structure of the capital base of a firm is a problematic and important issue. Without capital the firm would be unable to run, grow and expand. This study proposes three financing alternatives were mainly discussed namely, internal equity (retained earning), debt from credit institutions and external equity (capital from owners). The last cited is the most common source of finance used by SMEs. This research analysed the extent to which the theories of finance were applicable to the companies’ decision-making process of capital structure. The key is for firms to choose a portfolio of capital structure that will maintain sustainability and increase owners’ wealth. In practice, it is observed that financial managers use different combinations of debt and equity. A practical question therefore is: What motivates them to do so? More fundamental question to be answered is what determines the capital structure of firms: This study tried to answer these questions by shedding some light on the capital structure decisions of SMEs in particular.

Studies of capital structure in the SME sector of South Africa are very few, which was the fundamental motivation of this study. Extensive research has been done on large firms, but yet there is no magic combination of equity and debt for companies to apply. For instance studies by Negash (2001:114; 2002:119) concentrated on large firms, especially those listed on the Johannesburg Stock Exchange. Negash (2001:114) also found that the potential gain from leverage by large firms in South Africa was significant and comparable with the gains by firms in North America as proposed by Modigliani and Miller, (1963). However, no extensive study has been done on the determinants of capital structure of SMEs in South Africa. Therefore, the study at hand examined selected determinants of the capital structure of SMEs. The capital structure was broken down into several components which form the capital such as internal equity (retained earnings), external equity (capital from owners) and debt so as to analyse each individual factor of capital structure. Testable hypotheses were formulated based on these components of capital structure.
Having formulated the problem statement of the study, the objectives of the study can now be identified.

1.3 OBJECTIVES OF THE STUDY

- To ascertain whether the use of internal equity (retained profits) is positively or negatively related to the size, age and profitability of the firm;
- To examine if the use of external equity (capital outside the business) is negatively or positively related to the age, size and profitability of the firm;
- To establish if the use of debt is positively or negatively related to the size, age and profitability of the firm.

Having identified the objectives of the study, tentative solutions to problems at hand can be formulated. Section 1.4 outlines the research hypotheses.

1.4 RESEARCH HYPOTHESES

Hypothesis derived from the ‘Pecking Order Theory’ (refer sec1.6 p 9).

H$_{0}$ - The use of retained profits by SMEs is negatively related with the age, size and profitability of the firm
H$_{1}$ - The use of retained profits by SMEs is positively related with the age, size and profitability of the firm
H$_{0}$ - The use of external equity by SMEs is negatively related with the age, size and profitability of the firm
H$_{2}$ - The use of external equity by SMEs is positively related with the age, size and profitability of the firm

Hypothesis derived from ‘Trade Off Theory’ (refer sec1.6 p 6)

H$_{0}$ - The use of debt by SMEs is negatively related to the size, age and profitability of the firm.
H$_{3}$ - The use of debt by SMEs is positively related to the size, age and profitability of the firm.

Section 1.5 will provide an insight into the significance of the study at hand.
1.5 SIGNIFICANCE OF THE STUDY

The purpose of this research was premised on the notion that SMEs have a major role to play in the South African economy. The study shall provide financial solutions and strategies being adopted to decrease the rate of failure of SMEs in South Africa which is necessary to increase the levels of employment and economic growth in the country. Capital structure is important to the success or failure of SMEs.

The study will also be a valuable source of information to policy makers in the SME sector as they need such information in setting up policies. This research mainly contributes to the empirical literature on the factors that determine the capital structures of SMEs in South Africa. Therefore, this study tried to look at what drives SMEs when making capital structure decisions, and thereby contributing to the available empirical literature on the debate in South Africa.

1.6 LITERATURE REVIEW

The term ‘capital structure ‘can be defined as the relative amount of debt and equity employed to finance a firm’s operations (Glen, 2004:385). It must be noted that, in finance, capital structure has been a hotly debated issue by researchers for years (examples of these researchers are Jensen and Meckling, (1976); Myers, (1977); Boateng, (2004); Abor, (2005); Coleman, (2001) to mention a few).One of the earliest important sources on capital structure is the classical work of Modigliani and Miller (1958 &1963). Their analysis of the irrelevance of capital structure to firm value is based on the premise that capital structure does not affect a firm’s cash flow. Indeed, in their paper, Modigliani and Miller, (1958) showed that the financing decisions of firms do not affect their value. Their conclusions, however, is based on what is termed ‘restrictive and unrealistic’ assumptions such as a world with perfect capital markets, absence of corporate and personal taxes, and independent firm’s financial decisions. Adapting these assumptions to reality and repeating the analysis suggests that capital structure decisions do affect a firm’s value. Modigliani & Miller, 1958 therefore revised their
initial stance in 1963. Consequently, several studies have shown that capital structure significantly affects the value of a firm (Jensen & Meckling, (1976); Myers, (1977); Boateng, (2004); Abor, (2005); Coleman, (2001)).

Following on from the pioneering work of Modigliani and Miller (1958) on capital structure, three differing theories of capital structure have been developed. They are namely: Static Trade-Off, Pecking Order, and Agency Cost Theories.

The Static Trade-Off Theory of capital structure by Jensen and Meckling (1976) (also referred to as the tax based theory). The theory states that optimal capital structure is obtained where the net tax advantage of debt financing balances leverage related costs, such as financial distress and bankruptcy, holding firm’s assets and investment decisions constant. In view of this theory, issuing equity means moving away from the optimum and should therefore be considered a bad move. According to Myers, (1984), firms adopting this theory could be regarded as setting a target debt-to-value ratio with a gradual attempt to achieve it. Myers, (1984), however, suggests that managers will be reluctant to issue equity if they feel it is undervalued in the market.

Pecking Order Theory which is also referred to as the information asymmetry theory proposed by Myers, (1984) states that firms prefer to finance new investment, first internally with retained earnings, then with debt, and finally with an issue of new equity. Myers, (1984) argued that an optimal capital structure is difficult to define as equity appears at the top and the bottom of the ‘pecking order’. Internal funds incur no flotation costs and require no disclosure of the firm’s proprietary financial information that may include firm’s potential investment opportunities and gains that are expected to accrue as a result of undertaking such investments. The Pecking Order Theory tries to explain why most profitable firms use internal financing. The easy reason for this is that they do not need to make use of external funding. However, the other extreme, which are businesses with less profits do not possess enough internal capital and have
to seek for external funding (Myers, 1984). Hutchinson, (2004:232) points out that the more business owners are willing to risk, the higher the possible profits. The pecking order approach appears relevant for small businesses since costs associated with external financing are higher for small firms than for large businesses (Chittendale, Hall & Hutchinson, 2000:59). Berger and Udell, (1998:615) and others suggest that more severe information asymmetry among SMEs could lead to pecking order behaviour because outside financiers, in order to makeup for the increased risk caused by poor information and the inability to monitor the entrepreneur’s behaviour, will demand higher return rates. Thus, SME owners will prefer internal financing over external financing. Once internal sources are exhausted, the preferred solution to the information asymmetry problem is to apply for a loan with a bank with which the firm has an existing banking relationship. These issues are thought to soften with age and size, as the firm generates greater evidence and a greater ability to clearly communicate its quality.

The Agency Cost Theory of Capital Structure states that an optimal capital structure will be determined by minimising the costs arising from conflicts between the parties involved. Jensen and Meckling, (1976) argue that agency costs play an important role in financing decisions due to the conflict that may exist between shareholders and debt holders. If companies are approaching financial distress, shareholders can encourage management to take decisions, which, in effect, expropriate funds from debt holders to equity holders. Sophisticated debt holders will then require a higher return for their funds if there is potential for this transfer of wealth. Debt and the accompanying interest payments, however, may reduce the agency conflict between shareholders and managers. Debt holders have legal right if management fails to make interest payments when they are due. Hence managers concerned about potential job losses, will be more likely to operate the firm as efficiently as possible in order to meet the interest payments, thus aligning their behaviour closer to shareholder wealth maximisation.
The theories above have been used to explain the capital structure of firms. In the existing literature, both internal and external variables have been identified as relevant in influencing a firm’s capital structure. These variables include firm size, profitability, risk level, type of industry, tax shield, profitability margin, firm growth, whether a firm receives subsidy, ownership control and asset tangibility. As mentioned above, most studies on the capital structure of firms concentrate on large and listed firms in advanced economies. This study concentrated on three key variables on the capital structure theories in order to establish their relevancy in the South African context.

**USE OF INTERNAL EQUITY (RETAINED EARNINGS) VERSUS SIZE, AGE AND PROFITABILITY**

According to the Pecking Order Theory (POT), when financing investment projects, firms seek to use sources of funds least susceptible to undervaluation due to information asymmetries. The POT predicts that firms have a preference to finance investments projects with internal equity. When internal funds are exhausted, they use debt financing before resorting to external equity. There are relatively greater information asymmetries and the higher costs of external equity for SMEs. Barton, (2001:25) suggests that the POT is an appropriate theoretical approach for the SME sector. Empirical evidence suggests that SME owners source their capital as follows: SME owners try to meet their financing needs from a pecking order of, first, their “own” money (personal savings and retained earnings); short-term borrowings; longer term debt; and, least preferred of all, from the introduction of new equity investors.

The supply of finances depends on many factors, including the stage of developing or life cycle of the firm. As the size and age of the firm are inextricably linked, a number of issues are correlated. Firstly, start-up and early stage firms are generally smaller than mature and older firms, and have a greater proportionate reliance on the personal financial resources of the firm owner. If the
firm is successful as it grows and matures, retained profits are reinvested in current and capital projects, augmenting personal sources of funding. A continued preference for internal equity increasingly relies on accumulated retained profits as the firm survives and matures. Furthermore, higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity. Consistent with Myers’ (1984) POT, the researcher proposed the hypothesis: “The use of retained profits by SMEs is positively related with age and size and profitability of the firm”

USE OF EXTERNAL EQUITY VERSUS AGE OF THE FIRM
Start-up and early stage firms face particular difficulty in sourcing finance for investment for a number of reasons. Firstly, internal equity is limited as sufficient profits may not be generated, and the personal resources of the firm owner and his family are limited. Secondly, a combination of information asymmetries and agency problems related to the lack of a trading history restricts access to external debt, which may be exacerbated by lack of collateralisable assets. For these reasons, start-up and early stage firms may resort to external equity particularly private investors and may attract funding from venture capitalists, especially firms with high growth potential. Government grant schemes and tax incentive equity schemes may also be important sources of external equity financing for fledging firms, especially in strategically targeted sectors (e.g. high-tech). Therefore, as the firm grows it will be more profitable. Hence there will be no use of external equity since it will make use of its profits. Thus the researcher proposed the hypothesis: “The use of external equity is negatively related with age”

USE OF EXTERNAL EQUITY VERSUS FIRM SIZE
Venture capitalists typically invest in the firms with high-growth potential, investing at a stage when a product or service has been pre-tested. Venture capital investment is generally positively correlated to the size of a firm, as a high rate of return is required in a relatively short period of three to eight years
(Delcoure, 2006:25). Firms sourcing additional venture capital funding have typically received previous equity funding, and have grown past start-up size. The Pecking Order Theory suggests that larger firms exhibit lower information asymmetry and are therefore able to issue more equity as compared to small companies. Therefore, the researcher proposed the hypothesis: “The use of external equity is positively related with size”

**USE OF EXTERNAL EQUITY VERSUS PROFITABILITY**

Profitability could also affect the decision to use external equity. As the firm gets higher profits it increases the availability of internal equity. Accordingly, profitable industries, because of the greater availability of internally generated funds related to their high profitability tend to have lower external equity in their capital structure. Therefore, we proposed the hypothesis: “The use of external equity is negatively related with the profitability of the firm”

**USE OF DEBT VERSUS FRIM SIZE**

Firm size is also an important factor in accessing debt finance. There are a number of reasons for this. Firstly, it may be relatively more costly for smaller firms to resolve information asymmetries with debt providers. Consequently, smaller firms may be offered less debt capital or capital at higher costs than large firms (Cassar & Holmes, 2003). Secondly transaction costs are typically a function of scale and may be higher for smaller firms (Hamilton & Fox, 1999:232). Thirdly bankruptcy costs and the size are inversely related. Cosh and Hughes (1999) propose that this predisposes smaller firms to use relatively less debt than large firms. From a financial distress perspective, larger firms tend to be more diversified and fail less often, so size can be an inverse proxy for the probability of bankruptcy. Likewise, small companies usually have bigger bankruptcy costs in relative terms. Hutchinson, (2004:712) found a positive association between firm size and long-term debt. Under these assertions, the researcher constructed the Trade–Off Theory hypothesis in the following manner: “Firm size is positively related to debt level”
USE OF DEBT VERSUS FIRM AGE
Firms at the start-up stage typically experience the greatest informational opacity problems, and may not have access to debt financing. As a firm becomes established and develops a trading and credit history, reputation effects alleviate the problem of moral hazard, facilitating borrowing capacity. Additionally, as the firm grows it will have accumulated assets as debt collateral in the form of inventory, accounts receivable and equipment (Berger & Udell, 1998:643). The firm may also have increase fixed assets in the form of land and buildings on which it may secure mortgage finance. Long term debt is typically secured on colleteralisable fixed assets, and consequently its maturity matches the maturity of the pledged asset. Therefore, the use long term of debt is expected to increase initially, and decrease at a later stage as the long term debt is retired and the firm can rely increasingly on accumulated profits. Older firms exhibit smaller debt ratios than their younger counterparts. Therefore, the researcher proposed “The use of debt is positively related with age”

USE OF DEBT VERSUS PROFITABILITY
Profitable firms, that have access to retained profits, can rely on it as opposed to depending on outside sources. A firm with a high profit rate, ceteris paribus, would maintain a relatively lower debt because of its ability to finance itself from internally generated funds. Cassar and Holmes (2003), Esperance, Gama and Mohamed (2003:62) and Hull and Robert, (2004:45) suggested a negative relationship between profitability and both long-term and short-term debt. They agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources. Use of external funds is very much related to profitability on the basis that SMEs, particularly if they are not listed, will make use of internally generated funds as a first resort, i.e. those which make use of external funds will be those with a lower level of profit. The theory’s application to SMEs implies that external equity finance issues may be inappropriate. The more profitable firms
are the lesser the use of debt. Therefore the researcher proposed “The use of debt is negatively related to profitability”

While the topic of capital structure is very actively researched, (Al-Sakran, (2001), Barclay et.al., (2000), Barton, (2001), Bates, (1999) & Boateng, (2004) to mention a few) the large majority of studies have been conducted on samples of large firms. The relative shortage of research into private small firm capital structures is troubling because small firms provide about half of private sector employment and produce about half of private sector output in the South Africa. Even their aggregate importance as users of financing has recently surpassed that of better-known large-firm markets (Barclay, Smith & Natts 2000:30). Small firms face a very different financial market compared to large public firms. Due to the dominance of private equity financing and bank lending in the field, small business owners face less competitive, perhaps less information ally efficient, and therefore more restrictive financial markets (Berger & Udell, 1998:616).

The theories presented above shed some light on the capital structure decision making process of SMEs. They identified a large number of attributes influencing a firm's capital structure. The study at hand attempted to apply these theories of capital structure in the SME sector.

1.7 METHODOLOGY AND RESEARCH DESIGN

Research methodology refers to the way in which data is gathered for a research project. It is the blue print for the collection, measurement, and analysis of data in order to achieve the objectives of the research project (Churchill, 1998:203). This section will provide an introductory discussion on the research methodology and design strategy to be used in the study and will focus on the research instrument, research technique, secondary data, the survey area, population, sample size, sampling technique and data analysis procedures. The study used a quantitative research design.
1.7.1 Research instrument

The research instrument was a questionnaire. A questionnaire is a form containing a set of questions, especially one addressed to a statistically significant number of subjects as a way of gathering information for a survey (Martins, 1999:260). The questionnaire used in this study consisted of open-ended questions, Likert scale and closed-ended questions. An open-ended question is a question in a questionnaire that allows respondents to respond in their own words whilst a closed ended question provides the respondents with different options. On the other hand a Likert scale is a scale in which respondents indicate their level of agreement with statements that express a favourable or unfavourable attitude toward a concept being measured (Cooper & Schindler, 2003:362). A copy of the questionnaire is contained in addendum 1.

1.7.2 Research technique

The research technique used to collect primary data was the self-administered questionnaire. A self-administered questionnaire is a form containing a set of questions, usually presented to the respondent by an interviewer or a person in an official capacity that explains the purpose but does not actually complete the questionnaire (Cooper & Schindler, 2003:369). This technique reduced interview bias and saved time and money. Data were collected within a short period of time because many respondents could answer the questionnaire at the same time. The researcher was only present to assist in explaining ambiguities rather than asking questions herself.

1.7.3 Secondary data

Various sources of secondary data were used such as literature review of available published material. This included journals, books, conference reports, internet sources, and masters’ dissertations relating to capital structure and financing decisions of SMEs. Other relevant sources of information such as published data obtained from Statistics South Africa and the NTSIKA Enterprise promotion Agency were also assessed and deductively applied.
1.7.4 The survey area

The research covered the retail firms of the Buffalo city Municipality in the Eastern Cape Province of South Africa. The city is situated on the Indian Ocean coast, between the Buffalo River, and the Nahoon River, and is the country's only river port. Buffalo city has a population of approximately 250,000, with over 700,000 in the metropolitan area (South Africa GIS map). The locations were chosen for their diverse retail activities. East London is the second largest industrial centre in the province amongst others including industries such as clothing, textiles, pharmaceuticals and food processing. The researcher also chose this area because of its proximity to the university and also the fact that it has a relatively large number of manufacturing firms from observation.

1.7.5 Population

To identify the survey population of the SMEs in the study area the researcher contacted the Small Enterprise Development Agency (SEDA). The population of the SMEs is 412.

1.7.6 Sample size

Sample size was calculated using the following formula (Roberts-Lombard, 2002:87).

\[ n > \frac{N}{1 + \frac{N(d^2)}{10000}} \]

- \( n \) = The sample size
- \( N \) = The total population
- \( d \) = Sample interval

The sample size was calculated form a population of 412 SMEs giving a sample size of 200 firms.
1.7.7 Sampling technique

The sample was selected using the simple random sampling technique. Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (Cooper & Schindler, 2003:164). Each individual owner or manager of the SME was chosen entirely by chance and each member of the population had an equal chance of being included in the sample. Every possible sample of a given size had the same chance of selection; i.e. each member of the population was equally likely to be chosen at any stage in the sampling process.

1.7.8 Data analysis Procedure

The data analysis procedure was done by the Statistics department at the University of Fort Hare. The statistical package used was the Statistical Analysis System V8 (SAS). The packages Statistica and Statistical Package for Social Sciences (SPSS) were used for the analysis of graphs. The statistical method which was used to analyse the data was the Chi-Square test for independence. The Chi-Square test for independence was used to test for association. Multiple linear regressions were also used to measure the relationships between the independent and dependent variables. The correlation was also used to analyse the relationships as well as descriptive statistics such as the mean, mode, median and the frequency distribution graphs.

1.7.9 Regression model

The regression model results in a prediction equation also described as regression equation. The equation describes the relationship between the dependent variables and independent variables (Gujarati, 2000).

\[ Y = \beta_0 + \beta_1 \text{PROFITABILITY} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \epsilon \]  

Where:
Y is the source of finance which was the dependent variable. The sources of finance were debt, internal equity (retained earnings) and external equity. Debt was measured using the debt ratio calculated as 

\[ \text{Total debt} / \text{Total assets} \]

Internal equity (retained earnings) was measured as the sum of a company’s profits, after dividend payments, since the company’s inception.

External equity was measured as the total amount of capital contributed from external sources other than banks.

\( \beta \) is the coefficient value which measures the rate of change in the value of dependent variables per unit change of the independent variable.

Profitability represented the independent variable and it was measured by return on equity. Similar studies such as Mesquita & Lara, (2003) also used return on equity as a measure of profitability in their study.

Size of the SMEs also represented the independent variable and it was measured by the total number of employees.

Age of the firm also represented the independent variable and it was measured by the number of years the firm has been operating.

\( E_r \) is the error term which represented all those forces that affected the dependent variables besides the independent variables, but not explicitly introduced in the model (Gujarati, 2000:25)

The regression model was discussed in full in the research methodology.
1.8 RELIABILITY AND VALIDITY

Reliability is concerned with consistence of measures. The level of an instrument’s reliability is dependent on its ability to produce the same results when used repeatedly (Babbie & Mouton, 2001:15). Reliability was established by developing the questionnaire with a statistician reviewing the questionnaire for question phrasing and sequencing; keeping open-ended questions to the minimum; devising response scales that are likely to increase the variability of responses thereby ensuring higher statistical value from the data and by using a large sample size. Reliability will also be improved by pre-testing the research instrument in the survey development stage through a pilot study. The pilot test seeks to answer the question; does the questionnaire consistently measure whatever it measures? Data was collected from 20-30 subjects not included in the sample and the data collected from pilot test was analysed using SPSS (Statistical Package for Social Sciences).

Validity refers to whether an instrument actually measures what it is supposed to measure, given the context in which it is applied (Babbie & Mouton, 2001:17). The following steps were used to ensure validity. To ensure content validity (the systematic examination of the test content to determine whether it covers a representative sample of the behaviour domain to be measured”) a panel of experts (my statistician and supervisor) were used to review the items and comment on whether the items cover a representative sample of the behaviour domain. For Internal validity which refers to the confidence that is place in the cause-and-effect relationship the researcher used the linear regression model to measure the strength and relationship between the dependent variables and independent variables. The chi Square test was also used to determine whether an association (or relationship) between two categorical variables in a sample is likely to reflect a real association between these two variables in the population.
To guarantee external validity (the extent to which a finding applies or can be
generalised to persons, objects, settings, or times other than those that were the
subject of study) the researcher used a big sample size with a margin of error not
more than five percent (5%) and a confidence level of ninety five percent (95%).
Random sampling was also used when selecting the respondents to minimize
bias on selection. Statistical validity which means the degree of statistical
significance of a result was enhanced by testing the efficiency of the model
construct using a hypothesised data set to check for effectiveness of the
regression model, choosing a low significance value (p value) of less than 5%.
The research methodology will be discussed in full in chapter five.

1.9 DELIMITATION OF THE STUDY

The study was limited to the quantitative determinants of capital structure and did
not focus on the qualitative determinants such as need for control, risk
propensity, experience, social norms, culture and personal worth. For the
quantitative determinants the study focused on the following variables,
profitability, age, and firm size as the determinants of the capital structure.

The study only covered SMEs in the retail sector of Buffalo City Municipality. The
research was conducted within a single and relatively homogeneous industry,
thus avoiding difficulties in controlling the unsystematic effects, inevitably present
in cross sectional samples. For example, the definition of SMEs in the retail
sector is different from that of the manufacturing sector in terms of turnover,
number of employees and total gross asset value. Furthermore different
industries have different capital structure requirements, therefore these
influences are to a reasonable extent controlled by examining a single, broadly
defined industry.

1.9.1 Time frame

The time frame of study was between May 2008 and November 2009. This time
frame enabled the researcher adequate time to do the research thoroughly.
1.9.2 Budget

The budget allocated for the research was ten thousand Rand (10 000).

1.10 ORGANISATION OF THE STUDY

❖ CHAPTER ONE: AN INTRODUCTION TO THE RESEARCH PROBLEM

This chapter covered the introduction to the study; it outlined the problem statement which is the foundation of the study. The significance of undertaking the study was highlighted. The background to the study as well as specific literature related to the study at hand was discussed. Furthermore, statement of the problem, research objectives, research hypotheses, and the proposed research methodology were addressed in this chapter.

❖ CHAPTER TWO: AN OVERVIEW OF SMEs IN SOUTH AFRICA

The focus of this chapter was on the overview of SMEs in South Africa. In this chapter the term SME was interpreted and a discussion was provided on the generic elements in the definition of SMEs. This chapter also highlighted the importance of SMEs in South Africa. Furthermore the contribution of SMEs to the economy and the challenges faced by SMEs were also discussed.

❖ CHAPTER THREE: CAPITAL STRUCTURE DECISION OF SMEs.

This chapter focused on the capital structure decision of SMEs. It will include the definition of capital structure, determinants of the capital structure as well as the financing options available to the SMEs. Government support services to SMEs were also discussed in this chapter.

❖ CHAPTER FOUR: RESEARCH METHODOLOGY

This chapter focused on the study at hand in terms of the study area, the study unit, the population, the organisation and design of the questionnaire, the methods of data collection and data analysis. The validity and reliability of the
research instrument were also discussed. An examination of the applicable statistical tests for the gathered data, reliability and validity of the data as well as the limitations in the collection of the data was furthermore part of the chapter. The regression model was also be discussed and explained in this chapter.

❖ CHAPTER FIVE: ANALYSIS AND INTERPRETATION OF RESEARCH RESULTS

The analysis and interpretation of data was presented in this chapter. The results obtained were compared with the findings of previous empirical studies and the theoretical framework on which the study was based.

❖ CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

The chapter incorporated the conclusions on the findings of the study. Recommendations to improve the performance of SMEs were discussed in this chapter. The limitations of the study were also discussed in the chapter. Finally, areas for further research in relation to SMEs were highlighted.
CHAPTER TWO

OVERVIEW OF SMEs IN SOUTH AFRICA
2.1 INTRODUCTION

A critical review of literature on the SME contribution, challenges as well as the enabling environment in South Africa will be analysed. Understanding these issues of SMEs is the first step towards developing a policy relevant to their financing needs. Recently there has been an increase in the recognition of the role played by SMEs in national economies. Their contribution to job creation and poverty alleviation has been recognised by several governments of developing countries to the extent that they are including them in their development plans. The aim of this chapter is to examine the role of Small and Medium Enterprises (SMEs) (ref to sec. 2.2 p.24 for definition) in socio-economic development globally and locally. This chapter also examined some important issues regarding SMEs, namely their nature and definition, contribution globally and locally, their challenges as well as their failure rate. A section 2.1 examines the nature of small and medium enterprises in South Africa.

2.1 NATURE OF SMEs

As observed by Cronje, Du Toit and Motlatla, (2001:492), it is difficult if not impossible to give a universally accepted definition for SMEs. However, some important characteristics of SMEs are identifiable. According to the World Bank Institute, (1978:5) as quoted by the same authors, the following characteristics are observable among SMEs in developing countries:

- They are generally more labour intensive than larger firms;
- On the average, SMEs generate more direct job opportunities per unit of invested capital than large firms;
- They are an instrument for utilising the talents, energy and entrepreneurship of individuals who cannot reach their full potential in large organisations;
- They often flourish by rendering services to a small or restricted market which larger businesses do not find attractive;
SMEs are breeding grounds for entrepreneurial talent and a testing ground for new industries;

SMEs create social stability, cause less damage to the physical environment than large factories, stimulate personal savings, increase propensity in rural areas and enhance the population's general level of economic participation.

These are not only the characteristics that distinguish SMEs from big businesses. However, SMEs according to Cronje et al., (2000:492) are also characterised by their small size.

The inference is often drawn that because of their small size they are most suited for rural communities where the markets are too small to justify the existence of large business. Also, by their nature SMEs are often credited with social stability in poorer communities by among other generating more jobs, hence increasing propensity as a result of the population's general level of economic participation. Against this background, a thorough treatment of the definition of small and medium enterprises is unavoidable (Cronje et al., 2000:493). Section 2.2 discusses the definition of SMEs on an international and South African perspective.

2.2 DEFINING AN SME

There is no single acceptable definition for an SME. Instead, it differs from one country to another and even within a country differences exist. In South Africa, the various institutions involved in the SME sector have slightly different means of classification. However, some common elements in the classification can be described, such as the number of employees and the turnover of the enterprise. The section that follows discusses the definition of SMEs on an international perspective.
2.2.1 The international perspective

The United States of America Small Business Act of 2002 defines an SME as one that is independently owned and operated, and which is not dominant in its field of operation. In determining what constitutes an SME, the definition varies from industry to industry to reflect industry differences accurately. The Act has therefore established a table of size standards which specifies the turnover, the balance sheet total and the employees for the various types of SMEs (United States of America Small Business Administration, 2004).

In the United Kingdom, the Companies Act of 1989 defines an SME as the one that satisfies specific quantitative and qualitative requirements. The quantitative requirements require that the turnover of the firm should not be more than twenty two million eight hundred thousand (22.8m) British Pounds Sterling, a balance sheet total of not more than eleven million four hundred thousand (11.4) British Pounds Sterling and the number of employees should not be more than two hundred and fifty (250). The qualitative factors require the SME to have a relatively small share of its market, be independent and not a subsidiary of a larger firm and the management should have close personal involvement in most of the aspects of decision making (Parliament of the United Kingdom, 1989).

In the European Union, a similar system is used to define small and medium enterprises. An SME is defined as a business with a number of employees fewer than 250. The maximum annual turnover is fifty (50) million Euros with a balance sheet total of forty three (43) million Euros. The financial ceilings of turnover and the balance sheet total of the SMEs were raised to these new levels after taking into consideration that productivity increased within the Union since 1996 (European Union, 2004). The following section discusses the South African Perspective definition of SMEs.
2.2.2 South African perspective

The National Small Business Act of South Africa, 1996, as amended in 2003, defines a “small business” as follows:
“a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy mentioned in column 1 of the Schedule”.

Small businesses can be classified as micro-, very small, small or medium enterprises, following a complex set of thresholds. The National Small Business Act, 1996, as revised by the National Small Business Amendment Bill, 2003, defined the thresholds per industry, as in Table 2.1:

Table 2.1 Classification of SMEs by sector

<table>
<thead>
<tr>
<th>Sector or sub-sectors in accordance with the Standard Industrial Classification</th>
<th>Size or class</th>
<th>Total full-time equivalent of paid employees Less than:</th>
<th>Total annual turnover Less than:</th>
<th>Total gross asset value (fixed property excluded) Less than:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Medium</td>
<td>100</td>
<td>R 5.00 m</td>
<td>R 5.00 m</td>
</tr>
<tr>
<td>Small</td>
<td>50</td>
<td>R 3.00 m</td>
<td>R 3.00 m</td>
<td></td>
</tr>
<tr>
<td>Very small</td>
<td>10</td>
<td>R 0.50 m</td>
<td>R 0.50 m</td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>5</td>
<td>R 0.20 m</td>
<td>R 0.20 m</td>
<td></td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>Medium</td>
<td>200</td>
<td>R39.00 m</td>
<td>R23.00 m</td>
</tr>
<tr>
<td>Small</td>
<td>50</td>
<td>R10.00 m</td>
<td>R6.00 m</td>
<td></td>
</tr>
<tr>
<td>Very small</td>
<td>20</td>
<td>R 4.00 m</td>
<td>R 2.00 m</td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>5</td>
<td>R 0.20 m</td>
<td>R 0.10 m</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Medium</td>
<td>200</td>
<td>R51.00 m</td>
<td>R19.00 m</td>
</tr>
<tr>
<td>Small</td>
<td>50</td>
<td>R13.00 m</td>
<td>R 5.00 m</td>
<td></td>
</tr>
<tr>
<td>Very small</td>
<td>20</td>
<td>R 5.00 m</td>
<td>R 2.00 m</td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>5</td>
<td>R 0.20 m</td>
<td>R 0.10 m</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>Medium</td>
<td>Small</td>
<td>Very small</td>
<td>Micro</td>
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<td>--------------------------------</td>
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<td>-------</td>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>Electricity, Gas and Water</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Construction</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Retail and Motor Trade and Repair Services</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Wholesale Trade, Commercial Agents and Allied Services</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Catering, Accommodation and other Trade</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Transport, Storage and Communications</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Finance and Business Services</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Community, Social and Personal Services</td>
<td>200</td>
<td>50</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>

It is worth noting that the definition of SMEs in South Africa considers the qualitative factors (as defined by the Small Business Act of 1996) and quantitative factors (as defined by the schedule of the size standards of the Act). The following qualitative criteria are also relevant for defining SMEs in South Africa. SMEs operate in a formal market, are tax registered and meet other formal registration requirements. Furthermore, there is a secondary coordinating managerial structure in place and also some form of managerial level coordination. The South African definition of SMEs is in line with the international definitions of an SME since it considers the qualitative factors (as defined by the 1996 Act) and quantitative factors (as defined by the schedule of the size standards of the Act).

Section 2.3 examines the contribution of SMEs on an international perspective.

2.3 CONTRIBUTION OF SMEs GLOBALLY

The value of the small business sector is recognised in economies worldwide, irrespective of the economic developmental stage. Several governments in African counties have explicitly included SMEs programmes as part of their national economic plans.

SMEs comprise over ninety percent (90%) of African business operations and contribute to over 50 percent of African employment and gross domestic product (Central Statistics Service, 2002). The SMEs sector has shown positive signs in South Africa, Mauritius and North Africa. Clusters of SMEs are little developed in Africa and are concentrated mainly in South Africa, Kenya, Nigeria, Tanzania and Zimbabwe. This is due to lack of finance since it affects growth. In addition, the role of SMEs in developing economies is viewed as increasingly important due to its job-creation capacity (Kibby & Watson, 2003).

Although SMEs are important across the region there are considerable differences in their role in the various economies. For example, SMEs play a larger structural role in Taiwan, China, Japan, Thailand and Vietnam where they contribute over seventy percent (70%) of employment, than they do in Indonesia or Malaysia.
where they contribute only around forty percent (40%) (Central Statistics Service, 2002). In the case of Taiwan, SMEs have played a pivotal role in the country’s economic development from the beginning. More recently, however, they have been facing increased competition from SMEs in China and Vietnam, because their traditional low cost base is rapidly being eroded. As a consequence they have had to move up the technology ladder in order to remain globally competitive (Luiz, 2002:18).

Well-managed and healthy SMEs are a source of employment opportunities and wealth creation. They can contribute to social stability and generate tax revenues. According to the International Finance Corporation (IFC), there is a positive relationship between a country’s overall level of income and the number of SMEs per 1,000 people. The World Bank Institute’s Doing Business reports indicates that a healthy SME sector corresponds with a reduced level of informal or “black market” activities (Baldwin, Gellatly, & Gaundreault, 2002). Though there might be inadequate information to show the actual combination made by small firms in developing countries, it is their potential to turn around an economy, because of this government usually support them. Section 2.4 discusses the contribution of SMEs in South Africa.

2.4 SMEs CONTRIBUTION TO SOUTH AFRICA

The role of SMEs in South Africa is no different than that of other countries across the world. The development of SMEs is important for the social and economic development of the country, since they increase competitiveness and mobilise idle funds to productive areas. SME development contributes to a more equal distribution of economic powers and the stimulation of SMEs can reduce the level of unemployment. The following section will discuss the role played by SMEs in different sectors of the South African economy.
2.4.1 Contribution to governments

In South Africa, SMEs constituted fifty six percent (56%) of all jobs and thirty six percent (36%) of gross domestic product (GDP) in the year 2003 (Kesper, 2002). Small firms and entrepreneurs are the lifeblood of the South African economy, boosting productivity, increasing competition and innovation, creating employment and prosperity, and revitalizing communities (McPherson, 1999:254). The following table will summarise the contribution of SMEs to employment, gross domestic product as well as investment in different countries.

Table 2.2 Contribution of SMEs in different Countries (%)

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>GDP</th>
<th>EMPLOYMENT</th>
<th>INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPAN</td>
<td>55</td>
<td>81</td>
<td>51</td>
</tr>
<tr>
<td>GERMANY</td>
<td>87</td>
<td>66</td>
<td>40</td>
</tr>
<tr>
<td>CHINA</td>
<td>60</td>
<td>70</td>
<td>66</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>30</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>NAMIBIA</td>
<td>11</td>
<td>20</td>
<td>51</td>
</tr>
<tr>
<td>TANZANIA</td>
<td>33</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>SOUTH AFRICA</td>
<td>36</td>
<td>56</td>
<td>40</td>
</tr>
</tbody>
</table>


The contents of this table will be comprehensively discussed on page 9 paragraph three. In the next sections some of the attributes of SMEs relative to the government will be highlighted.

2.4.1.1 Employment

SMEs are important employers for population groups that have difficulties in finding employment in the formal labour market. These include, among others, persons with low educational and skill levels, women who take care of their families, children, the elderly and handicapped. In South Africa SMEs are very important to the economy since they play a pivotal role in the well being of South African society as well as in the creation of jobs (Kesper, 2002).
Throughout the whole world SMEs are playing a critical role in absorbing labour, penetrating new markets and generally expanding the economy. South Africa suffers from high unemployment with an official estimate of approximately twenty five point five percent (25.5%) of the economically active population unemployed (Statistics South Africa, 2007). SMEs are therefore expected to be an important vehicle in addressing the challenges of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development of new products, services and technologies.

In South Africa SMEs contributed fifty six percent (56%) the private sector employment. This implies a very high labour absorption capacity and highlights the job creation potentials of this sector and its importance to the reduction of the unemployment in South Africa (Ntsika, 2002).

There is a growing unemployment challenge in South Africa. School leavers enter the job market every year and SMEs are one of the crucial sources of employment to these people. In South Africa as well as other developing countries SMEs have received mounting attention because of their labour absorptive capacity in times of both a shrinking public sector and in private formal economy and increasing number of new labour entrain.
Figure 2.1 consists of a pie chart demarcating the role that SMEs play in different countries in respect of job creation.

Figure 2.1 Contribution of SMEs to employment in different countries

SMEs are a central factor for growth and job creation in developing countries. However, looking at the contribution of SMEs to employment in South Africa it shows that the contribution is lower than other developing countries, for example the contribution of SMEs in Pakistan eighty percent (80 %), China seventy percent (70%) and Germany sixty six percent (66%) is far much higher than that of South Africa (African Development Bank, 2004). The reason for this could be that SMEs in South Africa lack adequate financial resource, hence most of them fail at the early stages since access to capital is mandatory for SMEs growth and sustainability. The expansion of SMEs in South Africa could boost employment more effectively but this is only possible when there are enough funds for them to grow.

Furthermore the contribution of SMEs to employment growth is expected to remain low because the majority of SMEs lack the dynamism to grow beyond one-
person operation during their existence. Most of these operations are started out of necessity rather than choice and a minority of the “enforced” entrepreneurs manages to make their enterprise survive the first two critical years of existence.

2.4.1.2 Gross Domestic Product

SMEs provide stimulation in the economy, and almost without exception, countries have sought ways and means to encourage an increase in their number. SMEs function in every economic activity, they contribute to productivity and growth of GDP through their role of restructuring existing markets and by creating new markets. In South Africa SMEs contributed thirty six percent (36%) of the gross domestic product (Ntsika, 2002). They act as agents of change, by helping to create and diffuse innovations and by developing additional markets. Changing market conditions requires continuous adaptation of industrial structures. New companies introduce new products and processes.

While some established companies may be unable to compete and thus disappear from the market, making it possible for better adapted firms to occupy their positions. Some small companies grow into large ones, while some of the large ones may either fail or decide to shed activities and spawn smaller new companies. This process of entry and exit, and growth decline creates a healthy turbulence and implies a constant search for more productive use of resources (Berry, 2000). Some SMEs complement large firms, introducing the advantages of flexibility, lower transaction costs due to close contact with customers and quicker decision-making while large enterprises exploit the economies of scale. Competitiveness is thus a question of having the right mix of small and large firms and an adequate division of labour that combines economies of scale with flexibility and the advantages of specialisation (Ntsika, 2002).

Other SMEs contribute to productivity and the growth of GDP through the role of restructuring existing markets and by creating new markets. They act as agents of change, by helping to create and diffuse innovation and develop additional
markets. Some SMEs contribute to productivity and growth of GDP through their role of testing new business ideas and thereby challenges established ways of doing business and, in case of success, adjust the production system to changing conditions (Berry, 2000). Figure 2.2 is a pie chart highlighting the contribution of SMEs to GDP in different countries.

**Figure 2.2 Contribution of SMEs to gross domestic product in different countries**


The SME sector is one of the major contributors of a major portion of the gross domestic product across the globe. However, looking at the figure of SME contribution to GDP in South African was thirty six percent (36%) it was lower as compared to other developed countries such as the Germany with eighty seven percent (87%), China with sixty percent (60%) and Japan with fifty five percent (55%) (African Development Bank, 2004). The main reason for these differences may be that is that there is low growth rate for the SMEs in South Africa since they lack sufficient funds to invest in their business. For SMEs to increase their contribution to GDP they should operate to their full capacity and this can only happen if they have sufficient resources.
2.4.1.3 Investment

Another important dimension of the economic weight of SMEs is their contribution to investment. The ability of SMEs in South Africa to be a source of sustained income and employment depends on whether they have the financial capacity to attract new investment. Figure 2.3 highlights the role played by SMEs to generate investment in different countries.

**Figure 2.3 Contribution of SMEs to investment in different countries**

![Graph showing contribution of SMEs to investment in different countries](image)


Though the SME sector contributes to the investment in South Africa, their contribution is very low at 40% when compared to other countries such as China sixty six percent (66%), Namibia fifty one percent (51%), Pakistan fifty percent (50%) and Germany forty five percent (45%) that have high contribution (African Development Bank, 2004). The reason for low investment may be the difficulty experienced by SME sector to obtain sufficient capital resources to undertake investment. Therefore due to these financial challenges SMEs are not in a position to grow to their full potential so as to contribute more to the investment of the country.
A ground breaking study by the Centre for leadership and Public Values (CLPV) at the University of Cape Town (UCT) graduate School of Business has revealed that SMEs are making enormous contribution to the social investment and poverty alleviation in South Africa. They further highlighted that the common perception that SMEs are absorbed in their own survival, lacking the resources or inclination to give to local community is not true. The research proved that the SME segment of the business community is an important part in the socio-economic development wheel that should no longer be overlooked.

2.4.2 Contribution to large corporations

SMEs can constitute an important source of local supply and service provision to larger corporations. They usually have extensive local knowledge of resources and also supply patterns and purchasing trends. Developing countries also represent a huge, largely untapped market for large corporations. By working closely with SMEs, large corporations can develop a new customer base that may not be accessible to the traditional distribution networks of these corporations. SMEs also represent an important source of innovation. They tend to occupy specialized market “niches” and follow competitive strategies that set them apart from mother companies. This might include re-engineering products or services to meet market demands, exploring innovative distribution or sales techniques, or developing new and untapped markets. This often makes them good partners for large corporations (Gibb, 1999:310).

However, even though SMEs in South Africa provide services to large firms in most of the cases they fail to provide these services to their full potential since they lack funds and other resources which are needed. Most of the time the large firms end up taking over the SMEs businesses because they had failed to deliver as expected (Gibb, 1999:312).

2.4.3 Contribution to the financial sector
Emerging economies represent a huge potential market for credit, particularly in sub-Saharan Africa where, according to the United Nations Capital Development Fund (UNCDF), only 4% of Africans have a bank account. Local financial institutions that have successfully served the SME market in developed countries have found it highly profitable and according to the United Nations Conference on Trade and Development (UNCTAD) eight large international banking groups are beginning to tap into these markets. Today Barclays Bank is present in twelve African countries, employs 41,000 people – one-third of its total workforce – and has eight million customers. South Africa accounts for thirteen percent (13%) of the group’s profit (Ntsika, 2001).

Above and beyond the contribution of SMEs to the financial sector the sector itself is not providing the SMEs with enough financial help. In the context of South Africa, small business capital requirements can mainly be financed through internal funding. This is in contrast to emerging and developed economies where their reliance is increasingly becoming external rather than internal. Historically, banks in South Africa were reluctant to provide credit facilities to SMEs. This posed a huge problem to the development of the SMEs sector since capital is the foundation of every firm and if it is not adequate the success of the firm will be hindered (Cook, 2001:15).

In South Africa, SMEs, particularly those owned by blacks are constrained by the narrow range of market opportunities and limited access to finance. In the past South African Financial Institutions catered mainly to the modern white sector of the economy. Even though black entrepreneurs are no longer explicitly excluded from the financial system, the practice on the ground shows that even now they are not benefiting from the new dispensation (Glen, 2000:377).

2.4.4 Contribution to local communities

SMEs often have a vested interest in community development. Being local, they draw upon the community for their workforce and rely on it to do business. For
communities, they provide goods and services tailored to local needs and at costs affordable to local people. They are an important source of employment, particularly for low-skilled workers, as well as to women and young people, who usually make up the greatest proportion of the unemployed in emerging economies (Glen, 2000:373).

Their flat management structures mean that their personnel must fulfill multiple roles, which makes them less vulnerable to unemployment during periods of economic downturn. Their small size and flexibility allow them to adjust to local market fluctuations and to weather local market shocks more comfortably. SMEs can play a much bigger role in developing national economies, alleviating poverty, participating in the global economy and partnering with larger corporations (Berry, 2000). SMEs, however, need to be promoted. Such support requires commitments by and between governments, business and civil society. The SME sector can thus be perceived as a vehicle by which the lowest-income people in our society gain access to economic opportunities at a time that distribution of income and wealth in South Africa is amongst the most unequal in the world (Gibb, 1999).

Besides all the contribution that SMEs give to the economy they also face challenges as they grow. Section 2.5 focuses on the challenges that are faced by SMEs in South Africa.

2.5 CHALLENGES FACED BY SMEs IN SOUTH AFRICA

In their quest to improve the standards of living of South African citizens the government should aim to reduce the levels of poverty and unemployment. This will significantly contribute to the economic growth and development of the South African economy. The SME sector faces a number of challenges which impair their growth and development (Ligthelm & Cant, 2002:121). These challenges are highlighted below.

- Access to finance;
• Access to Information;
• Access to Skills and Training;
• An environment which is not conducive to business.

The subsequent section discusses the challenges when accessing finance.

2.5.1 Access to Finance

The two principal constraints currently affecting the SME sector in South Africa are limited access to finance and the high cost of finance. The secondary constraints of SMEs are absence of security and the lack of a track record. The ability of firms, in South Africa, to be source of sustainable income and employment depends on whether they have the financial capacity to attract new investment. The majority of SMEs lack equity to finance their enterprises and invariably resort to borrowing from financial institutions to start and expand their businesses. This has resulted in SMEs being highly leveraged i.e. they have a high debt to equity ratio, which means that they are mainly financed through borrowing (Cant & Ligthelm, 2002). However, we must remember that this is only applicable to those SMEs who have access to debt finance.

Access to finance tops the lists of constraints faced by SMEs everywhere. Although most often SMEs acquire their capital form their own savings or family members, they also resort to traditional banking sources to meet their capital requirements. However, because of their weak financial base, SMEs are regarded as high-risk areas and as such do not succeed in attracting enough loans. Because of high transactional costs involved and inability of SMEs to provide collateral banks require, SMEs find themselves starved for funds at all stages of their development ranging from start –up to expansion and growth (Nieuwenhuizen & Kroon, 2002:22).

In a survey conducted by Orford, Wood, Fischer, Herrington & Segal, (2003:14), selected experts in South Africa and other participating countries identified the financial support as the number one limiting factor for SME growth. From this
survey it has been concluded that for all developing countries, financial support is the number one limiting factor with the primary problem being access to finance. This is problem common to many countries assessed in the GEM, (2003) with the evidence suggesting that SMEs across the globe find it difficult to secure formal financing for new venture unless they have collateral or some form of credit listing which serves to mitigate the inherent risk in starting a new business (Orford et al., 2003:12).

Nieuwenhuizen and Groenewald, (2004:29) in their study concluded that the lack of sufficient financing is a serious constraint during the formation of new firms as well as at later stages, as business requires additional inflows of capital to support expansion and growth. Furthermore, Naude and Havenga, (2004:112) also highlighted that SMEs have problems in raising both short- and long-term finance. Small firms have little security to offer banks in exchange for loans and this makes obtaining finance much more difficulty than for larger firms. Section 2.5.2 examines the problems faced by SMEs when penetrating markets.

2.5.2 Market Penetration

Access to markets, both local and foreign, remains a significant constraint facing the small-scale entrepreneur. Many SMEs in South Africa have failed to operate successfully because they do not have sufficient information and intelligence on market opportunities and market trends. The SME sector is also not geared for exports and most entrepreneurs find the costs and complications of exporting onerous. Export procedures are complicated since there is a large number of paperwork to be completed as well as red tape involved in the process, making it too bureaucratic. Furthermore, import duty refunds under the disadvantages of the duty system since it takes too long to process. The duty drawback system is a scheme that enables exporters to claim refunds of duties initially paid on imported inputs used in the manufacture of products for export, upon proof of such export. The delay in the processing of duty will deprive SMEs of the money needed for
reinvestment purposes. Therefore, these delays have a negative impact on SME growth resulting in financial problems (Cant & Ligthelm, 2002).

Jones and Tilley, (2003:8) concluded that lack of capital and skills restricts most small local business from expanding into the export market, which results in the saturation of the local market with cheap, low quality goods and services from a range of survivalist micro-businesses. Meanwhile, local SMEs face growing competition from international companies. Local companies, weakened by the lack of skills and capital, are unable to produce goods that can compete with cheaper products from Asian rivals or expand in the international market.

According to Naude and Havenga, (2004:112) SMEs experience high marketing risk from a limited product range. Many SMEs produce just one type of good or service or at least a very limited range of them. This exposes them to problems should consumer tastes and demand conditions change. They further conclude that because of the limits on the time, competency and financial resources available to SMEs, they often are not able to identify and pursue new international market opportunities. Even when they have identified a possible new market, they often experience real difficulties in accessing even the limited data available on which to assess expected profit and risk of doing business in that market. Often, when they are able to obtain data about the new market, it is frequently unreliable or outdated and so may open the business to additional risks if acted upon. Thus, identifying and accessing appropriate information, both from private and government sources, remains a key challenge for SMEs seeking to enter international markets. SMEs that are already established in international markets tend to have developed a greater competence, and the networks needed, to assess new markets.

For SMEs to formulate effective market penetration strategies they need capital to fund their projects so that they can implement these strategies efficiently. However, the situation in South Africa does not allow the SMEs to formulate these
strategies because access to financial resources is a major constrain hence it is difficult for them to implement good marketing penetration strategies since they will not be having enough cash resources to fund the projects. The subsequent section discusses the challenges that SMEs face when accessing technology and infrastructure support.

2.5.3 Technology and Infrastructure support

SMEs are unable to identify sources of technologies appropriate to their specific activities due to a lack of knowledge. Surveys of the SME sector often cite respondents complaining about not knowing where to go for procuring the most cost effective technology. This technology will enable SMEs to service their clientele; however, they end up investing in costly technology which sometimes might not be suitable for their operations. A lack of knowledge with regard to information technology also hampers the development and growth of SMEs in South Africa since it results in an increased cost of production which minimise the viability of SMEs (Cant & Ligthelm, 2002).

The limited access to technology is also due to lack of funds. For SMEs to acquire technology which is effective and recent they need money to do so. However, the accessibility to these funds is limited causing SMEs not to be technologically advanced.

Jones and Tilley, (2003:8) explained that many small firms lack time, resources, technology or expertise to research and develop new business ideas and innovation. This weakness can become a critical factor limiting growth and expansion in small business.

Corporate South Africa is embracing mobile and wireless technologies at a rapidly increasing pace, but small business are being left behind as the options become too complex and the choice too bewildering. According to the latest findings of the Mobility, 2006 research project, small businesses in South Africa are struggling to
get to grips with advanced new mobile technologies, despite the advantages they offer. This was among the key conclusions of a study conducted by World Wide Worx as part of its Mobility 2006 project, backed by First National Bank (FNB), Virgin Mobile and Business. They also emphasised that SMEs are resistant to change and require a strong educational approach in any effort to sell new technology to them (World Wide Worx, 2006). Access to skills and training is examined in section 2.5.4.

2.5.4 Access to Skills and Training

The SME sector in South Africa is, furthermore, experiencing problems such as a lack of appropriate management skills to run their business entities, inability to access loans, inhibiting legal frameworks, difficulty to access markets, inability to produce quality products and registration bureaucracy. SMEs in South Africa lack the necessary human resources skills, marketing skills, financial management skills and general management skills to ensure the continued survival of the sector in the country. Insufficient management skills therefore have a negative effect on the growth of the SME sector in South Africa (Luiz, 2002:27).

Ladzini and van Vuuren, (2002:157-158) emphasise that training alone may not be the only solution that can help small firms succeed, but that constraints such as the lack of financial resources, lack of access to market, lack of support services and low literacy levels should also be addressed.

One possible solution to the challenge is for SMEs to recruit experienced hands on management from abroad or within South Africa who are able to mentor and train their staff so that they can build skills throughout their businesses. However, most SMEs due to a financial resource constraint, cannot afford high-caliber interim management who can assist with skills transfer and development. The accessibility to skills and training depends on the financial background of the firm. For SMEs to train their employees they need finances to fund the training
programmes, however this is not happening in South Africa. The legal framework is examined in the following section.

2.5.5 A legal environment which is not conducive to business

The legal framework is not favourable towards the establishment of SMEs in South Africa. There are a number of laws, regulations and bylaws governing conservations, mining, commerce and industry. The laws relating to commerce and industry have proven barriers to business. SMEs have difficulties obtaining the required licenses as the capital requirements to reach the required standards are high. Other constraints experienced relate to the areas of taxation, labour law, business trade, property, land ownership and access to credit (Nieuwenhuizen & Groenewald, 2004:27).

While the forgoing examples show some of the constraints faced in the policy and regulatory environment, it should be indicated that there are some countries that have taken necessary measures to improve the environment. For instance, Morocco has taken measures to simplify legal and accounting procedures for registering companies. There are still complaints that the procedures put in place are too complex for small business but at least the need to improve had been recognised and appropriate steps have been taken. Kenya, with the help of the Department for International Development (DFID), has managed to improve the legal and policy environment. It introduced a single business permit contributing to lowered costs of operating business (Gibb, 1999:303).

SMEs are currently also facing challenges such as the limited growth of their businesses and increased competition in the SME sector due to globalisation. The dynamics of small-scale industries have become more challenging. As SMEs are required to offer products adhering to international standards they cannot compete in a globalised world. It can be concluded that this is due to the fact that SMEs have limited access to finance which reduces their ability to produce quality raw materials hence they become less competitive. In South Africa challenges such as
the regulatory environment (for example the legal framework) which is not favourable to serve as an incentive to SME development, are affecting the growth of the SME sector (Kibby & Watson, 2003). The following section discuss the failure rate of SMEs in south Africa.

2.6 FAILURE RATE OF SMEs IN SOUTH AFRICA

When firms fail it is either voluntary or compulsory liquidation. Voluntary liquidation is described as an out of court settlement between the creditors and an insolvent company leading to liquidation (Gitman, 2003:18). Compulsory liquidation is defined as legal proceedings in a court of law against a company by its creditors leading to liquidation (Gitman, 2003:18).

Most SMEs fail annually either due to one or the combination of some of the constraints mentioned above. In South Africa ninety percent of SMEs fail during their first years of operation due to lack of resources. Buckley, (1999:36) reported that in the last quarter of the twentieth century many new businesses were started and still more are failing year by year. The following table highlights the failure rate of SMEs in a survey done in South Africa in 2007.

Table 2.3 The level of failure of SMEs in South Africa in 2006

<table>
<thead>
<tr>
<th>Type of industry</th>
<th>Compulsory</th>
<th>Voluntary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>52</td>
<td>50</td>
<td>102</td>
</tr>
</tbody>
</table>

Source: Adapted from (Statistics South Africa 2007)

In March 2007 one hundred and two close corporation in the retail sector failed in South Africa. This supports the notion that the failure rate of SMEs is very high and strategies to lower it should be implemented. Mambula, (2002:61) reports that most small business from the 32 small firms studied in Nigeria failed because of lack of acquired foreign capital to purchase machinery and small parts.
The article by the Small Business Advisor, (1999:12) also indicated that thousands of businesses fail every year, ranging from small, medium-sized and big enterprises. Macleod, as quoted by Ladzini and van Vuuren, (2002:155) believes that a considerable number of small business fail just before many of them start to operate. Section 2.7 discusses the overview of this chapter.

2.7 SUMMARY

This chapter has examined the definition of SMEs internationally and in South Africa. The contribution of the SME sector to employment, gross domestic product and investment in South Africa were also discussed. It is apparent that SMEs have a very important role to play in reducing the high unemployment rate in South Africa, given its high labour absorption capacity. The limited access to technology, low level of skills training and financing problems would increasingly become greater challenges to bear because of the stiff global competition.

SMEs in South Africa have a high mortality rate and usually fail to grow into larger businesses. Up to ninety percent (90%) of new jobs that SMEs create are lost within two years; South Africa will only be able to enjoy the sustainable growth in GDP and employment that it needs by growing its SME segment. While the large corporations are important to the country’s economy, they tend to be of capital-intensive in nature. It is important to support SMEs because they are an important component in the economy since they are labour-intensive and owner-driven businesses.

From the foregoing discussions, it is obvious that in spite of the potential role SMEs play in the economy, they are beset by numerous obstacles that adversely impact their contribution. Finance still pose a major constraint to SMEs in South Africa and seems to be the common denomination of their problems. Financial issues important for business success are capital requirements, management of working capital and income generation. Therefore, the government should address financing problems to SMEs and cooperate through credit guarantee
schemes in order to encourage the commercial banks to lend more to such businesses.

A diversified financial sector capable of meeting the full range of demand for financial services is needed. This will enable SMEs to be self-employed so as to sustain the economic activities essential for their survival. However, this is not happening in South Africa, instead the financial sector is not favourable to the SMEs. The SMEs are viewed as a high risk investment because they do not have assets to secure their loans. The next chapter discusses the capital structure theories, determinants of the capital structure of SMEs as well as the government contributions in as far as the SMEs are concerned.
CHAPTER THREE

SMEs’ CAPITAL STRUCTURE DECISIONS
3.1 INTRODUCTION

The increasing interest on studies focusing at the Small and Medium Enterprises (SMEs) sector is to a large extent driven by the recognition that SMEs are the engine of economic growth. The role they play within economies is of greater importance. However, for all these SMEs to survive and grow to their full potential they need capital so that they can sustain their activities. Equity and debt are the two possible tools to finance a company; firms can use whatever combination of them in order to raise money. Within the broad categories of debt and equity there exists a variety of financing instruments and vehicles that firm can use, but each of them belongs either to debt or equity (Chen, 2004:88). Therefore this chapter examines the determinants of the capital structures of SMEs in South Africa as well as the government contribution to the growth of SMEs.

The first part of the chapter focuses on the theoretical framework of capital structure. In this section different theories of capital structure were discussed individually namely: Modigliani and Miller, Static trade off theory, Pecking order theory and the Agency theory. Furthermore the chapter discusses the different sources capital and their relevancy to the SME scenario. Finally the chapter discussed the quantitative determinants of capital structure of the SMEs in South Africa. The subsequent section discusses the theoretical frame work of the study.

3.2 THEORECTICAL FRAME WORK

Capital structure is defined as the specific mix of debt and equity a firm uses to finance its operations. At the earliest development stages, the finance of small enterprises is critically dependent on the owners and individuals close to them. As successful SMEs develop, they soon outgrow sources of internal equity and graduate to external capital, including venture capital, corporate investment and bank debt. Therefore the capital of the business is very vital since it forms the foundation of the firm (Boateng, 2004:57).
One of the earliest important sources on capital structure is the classical work of Modigliani and Miller, (1958 & 1963). From the pioneer work of Modigliani and Miller three important theories emerged to explain the capital structure decisions. These theories are Static Trade Off theory, Pecking order theory and the Agency theory and will be discussed in turn.

3.2.1 Modigliani and Miller (1958)

Modigliani and Miller, (1958) assumed perfect and frictionless capital markets to prove their irrelevance theorem. According to the irrelevance theorem the firm’s financing policy should not affect the firm’s value or its cost of capital. The firm’s value is solely determined by its investment decisions. This obviously implies that there are no interactions between corporate finance and investment decisions. A logical conclusion is that firm’s financing and investment decisions can be analysed separately.

Their conclusions, however, is based on what is termed ‘restrictive and unrealistic’ assumptions such as a world with perfect capital markets, absence of corporate and personal taxes, and independent firm’s financial decisions. By introducing market imperfections, firms seem to get an optimal, value-maximising debt-equity ratio by trading off the advantages of debt against the disadvantages. Adapting these assumptions to reality and repeating the analysis suggests that capital structure decisions do affect a firm’s value. Modigliani and Miller therefore revised their initial stance in 1963. Consequently, several studies have shown that capital structure significantly affects the value of a firm (Jensen & Meckling, (1976); Myers, (1977); Boateng, (2004); Abor, (2005); Coleman, (2004)). Section 3.2.2 discusses the revised Modigliani & Miller theory.

3.2.2 Modigliani & Miller (1963)

Modigliani and Miller, (1958) revised their propositions in 1963 in order to account for corporate taxes and interest rate deductibility. By revising the two propositions they showed the effect of tax rates and interest rate deductibility on the capital
structure and expected return of the firm's shares. Firms could through interest rate deductibility shift payments from going to the government and instead direct them to the firm's shareholders and creditors by increasing leverage (Modigliani & Miller, 1963).

Stiglitz re-examined the work of Modigliani & Miller in 1969. After the re-examining of theory the capital structure of a firm was then shown to have no effects not only on the firm's equilibrium value but also on the real equilibrium allocation. The conditions required were also simplified to that of a perfectly competitive capital market with no frictions (i.e. with no transaction costs, taxes or limits on the short sales of assets, infinitely divisible securities and perfectly symmetric information across agents).

Stiglitz argues that it is necessary to assume that debt is risk free if the financing decisions of firms are to be a matter of indifference to share holders. In essence, in an equal access market investors can and will choose the same positions, protected and unprotected, irrespective of the financing decisions of firms. The restated theorem asserted simply that, if there is equilibrium with a firm having a particular debt-equity ratio and market value, there exists equilibrium with the firm having any other debt-equity ratio, and in that new equilibrium the firm has the same market value as it did in the original equilibrium. After the Modigliani & Miller other different theories of capital structure emerged such as the Static Trade off theory. Section 3.2.3 examines the Static Trade off Theory.

### 3.2.3 Static Trade off Theory

A set of theories such as the static trade-off theory of capital structure was initially proposed by Scott, (1972:45), and later elaborated on by Kraus & Litzenberger, (1973:913). The Static Trade-Off theory emerged in the streamline of the path-breaking work of Modigliani & Miller, (1958). The theory focuses on the benefits and costs of issuing debt, predicts that an optimal target financial debt ratio exists, which maximizes the value of the firm. The optimal point can be attained when the
marginal value of the benefits associated with debt issues exactly offsets the increase in the present value of the costs associated with issuing more debt (Myers, 2001). The benefits of debt are the tax deductibility of interest payments. The tax deductibility of corporate interest payments favours the use of debt. This simple effect however, can be complicated by the existence of personal taxes (Miller, 1977) and non-debt tax shields (DeAngelo & Masulis, 1980:27).

Miller, (1977) added personal taxes to the analysis and demonstrated that optimal debt usage occurs on a macro-level, but it does not exist at the firm level. Interest deductibility at the firm level is offset at the investor level. Miller, (1977) resolved this problem by showing that a firm could generate higher after-tax income by increasing the debt-equity ratio. This additional income would result in a higher payout to stockholders and bondholders, but the value of the firm need not increase. The crux of the argument is that as debt is substituted for equity, the proportion of firm payouts in the form of interest on debt rises relative to payouts in the form of dividends and capital gains on equity. Higher taxes on interest payments than on equity returns reduce or eliminate the advantage of debt finance to the firm.

The static trade-off theory predicts that firms adjust their debt ratio towards a predetermined target. Hence, when the desired financial value is set equal to the industry average debt ratio, firms with a debt ratio below the industry average debt ratio will increase their debt ratio, while firms with a debt ratio above the industry average will decrease their debt. It is immaterial whether the firm decides to use the industry average, as their target, based on rational thinking or by blindly following other firms. There is empirical evidence in favour of the static trade-off and optimal capital structure argument. Several authors have documented evidence of strong industry effects in debt ratios which is interpreted as evidence of optimal ratios (Scott, (1972), Kraus and Litzenberger, (1973) and Harris and Raviv, (1999)).
Kraus and Litzenberger, (1973) developed a state preference model to explain capital structure choice. According to their model the tax advantages of debt make it the optimal means of financing as long the firm will not become insolvent. In situations where the firm faces an insolvency problem, the firm will finance with equity. The capital structure “solution” is not necessary at an interior point. Each firm must identify the conditions, and the capital structure solution is an end result.

According to Harris and Raviv, (1999) a large debt level improves the liquidation decision because it makes default more likely. They predict that firms with higher liquidation value, e.g. those with tangible assets and / or firms with lower investigation costs will have more debt and will be more likely to default but will have higher market value than similar firms with lower liquidation.

**Applicability to Small firms**

Applying the trade off theory to small firms raises some questions. First of all, the definition of an optimal target (that is maximising the firm’s value and minimising the cost of capital) is very difficult to do in SMEs. This is because these particular objectives are difficult to measure in small firms, and may not be the only one, or the main, goal of the owner manager. Moreover, the main advantage of debt, the tax shield, can be particularly complex to assess in SMEs firms since the business income is taxed as personal income in most situations. This is because entrepreneurs find it difficult to separate their personal and business incomes (Hogan & Hutson, 2005).

Secondly, debt does not necessarily have to be identified with optimal debt, as this implies ignoring the difficulties companies suffer when adjusting their capital structure (Myers, 1977). In a perfect world, without transaction and adjustment costs, companies would automatically respond to any variation of their debt objective by increasing or decreasing their capital. Therefore, in a given moment of time the debt of a given company should not differ from its debt target. Nevertheless, in reality there are considerable transaction costs that impede
companies from completely reaching their optimum debt target. Showing that in reality it is difficult to reach an optimum capital structure. Subsequent to the Static Trade off Theory other different theories came forward such as the pecking order theory. Section 3.2.4 comprehensively discusses the Pecking Order Theory.

3.2.4 Pecking Order Theory

Pecking Order Theory proposed by Myers, (1984) states that firms prefer to finance new investment, first internally with retained earnings, then with debt, and finally with an issue of new equity. Myers argues that an optimal capital structure is difficult to define as equity appears at the top and the bottom of the ‘pecking order’. Internal funds incur no flotation costs and require no disclosure of the firm’s proprietary financial information. This information may include firm’s potential investment opportunities and gains that are expected to accrue as a result of undertaking such investments. The Pecking Order Theory tries to explain why most profitable firms use internal financing. The easy reason for this is that they do not need to make use of external funding. However, the other extreme, which are businesses with less profit, do not possess enough internal capital and have to seek for external funding (Myers, 1984:592).

SMEs specifically face a more extreme version of the Pecking Order Theory (POT), described as a “constrained” POT by Felsenstein & Fleischier, (2002:196) and a “modified” POT by Ang, (1991). This is mainly because they have less access to external funds, debt as well as equity, as compared to large enterprises. The theory's application to SMEs implies that external equity finance issues may be inappropriate since these firms may not be listed on a stock exchange or may not qualify to go through private placements.

Berger and Udell, (1998:613) suggested that more severe information asymmetry among SMEs could lead to pecking order behaviour because outside financiers, in order to makeup for the increased risk caused by poor information and the inability to monitor the entrepreneur’s behaviour, will demand higher return rates. Thus,
SME owners will prefer internal financing over external financing. Once internal sources are exhausted, the preferred solution to the information asymmetry problem is to apply for a loan with a bank with which the firm has an existing banking relationship. These issues are thought to lessen with age and size, as the firm generates greater evidence and a greater ability to clearly communicate its quality.

Cassar and Holmes, (2003), Esperança et al., (2003), and Hall et al., (2004) also suggested negative relationships between profitability and both long-term debt and short-term debt ratios. Following the pecking order theory other capital structure theories came into sight such as agency cost theory.

The Pecking Order Theory is especially appropriate for small and medium sized firms. These firms do not typically aim at a target debt ratio; instead, their financing decisions follow a hierarchy, with a preference for internal over external finance, and for debt over equity. Many SMEs tend to borrow more and more as their investment needs are typically well in excess of internally generated cash flows. Changes in debt ratios are therefore driven by their need to obtain external funds rather than an attempt to achieve an optimal capital structure furthermore, SMEs are often managed by very few managers whose main objective is to minimize the intrusion in their business and avoid the discipline inherent in other financing options than internal funds. That is why internal funds will lie in the first place of their preference of financing. In case internal funds are not enough, SMEs will prefer debt to new equity mainly because debt means lower level of intrusion and, most importantly, lower risk of losing control and decision-making power than new equity (Cassar & Holmes, 2003). The Agency Cost Theory of capital structure is discussed in the section that follows.

3.2.5 Agency Cost Theory

The Agency Cost Theory of Capital Structure by Jensen & Meckling, (1976) states that an optimal capital structure will be determined by minimising the costs arising
from conflicts between the parties involved. Agency cost is a type of internal cost that arises from, or must be paid to, an agent acting on behalf of a principal. Agency costs arise because of core problems such as conflicts of interest between shareholders and management. Shareholders wish for management to run the company in a way that increases shareholder value. However, management may wish to grow the company in ways that maximize their personal power and wealth that may not be in the best interests of shareholders.

The theory states that agency costs play an important role in financing decisions due to the conflict that may exist between shareholders and debt holders. If companies are approaching financial distress, shareholders can encourage management to take decisions, which, in effect, expropriate funds from debt holders to equity holders. Sophisticated debt holders will then require a higher return for their funds if there is potential for this transfer of wealth. Debt and the accompanying interest payments, however, may reduce the agency conflict between shareholders and managers. Debt holders have legal remedy if management fails to make interest payments when they are due. Therefore managers concerned about potential loss of job, will be more likely to operate the firm as efficiently as possible in order to meet the interest payments, thus aligning their behaviour closer to shareholder wealth maximisation (Bates, 1999). The agency theory applies to a certain extent because the owner and the manager of the SME is often the same person. The section that follows discussed the uniqueness of the SME capital structure.

**3.2.6 The Uniqueness of the SME Capital Structure**

The literature review gives vital insights into the problems of ownership and credit rationing. These problems may well be more severe and the associated costs much higher for SMEs than for large firms. Most SMEs cannot separate their personal assets and the business assets therefore they are subject to the risk of asset substitution which, in practice, means a change in firm’s asset structure. For every SME the asset substitution may well take place between the enterprise and
the owners’ household. Thus the closeness to the household, lack of legal formalisation, weak financial statements disclosure and the owner-managerial nature of SMEs make it harder for lenders to track ongoing changes on the asset base of the small firm (Bates, 1999).

When firms are applying for funds from financial institutions they are supposed to go through an evaluation. For a large firm the evaluation of an application for finance may be limited to the assessment of an audited set of financial statements provided by the applicant. For SMEs the assessment frequently has to go for beyond this, implying a substantially higher transaction cost (Kim, 1999:45).

Following from these theoretical standpoints, there has been increasingly recognition that SMEs are different from large enterprises and that these differences affect numerous aspects of their performance, including capital structure. For instance, compared to large firms SMEs do not have a sophisticated capital structure. This is because SMEs are characterised by lower liquidity, lower use of long term debt and higher use of short term debt. Furthermore, SMEs are not usually listed on capital markets and tend to be more affected by information asymmetries. They are frequently owned and managed by only one director (or very few) who is not interested in sharing the control of the firm. SMEs are usually less leveraged, as they tend to be financially restrained by creditors. Consequently, they are more dependent on internal resources and short-term debt (Barton, 2001).

A key consideration in choosing the source of new business finance is to strike a balance between equity and debt to ensure the funding structure suits the business. The overall objective in raising finance for a company is to avoid exposing the business to excessive high borrowings, but without unnecessarily diluting the share capital. This will ensure that the financial risk of the company is kept at an optimal level. The following section discusses the equity source of finance.
3.3 EQUITY

Equity is any financing vehicle that has a residual claim on the firm, and does not create a tax advantage from its payments. It implies the owners’ financial contribution to the firm and it can be sourced internally or externally. In this study equity will be limited to retained earnings which is internal equity and owners’ contribution which is external equity (Damodaran, 1999:215).

ADVANTAGES OF EQUITY

Equity finance can sometimes be more appropriate than other sources of finance, for example bank loans, but it can place different demands on you and your business.

- The funding is committed to the business and the intended projects. Investors only realise their investment if the business is doing well, for example through flotation or a sale to new investors;

- The right business angels and venture capitalists can bring valuable skills, contacts and experience to your business and can assist with strategy and key decision making;

- Investors have a vested interest in the business’ success, that is its growth, profitability and increase in value;

- Investors are often prepared to provide follow-up funding as the business grows (Damodaran, 1999:215).

DISADVANTAGES OF EQUITY

Raising equity finance is demanding, costly and time-consuming. The business may suffer as the owner of the business devotes time to the deal. Potential investors will seek background information on you and your business - they will closely scrutinise past results and forecasts and will probe the management team. However, many businesses find this discipline useful regardless of any funding.
• Depending on the investor, the owner of the firm will be subject to varying degrees of influence over the management of the business and making of major decisions;

• The owner will have to invest management time to provide regular information for the investor to monitor;

• The owner’s share in the business will be diluted. However, the share may be of a much larger business because of the funding;

• There can be legal and regulatory issues to comply with when raising finance, for example when promoting investments (Damodaran, 1999:215).

As discussed above equity comes in different forms and each form has its benefits and cost. It is possible to use all the forms of equity however, the availability of these forms of equity is also important when firms choose the type of equity finance to use. The following section discusses the different sources of equity finance in detail.

3.3.1 Owner’s funds

This is one of the most common sources of equity finance. This finance normally comes from friends, neighbours or family members who have information of the SME and wish to have a stake in it. It is a common source of equity finance because there is often a relationship of trust between the contracting parties and because the investor tends to have details of SME they are investing in. The owners’ funds have an advantage that friends and Family do not charge interest. They are a helping hand rather than a serious investment thus reduces risk. Close, personal long time contacts also exist in this source of finance. However, the owner’s funds cannot be relied upon for follow up finance and may not have useful commercial contacts (Hamilton & Fox, 1999:232).

Most SMEs use this type of equity at the start up stage since at this stage firms face difficulties in sourcing finance for their investment for a number of reasons.
Firstly internal equity is limited as sufficient profits may not be generated during the early stages. The other reason is that borrowing will be very difficult for SMEs because lenders will not be willing to give SMEs loans because of the high risk of failure. Therefore the use of owners’ funds is going to continue until the firm starts generating some profits (Hogan & Hutson, 2005).

Naturally SMEs should be risk averse so they would want to minimise costs. Uses of owners’ funds diminish the risk of bankruptcy increasing the creditability of the firm. However, it should be noted that using hundred percent equity is not recommended because it endangers firm when they are borrowing since they will put all their personal assets as collateral in the case of sole trader. Even so bankers would also want assets as collateral even to companies which will put the companies at risk. Therefore SMEs have to make use of other sources of finance.

3.3.2 Retained earnings

Retention of earnings is the dominant source of investment in all countries. It is the amount of profit the company has reinvested in the business since its commencement. These reinvestments are either asset purchases or liability reductions. They are also called earned surplus, retained capital, or accumulated earnings. In general, for small firms, retained earnings are the most important financing source for capital investment. When a small firm has a profitable investment opportunity, managers usually find it convenient to use retained earnings as a funding source. Alternatively, when a small firm earns profits on earlier investments, it tends to retain a significant portion of the profit for future capital needs (Hamilton & Fox, 1999:236).

During the early stages of the business it is very difficult for the firm to use retained earnings since they won’t be having sufficient profits. Profitability of the firm increases as the firm grows meaning that there is a positive relationship between the use of retained earnings and the size and profitability of the SMEs. The risk involved in using internal sources is normally very low. However, SMEs must be alert when using this type of finance. For example, they need to
be careful that they do not deter their customers with an overly aggressive credit policy. Their stock has to be broad enough to satisfy normal customer demand. Internal sources thus give maximum flexibility, as long as they are used carefully (Hull & Robert, 2004:50).

Finally, it should be noted that the availability of internal funds depends on circumstances and the entrepreneur may need to supplement with external funds. However, the firm that makes full use of its internal funds by carefully managing all of its assets and controlling its costs will find that it is much more attractive to external sources of funds (Hamilton & Fox, 1999:236).

3.3.3 Venture capital

This is an external source of equity. It is the capital invested temporarily in the form of shares of a company by a specialised firm in the hope of a return on investment (ROI) that is both large and speedy, on a balance with the level of risk taken. Venture capital firms invest both in start-ups and growing businesses. Equity funding, particularly venture capital, is appropriate for only a small proportion of businesses. Generally, the firm should be a high growth company with a competitive advantage or niche in a growing or emerging market. The investor will be looking to recoup at least five times their investment in around five years. If you are focused on growing your company and/or need the competencies that venture capitalists provide, then raising equity may be your best option (Barton, 2001).

Advantages of using Venture capital

- The funding is committed to the business and the intended projects. Investors only realise their investment if the business is doing well;

- The right venture capitalists can bring valuable skills, contacts and experience to the business and can assist with strategy and key decision making;
• Investors have a vested interest in the business' success, that is its growth, profitability and increase in value;

• Investors are often prepared to provide follow-up funding as the business grows (Brealey & Myers, 2006).

Disadvantages of using Venture capital;

• Depending on the investor, the owner will be subject to varying degrees of influence over the management of the business and making of major decisions;

• The owner will loose total control when making decisions (Brealey & Myers, 2006).

Cosh and Hughes, (1999) found that venture capital provided only a small proportion of the equity funding of SMEs. They show that venture capital funds are not interested in providing the small amounts of funding sought by many small enterprises. Venture capital investment is generally positively related to the size of a firm, as a high rate of return is required in relatively short period of time. However, the venture capital market is not fully developed in South Africa. Undoubtedly, the introduction of incentive schemes would facilitate the provision of capital through business angels (South African Venture Capital Association, 2002).

3.3.4 Business angel finance

Business angels are individuals, generally experienced entrepreneurs, who invest their money, skills and time in newly created businesses in exchange for a share of their capital. They are also called informal investors who invest in unquoted young entrepreneurial companies. These wealthy individuals are usually former entrepreneurs or executives. They provide not only finance but experience and business skills. This type of investor is called a business angel because many
perceive that they save struggling firms with both finance and know-how when no one else is willing to do so (Brealey & Myers, 2006).

Though angel investing has both its advantages and disadvantages, it is widely agreed that the advantages of business angels generally outweigh their disadvantages, making an active informal venture capital market a prerequisite for a vigorous enterprise economy.

For SMEs, the advantages of this funding source include:

- Investment below the usual minimum ticket invested by formal venture capitalists;
- Investment in newly-created businesses without necessarily requiring evidence of a positive track-record;
- Investment decisions tend to be made on a rather subjective basis e.g. personal chemistry between angel and entrepreneur, compared to formal venture capitalists;
- Angels are geographically closer to entrepreneurs who thereby also benefit from the latter’s personal networks. This proximity often leverages other funding sources (Brealey & Myers, 2006).

For SMEs, the disadvantages of this funding source include:

- Depending on the investor, the owner will be subject to varying degrees of influence over the management of the business and making of major decisions.

- The owner will have to invest management time to provide regular information for the investor to monitor.

- The owner’s share in the business will be diluted. However, the share may be of a much larger business because of the funding (Brealey & Myers, 2006).

When firms are still developing their profitability will be very low meaning that they would prefer to use external sources of equity. As firms gets higher profits it
increases the availability of internal equity. Accordingly profitable firms, because of the greater availability of internally generated funds tend to have lower external equity in their capital structure (Hull & Robert, 2004:47). As firms grow they would prefer to use some percentage of debt in their capital structure because of the benefits that could be offered. The following section will discusses debt as a source of capital for SMEs.

3.4 DEBT

Debt is any financing medium that has a contractual claim on the firm. It creates a tax deductible payment, has fixed life and has a priority claim on cash flow in both operating and bankruptcy periods (Damodaran, 1999:214). Small businesses can obtain debt financing from a number of different sources. These sources can be broken down into two general categories namely private and public sources. Private sources of debt financing includes banks, credit unions, consumer finance companies, commercial finance companies, trade credit, insurance companies, factor companies, and leasing companies. Public sources of debt financing include a number of loan programs provided by the state and central governments to support small businesses. Debt capital is limited to debt obtained by SMEs from commercial banks. Most studies reveal that commercial banks are the major source of debt finance for SMEs (Damodaran, 1999:214).

From the perspective of the equity holder, firms that use debt rather than equity to finance their operations have two advantages. The first is due to the benefit of the tax shield on the interest paid on the debt itself, the second is due to the fact that debt allows firms to impose discipline on managers. Companies have to make regular payments to the lenders, and managers who choose to invest in non performing investments will have difficulties in repaying back the cash flows associated with the amount borrowed. On the other hand, a large use of debt also presents disadvantages: the firm has a higher probability of default if cash flows from operations are not sufficient to make interest payments possible. At present
SMEs do not have a full picture of all the finance charges that the various credit suppliers charge (Cassar & Holmes, 2003).

The availability of debt finance to SMEs in South Africa is discouraged by the strict monetary policy of the government. In order to lower inflation, monetary policy became restrictive in mid 2006 and was further tightened in 2007, with the repurchase (repo) rate increasing from 7 to 11 per cent by the end of the year and other money market interest rates also rising. The growth of credit contracted to 24.5 per cent in October, down from 27.7 per cent in June. Most of this decrease is related to household loans, which still constitute the biggest share of private sector debt. Rapid growth of the broad money supply (M3) reflects an increase in risk aversion towards security markets as well as higher interest rates on bank deposits. This had a negative impact on SME borrowing since it was now expensive to obtain loans. Because it is impossible to obtain a positive leverage meaning that of returns will exceed cost of debt. Return on assets should be greater than the before tax and interest on debt. The current global financial crisis is also impacting negatively on SMEs since it is decreasing the level of investment across the globe (National Treasury Report, 2008).

3.4.1 Commercial banks’ financing products available to SMEs

This section examines the importance of commercial banks as the primary source of debt to SMEs. The various commercial banks lending products to SMEs such as overdrafts, term loans, hire purchase and factoring will be extensively discussed (Damodaran, 1999:214). Commercial banks are the principal source of credit to SMEs. They offer SMEs a wide range of services in their own right or through completely or partially owned subsidiaries. These services cover every aspect of financial markets such as overdrafts facilities, term loans, trade bill financing, factoring, leasing, export and import finance, and even government loan guarantee schemes (Coleman & Cohn, 2001:80).
The products that commercial banks offer to SMEs such as overdrafts, term loans, leasing, factoring, hire purchase credit cards and trade credit are comprehensively discussed in sections below.

3.4.1.1 Overdrafts

This is probably the most available and appropriate source of short-term borrowings. Subsequently to negotiation, the bank allows the borrower to overdraw his account up to a specified limit, which is reviewed on a regular basis, normally annually. This gives the SMEs the flexibility of altering their financing requirements from day to day according to the firm’s cash flow. With overdrafts, interest is calculated on the daily outstanding balance. This means that no interest is paid on any unutilised portion of the facility. Interest rates charged fluctuate with the prime rate and this facility is generally used for financing increases in working capital. However, it is also useful when bridging finance is required where a gap exists between a long-term debt and the long-term source of finance becoming available. It is important to realise that bank overdrafts are repayable on demand (Coleman & Cohn, 2001:85).

An overdraft is flexible since interests are only paid on the amount utilised. They are quicker to arrange than term loans; and security requirements of overdrafts are less cumbersome than that of term loans (Barrow, 1999:64).

However, overdrafts are very expensive in nature and are not suitable for SMEs in the early stages because they increase a lot of risk to the firm. Currently the rate of overdraft ranges between twenty six percent and twenty eighty percent (26%-28%) depending with banks, which is a high rate as compared to other facilities like credit cards which is ranges between twenty two percent and twenty five percent (22%-25%). Most large firms are the ones who use overdraft facilities. From a financial distress perspective it can be observed that large firms are more diversified and therefore less subject to insolvency as compared to SMEs. Therefore, size must be positively related to leverage refer to Ozkan, (2001: 178).
In addition large firms may be able to incur lower transaction costs associated with debt. The conclusion therefore is that overdrafts are not a highly recommended source of debt finance for SMEs as they are relatively expensive as compared to other sources of debt. The following section examines term loan as a source of debt finance.

3.4.1.2 Term Loans

A common form of finance is the term loan. This type of loan normally provides finance for up to ten years and is in accordance with a strict set of conditions outlined in a term loan letter of offer by the financial institution and accepted by the client. Generally the lender will require security for the loan and seek to establish the safety of the loan by imposing certain restrictions on the borrower, such as maximum permissible equity to debt and working capital ratios, and limitations on the sale or pledge of assets and payment of dividends. Term loans are normally tailored to meet the particular cash flow requirements of a business. They are used for the finance of both current assets and fixed assets (Saunders, 1999:210).

Term loans can be given on an individual basis but are often used for small business loans. The ability to repay over a long period of time is attractive for new or expanding enterprises, as the assumption is that they will increase their profit over time. Term loans are a good way of quickly increasing capital in order to raise a business' supply capabilities or range. For instance, some new companies may use a term loan to buy company vehicles or rent more space for their operations (Hamilton & Fox, 1999:143).

However, term loans have a disadvantage of making the firm pay interest on the full loan and not on the amount utilised. The bank often imposes legally binding covenants before agreeing to the loans. For example, the bank may insist that the firm keeps its overall leverage below a certain level refer to Cosh & Hughes, (1999:152). This source of debt finance is mostly recommended to SMEs who have developed since it is expensive because apart from the higher interest rates
they involve other expenses such as legal fees. Therefore they should only be used by SMEs which have passed the start up stage. Section 3.4.1.3 discusses leasing as a source of debt finance.

3.4.1.3 Leasing

Leasing is a method of reducing capital funding requirements. Instead of acquiring finance to purchase fixed assets, the process is cut short by obtaining the use but not ownership of the required assets in return for a periodic lease payment. Leasing, is based on the principle that income is earned from the use of an asset, not the ownership, provides the following advantages: Cash resources may be released for more profitable trading and for the provision of working capital. Maintenance costs are reduced to a minimum by immediate replacement with new equipment at the end of the lease period. Plant and equipment are financed over a period directly related to their productive capacity and useful life. Budgeting is simplified, as the monthly cash flows are known, as is the date when the equipment must be replaced. Rental payments as well as installments are deducted in full for tax purposes. These payments are a charge against profits before tax, whereas Installment sale payments are paid out of income after tax (Gitman, 2003:673). However, in South Africa installments payments are also charged against before tax.

Leasing can be classified into two categories, namely an operating lease and a financial lease. An operating lease is a contractual arrangement whereby a lessee agrees to make periodic payments to the lessor for a period of five or less to obtain an asset’s services. A financial lease is a long term lease that is non-cancelable and obligates the lessee to make payments for the use of the asset over a predetermined period of time. With financial leases the present value total payments over the lease period are greater than the lessor’s initial cost of the leased assets (Gitman, 2003:673).

The advantages of a lease agreement to SMEs can be highlighted as follows:
The firm may avoid the risk of obsolescence especially in the operating leases. In some industries the rate of technology change is rapid. Therefore, the advantage of leasing is that the term of the lease can be considerably shorter than the life of the leased asset;

Leasing, in addition, provides an SME with financial flexibility in that payments on the leased asset are made over a predetermined period of time. Leasing provides one hundred percent financing because there is no need for down payment. The major motivation of the lessee is to acquire the use of an asset without having to provide any cash investment;

Lease payments are also tax deductible expenses which reduce the effective cost of the lease;

Leasing, especially an operating lease, could imply off balance sheet financing. This encompass that neither the leased asset nor the liability under the lease contract appears in the balance sheet. Since operating leases are an off balance sheet engagement, it puts the company in a better borrowing position because the gearing level is lower than it should, normally, be (Damodaran, 1999:504).

The disadvantage of lease agreements to SMEs is that

- If the asset, subsequently, becomes obsolete, especially in the case of a financial lease, the firm must still make lease payments over the remaining term of the asset;

- Leasing, especially financial leasing in some instances must be disclosed as a liability in a company’s balance sheet. This increases the leverage of a firm and may affect the ability to borrow more funds in the future (Gitman, 2003:675).

The subsequent section discusses factoring as a source of debt finance.

### 3.4.1.4 Factoring

Factoring is a term referring to the raising of funds by the sale or assignment of book debts to a third person i.e. a factor. The sale is normally with recourse to the
“seller” for uncollectable debts. It may include all or some of the debts sold. The system may require the debtor to pay direct to the factor or via the original creditor as an agent for the factor, and completes the transaction as agent of the factor. This latter method has the advantage of maintaining the confidentiality of the arrangement between the seller and the factoring house (Gitman, 2003:677).

Factoring is a very convenient method of financing shortages in working capital and is frequently an attractive proposition to a new business faced with a substantial growth in sales which need to be financed. However, one needs to ensure that gross income margins generated by these sales can satisfactory absorb the costs of the factoring procedure. An additional advantage of factoring accrues to the seller by the possible savings in staff and paperwork associated with maintaining accounts and monitoring debtors. Furthermore, cash is received immediately and the seller is not obliged to include a discount for prompt payment (Wald, 1999:170). Businesses can use debt factoring to raise capital by borrowing money against unpaid invoices. Factoring is only available to businesses that sell products or services on credit to other businesses. Hire purchase is discussed in the section that follows.

3.4.1.5 Hire purchase

Banks or their subsidiaries can finance the hire purchase of assets such as motor vehicles, machinery and equipment. The ownership of such products purchased through a hire purchase agreement rests with the bank until the final installment is paid. Hire purchase or an installment credit transaction, as it is officially known in South Africa, can be described as a credit sale in which it is agreed that the purchase price of the item will be paid in installments. Although the buyer takes possession of the item, ownership of the item sold will not pass to the buyer until the last installment is paid. An initial deposit, which is a portion of the cash price, is usually payable on the item. In South Africa, the Credit Agreement Act of 1980, as amended, guides’ installment credit transactions. The interest, on hire purchase, is usually fixed and more expensive than a bank loan. Hire purchase is
currently however the most common means of financing to purchase most types of business assets in South Africa (Van Aardt, Van Aardt & Behuidenhout, 2000:158).

The advantage of hire purchase to SMEs is that in the hire purchase agreement, the hire has the advantage of using the equipment over the period that the hire is making payments. The hire, therefore, obtains the benefit of using equipment without having to incur a large capital outlay; and hire purchase is a convenient source of medium term credit, on fixed terms, for the purchase of equipment where the equipment, itself, can provide adequate security for the loan (Samuels, Wikes & Brayshaw, 1999:583). The disadvantage of hire purchase to SMEs is that it is usually more expensive than an complete cash purchase as payments on hire purchase include finance charges.

This is the most common source to finance the acquisition of vehicles or equipment. In terms of the regulations in the Credit Agreements Act, a deposit is normally required and, depending on the acquisition, the period for payment is fixed. The goods purchased are registered in the owner’s name and are always taken as prime security for the debt (Samuels et al., 1999:583). Section 3.4.1.6 examines credit cards as a source of debt finance to SMEs.

3.4.1.6 Credit cards

SMEs may turn to alternative sources of bank debt financing if they find themselves unable to obtain traditional forms of bank credit. Credit cards can serve as a convenient alternative to paying expensive items in cash if a business pays balances on time and in full each month. They are quick and easy loan transactions. The credit card account must be settled by the card holder at the end of a particular month or at least to some specified minimum amount. In addition, a credit card serves to identify the customer and makes pertinent information, about the customer, available when the privilege of using the card is exercised (Rose, 2000:61).
For SMEs the use of credit cards is very discouraged because it is a high risk project and very expensive. Currently the interest rate is between twenty two percent and twenty five percent (22%-25%) which is higher than the stipulated fourteen percent (14%) by the reserve bank. Furthermore failure to pay the amount owing within forty five days will increase the interest rate on a daily basis. SMEs have to be risk averse therefore they need to minimise the costs. Therefore they should use other sources like trade credit which are cheaper as compared to credit cards. The following section discusses trade credit.

3.4.1.7 Trade credit

Trade credits exists when one firm provides goods or services to a customer with an agreement of deferred payment, or receive a shipment or service from a supplier under a similar agreement. It can be viewed as an essential element of capitalisation in an operating business because it can reduce the required capital investment to operate the business if it is managed properly. Trade credit is the largest use of capital for a majority of business to business sellers in the United States and is a critical source of capital for a majority of all businesses. For many small businesses, trade credit is an essential tool for financing growth (Gitman, 2003: 80).

It is a spontaneous source of financing, as it arises from ordinary business transactions. However, it is evident that a supplier who offers extended credit is likely to build the cost of such credit into the pricing structure of the goods or services. Trade credit is usually extended for an intermediate period at which payment is due and if payment is not made on that date, financing charges is applied. On the other hand if payment is made earlier than the agreed date suppliers will offer cash discounts (Rose, 2000:65)

The theories of finance discussed in this chapter have been used to explain the capital structure of firms. In the existing literature, both internal and external
variables have been identified as relevant in influencing a firm’s capital structure. These variables include firm size, profitability, risk level, type of industry, tax shield, profitability margin, firm growth, whether a firm receives subsidy, ownership control and asset tangibility. As mentioned above, most of these studies of the capital structure of firms concentrate on large and listed firms in advanced economies. In the study at hand, to identify which of the capital structure theories is relevant in the South African context, the researcher concentrated on three key variables. The selected explanatory variables are: age, size and profitability. The section that follows discusses the determinants of capital structure and hypothesis formulation.

3.5 DETERMINANTS OF CAPITAL STRUCTURE AND HYPOTHESIS FORMULATION

Chittenden, Hall and Hutchinson, (2000:63) investigated the determinants of capital structure for a sample of small enterprises which included both listed and unlisted firms. Their results showed that profitability, asset structure, size (total assets), age and access to the capital markets are all determinants of the capital structure of small firms. Access to the capital market itself appeared a major factor determining the capital structure of small firms.

The study at hand concentrated on selected quantitative determinants (namely age, size and profitability) of the capital structure. The researcher chose selected quantitative factors because most of the empirical studies mainly in advanced countries concentrated on these factors, therefore it was easier for the researcher to compare the results with previous studies when testing for consistency. The sections that follow discusses the selected determinants of capital structure as well as the formulation of the hypothesis.

3.5.1 AGE OF THE FIRM

Different financing arrangements have been linked with business life-cycle issue. Dhawan, (2001:269) indicated that sources of capital depend, to some extent, on
whether a business is developing or maturing. For example, developing firms tend to rely on equity because of difficulties raising debt, whereas mature businesses are able to leverage assets to raise debt. The following section discusses the relationship between the age of the firm with each selected source of capital.

### 3.5.1.1 Use of external equity versus age of the firm

Start-up and early stage firms face particular difficulty in sourcing finance for investment for a number of reasons. Firstly, internal equity is limited as sufficient profits may not be generated, and the personal resources of the firm owner and his family are limited. Secondly, a combination of information asymmetries and agency problems related to the lack of a trading history restricts access to external debt, which may be increased by lack of collateralisable assets. For these reasons, start-up and early stage firms may resort to external equity particularly private investors and may attract funding from venture capitalists, especially firms with high growth potential. Therefore as the firm grows it will be more profitable hence they will be no use of external equity since it will make use of its profits (Bates, 1999).

Cressy and Olofsson, (1999:179) found that SMEs acquire additional external equity capital. They found that younger and lower quality firms were more likely to acquire additional external equity than large firms since smaller firms do not have profits to retain. Furthermore they concluded that small firms find it difficult to access debt hence they will decide on external funding.

Bates, (1999) found that when compared with older and more established businesses, younger firms rely less on profits derived from sales, therefore they use external equity to sustain their business. However, as firms grow and mature, different types of debt arrangements (first short-term, then long-term) become important. Schmid, (2001:24) concluded that SMEs face a lot of difficulties when accessing finance, hence these firms are more dependent upon owner loans, internal equity, trade credit and angel financing. They further concluded that as
firms mature they tend to use more internal equity than external equity if it is well managed.

All the evidence from available literature confirms that the use of external equity is negatively related with age. Consequently the researcher propose the hypothesis: “The use of external equity is negatively related with age”. The use of retained earnings versus age of the firm is discussed in the section that follows.

3.5.1.2 Use of retained earnings versus age of the firm

If the firm is successful as it grows and matures, retained profits will be reinvested in current and capital projects, augmenting personal sources of funding. A continued preference for internal equity increasingly relies on accumulated retained profits as the firm survives and matures. Furthermore, higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity (Hogan & Hutson, 2005).

Berger and Udell, (1998:674) suggested that firms can be viewed as lying on a size-age continuum, arguing that small and young firm owner-managers rely on internal finance such as family loans, trade credit, and/or business angel finance. As firms grow the use of retained earnings will also increase. The fact that these firms hold significant fixed assets (to provide collateral security), have high profit levels (to provide debt coverage) and moderate debt to equity ratios (indicating that they are not highly leveraged) means that these firms are likely to have easier access to formal forms of financing and are in a better position to finance their operations through the internal resources of the business (i.e. retained earnings).

Zoppa and McMahon, (2002) observed that as firms grows and matures, the use of retained profits increases. Profits are reinvested in current and capital projects since the firm will be gaining more. They further concluded that as firms mature
preference for internal equity increases since the firm will be relying on accumulated profits.

Hogan and Hutson, (2005) concluded that SME owners will try to meet their financing needs from a pecking order of, first, their "own" money (personal savings and retained earnings); second, short term borrowings; third, longer term debt; and, least preferred of all, from the introduction of new equity investors, which represents the maximum intrusion. They further highlighted that at start up firms rely much on personal funds and then as the firm grows they will utilise retained earnings since the level of profitability will be higher as compared to the early years.

Watson and Wilson, (2002:558) in their study observed that profitability of firms is lower during the first years of operation. However, as firms grow the profits levels increase allowing the owners to retain some of the earnings. They observed a positive relationship between use of retained earnings and age of the firm.

All the evidence from available literature confirms that the use of retained profits by SMEs is positively related with age of the firm. Consistent with Myers’ (1984) Pecking Order Theory, the researcher propose the hypothesis: “The use of retained profits by SMEs is positively related with age of the firm”.

Section 3.5.1.3 discusses the use of debt versus age of the firm.

3.5.1.3 Use of debt versus age of the firm

Age of the firm is a standard measure of reputation in capital structure models. As a firm operates longer in business, it establishes itself as an ongoing business and therefore increases its capacity to take on more debt; hence age is positively related to debt. Firms at the start-up stage typically experience the greatest informational clarity problems, and may not have access to debt financing. As a
firm becomes established and develops a trading and credit history, reputation facilitates borrowing capacity. Additionally, as the firm grows it will have accumulated assets as debt collateral in the form of inventory, accounts receivable and equipment (Berger & Udell, 1998:675). The firm may also have increase fixed assets in the form of land and buildings on which it may secure mortgage finance. Long-term debt is typically secured on collateralisable fixed assets, and consequently its maturity matches the maturity of the pledged asset. Therefore, the use long-term of debt is expected to increase initially, and decrease at a later stage as the long-term debt is retired and the firm can rely increasingly on accumulated profits. Older firms exhibit smaller debt ratios than their younger counterparts (Ozakan, 2001:176).

However, it must be remembered that as a firm grows it needs expansion capital. This is in contrast to what Ozakan, (2001:176) above proposed. Petersen & Rajan, (1999:407) found that older firms should have higher debt ratios since they should be higher quality firms. They concluded that most large firms have access to debt finance since they are considered to be less risky as compared to small firms. This supports the fact that the use of debt is positively related to age.

Hall et al., (2004:711) agreed that age is positively related to long-term debt but negatively related to short-term debt. Dhawan, (2001:267) indicated that sources of capital depend, to some extent, on whether a business is developing or maturing. For example, developing firms tend to rely on equity because of difficulties raising debt, whereas mature businesses are able to leverage assets to raise debt.

In support of these views Kim, (1999:45) argued that self-financing and the ability of a family to acquire debt was limited during the early stages of a family business. Thus, it is not uncommon for entrepreneurs to rely on personal savings, friends, and relatives as primary sources of capital at startup (Hutchinson 1998). However, as firms grow they will utilise other sources like debt since they will be able to provide security. All the evidence from available literature confirms that the use of
debt by SMEs is positively related with age of the firm. The researcher propose the hypothesis: “The use of debt is positively related with age”

The size of the firm is discussed in the subsequent section.

3.5.2 SIZE OF THE FIRM

Size has been viewed as a determinant of a firm’s capital structure. Larger firms are more diversified and hence have lower variance of earnings, making them able to tolerate high debt ratios (Wald, 1999:163). Smaller firms, on the other hand, may find it relatively more costly to resolve information asymmetries with lenders, thus, may present lower debt ratios. Lenders to larger firms are more likely to get repaid than lenders to smaller firms, reducing the agency costs associated with debt. Therefore, larger firms will tend to have higher debts.

3.5.2.1 Use of external equity versus firm size

Venture capitalists typically invest in the firms with high-growth potential, investing at a stage when a product or service has been pre-tested. Venture capital investment is generally positively correlated to the size of a firm, as a high rate of return is required in a relatively short period of three to eight years (Delcoure, 2006:25). Firms sourcing additional venture capital funding have typically received previous equity funding, and have grown past start-up size. The Pecking Order Theory suggests that larger firms exhibit lower information asymmetry and are therefore able to issue more equity as compared to small companies.

Hogan & Hutson, (2005) concluded that fast growth firms typically have a greater external financing requirement than non growth firms. In line with this view Cressy & Olofsson, (1999:87) provide empirical evidence suggesting that owners of firms seeking to grow were less reluctant to ceding control than those not seeking growth. Therefore small firms do not want to lose control in their managerial activities and they are discouraged to use external funds. As firms seek to grow the need more funds arise hence they want more external funds to invest.
According to Timmons, (2004) small, young firms tend to draw capital from internal sources, personal sources, informal investment and family and friends. As the firm ages, outside investors can observe the firm’s track record and examine its creditworthiness over time. In developing a reputation firms satisfy the problem of asymmetric information and have improved access to external sources of finance such as venture capital and short term sources of funding such as trade credit and bank overdraft facilities.

All the evidence from available literature confirms that the use of external equity is positively related with size. Consequently, the researcher propose the hypothesis: “The use of external equity is positively related with size”

Section 3.5.2.2 discusses the use of debt versus firm size.

3.5.2.2 Use of debt versus firm size

Firm size is also an important factor in accessing debt finance. There are a number of reasons for this. Firstly, it may be relatively more costly for smaller firms to resolve information asymmetries with debt providers. Consequently, smaller firms may be offered less debt capital or capital at higher costs than large firms (Cassar & Holmes, 2003). Secondly transaction costs are typically a function of scale and may be higher for smaller firms (Hamilton & Fox, 1999:236). Thirdly bankruptcy costs and the size of the firm are inversely related.

Several works show a positive relationship between firm size and leverage (Barclay, Smith & Watts, (2000), Kim, (1999); Al-Sakran, (2001), Hovakimian & Tehranian, (2004)). Their results suggested that smaller firms are more likely to use equity finance, while larger firms are more likely to issue debt rather than stock. Cassar & Holmes (2003), Esperança et al., (2003:63), and Hall et al., (2004:720) found a positive association between firm size and long-term debt ratio, but a negative relationship between size and short-term debt ratio. However,
some studies also support a negative relationship between firm size and short-
term debt ratio (Chittenden *et al.*, 2000; Michaelas *et al.*, 1999).

Diamond, (1999) showed that large firms are likely to have established reputations and more firm-specific information publicly available than do small firms, facilitating the issuance of public debt. Dhawan, (2001:270) indicated that sources of capital depend, to some extent, on whether a business is developing or maturing. For example, developing firms tend to rely on equity because of difficulties raising debt, whereas mature businesses are able to leverage assets to raise debt. In support of these views, Kim (1999:48) argued that self-financing and the ability of a family to acquire debt was limited during the early stages of a family business. Thus, it is not uncommon for entrepreneurs to rely on personal savings, friends, and relatives as primary sources of capital at startup (Hutchinson, 2004:231).

The entire evidence from available literature confirms that the size of the firm is positively related to the debt level. Under these assertions, the researcher can construct our Trade–Off Theory hypothesis in the following manner: “*Firm size should be positively related to debt level*”

The following section discusses the use of internal equity versus size.

**3.5.2.3 Use of internal equity (retained earnings) versus size**

According to the Pecking Order Theory (POT), firms seek to use sources of funds for investment least susceptible to undervaluation due to information asymmetries. Thus the POT predicts that firms have a preference to finance investments projects with internal equity. When internal funds are exhausted, firms use debt financing before resorting to external equity. However, in South Africa there is a big problem of high interest rate which ranges between fourteen percent (14%) as compared to other countries like Japan and USA who has their interests rates around one percent and five percent (1%-5%). Barton, (2001) suggested that the
POT is an appropriate theoretical approach for the SME sector. He further suggests that SME must owners source their capital as follows: SME owners try to meet their financing needs from a pecking order of, first, their “own” money (personal savings and retained earnings); second, short-term borrowings; third, longer term debt; and, least preferred of all, from the introduction of new equity investors (Myers, 2001).

The supply of finances depends on many factors, including the stage of developing or life cycle of the firm. As the size and age of the firm are inextricably linked, a number of issues are correlated. Firstly, start-up and early stage firms are generally smaller than matured and older firms, and have a greater proportionate reliance on the personal financial resources of the firm owner. If the firm is successful as it grows and matures, retained profits are reinvested in current and capital projects, augmenting personal sources of funding. A continued preference for internal equity increasingly relies on accumulated retained profits as the firm survives and matures. Furthermore, higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity (Hutchinson, 2004:231).

A positive relationship between size and retained earnings can be expected if larger firms benefit from economies of scale. Growth is likely to place a greater demand on internally generated funds and push the firm into borrowing (Hall et al., 2004:716).

Aryeetey, Baah-Nuakoh, Duggleby, Hettige & Steel, (1999) maintain that growing SMEs appear more likely to use external finance, although it is difficult to determine whether finance induces growth or the opposite (or both). As enterprises grow through different stages, i.e., micro, small, medium and large scale, they are also expected to shift financing sources. They are first expected to move from internal sources to external sources (Aryeetey et al., 1999).
The evidence from available literature confirms that the use of retained profits is positively related with the size of the firm. Consistent with Myers’ (1984) POT, the researcher propose the hypothesis: “The use of retained profits by SMEs is positively related with size of the firm”

The profitability of the firm is discussed in section 3.5.3 that follows.

3.5.3 PROFITABILITY OF THE FIRM

The relationship between firm profitability and capital structure can be explained by the pecking order theory (POT) discussed above, which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants (Myers, 1984). By this token, profitable firms with access to retained profits can rely on R/E as opposed to depending on outside sources (debt in particular). Murinde, Angung and Mullineux, (2004:693) observed that retentions are the principal source of finance. Barton, (2001) agreed that firms with high profit rates, all things being equal, would maintain relatively lower debt ratios since they are able to generate such funds from internal sources.

Section 3.5.3.1 discusses the use of internal equity versus firm profitability.

3.5.3.1 Use of internal equity versus firm profitability

Higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity. When a small firm has a profitable investment opportunity, managers usually find it convenient to use retained earnings as a funding source. Alternatively, when a small firm earns profits on earlier investments, it tends to retain a significant portion of the profit for future capital needs. In general, when a small firm is more capable of providing capital funding through internal equity, it is more likely to realize profitable investment opportunities in the future. Thus, there should be a positive
relationship between the use of equity as a funding source and the profitability from an investment (Wald, 1999:164).

Van der Wijst and Thurik, (1999:55) suggested that owner-managers prefer to use internal sources of capital rather than equity or debt finance when their businesses are profitable. Myers, (1984) argued that profitable firms prefer to fund their operations with internal equity. In line with this view, Van der Wijst & Thurik, (1999:55) found that profitability and retained earnings are positively related to retained earnings is to maximize the long-term value of their business.

In a study of firms from five developed countries Wald, (1999:164) finds the more profitable the firm; the more internally generated funds will be available. Therefore, the POT predicts a positive relation between firm profitability and use of retained earnings.

Hogan and Hutson, (2005) found out that young firms have had less time to generate retained earnings and build up financial slack. According to them such firms should prefer private debt because they do not have access to internally generated funds since they have less profit. On the other hand as firms grows profits increases so as the use of retained earnings. All the evidence from available literature confirms that the use of retained profits by SMEs is positively related with profitability of the firm. Consequently, the researcher propose the hypothesis: “The use of retained profits by SMEs is positively related with profitability of the firm.

The use of debt versus profitability is discussed in section 3.5.3.2.

### 3.5.3.2 Use of debt versus profitability

Profitable firms, which have access to retained profits, can rely on it as opposed to depending on outside sources. A firm with a high profitability rate, ceteris paribus, would maintain a relatively lower debt because of its ability to finance itself from
internally generated funds. Less profitable SME are more likely to require external
debt financing than more profitable ones. This implies higher profits increase the
level of internal financing, thus, SMEs that generate internal funds generally tend
to avoid external debt finance. While profitable firms may have better access to
debt finance than less profitable ones, the need for debt finance may possibly be
lower for highly profitable firms if the retained earnings are sufficient to fund new
investments. Therefore the more profitable the firm, the less need it has to borrow
either long-term or short-term (Cassar & Holmes, 2003).

Cassar & Holmes, (2003), Esperance et al., (2003:62) and Hull & Robert,
(2004:45) suggested a negative relationship between profitability and both long-
term and short-term debt. They agree that firms with high profit rates, all things
being equal, would maintain relatively lower debt ratio since they are able to
generate such funds from internal sources. Use of external funds is very much
related to profitability on the basis that SMEs, particularly if they are not listed, will
make use of internally generated funds as a first resort, i.e. those which make use
of external funds will be those with a lower level of profit.

Fama & French, (2002:33) concluded that if less profit is retained in the past due
to lower profitability, a small firm must rely more on debt financing even though
debt financing is more costly. When a small firm relies heavily on the more costly
debt as a financing source, the profitability could be lower. Thus, there should be
a negative relationship between the use of debt financing as a funding source and
the profitability from an investment project. Hall et al., (2004) suggested a
negative relationship between profitability and both long-term and short-term debt.
Petersen & Rajan, (1999:407) however found a significant positive association.
The more profitable firms are the lesser the use of debt. Most of the evidence
from available literature confirms that the use debt is negatively related to
profitability. Consequently, the researcher proposes the hypothesis: The use of
debt is negatively related to profitability”
Use of external equity versus profitability is discussed below.

3.5.3.3 Use of external equity versus profitability

Profitability could also affect the decision to use external equity. As the firm earns higher levels of profits it increases the availability of internal equity. Accordingly, profitable industries, because of the greater availability of internally generated funds related to their high profitability, tend to have lower external equity in their capital structure. Empirical evidence from previous studies seems to be consistent with the pecking order theory. Most studies found a negative relationship between profitability and use of external equity (Chittenden et al., 2000; Johnson, 1999 and Michaelas et al., 1999). Therefore, the researcher propose the hypothesis: “The use of external equity is negatively related with the profitability of the firm”

There are a lot of sources of finance available for SMEs but the question is do these SMEs access these sources. The availability of finance to SMEs is examined in the following section.

3.6 AVAILABILITY OF FINANCE TO SMEs

Empirical evidence on the accessibility to capital by SMEs is quite variable with respect to conclusions. A study by Hutchinson, (2004:232) stipulates that SMEs are, continuously, faced with limited funding opportunities. Funding opportunities, regarding both equity and debt finance, are severely restricted for SMEs, unlike large firms that can easily raise funds in the capital markets. Most SMEs cannot participate in the capital markets. Consequently, they limit their request for debt to the commercial banks that allocate funds to them and charge significant premiums on debt interest. This funding deficiency manifest, greatly, in the period of growth because growth creates a need to capital.

SMEs are, however, challenged by inaccessibility to capital, because they are unable to participate in the capital markets. In situations where SMEs are allowed to participate in the capital markets, they usually pay high transaction costs (i.e.
fees paid to investment banks and brokers). This makes the capital markets unappealing to SMEs. In South Africa, an Alternative Exchange which is a section of the Johannesburg Stock of Exchange was launched in June 2003. The primary aim of the Alternative Exchange is to provide access to funding by SMEs in the capital market (Heshmati, 2001:299).

A study by the South African Chamber of Business, (1999) on the accessibility of debt finance by small firms reveals that commercial banks in South Africa believe that large firms are more profitable than SMEs. Berry, (2002), however, stipulate, in contrast to this scenario, recent evidence suggests that banks have increased their lending to SMEs since 1996. The big four commercial banks in South Africa currently have small firm units and products which are exclusively targeted at small firms. Therefore, the accessibility of small firms to debt capital from commercial banks might have improved. However, it is difficult to confirm this is because major banks do not disclose statistics about lending to SMEs in their books.

Disclosure rules for the providers of finance could be improved to address the current lack of transparency. At present, SMEs usually do not have a full picture of all the finance charges that the various credit suppliers levy. This hampers choice and, accordingly, competition. Incentive structures for the supply of equity-based finance to SMEs should be improved, to facilitate greater provision of funds by ‘business angels’, or through the venture-capital markets (Berry, 2000).

Many SMEs face challenges when they are accessing finance, therefore the government should play a role in assisting the SMEs. The following section examines the government contribution to SMEs in South Africa.

3.7 GOVERNMENT CONTRIBUTION TO SME FINANCE

The Government has to recognise explicitly the problem of the equity gap for SMEs, as well as the brake it can put on SME growth through its taxation policies.
A key government role is to remove artificial policy and regulatory obstacles to SME lending – particularly policies that promote greater competition within the financial sector as a whole. It has to correct these market failures, inter alia through public interventions that seek to offset the high transaction costs and risks associated with investments of this size (Barton, 2001). The South African government suggested that the SME sector with the help of government is capable of fulfilling their role in the economy. The following government departments focus on SMEs.

- Ntsika Enterprise Promotion Agency
- Small Enterprise Development Agency (SEDA)
- Centre for Small Business Development
- The National Treasury
- Umsobomvu youth fund
- Khula Enterprise finance Limited
- Industrial Development Corporation (IDC)
- Eastern Cape Development Corporation (ECDC)

### 3.7.1 Ntsika Enterprise Promotion Agency

The Ntsika Promotion Agency (NEPA) is a mandated to provide a wide range of non-financial services to local service delivery groups on a ‘wholesale’ basis, meaning delivery of resources to local providers (that is in different provinces and their regions) that work directly with SMEs. These services that are offered by local service providers include institution building of these organisations, training programmes for entrepreneurs, mentoring of individual firms, marketing procurement advice and technology assistance (Goega Developing Corporation, 2003).

### 3.7.2 Small Enterprise Development Agency (SEDA)

Small Enterprise Development Agency (SEDA) is responsible for non-financial service like marketing, training programmes, procurement advice, technology assistance and mentoring to business. A key function of SEDA is to provide
information to small enterprises and prospective entrepreneurs that will help and encourage them to start and build sustainable businesses. This is done through a variety of channels that together aim to reach as many citizens as possible with guidance and discussion on crucial business issues. The right sort of information is vital to improve the quality of decisions that entrepreneurs make, helping them plan ahead, avoid mistakes and reduce their costs (Goega Developing Corporation, 2003).

Most of these services are rendered to SMEs through services providers, such as Tender Centres (TACs) Manufacturing Advisory Centres (MACs), Local Business Services Centres (LBSCs), Non Governmental organisations (NGOs) and Community Based organisations (CBOs). The core focus of the SEDA includes finance, growth, expansion and competitiveness (through export) that are more relevant for existing business than for start-ups. There is a general tendency of the SEDA programmes to focus on the larger and existing venture as their target audience, very few programmes are aimed at small enterprises. Most SMEs do not have access to information regarding to the programmes offered by SEDA (Goega Developing Corporation, 2003).

3.7.3 Centre for Small Business Development

The Centre for Small Business Promotion (CSBP) is a Chief Directorate that falls directly under the Department of Trade and Industry. It is responsible for all policy related to the SMEs and supports programs that are directly and indirectly assisted by government. The Centre also coordinates the implementation of the framework within central government, to mobilise the necessary funds and supervise the establishment of other new institutions, proposed in the White Paper. The Centre for Small Business Promotion gave a directive to all nine provinces to form Provincial SME Desks at provincial level. The divisions are the first point of contact of small business people with the government. The purpose of these divisions is to give SME support in all the provinces (Diale, 2009:196).
3.7.4 The National Treasury

The National Treasury plays a key role in the development of SMEs. Fiscal incentives could play an important role in overcoming the market’s failure to give SME access to finance, as these incentives do in many OECD countries. Broadly speaking, the focus of fiscal support should shift gradually but meaningfully from debt incentives to equity incentives. This means that the National Treasury would have to give attention to the following issues: how to overcome the “equity gap” problem, how to ensure that fiscal stimulus would address specifically the problems of smaller companies, and how to ensure that institutional investors would have an interest in the development of venture capital and SMEs in general (International Finance Corporation (IFC), 1999).

3.7.5 Umsobomvu youth fund

Creating jobs and developing skills among young South Africans are the main aims of the Umsobomvu Youth Fund, which has spent about R470-million on 61 projects over the past two years. *Umsobomvu* is a Nguni word that means "a rising dawn". The fund was established in January 2001 with a mandate to create a platform for job creation, skills development and transfer for South Africa’s young people (Diale, 2009:196).

Over the past two years, the organisation has been building infrastructure, refining policies and implementing pilot programmes and methodologies. The fund believes it cannot solve youth unemployment alone, but it is confident that its carefully chosen programme models and partnerships with the private sector, government and other key stakeholders will make significant inroads in tackling one of South Africa's major challenges (Diale, 2009:196).

To this end, the fund has two major programmes that form part of its skills development and transfer programme:
- **School to Work** is designed to transfer high-level technical skills and to facilitate work experience for unemployed matric and tertiary graduates. It also aims to introduce black youth into previously inaccessible careers, such as IT and accounting.

- **Youth Service** focuses on unemployed youth who have no tertiary education, enabling them to acquire the skills, competencies and experience they require to achieve economic independence. This is done through a structured learning programme and accredited through a SETA (Diale, 2009:196).

### 3.7.6 Khula Enterprise Finance Limited (Khula)

Khula Enterprise Finance Limited was established in 1996 under the Companies Act, in terms of a Department of Trade and Industry initiative. It is an independent, limited liability company, with its own board of directors and is dedicated to improving access to finance for the SME’s in South Africa. This implementing agency for providing capital for small business is a response to the seemingly inability of banks to support small enterprises, especially those in disadvantaged communities. Khula offers its services to maximise access to finance for SME’s in a way that leads to the development of sustainable small and medium business, job creation, economic growth and equity. The other main activity of Khula is to provide ‘wholesale’ finance to the NGOs that offer micro loans to starter entrepreneurs. This is done through the development of Retail Financial Intermediaries (RFIs) that are financially sound, with the commitment and the capacity to serve the SMME sector (Diale, 2009:196).

### 3.7.7 Industrial Development Corporation (IDC)

The Industrial Development Corporation (IDC) provides financial and technical assistance for the expansion of value-adding start up (Greenfield), expansion or rehabilitation projects in Africa. Its sectoral focus includes manufacturing in its extensive sense, energy, mining, minerals beneficiation, agriculture and agro-processing, tourism, information technology, telecommunication and selective
3.7.8 Eastern Cape Development Corporation (ECDC)

Eastern Cape Development Corporation (ECDC) offers plenty of services to SMEs, such as Investment Promotion, Export Promotion, Business development Service, and Strategy Project Development. In terms of funding, it offers as Access to Enterprise Finance, this kind of service is richly accomplished through the provision of loans over R100,000 to viable business proposals; seeds loans to facilitate the establishment of retail financial institutions in the micro sector; and through structured finance/equity investments in SME entities (Diale, 2009:196).

The government is providing support services for SMEs. Nevertheless, so far no clear differentiation between promoting dynamic firms on the one hand survivalists activities on the other hand which would rather be the focus of welfare than industrial policy has been made. There are indications that in the launching and implementation of several programmes, the South African government severely underestimates the problems of establishing a whole set of new support institutions, the capacity of these institutions to deliver and the capacity of the existing government networks in South Africa to become involved in the highly ambition of programmes that were to be implemented (Diale, 2009:196).

3.8 SUMMARY

The chapter has examined the theoretical framework of the capital structure of SMEs. Furthermore, different sources of finance were also examined. The determinants of capital structure of SMEs were also discussed. In particular the
influence of size, profitability and age of the firm on the capital structure was examined. The availability of debt and equity to SMEs and the government contribution in South Africa were also discussed. In South Africa, as noted in the chapter, business angels are still an unknown fiscal concept, and the venture-capital market is still poorly developed on the Johannesburg Stock of Exchange. Generally, investors are not willing to make direct investments in SMEs if they do not have sufficient information to make a considered risk assessment of the SMEs. The investors will be willing if at least some of this risk can be shared with the government.

Capital structure theory has been built around Modigliani and Miller (1958)'s, propositions of irrelevance in a context of perfect capital markets. The acknowledgment of imperfections that make relevant the capital structure, such as corporate and personal taxes, transaction costs, and information asymmetries have been the guide to later developments. However, there is still no theoretical agreement on the relevance of capital structure to firm value, which can be summed up through the confronting positions of trade off theory, the pecking order and the agency theory. While the trade off theory argues that costs and benefits of debt lead to an optimum value, the pecking order theory suggests that capital structure is just the result of cumulative requirements for external financing. In the specific field of SME, small firms have received little attention from finance theories. Nevertheless, the researcher believe this is a potentially rich field for its application, given the contribution of these firms to the economy. Chapter four examined the methodology of the study.
CHAPTER FOUR

METHODOLOGY OF THE STUDY
4.1 INTRODUCTION

Research methodology refers to the method by which data is gathered for a research project. It is the blueprint for the collection, measurement, and analysis of data in order to achieve the objectives of a research project. Research methodology is important in a research work because it specifies the sampling design. Here the researcher explicitly defines the target population and the sampling method used. The researcher also provides the motivation for choosing a specific sampling method. Additionally, the researcher identifies the data collection method used. This could be self-administered questionnaires, postal surveys, or interviews, and the rationale for choosing a particular data collection method. Furthermore, the researcher identifies the methods of data analysis, describes data handling, statistical tests, computer programs and other technical information, and the rationale for using a particular method. Finally, the researcher focuses on the limitations of the research. The researcher identifies significant methodology or implementation problems such as sampling errors, response and non-response errors and the constraints of cost and time (Cooper & Schindler, 2003:366).

This chapter discusses the methods and techniques by which data was collected, where and when and from whom it was collected as well as the sample size used. It furthermore comprises a research design and plan, population and sample, data collection instruments, sources and procedures for data analysis. The reliability and validity of the data collected was also discussed to establish the validity of the results as well as the limitations faced in the collection of data. Section 4.2 highlights the research design.

4.2 RESEARCH DESIGN

This study followed a quantitative research design. A quantitative research method derives empirical generalisations which may be used to determine future courses of action. This type of research design involves obtaining data from a large group of respondents and is used in descriptive studies to quantify data and
generalise the results from the sample to the population of interest. Tustin, (2005:90) argues that a quantitative research design requires statistical summerisation. The research at hand required statistical summerisation that is, evaluating the determinants of capital structures of SMEs. That is the reason why quantitative research method was used for the study. However, the study also used a qualitative research method when the researcher was generating hypotheses and identifying variables that were included in the research. The following section discusses the research instrument.

4.3 RESEARCH INSTRUMENT

The research instrument was a questionnaire; A questionnaire is a form containing a set of questions, especially one addressed to a statistically significant number of subjects as a way of gathering information for a survey (Martins, 1999:260). The questionnaire used herein consisted of open-ended questions, Likert scale and closed-ended questions. An open-ended question is a question in a questionnaire that allows respondents to respond in their own words whilst a closed ended question provides the respondents with different options. On the other hand a Likert scale is a scale in which respondents indicate their level of agreement with statements that express a favourable or unfavourable attitude toward a concept being measured (Cooper & Schindler, 2003:362). A copy of the questionnaire is contained in addendum 1.

4.4 THE SAMPLING PROCEDURE

Cooper & Schindler, (2003:179) describes sampling as the procedure by which some elements of a given population are selected as representative of the entire population. The primary idea of sampling is that by selecting some elements of a population, the researcher can draw conclusions about the entire population. A sampling method can be classified as probability or non probability.

The following section examines the description of the population and sampling method selected by the researcher for the study, as well as the motivation for
selecting the sampling method. It also examines the sample size used for the research study and, furthermore, explains how the sample size was calculated.

4.5 DESCRIPTION OF THE POPULATION AND SAMPLING FRAME

The study covered the manufacturing firms of the East London Metropolitan area in the Eastern Cape Province of South Africa. The city is situated on the Indian Ocean coast, between the Buffalo River, and the Nahoon River, and is the country's only river port. East London today has a population of approximately 250,000, with over 700,000 in the metropolitan area (South Africa Geography Information Systems Map, 2009). The locations were chosen for their diverse manufacturing activities. East London is the second largest industrial centre in the province and industries include clothing, textiles, pharmaceutilicals and food processing. The Researcher also chose this region as a study area because of its proximity to the university and also the fact that it has a relatively large number of manufacturing firms from observation. The sampling method is discussed below.

4.5.1 Sampling method

The researcher used the probability sampling method for the study. Probability sampling involves a selection method in which all the members of a sample are chosen through a random process (Roberts-Lombard, 2002:107). The researcher used this method because of the following reasons:

- Each element had a non-zero chance of being included in the sample;
- This method removed the error of selection bias which increases the representability of the selected sample (Roberts-Lombard, 2002).

Section 4.5.2 discusses the sampling technique used in the research.

4.5.2 Sampling technique

The sample was selected using the simple random sampling method. Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (Cooper & Schindler, 2003:164).
Each individual was chosen entirely by chance and each member of the population had an equal chance of being included in the sample. Every possible sample of a given size had the same chance of selection; i.e. each member of the population was equally likely to be chosen at any stage in the sampling process.

4.5.3 Population

To identify the survey population of the SMEs in the study area the researcher contacted the Small Enterprise Development Agency (SEDA) a government organisation which deals with support services for small business in South Africa. In Eastern Cape Province the head office for SEDA is in Bisho. The researcher chose the population frame from SEDA because SEDA have the records of most SMEs since many of these SMEs seek help from the organisation. The population of the SMEs obtained from SEDA was 412. The subsequent section discusses the sample size.

4.5.4 Sample size

Martins, (1999: 262) noted that the correct sample size in a study is dependent on the nature of the population and the purpose of the study. The sample size usually depends on the population to be sampled, although there are no general rules. Generally, sample sizes larger than 30 and less than 500 are appropriate for most research. However, in multivariate study, the sample size should be several times as large as the number of variables in the study in order to achieve good results. Nevertheless, the determination of the sample size is usually a balance between the margin of error and the confidence level.

The margin of error is the amount of error which can be tolerated and it is selected by the researcher depending on the precision needed to make population estimates for a given sample. The margin of error in business generally ranges from three percent and seven percent (3% to 7%). The confidence level is the estimated probability that a population lies within a given margin of error it is the amount of uncertainty that can be tolerated. Confidence level in business ranges
from ninety nine percent to hundred percent (90% to 100%) (Martins, 1999:263). Thus for the purpose of this study, the population was 412 and using a margin of error of five percent (5%) (which is usually used in business research), a confidence level of ninety five percent (95%) and a response distribution of fifty percent (50%) gave a sample size of 200 (Raosoft, 2007). To enhance accuracy the researcher also used Roberts-Lombard, 2002:87 sample calculator formula. Using this formula the sample size was calculated as follows:

\[
n \geq \frac{\sqrt{N}}{1 + N (d^2)} \times 10000
\]

- \(n\) = The sample size
- \(N\) = The total population
- \(d\) = Sample interval

The sample size was calculated form a population of 412 SMEs giving a sample size of 200 firms. The sample size was similar to the one calculated using the formula by Raosoft, 2007 which shows that the sample size was calculated accurately since the results are the same. Section 4.6 discusses the research technique that was used in the research.

**4.6 RESEARCH TECHNIQUE**

The research technique used to collect primary data was a self-administered questionnaire. A self-administered questionnaire is a form containing a set of questions, usually presented to the respondent by an interviewer or a person in an official capacity that explains the purpose but does not actually complete the questionnaire (Cooper & Schindler, 2003:369). This technique reduced interview bias as well as saving time and money. Data was collected within a short period of time because many respondents can answer the questionnaire at the same time. The researcher was only present to assist in explaining ambiguities rather than asking questions herself.
The researcher used the self-administered technique for the following reasons:

- It was cheap and easy to administer;
- Preserved confidentiality;
- It was completed at respondent’s convenience; and
- It was administered in a standard manner (Cooper & Schindler 2003:369).

However, the questionnaire has the following disadvantages;

- Questionnaires are impersonal, this means that it may be difficult to understand answers and thus to act on them;
- There is a chance that the question may be misinterpreted, rendering the answer useless;
- Questionnaires also invite people to lie and answer the questions very vaguely which they would not do in an interview;
- Open questions can take a lot of time to collect and analyse;
- People are not always willing to fill questionnaires in so they may just throw them always;
- Sometimes questions used are too standardised (closed) so some peoples preferred answers may not be included, and this also does not allow for much detail;
- Peer pressure of embarrassment may cause people to not want to answer certain questions, or they may want to impress the researcher and fabricate the truth by filling in untrue answers, making questionnaires unreliable and sometimes invalid.

In order to limit the effects of the disadvantages of questionnaire the researcher kept the questionnaire design very simple. The following section examines the questionnaire design.

4.6.1 Questionnaire design

The layout of the questionnaire was kept very simple to encourage meaningful participation by the respondents. The questions were as concise as possible and
care was taken on the actual wording and phrasing of the questions. This is because the appearance and layout of the questionnaire is of great importance in any survey where the questionnaire is to be completed by the respondent (Loubser, 1999:287). The literature in the study was used as guidelines for the development of the questions in the questionnaire. The questions that were used in the questionnaire are discussed below.

4.6.1.2 Open-ended Questions

It is a free response, that is, it calls for a response in the respondent’s own words and it is normally unaided. The response variations may be vast. No set of alternative responses is supplied. Open-ended responses are very versatile. Using this response type, various types of primary data can be collected, from demographic characteristics to opinions, attitudes and behaviour. Open-ended responses are of great value in exploring complex and variable topics. They are often used to probe for additional information through questions such as ‘Why?’ and ‘Please explain?’ (Tustin et al., 2005:396-97; Cooper & Schindler, 2003:375).

The researcher used the open-ended questions for the following reasons:

- They encouraged a full meaningful answer using the subject’s knowledge or feelings;
- They avoided bias that may result from suggesting responses to individuals;
- They cut down on two types of response error. Namely respondents were not likely to forget the answers they had to choose from if they were given the chance to respond freely. Open-ended questions simply do not allow respondents to disregard reading the questions and just "fill in" the survey with all the same answers (such as filling in the "no" box on every question); and
- They allowed respondents to include more information, including feelings, attitudes and understanding of the subject. This allowed researchers to
better access the respondents’ true feelings on an issue (Cooper & Schindler, 2003:362).

The subsequent section discusses the closed ended questions.

4.6.1.3 Closed-ended Questions

This type of question provided the respondents with different options. The majority of the questions in the questionnaire were closed-ended because of the following reasons:

- The questions did not require an explanation from the respondents;
- It increased the chances of participation by the respondents; and
- More easily analysed since every answer can be given a number or value so that statistical interpretation can be assessed (Wheather & Cook, 2000:142).

Section 4.6.1.4 examines the dichotomous questions.

4.6.1.4 Dichotomous questions

A dichotomous question is a question which offers two alternative answers to choose from (Cooper & Schindler, 2003:377). Dichotomous questions were used because of the following reasons:

- Some questions in the questionnaire had only two possible answers. For example, questions relating to the gender of the respondents; and
- These questions simplified coding and data analysis, since the responses were predetermined.

Multiple choice questions are discussed in the section that follows.

4.6.1.5 Multiple-choice questions

A multiple-choice question is a fixed question with more than two alternative answers. (Cooper & Schindler, 2003:377-379). Multiple-choice questions were used for the study because of the following reasons
These types of questions were easy to answer by the respondents. Non-response error was thereby reduced; and

They simplified coding and analyses of data since the responses were predetermined.

Section 4.6.1.6 discusses the five point Likert scale questions.

4.6.1.6 Five-point Likert scale type questions

A Likert scale is a verbal scale which requires a respondent to indicate a degree of agreement or disagreement. Five-point Likert scale questions were used by the researcher for the following reasons (Cant, Gerbel-nel & Kotze, 2003:113):

- It eliminated the development of response bias amongst the respondents;
- It assessed attitudes, beliefs, opinions and perception;
- Using a Likert scale made the response items standard and comparable amongst the respondents; and
- Responses from the Likert scale questions were easy to code and analyse directly from the questionnaires.

The combination of these different types of questions ensured the collection of complete information from the respondents. Section 4.7 discusses secondary data used in the research.

4.7 SECONDARY DATA

Various sources of secondary data were used such as a literature review from available published material. This included journals, books, conference reports, internet sources, and masters’ dissertations relating to capital structure and financing decisions of SMEs. Other relevant sources of information such as published data obtained from Statistics South Africa and the NTSIKA Enterprise promotion Agency were also assessed and deductively applied. Responses to the questionnaire were analysed and evaluated using techniques such as tabulation, correlation and statistical graphs.
The subsequent section discusses the data analysis and statistical techniques.

4.8 DATA ANALYSIS AND STATISTICAL TECHNIQUES

Data analysis consists of running various statistical procedures and tests on the data (Barrow, 1999:222). It is the conversion of meaningless information into something which can easily be understood. The purpose of any research is not simply having data, but to deduce information from the data gathered.

The data analysis was done by the Statistics department at the University of Fort Hare. The analysis type was descriptive through count. The statistical package which was used to analyse the data is the Statistical Analysis System V8 (SAS). The packages Statistica and SPSS were used for the analysis of graphs. The statistical method which was used to analyse the data is the Chi-Square test for independence. Linear regression was also used to measure the relationship between the independent and dependent variables. The correlation was used to analyse the relationships as well as descriptive statistics such as the mean, mode, median and the frequency distribution graphs. Section 4.8.1 discusses the descriptive statistics.

4.8.1 Descriptive Statistics

Marshall and Rossman, (1999:185) define a descriptive statistics as condensing large volumes of data into a few summary measures. Descriptive statistics used in the present study included frequency distribution, mean scores and standard deviation. Frequencies are defined as the number of objects in sets or sub sets. More simply, the number of times a certain answer appears in the data. The mean calculates an average across a number of observations and the standard is the square root of the variance around the mean, in other words, how well the mean represents the data (Mellville & Goddard, 1999:37).

4.8.2 Inferential Statistics
Inferential statistics is the area of statistics which extends the information extracted from a sample to the actual environment in which the problem arises (Mellville & Goddard, 1999:37). The following inferential techniques were used. The following section discusses the Ch-Square test.

4.8.2.1 Chi-Square Test

The Chi-Square test for independence was used to test for association. The Chi-Square Test procedure tabulates a variable into categories and computes a chi-square statistic. This goodness-of-fit test compares the observed and expected frequencies in each category to test either that all categories contain the same proportion of values or that each category contains a user-specified proportion of values (SPSS, 2004:5-11).

Section 4.8.2.2 discusses the regression model used in the study.

4.8.2.2 Regression model

The research at hand leads itself to the application of the regression model in order to quantify the capital structure determinants. The use of the regression model results into a prediction equation known as the regression equation. Several studies like Esperaunca et al., (2003), Watsham & Parramore, 1998:188-189), Delcoure, (2006) and Heshmati, (2001) used a regression model in their studies.

Regression is a statistical analysis assessing the association between two variables. It is used to find the relationship between two variables. The model describes the variation in one (or more) variable(s) when one or more of the other variable(s) vary. Regression models were used for studying how changes in one or more variables will change the value of another variable. Some statistical literature used different terminology for response and explanatory variables. A response variable is often called a dependent variable, and an explanatory variable is sometimes called an independent variable, or a predictor, or regressor (Gujarati, 2000:25).
Three regression equations were formulated to test the hypotheses. The primary hypothesis was tested by the multiple linear regressions, and it tested the dependence of the dependent variable Y (capital) on three explanatory variables profitability, size and age of the firm. The multiple linear regression model was used to model the relationship between the use of capital to profitability, size as well as the age of the firm. The regression equation follows below.

\[ Y = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum_r \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldot
The second secondary hypothesis was tested by the multiple linear regressions, and it tested the dependence of the dependent variable $EQ$ (equity ratio) on three explanatory variables profitability, size and age of the firm. The multiple linear regression model was used to model the relationship between the use of equity to profitability, size as well as the age of the firm. The regression equation follows below.

$$EQ = \beta_0 + \beta_1 PROFIT + \beta_2 SIZE + \beta_3 AGE + \sum r$$  \hspace{1cm} 3

Where:

$EQ$ = the equity ratio of the firm

$PROFIT$ = the profitability of the firm

$SIZE$ = the size of the firm

$\beta_0$ Is a constant

$\beta_1$ measured the association between equity (equity ratio) and profitability

$\beta_2$ measured the association between equity (equity ratio) and the size of the firm

$\beta_3$ measured the association between equity (equity ratio) and the age of the firm

$\sum r$ was the error or disturbance term

For the purpose of this study equity was broken down into internal equity and external equity (Damodaran, 1999:215). Internal Equity comprised of personal savings of owners $(s)$, and retained profits that the profits generated from equity plus profits generated from borrowed funds. However, for reasons of simplicity the researcher used retained earnings as one of the variables of testing the research hypotheses in equation 3. Equation 3.1 tested the dependence of the dependent variable retained earnings on three explanatory variables profitability, size and...
age of the firm. The multiple linear regression model was used to model the relationship between the use of equity to profitability, size as well as the age of the firm. The regression equation follows below.

\[ RE = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum r \] \hspace{1cm} 3.1

Where:
- \( RE \) = retained earnings
- \( \text{PROFIT} \) = the profitability of the firm
- \( \text{SIZE} \) = the size of the firm
- \( \beta_0 \) is a constant
- \( \beta_1 \) measured the association between retained earnings and profitability
- \( \beta_2 \) measured the association between retained earnings and the size of the firm
- \( \beta_3 \) measured the association between retained earnings and the age of the firm
- \( \sum r \) was the error or disturbance term

On the other hand, external equity (\( \text{EXEQ} \)) was measured as the total amount of money from the outside that is money from family and friends as well as Venture Capital and Business Angels. Equation 3.2 was formulated from the main equation that is equation 3. The Equation tested the dependence of the dependent variable external equity on three explanatory variables profitability, size, and age of the firm. The multiple linear regression model was used to model the relationship between the use of external equity to profitability, size as well as the age of the firm. The regression equation follows below.

\[ \text{EXEQ} = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum r \] \hspace{1cm} 3.2

Where:
- \( \text{EXEQ} \) = external equity
- \( \text{PROFIT} \) = the profitability of the firm
- \( \text{SIZE} \) = the size of the firm
- \( \text{EQ} \) = the equity ratio of the firm
- \( \beta_0 \) = a constant
\( \beta_1 \) measured the association between external equity (equity ratio) and profitability.

\( \beta_2 \) measured the association between external equity and the size of the firm.

\( \beta_3 \) measured the association between external equity and the age of the firm.

\( \Sigma_r \) was the error or disturbance term.

**Definition of terms**

In order to avoid any misinterpretation of empirical results, this section provides the description of all variables appearing in the estimated equations.

\( \beta_0 \) is a constant, that is, even if the dependent variable is zero, the value of a firm would have some positive or negative value (Gujarati, 2000:25).

\( \Sigma_r \) is the error term which represents all those forces that affect the dependent variables besides the independent variables, but not explicitly introduced in the model (Gujarati, 2000:28).

\( \beta \) is the coefficient value which measures the rate of change in the value of dependent variables per unit change of the independent variable (Gujarati, 2000:25). It is the slope of the line along which the scatter of data observations lies. It can be interpreted as indicating the percentage change in the independent variable that is caused by one unit change in the value of \( \beta \). If the value of \( \beta \) is positive, the variables will be positively correlated and if it is negative, the variables will be negatively correlated (Watsham & Parramore, 2000:188-189).

**Dependent variables**

According to Levin & Robin (1998:699) a dependent is a variable to be predicted. It represents the element or condition that is dependent on the value one or more independent variables. The dependent variables were \( Y \) (source of finance), debt (DR), retained earnings (RE) and external equity (EXEQ).
Y (source of finance)

The source of finance was the dependent variable. The source of finance is how you have financed your business. There are many sources of finance that a business can utilise. However, for the purpose of this study three sources of finance were used namely, debt, internal equity (retained earnings) and external equity.

Debt

Debt ratio is depicted by the total debt to total assets ratio and measures the percentage of total funds provided by creditors. Total debt for the purpose of this study is inclusive of both long term and short term liabilities. Generally, it is perceived that the higher the debt ratio, the higher the risk of an investment and consequently the higher the returns of such investment. For this study, the debt ratio was used to determine the amount of debt in the firm’s capital structure for the purpose of the regression. Total debt was used instead of long term liabilities the rational being that SMEs because of a shortage of long term finance would utilise short term finance more extensively. Debt was consequently measured using the debt ratio calculated as below:  \[
\frac{\text{Total debt (long term + short term)}}{\text{Total assets}}
\]

Equity

Equity comprised of internal and external equity (Damodaran, 1999:215). Internal Equity comprised of personal savings of owners and retained profits. External equity comprised of the total amount of money from the outside that is funds from friends and family as well as Venture Capital and Business Angels were the sources of external equity (Damodaran, 1999:215).

The equity ratio was calculated as  \[
\frac{\text{Total equity}}{\text{Total assets}}
\]

Retained earnings

When a company generates a profit, management has one of two choices: they can either pay it out to shareholders as a cash dividend, or retain the earnings and reinvest it in the business. Generally retained earnings are a corporation’s
cumulative earnings since the corporation was formed minus the dividends it has declared since it began. In other words, retained earnings represent the company’s cumulative earnings that have not been distributed to its shareholders (Damodaran, 1999:218).

The retained earnings ratio was calculated as \[
\frac{\text{Total retained earnings}}{\text{Total assets}}
\]

**External Equity**

External equity is the total amount of money from the outside and for the purpose of this study Venture Capital and Business Angels were the sources of external equity (Damodaran, 1999:215).

The external equity ratio was calculated as \[
\frac{\text{Total external equity}}{\text{Total assets}}
\]

**Independent Variables**

An independent variable is a variable which value determines the dependent variable (Levin & Rubin, 1998:699). Independent variables can be more than one variable. As we were trying to measure the determinants of capital structure over time, the independent variables of interest to us were the age, the size and profitability of the firm and these variables will each be discussed in turn below.

**Age of the firm**

Age of the firm represented the independent variable and it was measured by the number of years the firm has been operating.

**Size of the firm**

Size of the SMEs represented the second independent variable and was measured by the total number of employees.

**Profitability**

Profitability represented the third and final independent variable. The profitability ratios of the business are a reflection of how profitable the available capital has
been employed in the activities of the business, that is, it determines to what extent the business obtained a satisfactory return on available capital (Conradie & Fourie, 2002:73). Similar studies such as Mesquita & Lara (2003) also used return on owners’ equity as a measure of profitability in their study. It was calculated as follows;

Net profit after interest and tax
Total Equity

Section 4.9 examines the reliability and validity of the research results.

4.9 RELIABILITY AND VALIDITY

Reliability is concerned with consistence of measures. The level of an instrument’s reliability is dependent on its ability to produce the same results when used repeatedly (Babbie & Mouton, 2001:15). Reliability was established by developing the questionnaire with the researcher’s statistician reviewing the questionnaire for question phrasing and sequencing; keeping open-ended questions to the minimum; devising response scales that are likely to increase the variability of responses thereby ensuring higher statistical value from the data and by using a large sample size. Reliability was furthermore improved by pre-testing the research instrument in the survey’s development stage through a pilot study. For the purpose of the pilot study data was collected from 20-30 subjects not included in the sample. This was subsequently analysed using Statistical Package for Social Sciences (SPSS).

Validity refers to whether an instrument actually measures what it is supposed to measure given the context in which it is applied (Babbie & Mouton, 2001:17). The following steps were used to ensure validity. Section 4.9.1 discusses the content validity.
4.9.1 Content validity

This is a non-statistical type of validity that involves “the systematic examination of the test content to determine whether it covers a representative sample of the behaviour domain to be measured” (Babbie & Mouton, 2001:18). A panel of experts was used to review the items and comment on whether the items cover a representative sample of the behaviour domain. Internal validity is discussed in section 4.9.2 below.

4.9.2 Internal validity

Internal validity refers to the confidence we place in the cause-and-effect relationship. In other words, it addresses the question: to what extent does the research design permit us to say that the independent variable causes a change in the dependent variable (Babbie & Mouton, 2001:18). To ensure internal validity the researcher used the linear regression model to measure the strength and relationship between the dependent variables and independent variables. The Chi Square test was used to determine whether an association (or relationship) between two categorical variables in a sample is likely to reflect a real association between these two variables in the population. The following section discusses external validity of the study.

4.9.3 External validity

This element has to do with possible bias in the process of generalizing conclusions from a sample to a population, to other subject populations, to other settings, and/or to other time periods. The extent to which a finding applies (or can be generalised) to persons, objects, settings, or times other than those that were the subject of study. A study that readily allows its findings to generalise to the population at large has high external validity (Babbie & Mouton, 2001:20). To ensure this the researcher used a big sample size with a margin of error not more than five percent (5%) and a confidence level of ninety five percent (95%).
Random sampling was used when selecting the respondents to minimise bias on selection. The subsequent section examines statistical validity.

4.9.4 Statistical validity

Statistical validity can be described as the degree to which an observed result, such as a difference between two measurements, can be relied upon and not attributed to random error in sampling and measurement. The degree of statistical significance of a result depends upon the number of sampled data points (e.g. the number of users in a test), the size of the effect, and the amount of variation between measurements (Babbie & Mouton, 2001:22). Thus, statistical validity was enhanced by testing the efficiency of the model construct using a hypothesised dataset to check for effectiveness of the regression model, choosing a low significance value (p value) of less than five percent (5%). Section 4.10 discusses sampling errors.

4.10 SAMPLING ERRORS

Sampling errors arise from estimating a population characteristic by looking at only one portion of the population rather than the entire population. It refers to the difference between the estimates derived from a sample survey, and true value that would result if the whole population was tested under the same conditions (Loubser, 1999:289).

Sampling errors were minimised in the survey by using a large sample size of approximately eighty four percent (84%) of the population. A large sample size is more representative of the population. Section 4.10.1 discusses the response errors on the research instrument.

4.10.1 Response error

Response errors are the estimated inaccuracy that can be introduced potentially by the researcher, the interviewer or the respondents. The researcher may make the error in the design of the measurement instrument or may not properly define
the problem and the related information required. Response errors can also occur when the respondent deliberately or mistakenly provide incorrect answers to the survey questions (Cooper & Schindler, 2003:332).

Response errors were minimised by carefully constructing and pre-testing the questionnaires. The use of self-administered questionnaires assisted to reduce response errors because unclear questions were clarified by the researcher to the respondents.

4.10.2 Non-response errors

Loubser, (1999:286) describes a non-response error as an error caused by failure to contact all members of a sample and/or the failure of some contacted members of the sample to respond to all or a specific part of the questionnaire. The non-response errors occur because people who respond to the survey might not have characteristics similar to those who do not. Non-response errors were reduced to the absolute minimum in the research study by using self-administered questionnaires, which involved a direct meeting with the researcher and the respondents and by repeated telephone calls and visits to the respondents. The ethical considerations are discussed in section 4.11 that follows.

4.11 ETHICAL CONSIDERATIONS

The researcher took cognisance of the ethical guide lines as prescribed by the university research body. All the participants were voluntarily interviewed and their names were kept confidential. The responses were also kept off the record, as the respondents were not asked to fill in their names or give any identification. The researcher also informed the respondents on how the information collected from the research was going to be used. A cover letter to thank each respondent was send.
4.12 SUMMARY

This chapter examined the research methodology of the study. The scope of the survey, the sampling method and the organisation of the survey were comprehensively discussed. Additionally, the chapter examined the data gathering technique used for the research study, especially the rationale for choosing the self-administered questionnaire. Furthermore, the chapter focused on the processing of data and the statistical packages used to analyse data that is the Chi square test and the regression model. Finally, the chapter examined the reliability of the results. The errors that can affect the validity of the results and ways that were used by the researcher to minimise them were also discussed.

In the following chapter the research results are discussed. The chapter concentrates on the answers of the respondents to the questions in the questionnaires. Tables, pie charts and bar charts were used to aid the analysis of data. Finally, a result obtained on each question in the questionnaire was compared with empirical studies to confirm their consistency or inconsistency.
CHAPTER FIVE
ANALYSIS AND INTERPRETATION OF RESULTS
5.1 INTRODUCTION

Chapter four presented issues of research methodology including research design, the sampling method and the data collection and data analysis methods that were used for this study. The objectives of this chapter was to present and interpret the empirical findings of this research. In interpretation, the immediate results will be translated into integrated and meaningful general references and findings. In this chapter missing values were also addressed as well as the normality of the data. Furthermore, the response rate of the respondents was also discussed in this chapter. Hypotheses of the study were tested and the results were presented. In the presentation of the results, the series of questions relating to a specific hypothesis were stated. Each question was restated as in the research instrument and the justification of asking those specific questions was highlighted. Responses to each question were presented and analysed at the end of each series of questions pertaining to a specific hypothesis. The hypothesis concerned will, as a result of statistical testing, be accepted or rejected. Hypothesis testing involves the use of statistics to determine the probability that a given hypothesis is true.

To aid data analysis, tables, bar charts and pie charts were used. The presentation of the results followed the structure of the questionnaire. To statistically measure and interpret the relationship between the dependent and independent variables, regression equations (refer to equation 5.3) were used. The testing of the hypothesis was done using Statistical Analysis Software (SAS) with the assistance of the statistics department at the University of Fort Hare.
Section 5.1.1 that follows discusses the missing values obtained from the fieldwork that was done.

5.1.1 Normality of the population

The researcher tested the normality of the population distribution in order to see if the data was normally distributed using the Skewness and Kurtosis tests. The Skewness and kurtosis test looks at the shape of the distribution and they are used with interval and ratio data. These two tests are very useful when assessing the normality of the data. When doing the tests the data is exactly normal if the value for skewness and kurtosis is zero. Positive values for skewness indicate a positive skew, .126, while positive values for kurtosis indicate a distribution that is peaked -.316. Negative values for skewness indicate a negative skew, while negative values for kurtosis indicate a distribution that is flatter Glas & Pimental, (2008:909). Schafer, (2000:45) stated that if the ratio of skewness to kurtosis to their respective standard errors is above 1.96, the data are probably not normally distributed. In this study the ratios of skewness and kurtosis to their respective standard deviations were calculated and all values were below 1.96 indicating the normality of the data. A further test of normality used was the Kolmogorov-Smirnov test which also confirmed the normality of the data since the significance level was greater than 0.05. Section 5.2 that follows discusses the missing values.

5.2 MISSING VALUES

In statistics, missing values occur when no data value is stored for the variable in the current observation. Missing values are a common occurrence, and statistical methods have been developed to deal with this problem. Missing values can cause serious problems. Most statistical procedures automatically eliminate cases with missing values, so there may not be enough data to perform the statistical analysis. Alternatively, although the analysis might run, the results may not be statistically significant because of the small amount of input data. Missing values can also cause misleading results by introducing bias (Allison, 2001).
There is no fixed rule about the proper handling of missing values. However, there are three basic options when dealing with missing values.

**Option 1** is to do nothing. Leave the data as is, with the missing values in place. This is the most frequent approach, for a few reasons. First, the number of missing values is typically small. Second, missing values are typically non-random. Third, even if there are a few missing values on individual items, the researcher typically create composites of the items by averaging them together into one new variable, and this composite variable will not have missing values because it is an average of the existing data. However, if the researcher chose this option, it is important to keep in mind how Statistical Package for Social Sciences (SPSS) will treat the missing values. SPSS will either use “listwise deletion” or “pairwise deletion” of the missing values. The researcher can elect either one when conducting each test in SPSS (Pickles, 2005).

1. **Listwise deletion** – SPSS will not include cases (subjects) that have missing values on the variable(s) under analysis. When analysing only one variable, then listwise deletion is simply analysing the existing data. If there are multiple variables being analysed, then listwise deletion removes cases (subjects) if there is a missing value on any of the variables. The disadvantage is a loss of data because of removal of all the data from subjects who may have answered some of the questions, but not others (e.g., the missing data) (Graham, 2009:457).

2. **Pairwise deletion** – SPSS will include all available data. Unlike listwise deletion which removes cases (subjects) that have missing values on any of the variables under analysis, pairwise deletion only removes the specific missing values from the analysis (not the entire case). In other words, all available data is included. Pairwise deletion is useful when sample size is small or missing values are large because there are not many values (Graham, 2009:459).
Option 2 is to delete cases with missing values. For every missing value in the dataset, all the subjects with those missing values will be deleted. Thus, the researcher will be left with complete data for all subjects. The disadvantage to this approach is the reduction of the sample size of the data. If the data set is large, then it may not be a big disadvantage because the will be enough subjects even after the deletion of the cases with missing values. Another disadvantage to this approach is that the subjects with missing values may be different than the subjects without missing values (e.g. missing values that are non-random), so there will be a non-representative sample after removing the cases with missing values. One situation in which to use Option 2 is when particular subjects have not answered an entire scale or page of the study (Pickles, 2005).

Option 3 is to replace the missing values, called imputation. There is little agreement about whether or not to conduct imputation. There is some agreement, however, in which type of imputation to conduct. The researcher cannot do or conduct Mean substitution or Regression substitution. Mean substitution is replacing the missing value with the mean of the variable. Regression substitution uses regression analysis to replace the missing value. Regression analysis is designed to predict one variable based upon another variable, so it can be used to predict the missing value based upon the subject’s answer to another variable. The favoured type of imputation is replacing the missing values using different estimation methods (Pickles, 2005).

In the study at hand the number of cases of missing values was extremely small and the researcher and statistician used the pairwise deletion on those missing values from the analysis. This is consistent with the statistical language, which states that if the number of the cases of missing values is less than 5% of the sample, then the researcher can drop the missing values (Graham, 2009:459).

The following section will discuss the response rate of the respondents.

5.3 RESPONSE RATE
Response rate (also known as completion rate or return rate) in survey research refers to the ratio of the number of people who answered the survey to the total number of the sample. Table 5.1 presents the information on the response rate.

<table>
<thead>
<tr>
<th>Sample Category</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial sample</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>Unavailable</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>87</td>
</tr>
<tr>
<td>Usable sample</td>
<td>175</td>
<td>87</td>
</tr>
</tbody>
</table>

**Source:** data analysis

**Comment**
From this table, it can be noted that 25 respondents were unavailable for the survey and this made 175 respondents available. The researcher made some efforts to contact these respondents through several telephone calls however, they seem not interested. Therefore 87% percent of the respondents were available for the survey which provides a bigger percentage of the response rate showing a true representation of the sample. Section 5.4 examines the survey results.

**5.4 SURVEY RESULTS ON A QUESTION TO QUESTION BASIS**

This section presented the results from the field work on a question to question basis.

**5.4.1 Section A: Capital structure decisions**
This section of the questionnaire pertained to the general information on the capital structure decisions. It provides general information in relation to the sources of capital that the SMEs use in their businesses. The information from this section was used in the regression analysis. Question 2-7 contained information used for calculating ratios of the variables that were being analysed in the regression analysis.

**Question 1**

Please rank the following capital sources according to your firm’s order of preference, (1=most preferred 5 =least preferred).

This question provided the researcher with information in relation to the sources of capital that the SMEs use in their businesses. Table 5.2 presents the results in frequencies.

**Table 5.2 Sources of capital in order of preference**

<table>
<thead>
<tr>
<th>Source</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal equity (retained earnings)</td>
<td>112</td>
<td>9</td>
<td>54</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>External equity</td>
<td>54</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bank debt</td>
<td>96</td>
<td>79</td>
<td>86</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Non bank debt</td>
<td></td>
<td></td>
<td></td>
<td>167</td>
<td>8</td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Comment**

It was important to know the source of capital preferred most by the respondent. This information was vital since it provided the researcher with information which assisted in the attainment of the objectives of the study. The study was about the determinants of capital structure of SMEs hence it was imperative to know the type of capital mostly preferred by each respondent before looking at the reasons of preference which forms part of the determinants. From the results internal equity was the mostly preferred source of capital followed by debt finance. External equity finance was only the third hierarchy of preference. This is consistent with the
Pecking Order theory which states that firms follow a certain hierarchy when choosing the source of finance.

In support of these views, Kim (1999:45) argued that self-financing and the ability of a firm to acquire debt was limited during the early stages of small business. Thus, it is not uncommon for entrepreneurs to rely on personal savings, friends, and relatives as primary sources of capital at startup (Hutchinson, 2004). However, as firms grow they will utilise other sources like debt since they will be able to provide security. Berger and Udell, (1998:615) and Chittendale et al., (2000:59), also supported the idea that firm follow a pecking order when they are making financing decisions. The following question relates to the type of capital used.

**Question 2:** Why do you prefer the type of capital you have chosen in question 1

This question enabled the researcher to identify the reasons why the respondents prefer one source of capital as compared to other sources of capital. Table 5.3 and figure 5.1 provide the reasons for preferring the source of capital in question 1. The information is presented in frequencies.

**Table 5.3 Reasons for preferring the source of capital in question 1**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheapest form of capital</td>
<td>121</td>
<td>38</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Easy to access</td>
<td>92</td>
<td>38</td>
<td>11</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>It was the only source available</td>
<td>73</td>
<td>0</td>
<td>27</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td>Renders a relative higher return on investment</td>
<td>80</td>
<td>42</td>
<td>11</td>
<td>42</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data analysis
Figure 5.1 Reasons for preferring the source of capital in question 1

Source: Data analysis

Comment

Most firms preferred internal equity since it was cheap and easy to access. These results were consistent with the studies done by Felsenstein and Fleischier, (2002:196) who concluded that small firms prefer to use internal equity and only after exhausting the internal equity the firms will move on to the next available source. This result also proves the fact that SMEs are risk averse since they always prefer to use the source of finance which proves to be the least costly. The results were also consistent with Hamilton and Fox, (1999) who also supported that notion. Hutchinson, (2004:232) also suggested that firms prefer internal funds when they are starting their businesses. The next question examines the period of operation of the business.

Question 3: For how long has your business been in operation?

The researcher used this question to be informed about the period of operation which is the age of the firm. This question also allowed the researcher to determine the sustainability of the SMEs in the Buffalo city municipality. It also assisted the researcher when the regression was being run since the age of the
firm was one of the variables which were being tested in the regression analysis. Table 5.4 and figure 5.2 provides the results on the period of operation

**Table 5.4 Age of the firm**

<table>
<thead>
<tr>
<th>Age of the firm</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2yrs</td>
<td>51</td>
<td>29</td>
</tr>
<tr>
<td>3-5 yrs</td>
<td>71</td>
<td>41</td>
</tr>
<tr>
<td>5-10 yrs</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>10+ yrs</td>
<td>23</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Figure 5.2 Age of the firm**

Comment:
Most of the firms were between the ages of 3-5 years of age, very few SMEs, thirteen percent, (13%) were 10 years and older. From the results it can be noted that very few firms were above the age of ten years. These results were consistent with the studies done by Barton and Gordon, (2000) who concluded that most SMEs face a lot of challenges which hinder their growth. They further
concluded that financial constraints make it impossible for many SMEs to grow and expand. Question 4 asked about the total number of employees.

**Question 4:** What is the total number of employees employed by your firm?

This question provided information about the size of the firm. By knowing the size of the firm the researcher was able to do the regression analysis since size of the firm was one of the variables which were being tested in the regression analysis. Table 5.5 and figure 5.3 provides the information on the number of employees employed by the business.

### Table 5.5 Number of employees

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-50</td>
<td>81</td>
<td>46</td>
</tr>
<tr>
<td>51-100</td>
<td>59</td>
<td>34</td>
</tr>
<tr>
<td>101-150</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>151-200</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Data analysis

### Figure 5.3 Number of employees
Comment:
Amongst the SMEs who were interviewed forty six percent, (46%) of the businesses employed employees within the range of 1-50, only four percent (4%) of the SMEs employed between 151-200 employees. These results were consistent with the studies done by Barton and Gordon, (2000) who concluded that most SMEs face a lot of challenges which hinder their growth. Therefore SMEs employ a small number of employees because their businesses are still growing and they do not have financial resources to pay for big numbers Question 5 asked about the total number of assets.

Question 5: Indicate the total amount in Rand value of the total assets in your company for the years indicated below?

This question was relevant since it enabled the researcher to deduce information on calculation of ratios which was very important when doing the regression analysis. Table 5.6 and figure 5.4 provides the information on the total number of assets for three years.

Table 5.6 Total Assets in Rand Value ‘000’

<table>
<thead>
<tr>
<th>Category</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>10 000-50 000</td>
<td>52</td>
<td>47</td>
<td>50</td>
</tr>
<tr>
<td>51 000-100 000</td>
<td>70</td>
<td>65</td>
<td>72</td>
</tr>
<tr>
<td>101 000-200 000</td>
<td>7</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>201 000+</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>

Source: Data analysis
The responses to this question showed that the majority of SMEs in all the years had total asset values ranging between R51 000 and R100 000. There were 20 firms that had their asset value below R10 000 in all the three years. One of the reasons for this was these firms were still in their early days and they were still struggling to survive (Barton & Gordon, 2000). Question 6 provided information about the total amount of net profit.

**Question 6:** Indicate the total amount in Rand value of the net profit in your company for the years indicated below?

This question indicated the net profit. It is only from the operating profit that return on assets and return on equity could be determined. Without a profit figure the primary objective of the study could not be achieved. This question was important since it provided information on the net profit which enabled the calculation of
ratios that were used in the regression analysis. The information regarding to the operating profit for 2006, 2007 and 2008 is presented in Table 5.7 and figure 5.5.

Table 5.7 Total net profit in Rand value ‘000’

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>10 000-50 000</td>
<td>123</td>
<td>120</td>
<td>115</td>
</tr>
<tr>
<td>51 000-100 000</td>
<td>23</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>101 000-200 000</td>
<td>6</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>201 000+</td>
<td>23</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Data analysis

Figure 5.5 Net profit in Rand value ‘000’

Source: Data analysis
Comment
From the responses obtained seventy percent (70%) generated operating profit that were between 10 000 and 50 000 Rands for all the three years, thirteen percent (13%) generated between 51 000 and 100 000, three percent (3%) generated between 101 000 and 200 000 and fourteen percent (14%) generated above 201 000 Rands. The following question examines the total amount of turnover.

Question 7: Indicate the total amount in Rand value of the turnover generated in your company for the years indicated below?

By knowing the total value of turnover the researcher was able to deduce information to calculate the ratios that were used in the regression analysis. Table 5.8 and figure 5.6 shows the information on the amount of turnover for three years.

Table 5.8 Turnover in Rand value ‘000’

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>frequency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 10 000</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>10 000-50 000</td>
<td>85</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>51 000-100 000</td>
<td>51</td>
<td>45</td>
<td>51</td>
</tr>
<tr>
<td>101 000-200 000</td>
<td>15</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>201 000+</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>
Comment
From the responses obtained five percent (5%) generated turnover that were below R10 000 for all the three years, forty eighty percent (48%) generated between R10 000 and R50 000, twenty six percent (26%) generated between R51 000 and R100 000, eight percent (8%) generated between R101 000 and R200 000 and thirteen percent (13%) generated above R201 000.

Section 5.4.2 examines the effect of size, age and profitability on the use of debt.

5.4.2 Section B: Effects of size, age and profitability on the use of debt

This section was answered by the respondents who used debt finance. The researcher only wanted those respondents who used debt finance. This section provided questions (8-11) that related to the third hypothesis of this study which stated that: The use of debt by SMEs is negatively related to the size, age and profitability of the firm.
Question 8: Does the level of the firm’s profits affect your decision to use debt finance?

This question was important since it provided information that showed the relationship between profitability of the firm and the use of debt. This information was very relevant since it provided answers to one of the major objective of the study. Table 5.9 and figure 5.7 show the distribution of the results in frequencies.

Table 5.9 Effect of profit on debt usage

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>101</td>
<td>72</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Data analysis

Figure 5.7 Effect of profit on debt usage
Comment
Of the hundred and seventy five (175) respondents who participated in the study only one hundred and forty SMEs used debt finance, which constitutes eighty (80%) percent of the respondents. Most of the SMEs who used debt finance were those between the age of 3-5 years or older. This shows that those SMEs who were still in their early years were not using much of the debt finance. This may be because they are failing to get loans from the bank since they are considered high risk. Furthermore seventy two percent (72%) of the respondents strongly agreed to the fact that the level of profits affects your ability to use debt finance. Furthermore eighteen percent (18%) agreed to this fact whilst five percent (5%) did not agree and five percent (5%) were neutral. Generally the majority of the respondents agreed that the level of profits affect the ability to use debt finance. This was consistent with the study done by Berger and Udell, (1998:644) who concluded that the use of debt is positively related with the age of the firm. Hall et al., (2004:711) also agreed that age is positively related to long term debt. Dhawan, (2001:267) also agreed to this notion. Question 9 examines the total amount of debt in the firm.

Question 9: Indicate the total amount of debt in your company for the years indicated below?

This question enabled the researcher to determine the amount of debt in the firm. After determining the amount of debt used by SMEs, the information assisted the researcher in the calculation of the debt ratios which was one of the components of the suggested regression equation. Table 5.10 and figure 5.8 indicate the results in frequencies.

<table>
<thead>
<tr>
<th>Table 5.10 Total amount of debt in Rand Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
</tr>
<tr>
<td>2006</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
Source: Data analysis

Figure 5.8 Total amount of debt in Rand value ‘000’

<table>
<thead>
<tr>
<th>Value of Debt</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 000-50 000</td>
<td>51</td>
<td>49</td>
<td>50</td>
</tr>
<tr>
<td>51 000-100 000</td>
<td>58</td>
<td>50</td>
<td>51</td>
</tr>
<tr>
<td>101 000-200 000</td>
<td>18</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>201 000+</td>
<td>13</td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Data analysis

From the responses obtained 140 used debt finance which constituted 80% of the total sample. From the 140 respondents one percent (1%) acquired debt that was below R10 000 for all the three years, thirty six percent (36%) acquired between R10 000 and R50 000, forty percent (40%) acquired between R51 000 and R100 000, eighteen percent (18 %) generated between R101 000 and R200 000 and five percent (5%) generated above R201 000. Only twenty percent (20%) of the respondents in the sample did not use debt finance. This was consistent with studies done by Cook, (2000) and Esperaunca, Gama and Gulamhussen, (2003). These studies established that small firms had a high reliance on short term debt through the banking sector. The reasons for difficulties in accessing long-term debt or accessing smaller amounts might be because several small firms lack collateral and a good credit history which inhibits accessibility to debt finance.
The result indicated that small firms used more short term debt which might be caused by the easier accessibility of short term debt since it is less risky to extend and also it is repaid over a short period of time and in smaller amounts as compared to long-term debt. Question 10 provides information on the effect of high profits on the usage of debt.

**Question 10:** Do you think firms with high profits use less debt as compared to those with low profits?

This question was important since it provided information on the perceptions of the respondents on the relationship between high profits and use of debt. Table 5.11 presents the results.

### Table 5.11 Relationship between profitability and debt usage

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>100</td>
<td>72</td>
</tr>
<tr>
<td>Agree</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>neutral</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>disagree</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Comment:**

From the results it can be noted that seventy two percent (72%) of the respondents strongly agree with the fact that firms with high profits use less debt
as compared to those with low profits. This means that as firms generate more profits the level of debt will decrease since the firm will be able to retain its profits within the business. This was consistent with the study done by Cassar and Holmes, (2003) and Hull and Robert, (2004:45) who suggested that there is a negative relationship between profitability and both long term and short term debt. They agreed that firms with high profit rates, all things being equal, would maintain relatively lower debt ratios since they are able to generate such funds from internal sources. The following question examined the factors that have influence on the accessibility to debt finance by SMEs.

**Question 11:** Which of the following factors have a direct influence on your accessibility to debt finance?

This question provided information on the factors that affected the accessibility of debt by SMEs. The information answered questions on the determinants of capital structure, especially debt finance, since it was the variable that was in question. Table 5.12 provides the information of the factors that have direct in influence on a scale of 1 to 5 (1=most and 5=least).

**Table 5.12 Factors with direct influence on accessibility to debt finance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>4</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>age of the firm</td>
<td>130</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>cost of finance</td>
<td>122</td>
<td>18</td>
<td>0</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>profitability levels</td>
<td>100</td>
<td>27</td>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>size of the firm</td>
<td>125</td>
<td>10</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Comment:**
From the results in table 5.12 it can be noted that age of the firm, cost of finance, profitability and size of the firm are all factors that determine the accessibility of debt finance by SMEs. This means that when firms want to acquire debt finance all
these factors have to be considered before making that decision. This is consistent with the study done by Chittenden et al., (2000:63) who investigated the determinants of capital structure for a sample of small enterprises which both included both listed and unlisted firm. Their results showed that profitability, size, age, asset structure and access to capital markets are all determinants of capital structure of small firms. Cassar & Holmes, (2003) suggested that age of the firm affects the ability of the firm to use debt finance. Hamilton & Fox, (1999:232) also suggested that transactional costs had a major influence on the use of debt finance. The following section looks at the effect of size, age and profitability on the use of retained earnings.

5.4.3 Section C: Effects of size, age and profitability on the use of retained earnings (reinvested profits). This section was answered by the respondents who used retained earnings. This section provided questions that related to the first hypothesis of this study which stated that:

The use of retained profits by SMEs is negatively related with age, size and profitability of the firm

**Question 12:** What was the total amount of retained earnings (that is the amount of profits you have reinvested) in the financial years indicated below?

Information from this question was necessary in the regression analysis since retained earnings was one of the variables that were being tested. Table 5.13 and figure 5.9 presents the information on the amount of earnings generated for a period of three years in frequencies.

**Table 5.13 Total amount of retained earnings in rand value**

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td>24</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>10 000-50 000</td>
<td>79</td>
<td>83</td>
<td>79</td>
</tr>
<tr>
<td>51 000-100 000</td>
<td>36</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>101 000-200 000</td>
<td>22</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>201 000+</td>
<td>14</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>
Comment
From the responses obtained thirteen percent (13%) generated retained earnings that were below R10 000 for all the three years, forty seven percent (47%) generated between R10 000 and R50 000, twenty percent (20%) generated between R51 000 and R100 000, eleven percent (11%) generated between R101 000 and R200 000 and nine percent (9%) generated above R201 000.

Furthermore, out of the 175 firms in the sample all of these firms used retained earnings. This shows that all SMEs rely on retained earnings before they have resorted in other sources of finance. This was consistent to the study done by Barton, (2001) who suggested that the Pecking Order Theory is an appropriate theoretical approach for the SME sector. Empirical evidence suggests that SME
owners source their capital as follows: SME owners try to meet their financing needs from a pecking order of, first, their “own” money (personal savings and retained earnings); second, short-term borrowings; third, longer term debt; and, least preferred of all, from the introduction of new equity investors. Question 13 examines the effect of profitability on use of retained earnings.

**Question 13:** Do you agree that the higher the percentage profitability the firm generate the greater the percentage of retained earning that will be reinvested in business expansion?

This question enabled the researcher to find the relationship between profitability of the firm and the use of retained earnings which was one of the major objectives of the study. Table 5.14 and figure 5.10 provide information on the relationship between profitability and retained earnings.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>141</td>
<td>81</td>
</tr>
<tr>
<td>agree</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>neutral</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>disagree</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data analysis
The results presented above suggest that the higher the percentage profitability the firm generate the greater the percentage of retained earning that will be reinvested in business expansion. Higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity. When a small firm has a profitable investment opportunity, managers usually find it convenient to use retained earnings as a funding source. This was consistent with the study done by Van der Wijst & Thurik, (1999:55) who suggested that owner-managers prefer to use internal sources of capital rather than equity or debt finance when their businesses are profitable. Myers, (1984) argued that profitable firms prefer to fund their operations with internal equity. In line with this view, Van der Wijst & Thurik, (1999:55) found that profitability and retained earnings are positively related.

Furthermore, in a study of firms from five developed countries, Wald, (1999:164) finds the more profitable the firms the more internally generated funds will be available. The Pecking Order Theory also predicts a negative relation between
firm profitability and use of retained earnings. The following question focuses on the effect of size on the use of retained earnings.

**Question 14:** Do you agree that the use of retained earnings increases as the firm grows in terms of size?

Data provided by respondents revealed the relationship between the use of retained earnings and the size of the firm. This provided the researcher with answers that enabled to prove the second research hypothesis. Table 5.15 and figure 5.11 present the results.

**Table 5.15 Positive relationship between retained earnings and size of the firm**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>135</td>
<td>77</td>
</tr>
<tr>
<td>agree</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>disagree</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Data analysis
Figure 5.11 Positive relationship between retained earnings and size of the firm

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>6</td>
</tr>
<tr>
<td>disagree</td>
<td>4</td>
</tr>
<tr>
<td>neutral</td>
<td>0</td>
</tr>
<tr>
<td>agree</td>
<td>30</td>
</tr>
<tr>
<td>strongly agree</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: Data analysis

Comment:
From the results ninety four percent (94%) of the respondents agreed that the use of retained earnings increases as the firm grows in terms of size and six percent (6%) did not agree. The evidence available from the results confirms that the use of retained profits is positively related with the size of the firm. These results were consistent with Myers’ (1984) Pecking order theory.

The results were also in line with Hutchinson, (2004:231) who concluded that size and age of the firm were inextricably linked, which caused a number of issues to correlate. Firstly, start-up and early stage firms are generally smaller than matured and older firms, and had a greater proportionate reliance on the personal financial resources of the firm owner. If the firm is successful as it grows and matures, retained profits were reinvested in current and capital projects, augmenting personal sources of funding. A continued preference for internal equity increasingly relies on accumulated retained profits as the firm survives and matures. Furthermore, higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity.
The results were also consistent to the studies by Hall et al., (2004:716) who also supported a positive relationship between size and use of retained earnings. The following question addressed the effect of period of operation on the use of retained earnings.

**Question 15:** Does the period of operation affect your decision to use profits for investment?

This question was important since it provided the researcher with information on the relationship between the age of the firm and use of profits for investment. Table 5.16 and figure 5.12 present the information on the effect of age on use of retained earnings.

**Table 5.16 Effect of period of operation (age) on retained earnings**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>75</td>
<td>44</td>
</tr>
<tr>
<td>agree</td>
<td>85</td>
<td>48</td>
</tr>
<tr>
<td>neutral</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>disagree</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Data analysis
Figure 5.12 Effect of period of operation (age) on retained earnings usage

Source: Data analysis

Comment

From the results forty four percent (44%) strongly agreed to the fact that age has an impact on the use of retained earnings. Forty eight percent (48%) agreed showing that ninety two percent (92%) of the respondents were in line with this fact. Seven percent (7%) of the respondents were not agreeing whilst one percent (1%) was neutral. These results were consistent with Berger & Udell, (1998:674) who concluded that firms can be viewed as lying on a size-age continuum, arguing that small and young firm owner-managers rely on internal finance such as family loans, trade credit, and/or business angel finance. As firms grow the use of retained earnings would also increase.

Hogan and Hutson, (2005) also supported this view of a positive relationship between age of the firm and the use of retained earnings. They suggested SME owners will try to meet their financing needs from a pecking order. Zoppa & McMahon, (2002) also concluded that as firms grow and mature the use of retained earnings also increases. The following question was about the effect of age on the use of accumulated profits.
**Question 16:** Do you agree that as a firm mature preference for internal equity increases since the firm will be relying on accumulated profits?

This question enabled the researcher to find the relationship between maturity of the firm and internal equity. This relationship enabled the researcher to test the hypothesis. Table 5.17 and figure 5.13 provide information on the relationship between firm maturity and retained earnings usage.

**Table 5.17 Positive relation between firm maturity and retained earnings usage**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>102</td>
<td>58</td>
</tr>
<tr>
<td>agree</td>
<td>62</td>
<td>36</td>
</tr>
<tr>
<td>neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>disagree</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data analysis
Figure 5.13 Positive relation between firm maturity and retained earnings usage

Source: Data analysis

Comment:
Most of the respondents (94%) agreed that as a firm matures preference for internal equity increases since the firm will be relying on accumulated profits. This was consistent with the studies done by Zoppa and McMahon, (2002) who observed that as firms grow and mature the use of retained profits increases. Profits were reinvested in current and capital projects since the firm will be gaining more. They further concluded that as firms mature preference for internal equity increases since the firm will be relying on accumulated profits.

Watson and Wilson, (2002:558) in their study also observed that profitability of firms is lower during the first years of operation. They concluded that as firms grow the profit levels increase allowing the owners to retain some of the earnings. They observed a positive relationship between use of retained earnings and age of the firm. Hogan and Hutson, (2005) also supported a positive relationship between age of the firm and age of the firm. They suggested SME owners will try to meet their financing needs from a pecking order. Zoppa and McMahon, (2002) also concluded that as firms grow and mature the use of retained earnings also
increases. The following question will focus on the factors that have direct influence on the accessibility to internal equity.

**Question 17:** Which of the following factors have direct influence on your accessibility to internal equity finance?

This question provided information on the factors that affected the accessibility to internal equity by SMEs. The information answered questions on the determinants of capital structure especially retained earnings since it was the variable that was in question. Table 5.18 indicates the factors with influence on accessibility to internal equity finance in frequencies.

**Table 5.18 Factors which influence on accessibility to internal equity finance**

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>age of the firm</td>
<td>160</td>
<td>8</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>cost of finance</td>
<td>129</td>
<td>27</td>
<td>11</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>profitability levels</td>
<td>130</td>
<td>29</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>size of the firm</td>
<td>160</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>other variables</td>
<td>10</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Comment**

From the results in table 5.18 it can be noted that age of the firm, cost of finance, profitability and size of the firm are all factors that determine the accessibility internal finance by SMEs. This means that when firms want to acquire internal equity all these factors have to be considered before making that decision. This was consistent with the study done by Chittenden *et al.,* (2000:63) who investigated the determinants of capital structure for a sample of small enterprises which both included both listed and unlisted firm. Their results showed that profitability, size, age, asset structure and access to capital markets are all determinants of capital structure of small firms.
Van der Wijst and Thurik, (1999:164) also suggested that profitability, size and age are some of the major factors that affect the decision of firms to use internal equity. The following section looked at the effect of size, age and profitability on the use of external equity.

5.4.4 Section D: effects of size, age and profitability on the use of external equity (money outside the business either from individuals, government, family and friends excluding any form of loan). This section has information relating to the third null hypothesis which stated that: *The use of external equity by SMEs is negatively related with age, size and profitability of the firm*

The information obtained from this section assisted the researcher in the construction of the regression analysis as well as the calculation of ratios. This section was only answered by those SMEs who used external equity only.

**Question 18:** Indicate the total amount of external equity you had in your company for the years indicated below?

This question provided information that was used to calculate the ratio used in the regression analysis. Table 5.19 and figure 5.14 provide information on the total external equity for the three financial years.

<table>
<thead>
<tr>
<th>Table 5.19 Total external equity in Rand value ‘000’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
</tr>
<tr>
<td>10 000-50 000</td>
</tr>
<tr>
<td>51 000-100 000</td>
</tr>
<tr>
<td>101 000-200 000</td>
</tr>
<tr>
<td>201 000+</td>
</tr>
</tbody>
</table>

Source: Data analysis
Comment
From the responses obtained twelve percent (12%) used external equity below R10 000, fifty one percent (51%) between R10 000 and R50 000 rands for all the three years, twelve (12%) used between R51 000 and R100 000, twenty five percent (25%) used between R101 000 and R200 000 and no one used above R201 000. Out of the sample of 175 firms only 122 firms used external equity which is seventy percent (70%) of the total sample.

The results were consistent with a study done by Delcoure, (2006:25) who concluded that firms sourcing additional venture capital funding have typically received previous equity funding, and have grown past start-up size. Venture capitalists typically invest in the firms with high-growth potential, investing at a stage when a product or service has been pre-tested. Venture capital investment is generally positively correlated to the size of a firm, as a high rate of return is required in a relatively short period of three to eight years. Hogan & Hutson (2005)
concluded that fast growing firms typically have a greater external financing requirement than non growing firms.
The following question examined the effect of size on the use of external equity.

**Question 19:** Do you think that the size of your firm plays a role on your ability to acquire external equity finance?

Information obtained from this question enhanced the researcher to see the relationship between the size of the firm and ability to acquire external equity. This question answered one of the major objectives of the study. Table 5.20 and figure 5.15 present the results.

**Table 5.20 Effect of size of the firm on the ability to acquire external equity**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>100</td>
<td>82</td>
</tr>
<tr>
<td>Agree</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Data analysis
The majority of the respondents agreed (94%) that the size of the firm plays a role on the ability to acquire external equity finance. This is in line with the study done by Hogan and Hutson, (2005) who concluded that fast growth firms typically have a greater external financing requirement than non growth firms. In line with this view Cressy and Olofsson, (1999:87) provide empirical evidence suggesting that owners of firms seeking to grow were less reluctant to ceding control than those not seeking growth. Therefore small firms do not want to lose control in their managerial activities and they are discouraged to use external funds. As firms seek to grow the need more funds arise hence they want more external funds to invest.

The results were also consistent with Timmons, (2004), who concluded that small, young firms tend to draw capital from internal sources, personal sources, informal investment and family and friends. As the firm ages, outside investors can observe the firm’s track record and examine its creditworthiness over time. In developing a reputation firms satisfy the problem of asymmetric information and have improved access to external sources of finance, such as venture capital and
short term sources of funding which includes trade credit and bank overdraft facilities. The question that follows examined the factors that have direct influence on the use of external equity.

**Question 20:** Which of the following factors have direct influence on your accessibility to external equity finance?

This question provided information on the factors that affected the accessibility to external equity by SMEs. The information answered questions on the determinant of capital structure especially external equity since it was the variable that was in question. Table 5.19 presents the results in frequencies.

**Table 5.21 Factors which influence your accessibility to external equity finance**

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>age of the firm</td>
<td>114</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cost of finance</td>
<td>71</td>
<td>0</td>
<td>51</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>profitability levels</td>
<td>138</td>
<td>29</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>size of the firm</td>
<td>107</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>other variables</td>
<td>61</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Comment**

From the results in table 5.19 it can be noted that age of the firm, cost of finance, profitability and size of the firm are all factors that determine the accessibility external finance by SMEs. This means that when firms want to acquire external equity all these factors have to be considered before making that decision. This is consistent with the study done by Chittenden et al., (2000:63) who investigated the determinants of capital structure for a sample of small enterprises which both included both listed and unlisted firms. Their results showed that profitability, size, age, asset structure and access to capital markets were all determinants of capital structure of small firms. The following question looked at the effect of profit on external equity.
**Question 21:** Do you think that the levels of your profits affected your ability to acquire external finance?

Information obtained from this section provided the relationship between profitability and external equity. This question provided answers to one of the objectives of the study which investigated whether there is a positive or negative relationship between profitability and external equity. Table 5.22 and figure 5.16 presents a summary of the results.

**Table 5.22 Effect of profit on ability to acquire external finance**

<table>
<thead>
<tr>
<th>Response</th>
<th>frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>102</td>
<td>84</td>
</tr>
<tr>
<td>Agree</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>1</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Figure 5.16 Effect of profit on ability to acquire external finance**

Source: Data analysis
Comment
Of the respondents Eighty four percent (84%) strongly agreed that the levels of profits affect the ability to acquire external finance. Only nine percent (9%) disagreed to this statement. Empirical evidence from previous studies seems to be consistent with these results. Most studies found a negative relationship between profitability and use of external equity these studies includes Chittenden et al., (2000); Johnson, (1999) and Michaelas et al., (1999) among others. Question 22 shows the effect of age on the use of external equity.

Question 22: Do you agree that the period of operation of the firm affect your ability to acquire external finance?

This question provided information on the relationship between age of the firm and external equity. This information is important when testing the research hypothesis. Table 5.23 and figure 5.17 provide information on the effect of period of operation on the ability to acquire external finance.

**Table 5.23 Effect of period of operation on ability to acquire external finance**

<table>
<thead>
<tr>
<th>Response</th>
<th>frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>69</td>
<td>57</td>
</tr>
<tr>
<td>Agree</td>
<td>50</td>
<td>41</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data analysis
Comment

Most of all the respondents agreed (98%) to the fact that the period of operation affect the ability to acquire external finance. This is in line with Cressy and Olofsson, (1999:179) who found that SMEs do acquire additional external equity capital. They found that younger and lower quality firms were more likely to acquire additional external equity than large firms since smaller firms do not have profits to retain. Furthermore they concluded that small firms find it difficult to access debt hence they will decide on external funding.

The results were also consistent with Bates, (1999) who found that when compared with older and more established businesses, younger firms rely less on external equity to sustain their business. However, as firms grow and mature, different types of external equity become important. Schmid, (2001:24) concluded that SMEs face a lot of difficulties when accessing external finance; hence these firms are more dependent upon owner loans, internal equity, trade credit and...
angel financing. They further concluded that as firms mature they tend to use more internal equity than external equity if it is well managed. The following question examined the effect of profit on the use of external equity.

**Question 23:** Do you agree that the need to acquire external equity decreases as the profitability of the firm increases?

This question tested if there is a negative relationship between the ability to acquire external equity and the profitability of the firm. It was a significant question because it provided answers to one of the major objectives of the study namely to ascertain if there is a positive or negative relationship between external equity and age, size and profitability of the firm. Figure 5.18 presents a summary of the findings.

**Figure 5.18 Negative relationship between need to acquire external equity and profit**

![Bar chart showing responses](chart.png)

Source: Data analysis

**Comment:**
From the results above it can be concluded that most of the respondents agreed that the need to acquire external equity decreases as the profitability of the firm
increases. Profitability could also affect the decision to use external equity. As the firm generates higher profits it increases the availability of internal equity. Accordingly, profitable industries, because of the greater availability of internally generated funds, related to their high profitability tend to have lower external equity in their capital structure. Empirical evidence from previous studies seems to be consistent with the pecking order theory. Most studies found a negative relationship between profitability and use of external equity for example studies by Chittenden et al., (2000); Johnson, (1999) and Michaelas et al., (1999). The question that follows examined the preference of retained profits over external equity.

**Question 24:** Do you rather prefer to retain profits instead of using external equity?

This question enabled the researcher to see the respondents’ perceptions on their preference to retain profits instead of using external equity. Table 5.24 and figure 5.19 provide the findings on the preference of retained earnings over external equity.

**Table 5.24 Preference of use of retained earnings over external equity**

<table>
<thead>
<tr>
<th>Response</th>
<th>frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>53</td>
<td>43</td>
</tr>
<tr>
<td>Agree</td>
<td>61</td>
<td>50</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Data analysis
The results show that ninety three percent (93%), of the respondents agreed to the fact that they prefer to use retained profits over external equity. This was consistent with Berger & Udell, (1998:674) who suggested that firms can be viewed as lying on a size-age continuum, arguing that small and young firm owner-managers rely on internal finance such as family loans, trade credit, and/or business angel finance. As firms grow the use of retained earnings will also increase. The fact that these firms hold significant fixed assets (to provide collateral security), have high profit levels (to provide debt coverage) and moderate debt to equity ratios (indicating that they are not highly levered) means that these firms are likely to have easier access to formal forms of financing and are in a better position to finance their operations through the internal resources of the business (i.e. retained earnings).

The results were also consistent with studies by Van der Wijst & Thurik, (1999:55) who suggested that owners-managers prefer to use internal sources of capital rather external equity when their businesses are profitable. The following section discussed the general details of the respondents.
5.4.5 Section E: General details

This section identified and discussed general details related to the SMEs and respondents answering on behalf of the firms. Questions such as the type of product, the status of the respondents and gender of the respondents were discussed in this section of the study. The responses to question 25 to 27 are examined below.

Question 25: What type of product (s) is sold by your firm?

This question enabled the researcher to know what kind of products the SMEs sold. Table 5.25 and Figure 5.20 present the summary of findings.

Table 5.25 Type of product

<table>
<thead>
<tr>
<th>Type of product</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td>Groceries</td>
<td>61</td>
<td>35</td>
</tr>
<tr>
<td>Vegetables</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Accessories</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data analysis

Figure 5.20 Type of product

Source: Data analysis
Comment
The responses to this question indicated that thirty six percent (36%) of the respondents were in the clothing sector, thirty five percent (35%) were selling groceries, seventeen percent (17%) were selling accessories, eleven percent (11%) were selling vegetables and one percent (1%) was selling other commodities such as stationery among others. The next question required respondents to state their position in business.

Question 26: What is your position/role in business?
This question enabled the researcher to know the position of the respondent in the firm, thus, whether they were owners or managers of the firm. Table 5.26 and figure 5.21 present the position of the respondents.

Table 5.26 Position in business

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Manager</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Both</td>
<td>147</td>
<td>84</td>
</tr>
</tbody>
</table>

Source: Data analysis
Comment

Of the respondents interviewed eighty four percent (84%) were both owners and managers, eleven percent (11%) were owners and five percent (5%) were managers. This result indicated that owners of SMEs were directly involved in the activities and daily operations of their business. One of reasons of the direct involvement is that they did not have adequate funds to employ qualified and experienced personnel whom they trust and who were competent to manage the firm. Besides, most of the firms were small, such that the owner could manage it him/herself. Question 27 below asked about the gender of the respondent.

Question 27: Please indicate your gender?
The question was necessary to enable the researcher to obtain information on whether the respondents were females or males. This assisted in establishing if
there was any relationship between the three variables (age, size and profitability) and gender of the respondents. Table 5.27 and figure 5.22 present the distribution of the respondents based on gender.

**Table 5.27 Gender of respondents**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>110</td>
<td>63</td>
</tr>
<tr>
<td>female</td>
<td>65</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Data analysis

**Figure 5.22 Gender of respondents**

Source: Data analysis

**Comment**

As highlighted in above sixty three percent (63%) of the respondents were males whilst thirty seven percent (37%) were females. The reason for having more male operating small business might have been because it is still widely believed that men are the providers of the family, therefore, they start businesses to work for the family.
The results were consistent with international studies on gender and small business. Coleman, (2000) in a study of ‘Credit: A Comparison of Men- and Women- Owned Small Businesses’ found that women businesses constituted almost one third of all small businesses implying that the remaining two thirds belonged to men. Women owned fewer businesses maybe because of lack of business knowledge which affects their ability to start businesses. The following section discussed the regression analysis and hypothesis testing.

5.5 INTERPRETATION OF REGRESSION ANALYSIS RESULTS AND HYPOTHESES TESTING

A hypothesis testing refers to the determination of whether the particular hypothesis is rejected or is not rejected. This section discussed the testing of each individual hypothesis. Firm’s capital structure constitutes our dependent variables which were measured using the following ratios:

- Debt ratio was calculated as: \( \frac{\text{Total debt (long term + short term)}}{\text{Total assets}} \)
- The equity ratio was calculated as: \( \frac{\text{Total equity}}{\text{Total assets}} \)
- The retained earnings ratio was calculated as: \( \frac{\text{Total retained earnings}}{\text{Total assets}} \)

The independent variables

**Age of the firm**

Age of the firm represented the independent variable and it was measured by the number of years the firm has been operating.

**Size of the firm**

Size of the SMEs represented the second independent variable and was measured by the total number of employees.

**Profitability**
Profitability represented the third and final independent variable. It was calculated as follows;

Net profit after interest and tax
Total Equity

Below, we present the analysis and interpretation of regression results.

5.5.1 Analysis and interpretation of regression results

When running a regression, the main objective is to discover whether the coefficients of the independent variables are really different from 0 (so the independent variables are having a genuine effect on your dependent variable) or if alternatively any apparent differences from 0 are just due to random chance. The null (default) hypothesis always shows that each independent variable is having absolutely no effect (has a coefficient of 0) and will be looking for a reason to reject this theory (Gujarati, 2001).

Several regressions were carried out to exploit the quality of data, trying to control the potential endogeneity problems that could appear while testing the models. Below the researcher present a revision of the main results obtained in the research for every model, and the different proofs carried out to give robustness to the results.

\[
DR = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum r \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots}
Table 5.28 Descriptive statistics of capital structure determinants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt</td>
<td>2.274286</td>
<td>0.955427</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>RE</td>
<td>1.411429</td>
<td>0.5890629</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>External equity</td>
<td>1.788571</td>
<td>0.8748633</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Size</td>
<td>1.788571</td>
<td>0.8748633</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Age</td>
<td>2.142857</td>
<td>0.9867763</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Profitability</td>
<td>2.721000</td>
<td>1.868185</td>
<td>2</td>
<td>23</td>
</tr>
</tbody>
</table>

Note: Profitability is defined as the ratio of operating profit to total assets. Size of the firm is measured by the period of operation. Age of the firm is measured by the period of operation. Debt ratio refers to the ratio of total debt to total assets. Retained earnings ratio refers to the ratio of total retained earnings to total assets. External equity ratio refers to total external equity to total assets.

**Correlation Matrix**

A correlation matrix shows the correlation between each pair of variables. The diagonal of the matrix has values of 1.00 because a variable always has a perfect correlation with itself. The matrix is symmetric about the diagonal because X correlated with Y is the same as Y correlated with X (Gujarati, 2001).

A "correlation coefficient" is a value that indicates whether there is a linear relationship between two variables. The absolute value of the correlation coefficient will be in the range 0 to 1. A value of 0 indicates that there is no relationship whereas a value of 1 indicates that there is a perfect correlation and the two variables vary together. The sign of the correlation coefficient will be negative if there is an inverse relationship between the variables (i.e., as one increases the other decreases) (Gujarati, 2001).

Table 5.29 presents the correlation matrix for all the dependent and independent variables for the regression models.
Looking at the results shown in the correlation matrix above it can be noted that there is a positive relationship between debt and the three variables age, size and profitability of the firm. All the values are above zero and very close to 1 showing a perfect correlation. On the other hand retained earnings have also a positive correlation with the three variables age, size and profitability. All the coefficients are above 0 and very close to 1 which also shows a perfect positive correlation. The results in the matrix also show that external equity has a positive correlation with age and size. However, there is a negative correlation between external equity and profitability.

The results were consistent with several studies that show a positive relationship between debt and the three variables profitability, firm size and age of the firm, (Barclay, Smith & Watts, 2000, Kim, 1999; Al-Sakran, 2001, Hovakimian & Tehranian, 2004). Their results suggested that smaller firms are more likely to use equity finance, while larger firms are more likely to issue debt rather than stock. Cassar & Holmes, (2003), Esperança et al., (2003:63), and Hall et al., (2004:720) found a positive association between firm size and long-term debt ratio, but a negative relationship between size and short-term debt ratio. However, some studies also support a negative relationship between firm size and short-term debt ratio (Chittenden et al., 2000; Michaelas et al., 1999). Petersen & Rajan, (1999:407) found a positive association between use of debt and age and these results are also similar to the results obtained in this research.
The result of a negative correlation between external equity and profitability were consistent with empirical evidence from previous studies as well as the Pecking Order Theory. Most studies (Chittenden et al., 2000; Johnson, 1999 and Michaelas et al., 1999) found a negative relationship between profitability and use of external equity.

5.5.2 Hypotheses testing

P, t and standard error
The P value answers this question: If there really is no correlation between X and Y in the overall population, what is the chance that random sampling would result in a correlation coefficient as far from zero (or further) as observed in this experiment (Gujarati, 2001).

The t statistic is the coefficient divided by its standard error. The standard error is an estimate of the standard deviation of the coefficient, the amount it varies across cases. It can be thought of as a measure of the precision with which the regression coefficient is measured. If a coefficient is large compared to its standard error, then it is probably different from 0 (Gujarati, 2001).

If ninety five percent (95%) of the t distribution is closer to the mean than the t-value on the coefficient being looking at, then a P value of five percent (5%). This is also referred to a significance level of five percent (5%). A P value of five percent (5%) or less is the generally accepted point at which to reject the null hypothesis. With a P value of five percent (5%) (or .05) there is only a five percent (5%) chance that results being obtained would have come up in a random distribution, therefore it shows that with a ninety five percent (95%) probability of being correct that the variable is having some effect, assuming your model is specified correctly (Gujarati, 2001).
5.5.2.1 Effect of age, size and profitability on the use of retained profits

This section tested the first hypothesis (null hypothesis) of the study which stated that the use of retained profits by SMEs is negatively related with age, size and profitability of the firm. The model below tested the relationship between retained earnings and the three variables (age, size and profitability). Correlation testing was done to determine if there was a relationship between the variable. An extract of the correlation testing is highlighted in table 5.30.

To aid the discussion of the findings a part of the regression procedure was extracted. The extract shows the p values and other parameter estimates which were important in determining the effect of profit, size and age on the use of retained earnings.

\[
RE = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum r
\]

Table 5.30 Dependent variable: Retained Earnings ratio

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard error</th>
<th>t Value</th>
<th>P Values</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.0377654</td>
<td>7.009</td>
<td>0.000**</td>
<td>0.4632</td>
</tr>
<tr>
<td>Age</td>
<td>0.0920000</td>
<td>3.9887</td>
<td>0.0001**</td>
<td>0.8000</td>
</tr>
<tr>
<td>Size</td>
<td>0.0728000</td>
<td>12.217</td>
<td>0.000**</td>
<td>0.4632</td>
</tr>
<tr>
<td>Profit</td>
<td>0.738084</td>
<td>1.5230</td>
<td>0.000**</td>
<td>0.9328</td>
</tr>
</tbody>
</table>

** Statistically significant at 95%

Table 5.30 present the regression tests done on the effect of profit, size and age on the use of retained earnings. As shown in the table above all the p values of the three variables are less than 0.05 showing that the results were statistically significant to reject the null hypothesis. From these tests, it can be concluded that the age, size and profitability have a significant positive impact on the use of retained earnings. Therefore the null hypothesis which stated that use of retained
earnings by SMEs is negatively related with age, size and profitability of the firm was rejected.

These results were consistent with the Pecking order theory which states that firms tend to follow a certain hierarchy when choosing a source of finance. In a study of firms from five developed countries Wald, (1999:164) finds the more profitable the firm is, the more internally generated funds will be available. Therefore, the Pecking order Theory predicts a positive relation between firm profitability and use of retained earnings. Van der Wijst and Thurik, (1999:55) suggested that owner-managers prefer to use internal sources of capital rather than equity or debt finance when their businesses are profitable. Myers, (1984) argued that profitable firms prefer to fund their operations with internal equity. In line with this view, Van der Wijst and Thurik, (1999:55) found that profitability and retained earnings are positively related to retained earnings is to maximize the long-term value of their business.

Hutchinson, (2004) also had similar results he concluded that as the firm survives and matures a continued preference for internal equity increases since the firm will be relying on accumulated retained profits. Furthermore he found out that higher profits increase availability of internal equity which means the more profitable a firm is the higher the chance of using internal equity.

Zoppa and McMahon, (2002) also observed that as firms grows and matures, the use of retained profits increases. Profits are reinvested in current and capital projects since the firm will be gaining more. They further concluded that as firms mature preference for internal equity increases since the firm will be relying on accumulated profits.

Berger and Udell, (1998:674) also suggested that firms can be viewed as lying on a size-age continuum, arguing that small and young firm owner-managers rely on internal finance such as family loans, trade credit, and/or business angel finance. As firms grow the use of retained earnings will also increase.
The following section tested the second null hypothesis.

5.5.2.2 Effect of age, size and profitability on the use of external equity

This section tested the second hypothesis (null hypothesis) of the study which stated that the use of external equity by SMEs is negatively related with age, size and profitability of the firm. The model below tested the relationship between external equity and the three variables (age, size and profitability). Correlation testing was done to determine if there was a relationship between the variables. An extract of the correlation testing is highlighted in table 5.29.

To aid the discussion of the findings a part of the regression procedure was extracted. The extract shows the p values and other parameter estimates which were important in determining the effect of profit, size and age on the use of external equity.

\[
EXEQ = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 + \text{SIZE} + \beta_3 \text{AGE} + \sum r 
\]

Table 5.31 Dependent variable: External equity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard error</th>
<th>t Value</th>
<th>P Values</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.08630</td>
<td>28.000</td>
<td>0.0000</td>
<td>0.00015</td>
</tr>
<tr>
<td>Age</td>
<td>0.29999</td>
<td>2.97999</td>
<td>0.09490**</td>
<td>0.0488</td>
</tr>
<tr>
<td>Size</td>
<td>0.04340</td>
<td>0.5040</td>
<td>0.6146**</td>
<td>0.0015</td>
</tr>
<tr>
<td>Profit</td>
<td>0.02020</td>
<td>-1.187</td>
<td>0.2367**</td>
<td>0.00081</td>
</tr>
</tbody>
</table>

**Statistically insignificant at 95%

Table 5.31 presents the regression test done on the effect of profit, size and age on the use of external equity. All the p values of the three variables are greater that 0.05 showing that the results are statistically insignificant to reject the null hypothesis. Therefore it can be conclude that profit, size and age have negative relationship with the use of external equity. Therefore we do not reject the null hypothesis which stated that the use of external equity by SMEs is negatively related with age, size and profitability of the firm.
The results were consistent Cressy and Olofsson, (1999:179) found that SMEs acquire additional external equity capital. They found that younger and lower quality firms were more likely to acquire additional external equity than large firms since smaller firms do not have profits to retain.

Bates, 1999 also found that when compared with older and more established businesses, younger firms rely less on profits derived from sales, therefore they use external equity to sustain their business. However, as firms grow and mature, different types of debt arrangements (first short-term, then long-term) become important.

Schmid, (2001:24) concluded that SMEs face a lot of difficulties when accessing finance, hence these firms are more dependent upon owner loans, internal equity, trade credit and angel financing. They further concluded that as firms mature they tend to use more internal equity than external equity if it is well managed. All the evidence from available literature confirms that the use of external equity is negatively related with age.

However, Hogan and Hutson, (2005) concluded that fast growth firms typically have a greater external financing requirement than non growth firms. In line with this view Cressy and Olofsson, (1999:87) provide empirical evidence suggesting that owners of firms seeking to grow were less reluctant to ceding control than those not seeking growth. Therefore small firms do not want to lose control in their managerial activities and they are discouraged to use external funds. As firms seek to grow the need for more funds arise hence they want more external funds to invest.

The following section tested the third null hypothesis.

5.5.2.3 Effect of age, size and profitability on the use of debt

This section tested the third hypothesis (null hypothesis) of the study which stated that the use of debt by SMEs is negatively related with age, size and profitability of
the firm. The model below tested the relationship between debt and the three variables (age, size and profitability). Correlation testing was done to determine if there was a relationship between the variables. An extract of the correlation testing is highlighted in table 5.32.

To aid the discussion of the findings a part of the regression procedure was extracted. The extract shows the p values and other parameter estimates which were important in determining the effect of profit, size and age on the use of debt.

\[ DR = \beta_0 + \beta_1 \text{PROFIT} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} + \sum r \]

Table 5.32 Dependent variable: Debt ratio

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard error</th>
<th>t Value</th>
<th>P</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.0377654</td>
<td>6.9740</td>
<td>0.000*</td>
<td>0.3397</td>
</tr>
<tr>
<td>Age</td>
<td>0.17530</td>
<td>5.4627</td>
<td>0.000*</td>
<td>0.5561</td>
</tr>
<tr>
<td>Size</td>
<td>0.0222</td>
<td>44.604</td>
<td>0.000*</td>
<td>0.9202</td>
</tr>
<tr>
<td>Profit</td>
<td>0.0748</td>
<td>0.07480</td>
<td>0.000*</td>
<td>0.3397</td>
</tr>
</tbody>
</table>

* Statistically significant at 95%

Table 5.32 presents the regression tests done on the effect of profit, size and age of the firm on the use of debt. All the p values were less than 0.05 which shows that the results are statistically significant to reject the null hypothesis. It can therefore be concluded that there is a significant positive relationship between use of debt and the three variables (age, size and profitability). Therefore we reject the null hypothesis which stated that the use of debt is negatively related to the size, age and profitability.

The results were consistent with Hall et al., (2004:711) who agreed that age is positively related to long-term debt but negatively related to short-term debt. Dhawan, (2001:267) indicated that sources of capital depend, to some extent, on
whether a business is developing or maturing. For example, developing firms tend
to rely on equity because of difficulties raising debt, whereas mature businesses
are able to leverage assets to raise debt.

Petersen and Rajan, (1999:407) also found that older firms should have higher
debt ratios since they should be higher quality firms. They concluded that most
large firms have access to debt finance since they are considered to be less risky
as compared to small firms. This supports the fact that the use of debt is positively
related to age.

In support of these views Kim, (1999:48) argued that self-financing and the ability
of a family to acquire debt was limited during the early stages of a family business.
Thus, it is not uncommon for entrepreneurs to rely on personal savings, friends,
and relatives as primary sources of capital at startup.

Diamond, (1999) showed that large firms are likely to have established reputations
and more firm-specific information publicly available than do small firms, facili-
titating the issuance of public debt. Dhawan, (2001:270) indicated that sources
of capital depend, to some extent, on whether a business is developing or
maturing. For example, developing firms tend to rely on equity because of
difficulties raising debt, whereas mature businesses are able to leverage assets to
raise debt.

Cassar and Holmes, (2003), Esperança et al., (2003:63), and Hall et al.,
(2004:720) found a positive association between firm size and long-term debt
ratio, but a negative relationship between size and short-term debt ratio. However,
some studies also support a negative relationship between firm size and short-
term debt ratio (Chittenden et al., 2000; Michaelas et al., 1999).

Petersen and Rajan, (1999:407) also found a significant positive association
between profitability and use of debt. The more profitable firms are the lesser the
use of debt. However, most of the evidence from available literature confirms that the use of debt is negatively related to profitability. Cassar and Holmes, (2003), Esperance et al., (2003:62) and Hull and Robert, (2004:45) suggested a negative relationship between profitability and both long-term and short-term debt. They agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources.

5.6 SUMMARY

This chapter provided results on a question to question basis for the total sample. Looking at the results it was concluded that age, size and profitability are some of the major factors that determine the capital structure of small and medium enterprises. By using the regression equations, it was confirmed the researcher rejected the first null hypothesis which stated that the use of retained earnings by SMEs is negatively related with age, size and profitability of the firm. The second null hypothesis which stated that the use of external equity by SMEs is negatively related with age, size and profitability of the firm could not be rejected because of the regression testing. The third null hypothesis which stated that the use of debt is negatively related to the size, age and profitability was rejected. The study established that there is a positive relationship between debt and the three variables age, size and profitability of the firm. On the other hand retained earnings have also a positive correlation with the three variables age, size and profitability. Finally the results in the matrix also show that external equity has a positive correlation with age and size. However, there is a negative correlation between external equity and profitability. The regression results supported the predictions provided by the pecking order theory that firms decrease or increase their financial debt in correspondence to the availability or lack of internal funds.

The next chapter provides conclusion and recommendations based on the findings discussed in this chapter.
CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS
6.1 INTRODUCTION

The present chapter is made up of three sections. The first part comprises section 6.2 and 6.3 which provides an overview of the research problem, the research objectives, and the literature relevant to the main findings as well as the research design. The second part, section 6.4, interprets the study propositions (hypotheses) and why the propositions were rejected or accepted on the basis of the statistical techniques executed in chapters. This section discusses the brief implications of the findings of this study as presented in the last chapter. The third part, section 6.5, discusses the study recommendations including further research areas.

Section 6.2 discusses the overview of literature studies.

6.2 OVERVIEW OF LITERATURE STUDIES

The literature review was covered in chapter 1, 2 and 3. The following is a short overview of the above mentioned chapters.

Chapter one covered a discussion of the problem statement. It was noted that South African small businesses still suffer from lack of finance with a ninety percent (90%) failure rate within the first two years of operation (Boateng, 2004:66). The research at hand showed that there is scarcity of capital for the small firms, which is causing an alarming high rate of SME closure, implying that SMEs are limited in their ability to create long-term sustainable employment. One premise that was concluded was that in order to sustain jobs and economic growth SMEs should grow to their full potential. Therefore, any method that can be used in helping the successful growth of SMEs is important not only to the SMEs but also to the entire economy of the country.

It became clear that it is critical to aid SMEs in understanding their financial needs. By relying on the literature reviews it was thus possible to get a good indication of what to expect in the outcome of the research. The propositions derived from the literature reviewed enabled the author to gather information to
empirically determine the validity of the proposed relationships identified. The overview of chapter two is discussed below.

In chapter 2, it was noted that the South African SME sector still faces a number of challenges which impair the growth and development of SMEs. Among other factors access to finance, skills and training as well as information are some of the challenges which SMEs are facing.

From the foregoing discussions, it is obvious that in spite of the potential role SMEs play in the economy, they are beset by numerous obstacles that adversely impact their contribution. Finance still poses a major constraint to SMEs in South Africa and seems to be a common denomination of their problems. The overview of chapter three is discussed below.

Chapter 3 made it clear that there is still no theoretical agreement on the relevancy of capital structure of firm value, which can be summed up through confronting positions of trade off, the Pecking Order and the Agency theory. The information derived from these theories also enabled the author to gather information to empirically determine the validity of the proposed relationships identified. The overview of chapter four is discussed below.

While it is widely accepted that the capital structure of the firm play a significant role in the success of the business, the question remains whether there is a universally accepted combination of debt and equity or whether it differs between different economies or industrial sectors. Thus the specific purpose of this study was to identify the determinants of the capital structure of SMEs that is looking at the factors that motivates firms to use debt or equity. Section 6.3 discusses the objectives of the study at hand.
6.3 RESEARCH OBJECTIVES REVISITED

- The first objective of this research was to ascertain whether the use of internal equity (retained profits) is positively or negatively related to the size, age and profitability of the firm. This objective was achieved firstly through the findings of literature review and also through empirical testing which tested the correlation between the variables.

- The second objective was to examine if the use of external equity (capital from owners) is negatively or positively related to the age, size and profitability of the firm. The objective was achieved firstly through the findings of a literature review and also through empirical testing which tested the correlation between the variables.

- The final objective of the study was to establish if the use of debt was positively or negatively related to the size, age and profitability of the firm. The objective was achieved firstly through the findings of literature review and also through empirical testing which tested the correlation between the variables.

Section 6.4 discusses the results of the empirical analysis of the data.

6.4 RESULTS REVISITED

The study involved 200 SMEs in the retail sector. The instrument used was a self administered questionnaire. The statistical analysis included descriptive statistics, frequencies, Chi-square, T-tests, Skewness and Kurtosis as well as regression analysis and ANOVA tests.

6.4.1 Demographic profile

The personal demographic profile of the sample showed that there were more males than female respondents. In terms of business demographics, the majority of the SME respondents indicated that their businesses were in the clothing sector.
Using the Chi-Square, T-test and ANOVA procedures, the study tested and accepted or rejected the following propositions: (the sequence will follow from the first hypothesis, second hypothesis and lastly the third hypothesis).

6.4.2 The use of retained profits by SMEs is negatively related with age, size and profitability of the firm

The purpose of the study was to establish if the use of retained profits had a positive or negative relationship with age, size and profitability of the firm. The results of the regression analysis indicated that use of retained earnings had a positive relationship with the three variables age, size and profitability of the firm. Statistically the hypothesis was tested with the aid of questions 12-17 in the research instrument. The results obtained confirmed a significant positive relationship between retained profits and the three variables. Therefore the null hypothesis namely the use of retained profits by SMEs is negatively related with age, size and profitability of the firm was rejected.

These results were consistent with the Pecking order theory which formed the basis of this study. The theory states that firms tend to follow a certain hierarchy when choosing a source of finance. Therefore, the Pecking order Theory predicts a positive relation between firm profitability and use of retained earnings. Van der Wijst & Thurik, (1999:55) suggested that owner-managers prefer to use internal sources of capital rather than equity or debt finance when their businesses are profitable. Myers (1984) argued that profitable firms prefer to fund their operations with internal equity. In line with this view, Van der Wijst & Thurik, (1999:55) found that profitability and retained earnings are positively related to retained earnings is to maximize the long-term value of their business. The findings of the second hypothesis are discussed in the next section.

6.4.3 The use of external equity by SMEs is negatively related with age, size and profitability of the firm

Questions in section A and D in the research instrument (questionnaire) gave responses that were used to test the second hypothesis. The equity ratio,
representing the external equity came from section A. Using a regression analysis, it was found that profit, size and age have negative relationship with the use of external equity. Therefore the researcher did not reject the null hypothesis which stated that the use of external equity by SMEs is negatively related with age, size and profitability of the firm.

The results were consistent with those of Cressy and Olofsson, (1999:179) who found that SMEs do acquire additional external equity capital. They however, found that younger and lower quality firms were more likely to acquire additional external equity than large firms since smaller firms do not have profits to retain.

Bates, (1999) also found that when compared with older and more established businesses, younger firms rely less on profits derived from sales, therefore they use external equity to sustain their business. However, as firms grow and mature, different types of debt arrangements (first short-term, then long-term) become important.

Schmid, (2001:24) also concluded that SMEs face a lot of difficulties when accessing finance, hence these firms are more dependent upon owner loans, internal equity, trade credit and angel financing. They further concluded that as firms mature they tend to use more internal equity than external equity if it is well managed. All the evidence from available literature confirms that the use of external equity is negatively related with age. The next section discussed the third hypothesis.

6.4.4 The use of debt by SMEs is negatively related with age, size and profitability of the firm.

Information used to test the third hypothesis came from section A and B of the research instrument. Debt ratio was determined by information gathered from Question 5 and 9. The results of this hypothesis portrays that there is a significant positive relationship between use of debt and the three variables (age, size and
profitability). Therefore we rejected the null hypothesis which stated that the use of debt is negatively related to the size, age and profitability.

The results were consistent with Hall et al., (2004:711) who agreed that age is positively related to long-term debt. Dhawan, (2001:267) also indicated that sources of capital depend, to some extent, on whether a business is developing or maturing. For example, developing firms tend to rely on equity because of difficulties raising debt, whereas mature businesses are able to leverage assets to raise debt.

The results were also consistent with the study done by Petersen & Rajan, (1999:407) who also found that older firms should have higher debt ratios since they should be higher quality firms. They concluded that most large firms have access to debt finance since they are considered to be less risky as compared to small firms. Section 6.5 will discuss the recommendations.

6.5 RECOMMENDATIONS

This section focuses on recommendations to SME sector as to how they can improve their business performance. Apart from the SME sector, some recommendations are directed to the government and its different ministries to assist it in its efforts to improve performance of the economy as a whole and the banking sector. Finally some of the recommendations will be directed to the banking sector as they play a major role when SMEs are accessing finance.

6.5.1 Government intervention

It is the duty of the government to teach small business owners how to manage their business. The government should take the first step in educating the small business owners so that their businesses can become successful in the near future. Government intervention, to foster entrepreneurship, has a double role, on one side it has to ensure high quality framework conditions, on the other it has to intervene in case of failures in the market that supports entrepreneur activity.
6.5.1.1 Enhancing entrepreneurial spirit

What the research has shown is that the government institutions are not in a position to enhance entrepreneurship and entrepreneurial spirit. Rather, it is more like a compromise between wanting to throw money at groups they favour and not wanting to do too much damage by putting serious amounts of taxpayer’s money at risk. The emphasis on ‘entrepreneurship’ as a school subject should start early on, in primary school, as the majority of the SME owners in this study had education at or below matriculation level.

6.5.1.2 Education and training

The results generated also indicated that there is lack of knowledge when it comes to financing of business activities. Several responses from the survey gave evidence to this. There is need for small business owners to know and understand basic accounting and finance as these are some of the crucial areas in the operation of a business. Without financing and accounting basics, business people are bound to make uncalculated financial decisions which might be detrimental to the firm. It is important for the owners to understand the basics because the majority is not able to employ qualified personnel or hire personnel from professional bodies due to limitations in funds. To improve the financial and accounting knowledge, these small business owners should attend short courses that are offered to small business owners.

The government can also come up with plans to offer financial management training to small business owners. These will assist in development of small business owners and improve their business performance. In order to achieve maximum benefit, the above-mentioned recommendations on access to finance need to be integrated with other initiations in favour of developing entrepreneurship culture and making progress in administrative simplification.
6.5.1.3 Awareness of government support services

The results in this study indicate that although some of the government funding and support agencies have been in existence for several years, they are still not known by small firms who are in business, and, most importantly, even those that are known are still not utilised. This indicates the need for these institutions to advertise themselves more and organise workshops to inform rural women about their existence and services offered. Information should be available in high traffic areas such as post offices; shopping areas; and the internet; to increase the awareness of and use of small business supports. There should be specific workshops targeted at educating rural SME owners about support services and/or agencies that are available, what services they render, how to access them and what they can benefit from contacting them.

6.5.1.4 Support growth of micro finance industry

South African government should support the growth of the microfinance industry so as to improve the lives of small business owners. In most cases, the regulatory framework is repressive and does not allow for flexible operations in the industry. To stimulate economic development, governments attempt to fight the perceived market failure which threatens the survival of businesses during their early years. The main reasons for the required government intervention are:

- Increasing the supply for entrepreneurial talent and opening opportunities;
- Providing support to existing SMMEs – micro-enterprises in particular – at no higher than its social opportunity costs;
- Providing incentives for formalization of enterprises, including cultural bridging; and
- Assisting SMMEs (where necessary) to use resources as efficiently as possible (Berry et al., 2002)
6.5.1.5 Subsidising Banks on cost of training workshops

Government should work with the banking sector to ensure greater efficiency in the financing of SMEs. It appears that most banks cannot afford to have training workshops for SMEs. Therefore the government should subsidize a certain percentage as an incentive to make banks involved in educating SMEs on business plan writing and financial literacy.

6.5.2 Banking sector

Banks should inform SME owners on the requirements which they look at when they are assessing the loan applications. This will provide the SMEs with feedback that may help them to improve on their areas of weakness.

6.5.2.1 Decreasing application costs

Other possible interventions in the banking sector could be policies to decrease the application costs that have been mentioned as one of the reasons that cause the existence of discouraged borrowers. The impact of a specific subsidy has to be carefully considered since it will have an impact on an indiscriminate increase of applications from both good and bad borrowers and in a competitive market will cause an increase of the equilibrium interest rate charged to all borrowers.

6.5.2.2 Business mentoring and coaching

Banks should assist Small business owners in identifying the well-established people in business that can mentor them and guide them through the process of developing their businesses. The mentors can also help them in establishing broader business networks that can help them in their line of business.

6.5.2.3 Introduction of community banks

The banking sector can introduce community banks which will focus on SMEs in rural areas. Community banks are banks that are partly owned by the government which are strictly meant for small businesses. In Nigeria the community banks
were introduced and proved to be helpful to small business since the bank shares the risk with the government.

The banks should understand that access to market opportunities and capital causes problems and the lack of financial acumen leads to high failure rate of small businesses. In most cases banks are too busy to give special attention to small firms since they deal with a large number of customers. Therefore if they open community banks SMEs in the rural areas are given the opportunity to interact with banks in their areas it will be easier since proper attention will be given to them.

6.5.3 Small and Medium Enterprise Sector

Small business owners should be encouraged to ensure that business start-up capitalisation meets the needs of their business and is sufficient to enable start-up and business growth. SME owners should consider spending a higher proportion of their time engaged in activity related to acquiring finance at start-up and throughout the life of their business. SME owners should consider alternative sources of finance to those traditionally used at start-up and during the life of the business; that is, to consider moving away from using credit cards to fund the business and instead using, for example, bank overdrafts, factoring and leasing.

6.5.3.1 Encourage partnership and joint ventures

The study at hand reveals that there is very little growth of small businesses. SME owners do their businesses alone in isolation. Putting together their finances, skills and other resources could help them in having a bigger pool of resources and that could enable them to access wider markets. In that way they can hopefully grow, develop and create better employment opportunities in their areas.

6.5.3.2 Support from education institutions

SMEs should seek support from education institutions. Education institutions can play a social responsibility role through provision of small workshops for the small
business owners in the surrounding communities. Academic institutions can provide these services through the involvement of academics and students through research and community engagement projects that will focus on educating the SME owners on business planning and financial management.

6.5.3.3 Networking

SMEs are encouraged to network so that ideas and information can be shared. Through networking SME owners can build business relations which may assist the growth of the businesses.

6.6 AREAS FOR FURTHER RESEARCH

This research work suggests some lines of enquiry for further research. First, further research could determine if the findings of this research are consistent across different industries. In addition, there is need to duplicate the research in other parts of South Africa and in other industries to confirm if the results of this research can be generalised across the whole country.

6.7 CONCLUSION

Little research has been done on the determinants of capital structure of SMEs in South Africa. This study has attempted to make a contribution to this area and has come up with interesting findings and recommendations. The literature review introduced various elements within the field of SME finance, especially the capital structure. In this chapter objectives of the study were revisited and it was indicated that all objectives were met. Furthermore, propositions were revisited and explained as accepted or rejected.

The main findings of this study showed that age, size and profitability of the firm are determinants of capital structure. A good understanding of the capital structure of SMEs is still elusive. Two final points should be emphasised with regard to the determinants of capital structure. Size, age and profitability of the firm are not the only determinants of capital structure but there are other determinants such as
asset structure, risk, collateral, culture among others. Secondly the ‘Pecking Order Theory’ appears to dominate the South African capital structure story however, many theories offer similar predictions as to the capital structure of firms. Often the only difference between the theories lies in the strength of predictions. It should be born in mind that the major objective is to identify the determinants of capital structure, rather that to test the relative potency of individual theories.

The issue of capital structure is an important strategic financing decision that firms have to make. It is therefore important for policy to be directed at improving the SME financing. Firms, especially SMEs, are encouraged to maintain proper records. Policy makers should place greater emphasis on the facilitation of equity capital since it provides a base for further borrowing, reduces business’s sensitivity to economic cycles, and provides firms with access to syndicates of private and institutional venture capital suppliers. It is appropriate to establish financing schemes to assist SMEs in specific industries. It is hoped that the findings of this study could make an important contribution in the areas of theory and SME development as well as policy formulation in various departments connected with the promotion of the SME financial sector. Hopefully future research would and endeavour to open new areas in this important area.
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SOUTH AFRICAN CHAMBER OF BUSINESS, 1999

SOUTH AFRICAN GEOGRAPHY INFORMATION SYSTEMS MAP. 2009.


SMALL ENTERPRISE DEVELOPMENT AGENCY


STATISTICAL PACKAGE FOR SOCIAL SCIENCES


UNITED NATIONAL CAPITAL DEVELOPMENT FUND (UNCDF)

UNITED NATIONS CONFERENCE ON TRADE & DEVELOPMENT (UNCTAD)


ADDEDUM 1

Questionnaire

Questionnaire for the Small and Medium Enterprises survey-Masters Studies

Department of Business Management

Faculty of Management and Commerce

DEAR RESPONDENT

My name is Ellen Rungani. I am a Master of Commerce student at University of Fort Hare. I am conducting a study on the Quantitative Determinants of Capital Structure of Small and Medium Enterprises in the Buffalo City Municipality. Previous studies have shown that Small and Medium Enterprises (SMEs) suffer from high failure rate, with about 90% failing within the first few years of operation; access to finance being the major reason for the failure. Without capital the firm would be unable to run, grow and expand into business. This research project will endeavour to provide insights into the factors that determine the capital structure of SMEs so as to provide answers that can reduce the failure rate of SMEs. The objectives of the study are:

- To ascertain whether the use of internal equity (retained profits) is positively or negatively related to the size, age and profitability of the firm;
- To examine if the use of external equity (capital from owners) is negatively or positively related to the age, size and profitability of the firm;
- To establish if the use of debt is positively or negatively related to the size, age and profitability of the firm.

It will be highly appreciated if you, the owner and or manager of the business, would participate in answering the questions as thoroughly as possible. The data obtained from the study will be used to provide solutions to the problems that SMEs face.

All the information will be treated as STRICTLY CONFIDENTIAL and will only be used for academic purposes. Please feel free to contact the researcher or the supervisor in cases of any queries.

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Supervisor: Dr G. Herbst; Phone number: 040 602 2117; Email: gherbst@ufh.ac.za

Co-Supervisor: Mr O.O Fatoki; Phone number 040 602 2248; Email: ofatoki@ufh.ac.za
SECTION A: CAPITAL STRUCTURE DECISIONS

THIS SECTION IS COMPULSORY

1. Please rank the following capital sources according to your firm’s order of preference, (1=most preferred 5 =least preferred).

<table>
<thead>
<tr>
<th>Capital Source</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal equity (retained earnings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank debt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non bank debt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Why do you prefer the type of capital you have chosen in question 1?

<table>
<thead>
<tr>
<th>Preference</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheapest form of capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy to access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It was the only source available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renders a relative higher return on investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. For how long has your business been in operation?

<table>
<thead>
<tr>
<th>Duration</th>
<th>0 – 2 years</th>
<th>3 – 5 years</th>
<th>5 – 10 years</th>
<th>10+ years</th>
</tr>
</thead>
</table>

4. What is the total number of employees employed by your firm?

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>1-50</th>
<th>51-100</th>
<th>101-150</th>
<th>151-200</th>
</tr>
</thead>
</table>

5. Indicate the total amount in Rand value of the total assets in your company for the years indicated below?

<table>
<thead>
<tr>
<th>Rand(s)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Indicate the total amount in Rand value of the net profit in your company for the years indicated below?

<table>
<thead>
<tr>
<th>Rand(s)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Indicate the total amount in Rand value of the turnover in your company for the years indicated below?

<table>
<thead>
<tr>
<th>Rand(s)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION B: EFFECTS OF SIZE, AGE AND PROFITABILITY ON THE USE OF DEBT**

**PLEASE ANSWER THIS SECTION IF YOU USE DEBT IN YOUR FIRM**

8. Does the level of the firm’s profits affect your decision to use debt finance?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Give reasons to your answer

9. Indicate the total amount of debt in your company for the years indicated below?

<table>
<thead>
<tr>
<th>Rand(s)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Do you think firms with high profits use less debt as compared to those with low profits?

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

Answer the following question by ranking the different options on a Likert scale of 1–5, where: (1) = Most important, (2) = Important, (3) = Neutral, (4) = Less important (5) = Least important.

11. Which of the following factors have a direct influence on your accessibility to debt finance?

<table>
<thead>
<tr>
<th>Period of operation</th>
<th>Cost of finance</th>
<th>Profitability levels</th>
<th>The size of the firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Give reasons to your answer in question 11………………………………………………..
…………………………………………………………………………………………
…………………………………………………………………………………………

SECTION C: EFFECTS OF SIZE, AGE AND PROFITABILITY ON THE USE OF RETAINED EARNINGS (REINVESTED PROFITS)

PLEASE ANSWER THIS SECTION IF YOU USE RETAINED EARNINGS IN YOUR FIRM

12. What was the total amount of retained earnings (that is the amount of profits you have reinvested) in the financial years indicated below?

<table>
<thead>
<tr>
<th>Rand(s)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Do you agree that the higher the percentage profitability the firm generate the greater the percentage of retained earning that will be reinvested in business expansion?

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

14. Do you agree that the use of retained earnings increases as the firm grows in terms of size?
15. Does the period of operation affect your decision to use profits for investment?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

16. Do you agree that as firms mature preference for internal equity increases since the firm will be relying on accumulated profits?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Answer the following question by ranking the different options on a Likert scale of 1 – 5, where:
(1) = Most important, (2) = Important, (3) = Neutral, (4) = Less important
(5) = Least important

17. Which of the following factors have direct influence on your accessibility to internal equity finance?

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period of operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitability levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The size of the firm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Give reasons to your answer in question 17……………………………………………………………………………………………………

……………………………………………………………………………………………………

SECTION D: EFFECTS OF SIZE, AGE AND PROFITABILITY ON THE USE OF EXTERNAL EQUITY (money outside the business either from individuals, government, family and friends excluding any form of loan)

PLEASE ANSWER THIS SECTION IF YOU USE EXTERNAL EQUITY IN YOUR FIRM
18. Indicate the total amount of external equity you had in your company for the years indicated below:

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 000-50 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 000-100 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 000-200 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201 000+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Do you think that the size of your firm plays a role on your ability to acquire external equity finance?

Give reasons to your answer

Answer the following question by ranking the different options on a Likert scale of 1 – 5, where:
(1) = Most important, (2) = Important, (3) = Neutral, (4) = Less important (5) = Least important

20. Which of the following factors have direct influence on your accessibility to external equity finance?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period of operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitability levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The size of the firm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Give reasons for your answer in question 20

21. Do you think that the level of your profits affect your ability to acquire external finance?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22. Do you agree that the period of operation of the firm affect your ability to acquire external finance?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

23. Do you agree that the need to acquire external equity decreases as the profitability of the firm increases?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

24. Do you rather prefer to retain profits instead of using external equity?

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

**SECTION E GENERAL DETAILS**

25. What type of product (s) is sold by your firm?

<table>
<thead>
<tr>
<th>Clothing</th>
<th>groceries</th>
<th>vegetables</th>
<th>accessories</th>
<th>other</th>
</tr>
</thead>
</table>

26. What is your position/ role in business?

<table>
<thead>
<tr>
<th>Owner</th>
<th>Manager</th>
<th>Both</th>
</tr>
</thead>
</table>

27. Please indicate your gender?

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
</table>

Thank you for your participation.
### Descriptive Statistics Section

<table>
<thead>
<tr>
<th>Variable</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees_No</td>
<td>175</td>
<td>1.788571</td>
<td>0.8748633</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>External_EQ</td>
<td>175</td>
<td>2.457143</td>
<td>0.4995893</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### Regression Equation Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>T-Value to test H0:B(i)=0</th>
<th>Prob at 5%</th>
<th>Reject H0 at 5%</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.4180</td>
<td>0.0863</td>
<td>28.008</td>
<td>0.0000</td>
<td>Yes</td>
<td>1.0000</td>
</tr>
<tr>
<td>Employees_No</td>
<td>0.0219</td>
<td>0.0434</td>
<td>0.504</td>
<td>0.6146</td>
<td>No</td>
<td>0.0793</td>
</tr>
</tbody>
</table>

Estimated Model:

$$2.41800394748134 + 2.18827769673045E-02\times\text{Employees}_No$$

### Regression Coefficient Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>95% C.L. Lower</th>
<th>95% C.L. Upper</th>
<th>Standardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.4180</td>
<td>0.0863</td>
<td>2.2476</td>
<td>2.5884</td>
<td>0.0000</td>
</tr>
<tr>
<td>Employees_No</td>
<td>0.0219</td>
<td>0.0434</td>
<td>-0.0637</td>
<td>0.1075</td>
<td>0.0383</td>
</tr>
</tbody>
</table>

Note: The T-Value used to calculate these confidence limits was 1.974.

### Analysis of Variance Detail Section

<table>
<thead>
<tr>
<th>Term</th>
<th>DF</th>
<th>R²</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Prob Level</th>
<th>Power (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1</td>
<td>0.0015</td>
<td>6.377266E-02</td>
<td>6.377266E-02</td>
<td>0.254</td>
<td>0.6146</td>
<td>0.0793</td>
</tr>
<tr>
<td>Model</td>
<td>1</td>
<td>0.0015</td>
<td>6.377266E-02</td>
<td>6.377266E-02</td>
<td>0.254</td>
<td>0.6146</td>
<td>0.0793</td>
</tr>
<tr>
<td>Employees No</td>
<td>1</td>
<td>0.0015</td>
<td>6.377266E-02</td>
<td>6.377266E-02</td>
<td>0.254</td>
<td>0.6146</td>
<td>0.0793</td>
</tr>
<tr>
<td>Error</td>
<td>173</td>
<td>0.9985</td>
<td>43.3648</td>
<td>0.2506636</td>
<td>0.254</td>
<td>0.6146</td>
<td>0.0793</td>
</tr>
<tr>
<td>Total(Adjusted)</td>
<td>174</td>
<td>1.0000</td>
<td>43.42857</td>
<td>0.2495895</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ADDEDUM 2 (b)

Robust Multiple Regression Using Huber's Method (C=1.345)

Page/Date/Time 1 21/10/2009 14:47:03
Database

**Dependent** Total debt

**Descriptive Statistics Section**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees_No</td>
<td>175</td>
<td>1.664775</td>
<td>0.5255101</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total_debt</td>
<td>175</td>
<td>3.65153</td>
<td>0.5435839</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

**Regression Equation Section**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>T-Value to test</th>
<th>Prob</th>
<th>Reject H0 at 5%?</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.9996</td>
<td>0.0405</td>
<td>49.431</td>
<td>0.0000</td>
<td>Yes</td>
<td>1.0000</td>
</tr>
<tr>
<td>Employees_No</td>
<td>0.9923</td>
<td>0.0222</td>
<td>44.664</td>
<td>0.0000</td>
<td>Yes</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

**Estimated Model**

1.99963715394578 + 0.992262125802261*Employees_No

**Regression Coefficient Section**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>95% C.L.</th>
<th>95% C.L.</th>
<th>Standardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.0361</td>
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</tbody>
</table>

Note: The T-Value used to calculate these confidence limits was 1.974.

Robust Multiple Regression Using Huber’s Method (C=1.345)

Page/Date/Time 3 21/10/2009 14:47:03
Database
Dependent Total_debt

**Analysis of Variance Detail Section**

<table>
<thead>
<tr>
<th>Term</th>
<th>DF</th>
<th>R2</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Prob Level (5%)</th>
</tr>
</thead>
<tbody>
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<td>47.31123</td>
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<tr>
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</tbody>
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Robust Multiple Regression Using Huber's Method (C=1.345)

Descriptive Statistics Section

<table>
<thead>
<tr>
<th>Variable</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees_No</td>
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Regression Equation Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>T-Value to test</th>
<th>Prob</th>
<th>H0:B(i)=0</th>
<th>Power</th>
<th>Reject H0 at 5%?</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Yes</td>
<td>1.0000</td>
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<tr>
<td>Employees_No</td>
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<td>0.0728</td>
<td>12.217</td>
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<td>1.0000</td>
<td>Yes</td>
<td>1.0000</td>
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</table>

Estimated Model

1.00514579539064 + 0.8890*Employees_No

Regression Coefficient Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>95% C.L. Lower</th>
<th>95% C.L. Upper</th>
<th>Standardized Coefficient</th>
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</thead>
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Note: The T-Value used to calculate these confidence limits was 1.974.

Analysis of Variance Section

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>R2</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Prob Level (5%)</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
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Descriptive Statistics Section

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<tr>
<th>Variable</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net_Profit</td>
<td>175</td>
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<td>1.868185</td>
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<td>External_EQ</td>
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<td>0.4995893</td>
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Regression Equation Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>T-Value to test</th>
<th>Prob</th>
<th>H0:B(i)=0</th>
<th>Power</th>
<th>Reject H0 at 5%?</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.2188</td>
<td>No</td>
<td>0.2188</td>
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</tbody>
</table>

Estimated Model

2.52253608596646-2.40416282439731E-02*Net_Profit

Regression Coefficient Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>95% C.L. Lower</th>
<th>95% C.L. Upper</th>
<th>Standardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>-0.0899</td>
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Note: The T-Value used to calculate these confidence limits was 1.974.
Robust Multiple Regression Using Huber's Method (C=1.345)

Dependent: External Equity

Descriptive Statistics Section

<table>
<thead>
<tr>
<th>Variable</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
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<tbody>
<tr>
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<td>3</td>
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</table>

Regression Equation Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>T-Value to test</th>
<th>Prob H0 at Level 5%</th>
<th>Reject H0 at 5%</th>
<th>Power of Test at 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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</table>

Estimated Model

2.59172536958032-4.11747197142574E-02*Total_Assets

Regression Coefficient Section

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>Standard Error</th>
<th>Lower 95% C.L.</th>
<th>Upper 95% C.L.</th>
<th>Standardized Coefficient</th>
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<td>0.0237</td>
<td>-0.0948</td>
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</tbody>
</table>

Note: The T-Value used to calculate these confidence limits was 1.974.

Analysis of Variance Detail Section

<table>
<thead>
<tr>
<th>Term</th>
<th>DF</th>
<th>R2</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Prob Level 5%</th>
<th>Power (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1</td>
<td>0.0090</td>
<td>0.3905716</td>
<td>0.3905716</td>
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</tr>
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<td>Model</td>
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<td>0.3905716</td>
<td>0.3905716</td>
<td>1.570</td>
<td>0.2119</td>
<td>0.2383</td>
</tr>
<tr>
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<td>0.3905716</td>
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<td>1.570</td>
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<td>43.42857</td>
<td>0.2495895</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TO WHOM IT MAY CONCERN

You are hereby requested to assist Rungani Ellen Chenesai, student number 200438158, who is currently registered as an M.com student in the Department of Business Management.

Ms. Rungani is currently busy with research for her masters degree. The title of her research project is as follows:
“Determinants of capital structure of Small and Medium Enterprises in the Buffalo city municipality”

Since it is imperative that Ms. Rungani is provided with necessary access to interview respondents, your assistance in this regard is much appreciated. It is furthermore the intention of the Department to make the research results available to you on request.

If you have any further enquiries, please do not hesitate to call.

King regards

Dr. G. Herbst
Head of Department and Senior Lecturer
Department of Business Management
Tel: +27 40 602 2248
E-mail: gherbst@ufh.ac.za
Center of Teaching and Learning
Department of Language writing and editing
University of Fort Hare
Private Bag X1314
Alice, 5700

04 December 2009

TO WHOM IT MAY CONCERN

Dear sir / madam

RE: EDITING OF MASTERS DISSERTATION

I, Dr A. Makura, would hereby confirm that I have undertaken the task of editing Ms. E. C. Rungani’s Masters Dissertation. Material for editing was submitted in a hard copy and editorial interference was constrained.

For any queries relating to this please contact me.

Yours faithfully

Dr. A. Makura
Co-ordinator (Learning Advancement)
Teaching and learning center
TEL: 040 602 2240
Email: amkura@ufh.ac.za