

**THE GAP IN MANAGEMENT ACCOUNTING SKILLS REQUIRED BY VENTURE
CAPITAL PROVIDERS AND THOSE POSSESSED BY SMALL AND MEDIUM
ENTERPRISES IN THE CRAFT INDUSTRY**

by

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Declaration

I declare that “The gap in management accounting skills required by venture capital providers and those possessed by small and medium enterprises in the craft industry” is my own work and that it has not been submitted for any degree at any university. All the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Abstract

SMEs are considered as the best possible vehicle to reduce the unemployment rate and increase economic participation in the country, specifically for historically disadvantaged people. Due to, among other things, the lack of small business management skills, the potential of SMEs cannot be fully realised.

From the study it was found that one of the major reasons why SMEs fail to secure loans is a lack of management accounting skills. This lack of management accounting skills is due to a lack of mentors, training and business education. The study has identified a number of management accounting skills which most of the venture capital providers consider when they evaluate applications for loans. From empirical survey it was considered that budgeting, cash flow management and product costing were considered as imperative by most venture capital providers.

Keywords: Venture capital, venture capitalists, venture capital providers, management accounting skills and SMEs

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CHAPTER 1

INTRODUCTION AND RESEARCH PROBLEM

1.1 INTRODUCTION

Since 1994 the South African government has embarked on various initiatives aimed at job creation, poverty alleviation and wealth creation. Two of these initiatives are the black economic empowerment (BEE) action and the creation of small and medium enterprises (SMEs), which form part of government's macro-economic programme. According to the Global Entrepreneurship Monitor (GEM) the government's intention has been to increase economic participation for historically disadvantaged people (HDP) (GEM 2004:20). These initiatives were identified by the government as the most possible vehicles to create wealth and help HDP to participate in the mainstream economy.

Except for wealth distribution and the creation of employment, the idea of encouraging the establishment of SMEs was aimed at making all nine provinces economically active by increasing participation by women, youth and rural communities in economic activities (SBP 2009:7). SMEs according to the National Small Business Amendment Act 26 of 2003 are entities which have more than 50 but less than 200 employees (Government Gazette 2003:8). The importance of these entities is that they employ more than half of the country's working population (Berry 2002:104). The government's effort to increase economic participation and employment in rural areas has come under fire from entrepreneurs who say that

government is not doing enough to boost the SMEs' contribution to economic growth and reduction of unemployment.

In the 2003 sector review by the Department of Trade and Industry (DTI) it was revealed that there is little progress from survivalist enterprises to more formal enterprises (DTI 2002/3:11). When the democratically elected government came to power in 1994, it had a clear vision of redirecting the country's resources to benefit those who had been previously excluded from the mainstream economy (*Business Day* 2005:1). Access to venture capital has been identified as the most possible source to fast-track the creation of SMEs in the country (Berry 2002:109). Venture capital is defined as a source of capital that is suitable to SMEs operating at entry level of the business or market (Freear, Sohl & Wetzel 1996:4). The providers of this source of capital are called venture capitalists or venture capital providers. They can be either private or public funded institutions.

1.2 BACKGROUND OF THE STUDY

In the 2004 state of the nation address, the then President Mbeki highlighted that for South Africa to become a developed country, the number of small enterprises needed to be increased and supported (Mbeki 2004:5). Access to finance has been singled out as one of the major reasons why the creation of SMEs is growing at a low rate if not stagnating. The government's effort to make finance more accessible to small businesses led to the establishment of agencies like Khula Enterprise Finance, Ntsika Enterprise and the Umsobomvu

Youth Fund. The primary aim of these agencies is to provide finance to small and medium enterprises (SBP 2009:2).

Statistics published in 2005 by the South African Venture Capital Association (SAVCA) indicate that much of their associate members' investments are in service and non-manufacturing businesses such as restaurants, communication companies, hotel and leisure, agriculture and financing of management buy-out and management buy-in (Aureos Capital Limited 2005:1). Venture capital providers cite a number of reasons for low investment in the craft industry and other small manufacturing businesses. Lack of management accounting skills and technical experience are two of the major reasons why there is low investment in craft and other small manufacturing businesses (Le Roux 2004:1; Ntingi 2007:1).

Since the 1994 elections, there has been some increase in the unemployment rate. This increase was caused probably by companies moving from being labour intensive to being capital intensive (Louw & Ntingi 2007:3). Many politicians blamed this move as the major reason why people were retrenched. Most politicians and trade unions therefore suggested that the government should encourage the establishment of SMEs that use labour-intensive production methods as the vehicle for job creation for unskilled labourers. The manufacturing industry, where labour-intensive production methods are used, was identified by the Economic Policy Research Institute (EPRI 1999:9) as the most suitable sector for increasing employment of unskilled labour and for strengthening economic participation of HDP.

According to Mondy (2006:3), manufacturing stimulates industrialisation, which in turn reduces poverty, creates employment and increases the wealth of the country. The craft industry is an economic sector in which most products are handmade and produced according to customer specifications. The development of this sector will in turn assist the government to realise its macro-economic goals through exportation.

Timmons and Spinelli (2007:388) and GEM (2003:13) argue that some of the most prominent reasons why businesses fail are the lack of cash after a business is started and the lack of the necessary management accounting knowledge to run the business. An entrepreneur requires adequate skills and experience in organising a team of experts who are experienced in financial management, legal issues and especially human resources management. According to Sizanani Advisory (2004:1), most investors need to see the potential of a management team before they show their willingness to grant a loan to the applicant to start a business, especially at the developing stage of a business. The loan applicant's chances of obtaining a loan more quickly will be enhanced by organising a team of competent people to manage the business.

Entrepreneurs still regard the usual commercial banks as the only or major institutions from which to access capital. However, there are other organisations like venture capitalists which offer finance to SMEs. One major obstacle that stands between entrepreneurs and venture capitalists is access to information. Venture capitalists prefer to assess the business

owners that run their businesses before they can grant them finance. Therefore, the lack of information on the competence of SMEs' management is the major reason why SMEs still find it difficult to secure loans from venture capitalists and also why SMEs are perceived to be risky businesses.

Malhota, Chen, Crusculo, Fan, Hamel & Savchenko (2006:13) argues that small business enterprises are risky and their future success is uncertain. A firm in the initial stage of its life cycle is even more risky because it is involved in fundamental activities, such as developing the prototype product, structuring the organisation and creating channels of distribution. Goosen, Pampallis, Van der Merwe and Mdluli (1999:252) indicate that banks usually do not invest in SMEs in the initial stage of its life cycle. This may be due to the fact that successful venture capital investments often take five to seven years to come to fruition (SAVCA 2005:2). Venture capitalists will be more likely to supply start-up capital where the entrepreneur is a successful investor and/or executive with a proven track record (Horizon Equity 2005b:1). Hence this practice will not benefit SMEs and especially will not change the position of HDPs in the craft industry.

1.3 PROBLEM STATEMENT

The problem addressed in this study relates to the fact that many SMEs cannot access venture capital in South Africa. Research shows that very few prospective small business owners are successful in raising and acquiring venture capital in order to start a business (Sizanani Advisory 2004:2; BusinessOwner 2004:2).

Amongst the reasons for low investment in SMEs are:

- Poor management accounting skills and lack of experience. For a business to operate smoothly it needs a combination of individuals who have hands-on experience regarding business management and financial management. Before venture capitalists make an investment in a business, they need the owner to convince them that he/she has the necessary skills to run a business. According to Sizanani Advisory (2004:3), 60% of business plans that were submitted annually were not accepted by the banks, because they did not meet the basic lending criteria and the owner lacked experience. Previously, the perception among the banks was that lending money to a less established business or one with no borrowing record was a risky transaction (Business Reports 2006:2). Management accounting skills, just like business management skills, are important for the successful operation of any business concern. Therefore most venture capitalists will assess the ability of the loan applicant in terms of whether he/she can apply any of the management accounting aspects like: calculation of profit/loss, recognition of direct materials, direct labour, manufacturing overheads, general expenses and preparation of budgets.

Failure to perform any of the above aspects of management accounting may result in a loan applicant not being able to obtain a loan.

- In addition, lack of technical skills in a specific industry is also cited as a requirement. Technical skills in a specific industry that small business owners want to join are

important. If the government wants to increase the number of sustainable small business owners, technical training must be introduced to the various industries in which they want to participate (Sizanani Advisory 2004:2).

1.4 PURPOSE OF THE STUDY

The study aims to identify the gap in management accounting skills required by venture capitalists and those possessed by SME owners in the craft industry, specifically in the Tshwane Metropolitan Area. Due to escalating interest in small enterprises in South Africa as a result of job losses, venture capitalists have introduced more complicated and strict criteria for selecting enterprises to which they are willing to provide capital (Jeppesen 2009:2). According to Business Partners (2004:3), a business plan is no longer the only requirement as far as securing finance is concerned. The more recent criteria include management accounting skills, which the majority of the entrepreneurs do not have.

This study attempts to bring to the attention of potential small enterprises in the craft industry the type of management accounting skills which venture capitalists require from them before investments will be made in their businesses.

1.5 OBJECTIVES OF THE STUDY

The study attempts to achieve the following objectives:

- To identify management accounting skills which venture capitalists require from small business owners before

investment is made. According to Sizanani Advisory (2004:2), 60% of applications for funding are rejected annually by banks. This is an indication that there is still some misunderstanding between venture capitalists and small business owners as far as the requirements for securing funding are concerned. If this gap in management accounting skills can be filled or narrowed, the government would be more able to achieve its goal of increasing small business enterprises.

- To ascertain the level of sufficient management accounting skills which entrepreneurs must have before they approach venture capitalists for capital funding. Ntingi (2007:1) and Futuse (2007:5) argue that management accounting skills and business management skills form part of the assessment criteria for most venture capitalists. Private venture capitalists use different assessment criteria; therefore this study attempts to identify those skills that are valued by most venture capitalists. This will help SMEs by identifying these skills within the business whenever they want to make an application for a loan. This might contribute towards increasing their success rate to acquire funds.
- To compare the requirements of venture capitalists and the knowledge that the owners/managers possess with regard to management accounting.

1.6 IMPORTANCE OF THE STUDY

Through the findings and recommendations of this study the following benefits should be achieved:

- Venture capitalists, commercial banks, non-government agencies and government agencies will become aware of the gap in management accounting skills of applicants.
- Small business owners will know what the venture capitalists require from them as far as management accounting skills are concerned.
- The study will indicate to venture capitalists and government agencies possible ways to fill the gap in management accounting skills when such a gap exists.

1.7 EMPIRICAL RESEARCH

The first stage of the study comprises a literature review which will be covered in chapter 2 and chapter 3. The second phase of the study consists of empirical research. The findings from the empirical research are used for both recommendations and conclusions of the study. The empirical research was conducted on the financial institutions and SMEs in the craft industry in the Tshwane area.

A combination of both informal discussions and questionnaires were used in the empirical study.

1.7.1 Informal discussions

Informal discussions were held among both the SME owners in the craft industry and venture capital providers. A stratified

random sampling procedure was used to select participants with a given criterion. The respondents consisted of various groups involved in the craft industry (formal and informal), venture capitalists and financial institutions (commercial and micro-lenders).

1.7.2 Questionnaires

Quantitative and qualitative surveys in the form of a questionnaire were conducted among SME business owners in the craft industry (formal and informal) on the one hand, and venture capitalists and financial institutions (micro-lenders and commercial lenders) on the other. Stratified random sampling was used to enable entrepreneurs and financial providers to have an equal opportunity of being selected to participate in the study.

1.8 DATA ANALYSIS

The data collected was coded and sampling techniques as discussed in chapter 4 were used to determine the likely reasons for some failures and successes in funding applications. Statistical Package for the Social Science (SPSS) version 11.1 was used to analyse the data collected.

1.9 ORGANISATION OF THE STUDY

In chapter 1 the background of the study, problem statement, objectives of the study and data analysis method are explained and discussed.

An overview of the current situation with regard to the venture capital market and SMEs is provided in chapter 2. A definition of start-up capital is discussed and the sources of capital applicable to SMEs are also mentioned. The background to the topic of venture capital and venture capitalists is also provided. Government's role and that of the financial institutions involved in funding SMEs are examined. Critical success factors that have been important to secure loans in the past and the status of small manufacturing concerns are highlighted.

In chapter 3 management accounting skills and financial information as well as other requirements of venture capital providers are identified. The procedures and processes involved in the procurement of venture capital are also explained. Past success rates of applicants are discussed in this chapter.

The research methodology and the design of the questionnaire are discussed in chapter 4. Two methods used to collect data are explained and the system used to analyse the data is also explained.

Chapter 5 focuses on the presentation and analysis of the research findings and the reasons for failure. The requirements for success are also presented. The gap in management accounting skills between what venture capitalists require and what SME operators have is highlighted.

In chapter 6, the conclusions and recommendations for the study are given. Recommendations for further research are also made.

CHAPTER 2

THE CURRENT SITUATION WITH REGARD TO THE VENTURE CAPITAL MARKET AND SMES

2.1 INTRODUCTION

Small business owners face many challenges when establishing a business in South Africa. Two of the major challenges or obstacles they face are lack of financial support and management guidance. Inadequate financial resources are regarded as a primary cause of SME failure and the lower rate of start-ups (Gregory, Rutherford, Oswald & Gardiner 2005:383). The success of any new business depends on the entrepreneur's ability to obtain support and assistance from bankers and venture capitalists (Agrebi 2009:1). The low rate at which small businesses are created and low rates of success indicate that new entrepreneurs still have a problem in acquiring venture capital and sufficient business and management accounting skills before they start businesses (GEM 2003:5; Kasekende & Opondo 2003:3).

The purpose of this chapter is to discuss the origin of venture capital, followed by a definition of venture capital and venture capitalists. In this chapter the types of venture capital providers available in South Africa and the types of funds available to SMEs are also identified and discussed. In addition, the assessment criteria of most capital providers are considered as very important. The status quo of SMEs as far as access to finance and SMEs' critical success factors forms an integral part of this chapter.

In the first part of this chapter the origin of venture capital is discussed followed by the definition of the concept venture capital and venture capitalists. In the second part of the chapter different

organisations offering venture capital in South Africa are identified. Various ways which capital providers prefer to be contacted or approached by the loan applicants are also highlighted. The critical success factors and the state of SMEs in as far as access to capital is concerned are then discussed.

2.2 THE ORIGIN OF VENTURE CAPITAL

Venture capital is one of the oldest sources of finance for new enterprises. It is generally defined as a financial instrument that venture capital providers use to support entrepreneurial ventures, to exploit market opportunities and thus obtain long-term capital gain (Shilson 1984:207; Dagogo & Ollor 2009:41). According to Liles (1974:461), venture capital investment includes:

- Financial support in new ventures,
- Financial support to any new venture with a prototype product,
- Investments in established businesses
- Investment in businesses with low rate of risk and uncertainties.

Private investors, family and friends have for centuries been the first port of call for entrepreneurs in need of capital. Increasingly, in the post-1945 period, small enterprises across the world have been seen as an important part of the competitive mechanism of the free market economy. Therefore, government intervention to support the development of the small business sector has been recognised as desirable and necessary. “Since 1945 successive governments and some financial providers in the world have introduced a wide variety of measures designed to promote new enterprise formation and small enterprise growth” (Stanworth & Gray 1991:16). Stokvel, an informal traditional pooling of funds, is a popular example of such, and is commonly used in townships as a source of finance for SMEs.

Banks used to be the primary source of operating capital for small enterprises and the usual form that such capital took was a line of credit. “In the current business environment most entrepreneurs are finding it necessary to sometimes use very creative techniques to get their businesses off the ground” (Meyer & Allen 1994:258). Creative techniques simply mean that a combination of various sources of finance are used to finance the operating activities of a business.

Historical funding problems have limited the ability of security firms, brokerage firms, leasing institutions and commercial finance companies to aggressively pursue the small business market. This has led to finance institutions introducing a number of new sources of equity capital to suit the small business market sector. One of those is venture capital (Hanning & Joubert 2003:12).

According to the European Commission (2008:2), venture capital does not seem to be all that available to businesses operating in local or at entry-level markets. The investment culture in South Africa is such that venture and seed funding is not deployed in the critical early stages of business development because of the high risk associated with start-up businesses (GEM 2004:52). Seed capital is funding used for research, evaluation and development of a cost object or to kick-start operating activities (SAVCA 2003/2004:8)

According to Kasekende and Opondo (2003:3), some new businesses, by the nature of their objectives and the circumstances of their launching, are especially risky. The capital supplied to such firms is often designated venture capital, although its purpose and requirements are much the same as in any other sectors of the economy. However, the degree of risk associated with SMEs justifies such a designated source of

finance. Designated venture capital is a source of finance that is granted to SME's owners to start a new business.

Some South African venture capital providers recently have started to invest in small enterprises. Research shows that the majority of SME owners have never accessed either private or public equity finance (Ntsika Enterprise Promotion Agency 2002:111-121). Malgas (2002:121), argued that South Africa's venture capital market is at a developing stage and less sophisticated as compared to the USA, Europe and Australia markets. In South Africa, private equity fund managers are perceived to be not accommodating SMEs (DTI 2005). "The success achieved by private equity funds in the United States, and to a lesser extent in Europe, has resulted in the development of professional private equity firms in other parts of the world, including South Africa" (SAVCA 2003:7).

Some progress in financing SMEs has been made over the past few years, in particular in conventional developed sectors. More recently the majority of private equity has been used increasingly to fund BEE deals (DTI 2005). According to SAVCA(2006:1), there were 71 active venture capital organisations in 2000, while an additional 58 were registered in 2001 and these new members are focused on helping SMEs. Khula Enterprise reported in 2004 that it would increase its capital by 40% and that the number of beneficiaries would also be increased (Khula Enterprise 2004). This move by Khula is an indication that with time the number of opportunities for SMEs will increase. However, small business owners' awareness still needs to be increased in terms of requirements for funding and the forms of capital available to them.

In South Africa, the four major commercial banks and their predecessors pioneered leveraged buy-outs. These were largely

driven by disinvestments from South Africa in the early 1980s (Stanworth & Gray 1991:122).

SMEs and firms that have growth potential face the same challenges that almost any other type of business faces when applying for finance. However, the degree of risks faced by SME owners requires a special type of financing. This has led to the development of specialised venture capital financing sources.

2.3 VENTURE CAPITAL

The concept *venture capital* has various definitions. Some of these definitions have the same meaning, namely that venture capital is funding created for emerging and risky businesses (in particular SMEs). SMEs are perceived to be risky, because the majority of them are based on an idea that is still to be proven (Knott 2004:156).

Different authors define venture capital as follows:

- Venture capital is a primary and unique source of funding for small firms, because these firms have very limited access to traditional capital markets (Tech Monitor 2007).
- Venture capital is capital investment that is provided both start-ups and going concerns (Ross, Westerfield & Jordan 1996:449).
- Venture capital is the equity provided to emerging and established businesses (McLaney 2003:430).
- Venture capital is a form of funding provided to private businesses in return for a stake in a business (DTI 2005).
- According to Chartered Institute of Management Accountants (CIMA) (2002:26), venture capital is a source of funding applicable to both start-ups and established businesses which are regarded to be risky.

- Venture capital is investment made into a business with the idea of making a huge capital gain (Glocapital 2006).

In summary, venture capital can be defined as funding available to emerging small businesses which still need to prove a business idea. Venture capitalists make these investments in these risky businesses because they hope to make a good return on investment.

As far back as 1987 Maier and Walker (1987:209) identified important characteristics of venture capital as follows:

- Acquisition through direct purchase of shares or joint management of the business.
- Is a long-term investment commitment which takes a long period before positive returns are realised.
- The venture capital provider usually has an active participation in the company in which they have invested.

In summarising these characteristics, it can be stated that some venture capitalists are able to assist SME owners with the operation of their business, provided that the owners possess at least the minimum experience that the financiers require. Some are prepared to be part of the new business management team until such time that the venture capitalist's investment matures.

2.4 VENTURE CAPITAL PROVIDERS

Venture capital providers can be defined as organisations and capital-rich individuals that provide early stage development funding, expansion funding for firms with demonstrated financial viability, and funds for leveraged buy-outs to re-establish divisions of large businesses (Elitzur & Gavius 2003:709). Organisations providing venture capital are divided into two categories, namely

the specialists (independent private capitalists) and the generalists (public-backed capitalists).

2.4.1 Independent private capital providers

“The dominant characteristic of an independent private venture capital firm is that it is either a private partnership or a closely held corporation funded by insurance companies, endowment funds, pension funds, bank trusts, corporations, capital rich individuals and foreign investments, or a family firm begun by capital-rich members” (Maier & Walker 1987:209). According to Langdon & Bonham (2000:87) the above financing institutions spread their debts around a lot of start-up businesses or those that have high success prospects. Without the mentoring and monitoring of independent private capital providers, some of the SMEs may never have made it to the dividend payout stage (Agrebi 2009:1).

However, there are also other private entities, which SME owners can access capital funding from (Baty 1981:73; Kuriloff, Hemphill & Cloud 1993:357-487; DTI 2005). Examples of these are set out below.

2.4.1.1 Venture capital firms

Venture capital firms are independent organisations whose primary activity is investing in private businesses. Their capital supply is generally structured as a limited partnership with a three- to five-year life and is composed of a number of private sector institutions and occasionally high net worth individuals. Venture capital providers are managing portfolios of businesses which are funded from investment funds (Gumming 2006:1083).

2.4.1.2 Venture capital trusts

Venture capital trusts are listed organisations that invest according to a set of criteria to qualify for privileged tax treatment. The source of their capital is typically high net worth individuals or retail investors. The rules attached to venture capital trust qualification require a large proportion of the funds to be invested within a given period.

2.4.1.3 Angel networks

Capital-rich individuals are probably the single most important source of capital for start-up and emerging businesses today (Timmons 1999:438). Angel networks are essentially a group of wealthy individuals benefiting SMEs through means of their deal sourcing and deal screening capabilities. “The network also enables them to pool their capital into larger chunks. This means they can participate on a much greater scale and spread the associated risks by diversifying across a number of opportunities than would be the case if they were investing alone” (Elitzur & Gavius 2003:710).

2.4.2 Public-backed organisations

Public-backed organisations are venture capital providers that provide capital which they receive from the government, ranging from central government departments to regional or provincial development agencies (MacLeod 1995:202). Examples of such fund providers are youth development funds such as Umsobumvu Youth Fund and provincial development funds such as the Limpopo Development Corporation, which was established specifically for residents of the Limpopo province.

2.4.3 Other sources of funds

Other sources of funds include companies that invest by issuing debentures and new shares, listed investment companies, investment trusts and corporate venturing units that do not have a supply of capital controlled by the holding companies or provided in part by third-party investors (Kuriloff *et al.* 1993:357).

2.5 TYPES OF FUNDS

Independent private organisations tend to categorise the types of funds available to SMEs. The types of funds available are divided into five categories which are discussed below (SAVCA 2003/2004:8). Some of these types of funds are applicable to SME operators.

2.5.1 Seed capital

Seed capital is a source of fund used for research, evaluation and development of a cost object or to start operating activities (SAVCA 2004:8). Typically, the seed capital is a relatively small amount provided to prove a concept or develop a product (Knott 2004:156). This type of funding is used by most business owners to kick-start their operations. The funds can also be used by SMEs.

2.5.2 Start-up and early stage capital

This is a source of capital for new SMEs that were established for a short period of time normally less than three years (SAVCA 2004:8). Start-up capital includes product development costs and is usually made available to businesses that have been in business for a short-term whose product has not yet been introduced to the market (Knott 2004:156). This is the type of

funding applicable to SMEs as most of them are started from scratch.

2.5.3 Expansion and development capital

“This is funding provided for growth and expansion of a company that is breaking even or already in trade” (SAVCA 2004:8). This type of funding is applicable to all types of businesses, SMEs included.

2.5.4 Leveraged buy-in or buy-out capital

“This type of funding is provided to enable the top management or empowerment partner to buy either an existing or a new business, and their backers to acquire a business from existing owners, whether a family, conglomerate or other. Unlike venture and development capital, the proceeds of buy-outs generally go to the previous owner(s) of the entity”(SAVCA 2004:8). Since most SMEs in the craft industry are established to provide a source of income, these types of organisations will not sell shares to an outsider. When a person leaves the business he/she will rather join a competitor or start his/her own business. This type of funding is not applicable to SMEs.

2.5.5 Replacement capital

“Replacement capital is funding provided for the purchase of existing shares in a company from other shareholders, whether individuals, other venture backers or the public through the stock market. Unlike venture and development capital, the proceeds of replacement capital transactions are generally paid to the previous owner(s) of the entity” (SAVCA 2004:8). Just like the leverage buy-in/buy-out discussed above, replacement capital is not applicable to SMEs. In most cases SMEs can only access seed

capital from government agencies, but the remaining types of capital are available through private venture capitalists (SAVCA 2003/2004:10).

In order to secure a loan either through a public or private financial provider SMEs must first meet the minimum requirements of that funder.

2.6 MINIMUM REQUIREMENTS FOR SMEs TO SECURE FUNDS FROM VENTURE CAPITALISTS

In a competitive venture capital market potential applicants must meet various requirements. Small and medium-sized enterprises, in particular, complain that their lack of access to adequate information and sources of financing is an obstacle to their growth (*Business Day* 2005:1; Sirtaine 2006:1). Start-up companies and those companies which need to expand their existing operations need venture capital funding in order for them to carry out their plans successfully. There are various aspects which venture capitalists consider before granting funds. SMEs on the other hand also have certain aspects they consider important whenever they apply for finance. For SMEs to get finance they must meet specific minimum requirements or must fit within the investment portfolios of venture capitalists (Horizon Equity 2005b).

2.6.1 Factors considered important by venture capital providers

There are various factors that venture capitalists consider before granting an applicant a loan. According to Cohan (2006:50), venture capitalists when providing capital tend to be attracted to fast expanding, often high risk businesses, which have significant export potential. They look for a new venture, which has above average risk for private capital providers and banks. Venture

capital providers buy a certain portion of the business in the form of shares (Langdon & Bonham 2000:219).

Venture capital providers consider investing in SMEs to be risky, therefore venture capital becomes expensive. In order to secure funding the owners of the business have to offer a position in the business to venture capitalists (Langdon & Bonham 2000:220). Venture capitalists prefer to make an investment in a small business if the owners have made a contribution to the company, because they believe a contribution by the owners shows that the owners are committed to a business (Cavalluzzo & Wolken 2005:2154).

Investment by venture capital providers is normally for a limited period, in most cases three to five years especially for SMEs; therefore venture capital providers usually will look for an “exit route” when the investment is about to mature (Langdon & Bonham 2000:221). An exit can be described as mutual termination of the relationship between the parties. The most preferred exit route for most venture capitalists will be sale of the stake/shares held in the company. The investment targets of African Merchant Bank, for example, are companies or entrepreneurs who are in a highly competitive market. They believe corporate finance teams from entrepreneurial banks are gaining market share because of their value-added ideas, products, responsiveness and entrepreneurial flair. In that case the company will be profitable within the investment period, and therefore will enable the investor to exit the market when the time arrives (African Merchant Bank n.d.).

2.6.2 Factors considered important by SMEs

Some start-up businesses are influenced by the history or the track record of the investment company when choosing a venture capital company. Such start-ups will be more selective when

choosing a working partner, more especially those managed by entrepreneurs with good track record and small business experience (Ross *et al.* 1996:332).

There are some key considerations, which are important to SMEs in such instances, some of which can be summarised as follows (Ross *et al.* 1996:333):

2.6.2.1 Contribution of management skills by the venture capital providers

Since most start-ups do not last long due to limited resources in the form of management skills and venture capital, Sirtaine (2006:16) argues that the contribution of the above mentioned resources could make SMEs to last longer. Even before securing financing, it is important for entrepreneurs to understand the cost structures of business, which many firms, do not. Realistically estimating the required start-up costs can be challenging; it requires an entrepreneur to estimate both recurring and non-recurring costs.

Most prospective entrepreneurs have no management accounting skills, such as budgeting (Jones & Tullos 2002:234). Venture capital providers dealing with this type of entrepreneur find it challenging because the financial estimations provided are not always reliable, as inexperienced people have prepared them. Therefore, entrepreneurs will need the support of a venture capitalist that can provide both capital, financial and management accounting skills.

2.6.2.2 Style of management or funding

Management styles are different among venture capitalists. The way in which venture capitalists prefer to monitor their investment

in a new business will influence the SMEs' decisions when selecting an investor. Some venture capitalists prefer to be involved in the daily running of a business, while others leave the running of the business to entrepreneurs alone. Therefore, being associated with a venture capitalist that prefers daily involvement in business affairs will be a boost to those entrepreneurs who lack sufficient experience.

2.6.2.3 Financial intermediaries

Venture capitalists receive many applications for capital funding. Many of these applications spend most of the time unattended to by venture capital providers. However, applications for funding that have been referred by accountants and lawyers are attended to because these intermediaries are the venture capitalists' most reliable sources of information. This means that to increase the chances of getting finance, it is important to go through the intermediaries of the venture capitalists. Entrepreneurs who have been referred by intermediaries have a better chance of success in securing funds than those who were not referred (Liles 1974:468; Cohan 2006:52). SME owners will have to consider the cost implications of using financial intermediaries when deciding on a venture capitalist.

2.6.2.4 Exit strategy or route

Venture capital investment for SMEs is usually for a limited period of three to five years. After this period venture capitalists expect the company to be operating effectively, that is, making sufficient profit to cover expenses and repay the loan. After that the venture capitalists will exit the company by selling their stake, either internally or externally (Parhankangas & Landström 2006:775). Generally venture capitalists require that there be some way of liquidating their investment before they are prepared

to commit funds to the company. This means that the owners must have a plan of three to five years on how they will raise sufficient funds to enable the venture capitalists to end the relationship with the business.

With businesses listed on the stock exchange, this normally poses no great problem. However, small businesses find this a significant problem as the majority of them are not listed on the stock exchange and the venture capitalists find it difficult to liquidate their stakes when they are ready to exit the market (McLaney 2003:429). Many small businesses will prefer a venture capitalist who will sell the shares to the founding members of the business and not to the public.

2.7 DIFFICULTIES EXPERIENCED BY SMEs IN ACCESSING VENTURE CAPITAL FUNDING

There are a number of difficulties experienced by SMEs in accessing venture capital. Some venture capitalists prefer to finance start-up companies in stages, as they are perceived as being very risky. The maximum number of stages applicable to SMEs are three. These stages have been created to reduce risks and further financing is conditional based on the results of the first stage.

Stage one financing might be enough to get a prototype built and a manufacturing plan completed. Based on the results of the first stage, the second-stage financing might be a major investment needed to actually begin manufacturing, marketing and distribution. The second stage finance is conditional and is most influenced by the outcomes of first stage (Ross *et al.* 1996:332). Even if funds are available in stages, there are other problems which start-up companies encounter.

Stage of investment is also found to be among the major influences in the investment decision. First-stage applicants will find it difficult to get funds compared to those companies that have reached accelerated growth or later growth stages (DTI 2005). Since 1992, there has been a trend towards heavier investing and reinvesting in ventures reaching the later stage as the risk is lower, returns are quicker and less managerial attention is required by the venture capital firm (Scarborough, Wilson & Zimmerer 2009:503).

Research on the reasons for denial and low investment in SMEs has been undertaken and some of the reasons for low investment are influenced by a number of aspects which are outside the SMEs' control. Some researchers have found that success in obtaining venture capital often depends on the industry sector (Hustedde & Pulver 1992:363). Venture capital providers seek to avoid risk while maximising returns, and are likely to avoid loss of funds and time involved in disproportionate monitoring and due diligence associated with certain populations of entrepreneurs (Jones & Tullos 2002:235).

Studies have shown that proximity to an urbanised setting is critical in acquiring capital (Hustedde & Pulver 1992:3). Geographical location has been found to be another factor that distinguishes more successful and less successful firms in obtaining venture capital. It is widely recognised that venture capital firms are geographically concentrated in certain areas.

Investigations by Kasekende and Opondo (2003:3) and Wright (1995:48-63) revealed the following reasons for denial of funding:

- Reasons for turning down loan applications by venture capital providers relate to venture suitability, for example not interested in the sector or industry.

- Market potential, management competence and product feasibility accounted for 50% of the reasons for denial.
- Deficiencies in the venture management team.

2.8 FINANCIAL INSTITUTIONS: BANKS

Access to finance has become an important issue for policy makers across South Africa when considering the escalating unemployment rate among the youth leaving various educational institutions (Nafukho 1998:100). Historically commercial banks are known to be the major source of credit financing for big businesses. However, there is less information to support that banks are indeed funding new and small businesses (Churchill & Lewis 1985:194; Scarborough *et al.* 2009:487). For an SME to obtain finance from a bank, it must first meet the criteria of that particular bank (Small business lending survey results 1995:57).

In terms of the bank loan appraisal process, the statistics indicate a greater emphasis on the 'going concern' approach (SAVCA 2005). In seeking bank finance most firms are required to produce three years of projected figures and a business plan and this does not favour those SMEs who are still at an early stage of business (Goosen, Pampallis, Van der Merwe & Mdluli 1999:259).

Since the 1994 elections, all the private banking institutions and government backed institutions in the country have revised the assessment criteria to fit the special requirements of small business owners and to endeavour to be BEE compliant (Goosen *et al.* 1999:231). According to Storey (1994:204), smaller firms still find it difficult to obtain small amounts of capital through banks and feel penalised because they can only obtain high interest loan capital.

2.8.1 Reasons for low investment in SMEs

Research shows that banks still fund very few SMEs, especially those at start-up level. Some of the reasons for low investment by banks in SMEs are discussed below:

2.8.1.1 Perceptions as an obstacle to finance

There are a number of perceptions associated with SMEs. A major perception for banks is that assessing the risk associated with SMEs is both difficult and costly (Cohan 2006:52). Inability of commercial banks to support SMEs is due to the high degree of risk involved, high loss and profits associated with SMEs (Schoombee 2000:2). Lending to SMEs is more costly than lending to large companies as the returns earned on small businesses are low.

Overall, small business loans are less profitable for providers than large business loans due to administration costs (Churchill & Lewis 1985:193, Knott 2004:156; Cohan 2006:53). “Two major impediments to raising capital for small businesses are that these businesses have virtually no ability to guarantee debts and their potential equity markets consist primarily of the family and close friends of the proprietor or partners” (Maier & Walker 1987:208). The amount of capital that can be borrowed by SMEs as compared to companies also makes the perception against serving SMEs to grow (Gregory *et al.* 2005:385).

These risks include the difficulty of assessing management teams, the lack of track records of entrepreneurs and lower returns on investments in these businesses. The expectation of exclusively high transaction costs for financial institutions and the knowledge that investing in local SMEs often involves working with

entrepreneurs unfamiliar with conventional financing relationships also does not favour SMEs when they attempt to raise finance.

As the majority of the targeted small business owners are unemployed and HDP, these owners do not have security (Schoombee 2000:3). The other reason is that smaller firms are typically not publicly held and therefore not subject to public disclosure regulations and thus have no formally prepared financial statements (Gregory *et al.* 2005:386).

2.8.1.2 The need for collateral by banks

Although the government provides security mechanisms through Khula Credit Guarantee, mortgage over immovable assets is what financial institutions prefer as security whenever lending money (Storey 1994:204). Financial institutions also accept pledges on movable assets, but these assets are considered less secure guarantees, so the borrower must pay higher interest rates than those applied to credit secured with mortgages (DTI 2005). This is a matter of special concern to SMEs, because most small business owners lack immovable assets, and therefore are not able to secure low-cost mortgaged credit.

In practice, only shares and negotiable or credit instruments are used as collateral for possessory pledges. Banks on average prefer equity financing. “Equity finance is the capital granted by a person or institution that takes a share in a company in return for money. This is normally used for small businesses that have good prospects for fast growth and above-average returns” (*Small capital...* 2005:8).

2.8.1.3 Gap in interest rates

“Some of the newly established small firms, or those that are expanding rapidly, fail to obtain sufficient financing, because the existence of a gap in interest rates prevents the banks from charging equal interest rates to cover the extra risks involved or perceived to be involved in funding SMEs”. The ceiling in interest rates does not increase the total supply of bank advances to the small business sector (Johns *et al.* 1983:134). This may discourage new SMEs or recently established small firms, when the above phenomenon is not justified in the light of their prospective profitability. The high rates of interest have the effect of widening the gap between the interest rates charged by banks and those charged by finance companies. As a result, small firms become far less willing to seek a loan from a finance company, preferring to wait for the cheaper finance that may become available from publicly backed institutions (Johns *et al.* 1983:134).

2.8.1.4 Lack of skills to manage bank account and to supply information

The difficulties that small firms encounter in obtaining long-term finance cannot be attributed entirely to shortcomings in the arrangements for the supply of finance (McIntyre & Dallago 2003:187). Small firms lack the management accounting skills and experience to prepare proper applications for finance, or may fail to persevere when a first application is rejected (Knott 2004:154). There is clear evidence that some small firms fail to obtain needed long-term finance because of factors internal to the enterprise or because of a lack of adequate information and advice (Watson & Wilson 2002:557-8). In many cases, failure can be attributed partly to the attitude of the small business proprietors and to their limited management accounting skills and experience.

Banks in South Africa use the behavioural scorecard in assessing creditworthiness. They consider the way the account holder uses his/her account when they grant a loan. If much of the account holder's money does not spend much time in an account and the account holder has a number of unpaid debts, it will work against the account holder when applying for a loan. The banks calculate a person's credit rating by analysing how that person has used their account. For example, if a small business owner issues a cheque without the funds to cover it, this works against the small business owner. If, however, the small business owner informed the bank that this might happen, it could work in his/her favour. These are some of the aspects which, for instance, HDPs are not aware of, and the behavioural scorecard creates problems when small business owners have to apply for funds through banks (*Small capital... 2005:24*).

2.8.1.5 Gender as an obstacle to finance

Various studies have examined different barriers faced by entrepreneurs in starting their firms. Investigations in the past have revealed that female entrepreneurs face additional barriers stemming from a lack of knowledge, skills and experience which are deemed critical to venture creation and growth (Knott 2004:156). Jones and Tullos (2002:233) report that financial institutions cite women's lack of confidence in presenting their business plans and their lack of experience in the financial realm as factors contributing to difficulties in obtaining credit. After the implementation of BEE in South Africa the rate of female entrepreneurs has increased. This is due to the fact that most financial providers are required to be BEE compliant when lending funds.

2.8.2 Minimum requirements for securing funds with the banks

Besides the skills possessed by SMEs' management, there are other aspects that banks consider important before they make capital available. Some of these aspects are (*Small capital... 2005:10*):

- The owner's contribution (or capital injection) into the business is an important indicator that banks use. If the SME owner has contributed little or no equity to the business, the banks will be hesitant in granting a loan. Banks do not finance the business owner, they finance operating assets and working capital because these are what generate revenue for the company. Therefore making a small capital contribution to the business is a good start, as it shows that the owners have already covered some of the preliminary expenses, further indicating that the entrepreneur only needs capital to kick-start business operations.
- Small businesses may not have reliable balance sheets, as many SMEs typically do not keep proper books. This is a disadvantage, because banks use fixed assets as collateral.
- SMEs typically do not have strong cash flows. Banks must be satisfied that businesses will be able to repay loans, but this can prove difficult if they are experiencing cash constraints.

A venture capital provider considers various aspects when assessing a business proposal or plan. Some of these factors relate to business while other concerns the management team. At the end of the screening process various factors as discussed below, determine whether the application is successful or not.

The owner may lack the necessary business management skills to run a small business. The owner is also required to have the

experience and ability to run the business. Investors will also want to see growth potential and have a good idea of what the return on their investment will be (Bruno & Tyebee 1985:62; Cohan 2006:52).

If they are not convinced or satisfied with some of the above aspects of their assessment procedure, finance will not be granted to SMEs. To secure finance with banks the SME's owner/s must display the ability to run the business smoothly. According to *Small capital* (2005:10) most of the commercial banks use the following criteria when assessing a business plan:

2.8.2.1 Management

Before granting a loan banks will take the following into consideration:

- "Profile of entrepreneur": Check work related experience in relation to SMEs management.
- "Management, financial and marketing skills": assessment of the abilities demonstrated in the past in relation to marketing functions.
- "Technical experience".

2.8.2.2 Financial

Banks consider the following financial factors before granting a loan:

- "Owner's contribution: The more initial capital the owner puts into the business, the better his/her chances of getting the loan".
- "Realistic projections: These indicate the likelihood of business success. Financial projections project how much costs and profit the business is likely to incur and generate".

- “Debt carrying capacity: This refers to how much the owner can realistically borrow and pay back”.
- “Assets: These can be used as collateral”.

2.8.2.3 Security

Security in the form of collateral is what banks look for before granting a loan. The following forms of securities will be considered:

- “Tangible collateral: Property or investments”.
- “Intangible collateral: Suretyships, for example, by the owners”.
- “Personal assets: The owner can use these as security for a loan”.
- “Cash flow: The stronger the cash flow, the less risky the business”.

2.8.2.4 Business environment

The environment in terms of where the business will be conducted is one of the factors considered important. The following factors will be taken into consideration:

- “Industry risks: Is there a risk of pollution in the area where the business is based?”
- “Location: Is it convenient for customers?”
- “Competition: Where are the competitors and how saturated is the market?”
- “Entry barriers: These include legislation on franchising, issues relating to how long it will take to set up, reputation and the costs of entering the market”.

On average most start-up applications are said to be poorly prepared due to a lack of management accounting skills, more

especially among young entrepreneurs (Tustin 2003:4). In addition, there is a lack of interest in entrepreneurship among new graduates. This lack of interest is fuelled by the idea that banks are conservative towards small enterprises and therefore their current lending policies are quite restrictive. Previously the perception within the banks was that lending money to a less established business or one with no borrowing track record was a risky transaction (Business Reports 2006:1).

Increasing the chances of obtaining a loan from a bank requires a lot of work and in most cases entrepreneurs are not willing to go through the set criteria, because this process involves a lot of time. The nine requirements of application for finance that have been identified by Small Business Administration (1997), Freear, Sohl and Wetzer (1996) and Goosen *et al.* (1999:255) are as follows:

- (1) State the purpose or reason for the loan: The lender will be looking for something that fits within the normal range and expertise of the business. The amount may cover a number of items, so the business must be able to cover all of these together. As most HDPs are from poor family backgrounds, they fail to acquire the relevant skills that will help them to prepare and present in detail the amounts they need to cover and to motivate why they need such an amount (Newton 2001:19).
- (2) Request the amount and the repayment term of the small business (e.g. R100 000 over 5 years, payable quarterly).
- (3) Explain how the amount borrowed will be repaid.
- (4) Discuss the details of the security that can be offered to the lender.

- (5) Prepare a business plan, which will serve to answer essential questions relating to management capabilities, information about the market in which the business operates and the kind of business.
- (6) Present them with financial statements for three years.
- (7) Provide the bank with the latest set of management accounts.
- (8) Present the accounts receivable and payable records.
- (9) Provide the current projected financial statements.

Small business owners in South Africa make greater use of their retained profits and borrowings from friends to finance the expansion plans (Johns, Dunlop & Sheehan 1983:126; Kuriloff *et al.* 1993:357). The obvious answer is that long-term finance from external sources is not readily available or is more costly than using internal funds. Firms that experience fast growth find their available funds to be inadequate, and they cannot cover exactly what they need to do.

In summary, when lending to a small firm, a trading bank is concerned with the security linked to the loan, liquidity of assets, firms' past record and, to some extent, its future prospects. Bank lending would become even more costly to prospective small business owners if the banks assessed in detail the future prospects of each small business that applied for a loan. Small businesses that have good growth prospects, but have little security, are best handled on an individual basis by specialist financial institutions capable of assessing the risks involved, and are capable of providing technical and managerial advice where

appropriate and supplying a suitable mix of equity and loan capital (Dushnitsky & Lenox 2006:754).

2.9 ALTERNATIVE SOURCES OF CAPITAL APPLICABLE TO SMEs IN THE PAST

Most new start-ups begin with capital infusion from informal sources such as the family or friends of the founder (Elitzur & Gavious 2003:709). Many successful and profitable small and medium-sized manufacturing firms in an economy were originally founded by individuals with a technical background and a flair for engineering design, but with little capital (Johns *et al.* 1988:145). Elitzur and Gavious (2003:709) and Kuriloff *et al.* (1993:357) contend that small business is foremost a group level phenomenon that is highly dependent upon social group resources for its development. According to Hannig and Joubert (2003:33), small businesses initially obtain funds for their sustenance and expansion without government assistance. In general, there are three sources for such funds:

- Own finance
- Families and friends
- Angel

Elitzur and Gavious (2003:710) indicate that many governments started recently to develop an interest in SMEs and even creating public backed financial institutions. The small business owner is perceived in the communities as a person who faced many challenges to establish the business or has used other sources like close friends and relatives' support (Kuriloff *et al.* 1993:357). In most cases the sources of finance applicable to a HDPs in South Africa in the past was from relatives, family members and social clubs (Mann 1990:60). Many HDPs argues that the

partnerships were used as the main initiative they can use to establish their businesses, not as individuals (Mann 1990:30).

High rates of personal and company income tax make it more difficult for small businesses to finance growth from internal sources, and in many cases the capital requirements for the development of innovations have probably increased as time goes by. Even today there is still strong evidence to suggest that there are serious problems for small businesses in obtaining long-term finance for innovation.

“In the current business environment most entrepreneurs find it necessary to use some very creative techniques to get their businesses off the ground”. Collectively, these techniques are called “bootstrapping” (Meyer & Allen 1994:258). There appears to be a case for establishing a special financial institution with government support, which would be concerned primarily with providing development finance to small innovative firms.

A sectoral review of the state of small business development in South Africa by Ntsika for 2002 indicated that the manufacturing sector was growing at a rate of 7.5% in small businesses and 21.2% in medium-sized businesses, while the agricultural sector was growing at 9.2% in small and 43.8% in medium-sized businesses (Ntsika Enterprise Promotion Agency 2002).

2.10 STATUS OF THE SMALL BUSINESS SECTOR

During the past few years different agencies have become more interested in finding out how to stimulate the development of SMEs (Mann 1990:64). Much of the attention with regard to growth in smaller firms has focused on capital structure decisions, because problems related to financing dominate in small and fledgling firms (Terpstra & Olson 1993:5).

In recent years, venture capitalists have played an expanding financial role supporting a broad spectrum of business activities (Gumming 2006:1085). However, many banks are also adopting a client-based approach for managing small business and offers standardised products, such as credit scoring for smaller credits. In a study reported on in the *Journal of Commercial Lending* (Small business lending... 1995:57), 84% of the respondent institutions processed small business loans only, indicating that the commercial banks are no longer perceiving SMEs as too risky since they are now serving them.

Current levels of investment in SMEs are inadequate for achieving the growth levels anticipated in the Government's Growth Employment and Redistribution (GEAR) programme. To overcome the lack of investment in SMEs, government has established financial institutions for empowering HDP.

Some of the factors contributing to low investment by banks in SMEs are due to the historical structure of the financial sector. The financial sector is made up of a more conservative banking sector that is more focused on serving only big companies (DTI 1998:2). Due to changing economic conditions and the role of SMEs in the economy, banks are now exploiting this new market area (Scarborough *et al.* 2009:525). According to Knott (2004:156), access to capital can be increased if:

- SMEs and private funders develop new business understanding,
- Change of perception by banks and SMEs owners,
- Banks becoming more client oriented, not transaction oriented.

Public and private sector partnership which is the initiative of both the government and banks has been formed to increase the rate of SMEs which can access capital. The following initiatives have been created.

2.10.1 Current developments

In recognition of the fact that access to capital is a key constraint to the development of SMEs, the government and the private sector have put into place a number of initiatives designed to leverage greater private and non-governmental sector investment in SMEs. Notably, two new institutions, Khula and Ntsika, were formed in 1996 to create increased capital delivery capacity to SMEs. These institutions provide support infrastructure and absorb a portion of the risks and costs of private investment in SMEs (Goosen *et al.* 1999:231).

With the formation of the National Co-ordination Office of Manufacturing Advisory Centre (NAMAC), which merged in 2004 with Ntsika and the Community Public Private Partnership (CPPP) to form the Small Enterprise Development Agency (SEDA), it became clear that the government wanted to speed up the creation of SMEs in the manufacturing sector. Finance agencies will now be able to offer SMEs relevant information and advice and refer them to the correct organisations when seeking finance.

Government's focus on empowerment has resulted in the creation of other providers of equity finance to SMEs. Government currently provides funding through a number of organisations:

- The Industrial Development Corporation (IDC), since 2001, has been mandated to aid empowerment and provide development finance to SMEs so that entrepreneurship is encouraged in black communities.
- The National Empowerment Fund (NEF) was formed to finance and support black-managed and black-owned businesses.
- Khula Enterprise Finance was formed to facilitate access to credit for SMEs, but has also moved into equity financing.

- The Umsobomvu Youth Fund (UYF) was formed to finance development opportunities for black youth (aged between 18 and 35 years), including equity financing for SME development.

Since 2000 these organisations have created a number of equity funds targeting empowerment, including NEF Ventures, the Women's Private Equity Fund, the Umsobomvu General Fund, the Franchise Fund, the Progress Fund and Khula's Equity Funds.

Except for the above mentioned developments, government and banks also have other initiatives in place to increase investment in SMEs. Some of these are discussed in the following sub-sections.

2.10.2 Khula-guaranteed loans

The Khula-guaranteed loan scheme is specifically directed towards the small business sector and is a recent innovation by government aimed at increasing investment in small companies by banks. This institution has been created to ease the access to finance and lack of collateral guarantees for SMEs, as Khula guarantees loans up to a certain amount (Ntsika Enterprise Promotion Agency 1999:26).

2.10.3 Incentives

Incentive schemes developed by the IDC, DTI, local or provincial authorities and co-operative initiatives have the indirect effect of strengthening the profitability of small business enterprises. These incentives improve the chances of firms attracting private venture capital providers (Malgas 2002:119).

2.10.4 Initiatives by banks

In recent years, a number of alternative proposals have been put forward for increasing the availability of finance by banks to small businesses in South Africa. It has been suggested, for example, that the supply of capital would be improved if (Elitzur & Gavius 2003:710):

- Small business owners are the one applying for funds,
- Government should be helping small business by providing them with securities,
- If sources of funds available to SMEs are increased.

There is strong evidence that staff at conventional banks operating in or near townships, rural areas and low income suburbs is poorly equipped for the type of small business clients that might need finance (United Nations 2001:18). At the moment there are various initiatives by banks and government aiming at increasing accessibility of venture capital by SMEs (Schoombee 2000:4):

- Change of assessment criteria and development of staff,
- Creating bank accounts suitable to SMEs owners,
- Loans and repayment packages specifically to SMEs owners,
- Amendments of application procedure.

The emphasis of social investment has changed profoundly over the past couple of decades. There have been significant shifts in the focus of corporate social investment (CSI) programmes. There has been far more strategy planning, with CSI programmes influenced by legislation such as the Broad-based Black Economic Empowerment Act no.53 of 2003 and the new phenomenon on the local business scene - the development of industry sector charters and the DTI's Code of Good Practice. With the public-private partnership, some private companies have initiated programmes

that will help the government, because they train people in acquiring skills. This is a positive development for SMEs in South Africa.

2.10.5 Skills development

Since the creation of the Department of Labour's Sector Education and Training Authorities (SETAs), it became much clearer that the government is taking the creation of SMEs in South Africa very seriously. The purpose of SETAs is to provide relevant skills in specific sectors. The reason given by private investors for not investing in small businesses is often a lack of skills (Bruno & Tyebee 1985:61). By training youth in entrepreneurial skills, the government hopes that banks will change their perceptions about SMEs.

2.10.6 Competition

The importation of foreign goods was and is regarded by trade unions as one of the reasons why the small business sector in South Africa cannot develop. With the introduction of the Competition Act no.89 of 1998 and the creation of the Competition Board, the unionists believed that small businesses could compete fairly with big companies without big companies using their advantage unfairly (Policy Co-ordination and Advisory Service 2003:40).

2.11 SUMMARY

Lack of access to capital cannot be regarded as the sole major obstacle to the low rate of SME establishment. Financial providers consider lack of entrepreneurial skill and other skills such as financial management and marketing as important skills for the

proper management of SMEs. Due to lack of management accounting skills, internal business failure is seen as one of the major problems in speeding up the creation of the SMEs in South Africa (Business Reports 2006). Most of the SMEs at start-up phase do not get to the mature phase due to management's failure to take relevant decisions on how to reinvest the profits.

Addressing the lack of access to capital will need both government agencies and private financiers. This lack is caused by lack of information as far as application for and granting of loans is concerned (McIntyre & Dallago 2003:187-190). Financial institutions in South Africa are using similar rules as other banks in developed countries. These institutions need collateral and their funds are issued after careful analysis of the future prospects and the history of the business (*Small capital...* 2005:5).

Venture capitalists and government agencies are the alternative sources of capital for SMEs in South Africa. However, these financiers have minimum requirements that must be met by SMEs when applying for funding. Most HDPs do not have the necessary experience, management and accounting skills and this minimises the chances of these people getting funding (McIntyre & Dallago 2003:188).

Encouragement of the formation of SMEs is a very good initiative by the public sector, but as long as a culture of entrepreneurship has not been created among HDPs, eradication of past problems will not be achieved overnight. The governments at both national and provincial level have a number of support initiatives, like provincial development corporations, but the people these initiatives are aimed at do not always make use of them. This simply means that potential entrepreneurs are not aware of these institutions as providers of capital (Business Reports 2006).

The public and private sectors have increased their interest in the small business sector, which places the status of SMEs in South Africa in a more promising position. However, as long as the identified group does not take advantage of these resources, the status of small firms will not change considerably.

CHAPTER 3

MANAGEMENT ACCOUNTING SKILLS AND OTHER INFORMATION REQUIRED BY VENTURE CAPITAL PROVIDERS

3.1 INTRODUCTION

Potential small business owners in South Africa experience many challenges when they establish their businesses. Lack of money is a constraint for SME development, as highlighted in the previous chapter. In the process of SMEs expansion and growth, management accounting skills are probably as important as money (McIntyre & Dallago 2003:185). Some of the challenges faced by small business owners are the ability to raise sufficient capital and acquire the necessary small business management skills (Gregory *et al.* 2005:383). According to Malgas (2002:119), HDPs argue that providers of private capital do not understand the small business sector as far as assessment of their creditworthiness is concerned. Entrepreneurs blame private equity providers for not providing them with sufficient capital whenever they apply. The providers of private capital, on the other hand, cite lack of small business management skills and technical skills as some of the major reasons why they cannot provide sufficient capital to prospective entrepreneurs (McIntyre & Dallago 2003:187).

The purpose of this chapter is to explain the managerial shortcomings of SMEs. Management accounting skills, which are the primary focus in this chapter, are also highlighted. The secondary purpose of this chapter is to discuss management accounting related information required by venture capital

providers whenever SME owners apply for loans. Past success rates of SMEs are also mentioned.

In the first part of the chapter managerial shortcomings and management accounting skills are identified and discussed. Management accounting related information that is required by venture capital providers is discussed in the second section of the chapter. Past success rate of SMEs when applying for funds is lastly discussed.

3.2 MANAGERIAL SHORTCOMINGS

The inability to take good business decisions has been cited as one of the major reasons for the high failure rate of SMEs. Zimmerer & Scarborough (1994:265) states that apart from finance as a major obstacle to the establishment of SMEs in the South African environment, entrepreneurs lack the necessary business skills to commercialise their viable business ideas effectively. One of the reasons for the high failure rate of small businesses is managerial shortcomings, examples of which are cited by Hansohm (1992:141) as:

- In ability to lead and limited small business management skills,
- A lack of knowledge of business problems and non-attentiveness of management shortcomings,
- Lack of skills in management accounting and costing knowledge, poor inventory management,
- Lack of separating personal and business finance accounts,
- Premature expansion of operating activities,
- Lack of effective monitoring and direction of manpower,

- Poor decision making due to lack of proper financial planning.

Small business owners do not understand the types of skills they should acquire in order to manage their business effectively. Management skills which management teams should possess before they lodge an application for finance with various financial providers are also not known. Identification of these management skills could reduce the chances of failure and therefore increase the start-up rate. However, financial providers and small business owners in South Africa find it difficult to access information from each other on the required management skills (McIntyre & Dallago 2003:190).

According to Erikson (2002:276), start-up creation not only requires assets, but also knowledge. Erikson defines these physical resources as financial projections which the owner must prepare. But for start-up owners the most difficult part is to indicate how much knowledge they possess. Venture capitalists are of the opinion that it is the quality of entrepreneurial capability which determines whether the business will be able to generate future income.

3.3 MANAGEMENT ACCOUNTING SKILLS

In an SME management accounting is an important function concerned with cost measurement, product or service costing and provision of information for decision-making. Business entities require at least some employees who are skilled in management accounting in order to operate efficiently and effectively. Management accounting skills are useful in making

any business entity competitive and successful (Gowthorpe 2008:34). Any SME owner or manager possessing some financial management skills will be in a better position to manage a business and therefore increase his/her chances of obtaining a loan (Kasekende & Opondo 2003:11). The following management accounting skills have been identified by institutions such as the Chartered Institute of Management Accountants (CIMA) and various researchers and authors as being useful for the effective management of SMEs (Niemand 2006:103-118; Kasekende & Opondo 2003:4; Damitio & Schmidgall 2007:1-2; CIMA n.d.:13-19):

3.3.1 Preparation of budgets

According to Gowthorpe (2008:177), a budget is a strategic plan which should indicate the short-, medium- and long-term operational plan of the business. This plan should show how the business will make use of its resources effectively. The budget should be able to indicate the forecast of future commercial transactions that will make a small business successful. According to Niemand (2006:103-118), the operational budget of the company should be divided into three sections:

3.3.1.1 Operating budget

The first stage of preparing an operating budget of a business is to indicate the number of units the business is able to sell. This is the sales budget. In a manufacturing business this is followed by determining the number of units to be produced and the quantity of materials to be used (production and materials

budget). The direct labour and the overheads budgets are prepared next. The materials, labour and overheads budgets indicate the costs to be incurred by the business in order to meet its targets. The accuracy of these budgets will depend on who prepared them. With the help of competent accountants most of the SMEs' managers may have the right projections. Accurately projected budgets may be used to convince the providers of capital that SMEs are ready for funding and are aware of what they are doing (Kasekende & Opondo 2003:4).

3.3.1.2 Cash budget

A cash budget is a quantitative statement indicating the projected cash receipts and payments of the business. The budget should indicate how the small business owner will collect his/her money from the debtors and how he/she will settle the accounts when they fall due. The budget should also indicate how the surplus generated or deficit incurred during the period should be used and settled (Horngren, Datar & Foster 2006:204). This is one of the most important budgets because it helps to pinpoint receipts and payments problems.

3.3.1.3 Capital budget

A capital budget is a budget that shows how the small business owner will spend the funds on the acquisition of assets. The owner is the only person who is aware of the types of assets to be used at the initial phase of the business. With the help of a competent financial advisor the small business owner can estimate the costs of investment in assets. Due to limited management accounting skills some small business owners, in

for instance the craft industry, may not apply valuation techniques such as (Kasekende & Opondo 2003:11):

- Net present value,
- Payback method, and
- Internal rate of return

Therefore most small business owners will be compelled to ask for professional help to estimate the costs of investments in assets. This will also enhance their chances of convincing the providers of capital when their application for a loan is assessed.

Start-ups and established businesses provide projected financial statements when making an application for a loan (Kasekende & Opondo 2003:4). Projected financial statements are the major section of a business plan which is used by loan applicants to secure a loan. Accurate and realistic projected financial statements are what the providers of capital expect when loan applications are submitted. But due to the fact that some SMEs in the craft industry are operated by HDPs who may not have formal business education, their projections tend to be inaccurate and unrealistic. The lack of financial literacy ultimately decreases their chances of obtaining a loan. According to Kasekende and Opondo (2003:3), some SMEs hire employees without proper education who lacks financial and small business management skills.

3.3.2 Product costing and pricing

Product costing and pricing is a process of assigning a value to a product. This is the value that the seller is willing to

exchange for a product (Longenecker, Moore & Petty 1994:327). The process of determining the cost and price is quite complicated for a seller who is not familiar with the various management accounting techniques. This process is about recognising the three elements of costs that the producer incurs in the process of providing a product to the customer. According to Ryan and Hiduke (2005:178), small business owners find that the most difficult part of pricing a product is making sure that all the relevant costs are included in the final product price.

The small business owner must be able to determine the direct material costs, direct labour costs and the manufacturing overheads incurred in the manufacturing process. Failure to identify these costs properly will result in the seller either over-costing or under-costing the products. The result of under-costing or over-costing the products simply means that the seller will lose either customers due to high costs/prices or the business due to loss of income (Horngren *et al.* 2006:140).

3.3.3 Understanding cost behaviour and cost allocation

Costs behave differently. There are costs which change with production and those that remain constant irrespective of a change in production volume. The former are classified as variable and the latter as fixed costs (Drury 2008:31).

Allocating manufacturing overheads is very challenging for most small business owners specifically to identify, assign and incorporate them into the final cost price of the product (Ryan & Hiduke 2005:178). Manufacturing overheads are indirect

costs which are applied or used during the production process in support of the primary costs, which are direct materials and labour costs.

Most small business owners fail to recognise the role of indirect manufacturing costs during the production process. They fail to include these costs in the final cost of the product. They therefore under-cost their products, which may lead to loss of market share and ultimately the business will fail (Reider 2008:159).

Cost classification of overheads is another difficult task to perform for most small business owners. Manufacturing overheads are classified into three categories (Reider 2008:154; Horngren *et al.* 2006:334):

- **Fixed overheads**

Fixed overheads are indirect costs that are incurred during production. The costs do not vary with volume or the number of units produced.

- **Variable overheads**

Variable overheads are indirect costs that change in the same proportion to volume.

- **Mixed overheads**

These are indirect costs that have the characteristics of both fixed and variable overheads. The small business owner must be able to separate them into both fixed and variable portions.

3.3.4 Activity-based costing

Activity-based costing is a costing system that allocates the costs to cost objects. The cost objects can be either a product, service or customer. The system allows the small business owner to be able to understand the behaviour of the costs since the cost allocation is based on the number of tasks or functions performed. Reider (2008:153) indicates that the most useful cost accounting system for small business owners is activity-based costing. With the application of activity-based costing the business owners can also increase their competitiveness in the market by simply making sure that only tasks that add value are performed.

3.3.5 Calculation of profit and loss

Calculation of profit is another difficult function that most small business owners must deal with on a regular basis. According to Gray (1991:87), the most difficult task for small business owners is collecting and including the relevant information when determining the profit for the business. Gray indicates further that the small business owner must regularly monitor the costs of the business and should learn to scan and make use of the relevant information to calculate the profit. With the help of a competent accountant the task of calculating profit and loss becomes easier to perform.

3.3.6 Cost-volume-profit analysis

Cost-volume-profit analysis is one of the most useful tools that can be applied by small business owners to understand the

behaviour of selling price, variable costs, fixed costs and volume in relation to profit. According to Ryan and Hiduke (2005:194), breakeven analysis is one of the most useful and helpful tools for businesses at the start-up phase. This system guides the business owner in terms of the number of units that they must sell to break even, that is, to sell the units, pay the costs and remain in business with no profit or loss.

3.3.7 Product life cycle

A product, just like a business, goes through a life cycle. For small business owners not to lose market share, the type of product they sell should be upgraded and improved so that the business could be in operation for a longer period. Understanding the product life cycle makes it easier for small business owners to understand the position of the business at all stages of the business or product. It also helps small business owners not to lose hope, thinking that the business will not make a profit or survive for a longer period. A product and a business usually go through four life cycle stages. The four life stages are the introduction, growth, maturity and decline (Gray 1991:113; Sims & Smith 2002:191).

At the introduction stage the business is still trying to establish a market. The product offered to the market is new and unknown to the customers. The type of pricing strategy that the small business owner can implement is a market and product development pricing strategy (Sims & Smith 2000:260). With this strategy the business owner should cover all the relevant costs and should aim to at least break even.

At the growth and maturity stages the small business has established its market. The marketing costs are decreasing as compared to the introduction phase. The business begins to realise some profits but at low margins.

The last stage of the product life cycle is the decline stage. At this stage the business is faced by declining profits and sales. The business can try to increase its profit level by exiting some market areas and entering new ones. According to Gray (1991:113), the business can survive this stage by being more customer-oriented than product-oriented.

3.3.8 Standard costing and job order costing

Standard costing is a cost accounting system that is used to determine the standard cost and input of materials, labour or overheads that the business owner would like to achieve during the production process. Standard cost is defined as a predetermined cost of a unit of output (Horngren, Datar, Foster, Rajan & Ittner 2010:258).

The standard cost system helps small business operators to determine the standard input for each unit sold. This will help small business owners to minimise the costs and avoid producing unnecessary goods (Gowthorpe 2008:213).

Job order costing emphasises the production of goods only after the customer has placed an order and the goods should be produced according to customer specification. Application of the job order costing system will help the small business owner to produce the goods demanded by the customer. However,

according to Reider (2008:157), job order costing and standard costing systems are difficult to apply in a small business environment.

Job order costing needs an order to be made before production commences. Since a start-up business has not yet established its market base, it might take a while to commence operations if it applies job order costing.

Standard costing emphasises determination of inputs and standard costs before production commences. Since some start-up businesses have not yet established even a sample product, it may be difficult for them to apply the system.

Although job order costing and standard costing can be difficult to implement without the help of competent consultants and employees, the owner can be assisted in terms of implementing the two systems.

3.3.9 *Just-in-time*

Just-in-time (JIT) is a cost accounting system which encourages production of goods when they are demanded. This system emphasises reduction of inventory holding costs because materials and component parts are bought only when needed for production. According to Niemand (2006:198), JIT is preferred by small business owners because it reduces inventory holding costs, therefore minimising obsolescence of inventory. Just like the other management accounting skills, applying JIT cost accounting is a major skill required by venture capital providers.

Management accounting skills are not the only requirement to secure a loan from venture capitalists. There are other factors that venture capitalists would like to identify in an application for a loan, such as the projected financial statements of the applicant.

3.4 FINANCIAL INFORMATION REQUIRED BY MOST VENTURE CAPITALISTS

Robust accounting and finance functions provide the framework through which a business is managed and controlled, ensuring compliance with laws and regulations, fulfilling venture requirements and assisting in the pursuit and achievement of strategic objectives. A well-thought-out business plan is key to securing funds. Although the financial projections of a business plan should be tailored to the details of the business, certain components of a business plan are commonly required by most venture capital providers (Vinturella & Erickson 2004:62):

- Statement of financial performance,
- Statement of financial position,
- Cash flow statement,
- Break-even analysis,
- Key estimates and assumptions behind projections, and
- Key ratios.

For the start-up, estimates will have to be made for each individual component of the business. An operational budget, starting with the sales, production budget, materials budget, labour, cost of sales, administrative and research and development expenses should be prepared. Assumptions are the foundation of the business plan for most start-up

businesses and therefore the projections should be specified for the following:

- Levels of projected sales and increases in volume or price,
- Gross margin expectations,
- Expected capital expenditure and timing,
- Inventory turnover,
- Receivables collection period, and
- Payables payment period.

The venture capitalist, after scrutinising the projected financial performance of the business, will usually look for additional information. This information takes the form of the experience the business owner has in management accounting skills and small business management.

3.5 MANAGEMENT ACCOUNTING SKILLS REQUIRED TO SECURE A LOAN

Some studies have examined different barriers faced by entrepreneurs in starting their businesses. Lack of business education, training or managerial experience have been cited as barriers that may have an impact on the firm's success. As it was highlighted in chapter 2 small business owners often experience many problems associated with obtaining loans, as well as with having the relevant small business management experience that facilitates the success of any business (Jones & Tullos 2002:234).

It is therefore quite clear that without a sufficient management accounting background or experience it may be difficult to

convince venture capitalists that the applicant is ready for funding. To increase the likelihood of success, the emerging entrepreneur has to convince the venture capitalist that he/she is ready for funding by meeting some of the minimum requirements of venture capitalists. According to Bygrave, Hay and Peeters (1999:98), in conjunction with management accounting, knowledge of previous venture capital deal screening processes, preferably in the venture capitalists' target markets, is very important.

Venture capitalists are influenced by a number of factors concerning the potential recipient of their funds when assessing investment opportunities. They look for entrepreneurs with the potential for growth as a result of innovative ideas, a sound management team and well-structured organisation. Many venture capitalists consider enterprise development stage and the size of investment needed in conjunction with level of business skills and management accounting skills as important for SMEs to secure a loan (Small Business Administration 1997:9). As early as 1985 Lorenz determined that management teams and business ideas are the major factors that venture capitalists look for when assessing loan applications. The following criteria are used by venture capitalists when selecting applicants for a loan (Lorenz 1985:77-84; Meyer & Allen 1994:110-277):

3.5.1 Cash flow management

The major source that venture capitalists inject in a business is money. Money is an important source that must be looked after to sustain the business. The track record of the owner as far as

cash management is concerned increases the chances of being granted a loan. The function of cash flow management involves the owner's ability to track the cash that flows in and out of the business. If the owner failed in this task in previous business ventures it might be difficult for venture capitalists to trust the owner with cash. Most, if not all, venture capitalists prefer the owners themselves to undertake the duty of cash management (GEM 2003:13). This lack of trust by venture capitalists and the inexperience of owners in cash management might imply no funding to SMEs.

Keeping records of the amounts generated and paid out increases the confidence of venture capitalists in small business owners. Venture capitalists prefer to identify the relevant ledgers and journal accounts that have been used and track whether the bookkeeping has been done correctly (Bbenkele 2007:22).

3.5.2 Pricing and cost measurement

The survival of a small business at an early stage depends on its ability to generate enough profit or at least to break even. Breaking even or making a profit will result from the owner's ability to measure costs and price the products correctly. That means incorporating all the relevant costs in the final product. One of the major reasons for the failure of SMEs is incorrect pricing and inaccurate cost measurement. According to Meyer and Allen (1994:133) and Hodgetts and Kuratko (1995:640) the owner's ability to apply various pricing strategies and mark-up percentages will increase his/her likelihood of being granted a loan.

3.5.3 Market analysis and forecasting

Most start-up businesses use estimated production and sales figures in their master budget when applying for a loan (Meyer & Allen 1994:110). The experience of some employees in forecasting and performing a market analysis is what the venture capitalist will want to see in an application for a loan. A loan application that can prove that market analysis has been performed by an experienced owner who is certain about the amount of inventory to be sold will be more successful.

3.5.4 Inventory management

The most important instrument the business uses to generate an income is inventory. A business owner who has experience in applying inventory management tools will increase his/her chances of securing a loan (Hodgetts & Kuratko 1995:640). Most venture capital providers prefer to work with entrepreneurs who have experience in managing a small business. To convince the venture capitalist, Meyer and Allen (1994:280) indicate that small business owners must have identified all inventory holding costs in their loan application.

The four factors discussed above are not the only attributes the venture capital providers evaluate before granting a loan. There are other factors that they will want to identify. Some have to do with the small business owners themselves, while others have to do with the management team.

3.6 OTHER FACTORS CONSIDERED IMPORTANT FOR SECURING A LOAN

Management accounting skills are not the only requirements needed to secure a loan from a venture capitalist. There are other factors that relate to the type of business, stage of business and the management team that the venture capitalists must investigate before granting a loan. Some of the factors considered important are (Business link 2005:12-19):

3.6.1 Investment at an early stage

The competence of the management team or the entrepreneur is the only aspect that can be evaluated when deciding on funding at an early stage. It is difficult to discover in any meaningful way which competitors exist, even though an extensive patent search may have been done. The main documents that the venture capitalist can use to assess the entrepreneur at this stage are financial history of applicant, business plan and forward projections of turnover, profits, cash flow and borrowings over a minimum of a two-year period. Some of the key areas are (Pearce & Barnes 2006:71):

- The track record of the entrepreneur and his/her management team, and
- The price or cost assumptions, particularly with regard to competition.

3.6.2 Management team

Apart from the technical skills, the venture capitalist is looking for financial planning and control discipline and, above all,

energy, drive and motivational ability in the team leader (Timmons & Spinelli 2007:387). The management performance records of the entrepreneur's team will be examined critically by the venture capitalist, both as to their specific suitability for the particular business and as to their past achievements in relation to business management and performance of any management accounting related function (Pearce & Barnes 2006:71).

In addition to the above factors, the venture capitalist will usually look for two other factors, with regard to new business in the industry. Firstly, venture capitalists will look for the individual commitment of each team member to the business, as evidenced by financial risk and the career sacrifices they have made. Secondly, the personality 'fit' of the team members is critical in that they must be able to complement each other (Freshwater, Barkley, Markley, Rubin & Shaffer 2001:4).

3.6.3 Investment at a later stage

The rate of failure in later-stage venture capital investments is lower and this form of equity financing is significantly safer than early-stage finance if proposals are properly investigated and carefully structured from the start. However, there are fewer 'big winners' among the more mature businesses. The venture capitalists in this area of activity are likely to want a solid income yield on their investment from the start and may also provide secured lending as part of the financing package. The same process of early-stage selection will also apply to the venture capitalists' evaluation of more mature businesses seeking finance for expansion.

3.6.4 Sensitivity analysis and downside assessment

Venture capital providers will not invest unless they have carried out a thorough assessment of the business's future prospects, usually by themselves, but sometimes with outside help from investigating accountants or consultants. In carrying out a sensitivity analysis of the entrepreneur's business plan, the venture capitalist will consider the following aspects (Small capital 2005:45):

- Achievable financial and market projections,
- Products to be introduced to the market and other activities able to generate an income
- Amount of profits expected to be generated.

In summarising the above assessment criteria it is quite clear that without a convincing track record and accurate projected figures, the chances of getting finance will be very slim. It is advisable for entrepreneurs to equip themselves with sufficient knowledge or to obtain assistance from experienced accountants to prepare the financial section of the business plan for them.

As early as 1985 Bruno and Tyebee investigated some of the reasons why loans were denied by venture capitalists.

3.7 REASONS WHY LOAN APPLICATIONS ARE TURNED DOWN BY VENTURE CAPITAL PROVIDERS

Inability of the business owner in meeting the minimum requirements of the venture capitalists is one of the major reasons why capital is not granted. According to Murphy

(1996:14) most of small business owners lacks the ability to manage the financial affairs of the business. Bruno and Tyebee (1985:70) conducted research in 1985 on the reasons why venture capital providers might deny funding to SME operators. Some of the reasons were found to be:

- Suitability of venture and viability of business plan, and
- Potential of venture success through good leadership.

Building an organisation based on human or intellectual capital from various industry experiences is one of the major factors influencing investment companies to supply funds to a business (United Nations 2001:10). This means that businesses operated by one person in most cases have difficulty in obtaining funds, because of the lack of separation between owner and the business, which means a loss to the investment company should the owner die. Venture capital providers believe that a well organised and experienced management team is capable of transforming any product of poor quality into a superior product (Meyer & Allen 1994:259).

Loan applications may be turned down if the following basic requirements are not met (Horizon Equity: 2005a):

- An outstanding management team,
- A well-defined industry focus,
- Strong past performance and excellent future growth prospects,
- Sustainable competitive advantages derived from uniqueness or innovation,
- Significant market share in a well-segmented market,
- Barriers to entry built on intellectual property, and
- High-margin products.

Macmillan, Siegel & Subba Narasimha (1985:119) stated that some of the most important requirements of venture capital providers focus on the management team traits. According to Tech Monitor (2009:62), the business plan should clearly show that the entrepreneur is fit to run a business. The entrepreneur must have the will to succeed a business experience, be able to identify and react to risk and be familiar with the target market. Failing this, entrepreneurs need to be able to put together a team that has these qualities and show that he/she is capable of leading that team.

In their study, Macmillan *et al.* (1985:119) found that venture capitalists assess entrepreneurs systematically in terms of six categories of risk, which need to be managed. These risks are:

- Liquidation due to venture failing,
- Failure to receive funding from external sources and settle debts,
- Failure of a prototype product to reach the market,
- Lack of venture competitiveness,
- Lack of management control and implementation of business plans, and
- Deficiencies in management team.

Lately most venture capital providers use a number of criteria and scorecards in assessing an entrepreneur before final decisions are made. These criteria are based on the assessment of the business entity on its own and the owner or management team.

3.7.1 Assessment of entrepreneurs

After assessing both the business and the management together, the venture capitalist will scrutinise the capabilities of an entrepreneur alone using the following criteria:

- **Integrity and reliability**

The entrepreneur's background and history are used to judge his/her integrity and reliability and are thus vital sources of information. Venture capital providers will not want to associate themselves with someone they do not know or a person who has a bad history or criminal record, which could discredit them. According to Sinswat and Subhanji (2010:2) the credit score and financial literacy of an entrepreneur will play an important role in this regard. If anything disreputable is uncovered, the entrepreneur's likelihood of raising money is very small. For example, if the capitalist discovers that the entrepreneur was previously fired from his/her job or failed to pay creditors on time in the past, this will minimise his/her chances of getting money (Kim 2000:1). These days, venture capital providers even go to the extent of checking the credit history of an applicant with the credit bureaux.

- **Experience and proven track record**

The venture capital providers would want to establish the entrepreneur's areas of competence. Small business management experience is a concern, but more important is an awareness of business operations and an ability to manage a developing business. According to Olawale and Gware

(2010:731) managerial competencies are very important to the survival and growth of SMEs. All too often, the ideal entrepreneur is not the ideal manager for the business once it becomes a going concern. Most investors prefer to see a group of individuals with various complementary abilities and goals. With a group, the investor is more assured of getting a broad range of skills and the venture's dependence upon any one individual is reduced. The importance of an awareness of all areas, technology, manufacturing, finance and especially marketing, is crucial (Sunje 2003:3; Buttner & Rosen 1989:249).

- **Attitudes and ambitions**

It is imperative for the small business owners and venture capital provider that their ambitions are in congruence, that is, that they share common goals. Sharing the same ambition in terms of rate of return on investment (ROI) to be achieved and market share to be gained may attract the attention of venture capital providers. That is why venture capitalists would like to meet the applicant in person to see whether the person knows what he/she is talking about. In that case the abilities and track record of a loan applicant in performing some of the performance measurement aspects like return on sales and residual income will be considered. Because once the venture capital provider has approved a loan, the entrepreneur must see to it that they are updated about the performance through periodic reports.

3.7.2 Assessing the venture

As early as 1974 Liles (1974:461-479) suggested the following when evaluating the venture itself:

- **Fitness of the business in the capital investor investment portfolio**

A venture capital provider would like to establish the category in which the venture will fit in the investment portfolio. A number of questions would be asked in the process of establishing the fitness of venture. Among other would be:

- Will it offer the same type of products as mine?
- Is it a form of business we invest in?
- How competitive will be the management?

- **Prospects of success**

The stage of investment or the venture will influence the decision of a venture capital provider. If a business is a going concern then it is easy for a venture capitalist to determine the future prospects of a business. However, if the business is still at its initial stage then that will discourage the investor, because it is not easy to determine the future prospects of the company under those circumstances. Then the venture capitalist will consider other valuation techniques, for example history of the entrepreneur or management team. The managerial skills, credit score and track records as already discussed above will be used to determine as to whether the capital will be granted or denied (Sinswat & Subhanji 2010:2).

- **How successful will the venture be?**

The assessment of the viability of business plan and product offered to the market and the management team is the base to determine the success rate of a new venture. If the management team comprises individuals with very good track records, then investors will be tempted to invest because they will be convinced that the business will be a success. Also, if the management of a company has a succession plan for the future, then the venture capitalist will also be convinced that the business will succeed.

After assessing the business and its management most people still ask themselves many questions about the criteria used by venture capital provider in assessing their business ideas. The main question that is often asked is “what is the venture capital provider really looking for?”. Some of the factors considered important are (Oneil, Bhahir, Faulken & Canno 1987:153):

- **Hands on experience in directing**

Job experience at an early stage of a business is considered one of the factors that determine the success or failure of the business. The entrepreneur as a director is expected to form a team of capabilities in management accounting and small business management. Since most of the entrepreneurs do not have education and small business management skills, they therefore fail in directing and organising a team of skilled people (Priyanath 2006: 98).

- **New and untested prototype product**

A new product which has not yet being tested in the market can only secure funds if the venture capital provider has confirmed that it will be a success. The assessment will cover areas like competition and barriers to entry against the product and the ability of the management team to exploit the market.

- **Management**

Most venture capitalists consider management to be the key to every successful venture capital investment. The first thing a management team must have is business experience. Anyone preparing a business proposal should pay particular attention to the background of the management team (Malhotra, Chen, Criscuolo, Fan, Hamel & Savchenko 2006:14). The business proposal should explain in detail how the management is going to achieve the intended objectives. This proposal can only be realistic and achievable if the management has business experience since most of business failure are attributable to financial management deficiencies (Priyanath 2006:97).

- **Projections**

A cash projection is one key factor covered in a good business proposal. It is therefore the responsibility of the entrepreneur to set out strong growth projections for his/her business. According to Priyanath (2006:96), these projections to be accurate need to be prepared by a person with good managerial track record. These financial projections must not only be reasonable in terms of the percentage of growth that

occurs each year, but they must also be realistic when compared with the other successful applications presented by other businesses. Every entrepreneur should spend a great deal of time making, evaluating and understanding his/her financial projections.

Some entrepreneurs use accounting firms to prepare their projections on the basis of assumptions. This is probably a poor approach because entrepreneurs understand their projections and assumptions better than an accounting firm. If someone else makes projections the entrepreneur may not explain them adequately or convincingly since most do not have business experience and sufficient education (Priyanath 2006:96).

3.8 PAST SUCCESS RATE OF APPLICANTS IN MANUFACTURING SECTOR

The historical success rate for the application of funds or investment in South Africa from venture capital companies in SMEs is very low. Recently investment in the SME sector has been increasing at a steady rate. This has been as a result of a partnership between government and the public sector to increase participation in the sector. Referring to SAVCA's matrix for 2005 (SAVCA 2005a), one can conclude that venture capitalists are investing at a low, but constant rate.

The SAVCA matrix indicates that there were 76 institutions on the members list in 2005. Out of a total of 76 only 31 members invested in small companies or provided start-up capital in 2005, 40 members did not while 5 were still in the process

considering SMEs as an investment portfolio. The investment portfolio of individual companies indicates that there is still low investment in SMEs.

There are a number of venture capitalists in South Africa that do not invest in the small business sector at all (SAVCA 2005a:1). If the sector is analysed by divisions, the rate of investment in manufacturing is very low compared to sectors like information technology and communication.

A number of companies like Kagiso, Horizon, Act and Aureos have identified SMEs as the next investment portfolio. However, potential entrepreneurs in the craft industry are usually not aware of these companies and the majority of entrepreneurs still approach only the commercial banks when applying for finance.

According to the investment criteria of these companies mentioned above, the success rate in the past was based on the business plan and the competence of an entrepreneur. If the business plan was good and the entrepreneur also had the required experience, they could get funding. The other factor that was the venture capitalists' major reason for low investment in SMEs was the market sector in which the SMEs were pursuing a business.

According to Businesslink (2005:12), venture capital is available to small business owners if:

- The business is registered,
- The management team is working well,
- Not aiming to sell a new product, and

- The business has proven success rate.

This means that in the past, for venture capitalists to invest in a business, they had to be convinced that the business would succeed and the owner had the right skills to carry on with the business activities on a daily basis. Geographical location was also among the major reasons for getting finance.

3.9 SUMMARY

Lack of business management skills, management accounting skills and technical skills in the industry are cited by venture capitalists as the major reasons why most SMEs do not expand. Acquisition of these relevant skills is considered by venture capital providers as one of the major factors that they consider before providing funding to SME operators. Apart from management accounting skills of the owners, venture capital providers consider information relating to financial and management accounting aspects of the business before providing a loan.

Some of the management accounting skills considered as important by various funders are the application of activity-based costing, cost-volume-profit analysis and preparation of budgets. These aspects of management accounting are considered important because they form part of a business plan. Therefore clear articulation of these aspects is an indication to venture capital providers that the SME operator is ready for funding.

Various venture capital providers value a range of skills, some of which are related to both management accounting and small business management. The accuracy of the projections and the knowledge of the person who prepared the projections also form part of the minimum requirements that must be met.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

In this chapter, the research methods and research design used in the collection and analysis of data are described. The research process involves the application of various methods and techniques in order to create scientifically obtained knowledge by using objective methods and procedures (Lapan & Quartaroli 2009:251; Welman & Kruger 2001:2). The need for empirical evidence is important to support the literature review discussed in chapters 2 and 3. The perception of the SME owners and venture capitalists on access to capital will be included in the findings.

The purpose of this chapter is to describe the methodology used. The methodology included informal discussions, questionnaires and a literature review on which the conclusions and recommendation of the study will be based. Some of the questions used in the compilation of the questionnaires were derived from the informal discussions held with people involved in SMEs and some of the venture capitalists, as well as the literature review in both chapters 2 and 3 and what the researcher needed to do to fulfil the purpose of the study.

In this chapter, the data collection and analysis methods are discussed. The sample size and research site, followed by an explanation of the design of the questionnaires are also

highlighted. The response rate, problems experienced in the collection of data and the limitations of the study are discussed in the last section of the chapter.

4.2 DATA COLLECTION AND ANALYSIS METHOD

In this study, questionnaires and informal discussions with the respondents were used in the collection of the data.

The main reason for selecting SME owners in the craft industry was that most of them work around townships and city centres and it was thus easy to reach them. A sample of SME owners in the craft industry in the Tshwane area and venture capital providers who worked specifically with individuals and SME owners were used in the collection of data for this study. The craft industry is a sector of the economy in which most of the products are hand-made and are manufactured according to customer specifications. The researcher's interest in the craft industry emanates from the variety of units produced.

The five major banks and a combination of micro-lenders, government agencies and private venture capitalists form part of the venture capital providers that were used in the collection of data for this study.

Questionnaires were used to collect data from both SME owners and venture capital providers. In the questionnaires both structured and unstructured questions were asked. The questionnaires were structured in such a way that both qualitative and quantitative data could be collected.

4.2.1 Qualitative and quantitative research

Qualitative and quantitative research methodologies were used in the collection of data. Both methods were applied with the purpose of understanding the processes venture capital providers use when evaluating loan applications, as well as the social and cultural contexts of SME owners. The methodologies were mostly concerned with exploring the reasons why some venture capitalists grant SMEs loans and reasons for SMEs' success rate.

Since the main objective of this research was to identify the gap in management accounting skills required by venture capitalists and those possessed by SMEs in the craft industry, questionnaires were identified as the best possible quantitative and qualitative method to collect this type of data. According to Wisker (2001:147), a questionnaire is generally recognised as an important instrument for self-administered research.

Some of the questionnaires were hand delivered to respondents at their retail markets. This facilitated access to obtaining such a large number of respondents and thus provided sufficient data for statistical analysis. Obtaining such a large number of respondents would have been difficult to achieve if the questionnaires were delivered at their manufacturing place. Few questionnaires were posted to respondents.

Appointments were made with 50 SMEs to assist them in the completion of the questionnaires. The researcher believed that this method would yield the necessary results. The same was

done with some of the venture capital providers, as there were fewer of them than SMEs.

4.2.2 Statistical analysis software

The data collected was analysed using SPSS for Windows version 11.1. This software is able to analyse data, which can be converted from an Excel spreadsheet to suit the required format.

4.3 POPULATION, SAMPLE SIZE AND GEOGRAPHICAL RESEARCH AREA

The population of interest comprise the entire group of people from whom a researcher obtains information. These are the people whose views are needed to achieve the objective of the survey.

4.3.1 SMEs

At the time this study was conducted, there were about 200 stalls in Hatfield where SMEs sell their products on Sundays (B&B African Craft Markets). There were also 20 outlets in Dinokeng in the Cullinan area, 45 stalls in front of the Zoo in Pretoria and 150 stalls at the annual gallery, which is held on 16 June at the State Theatre. This forms an estimated total of 415 SMEs since the number varies per weekend. When SMEs that sell at street corners in townships are included, there were an estimated 500 craft makers in the Tshwane area.

Obtaining an adequate sample is one of the most important factors in conducting surveys (Ryan, Scapens & Theobald 2002:137; Graziano & Raulin 1997:147). A representative sample (247) of SMEs was selected. A representative sample is a group, subset or some part of a larger population (Lapan & Quartaroli 2009:44; Zikmund 1994:328-332). The SMEs targeted for this study were sole ownerships, partnerships and close corporations in the Tshwane metropolitan area. A total of 247 questionnaires were issued to SMEs. This number of SMEs was achieved through consultations with owners at places where they exhibit their products over weekends. Of the 247 questionnaires, 150 questionnaires were returned. The sample of 150 respondents constituted 30% of the entire population and 60.73% of the questionnaires issued. This was considered to be sufficient to draw conclusions.

4.3.2 Venture capital providers

The population of venture capital providers was difficult to determine. Five financial banks in the Tshwane metropolitan area were identified. Two government-funded institutions and 50 micro-lenders (both registered and unregistered) were also identified. In collecting information it was difficult to determine whether micro-lenders were registered or not. It was also difficult to obtain information from the National Credit Board, because the information is only provided to loan applicants for the purpose of verifying the registration of loan providers.

A total of 48 questionnaires were issued to venture capitalists. Of the 48, only 30 were received by the researcher.

4.3.3 Sampling techniques

One of the major issues in sampling is the determination of samples that best represent a population to allow for an accurate generalisation of the results. A combination of both systematic and cluster sampling methods were used for sampling the interested population of respondents. This method ensures that no population group is less represented. The population was also divided into size and ages of business (Westfall 2008/9:1; John, Whitaker & Johnson 2006:142). It was also helpful in dividing the population into subgroups (stage of business, types of businesses, period of supporting SMEs and values of deals). These procedures are used when it is important to ensure that subgroups within a population are adequately represented in the sample (John *et al.* 2006:142; Graziano & Raulin 1997:149). Using this method of sampling, the population was divided into a number of homogeneous and non-overlapping groups.

After the group of interest was identified, the researcher used purposive sampling to distribute the questionnaire. Purposive sampling was used to select respondents because of their experience in operating an SME, knowledge loan application procedures and selecting SME owners who qualify for funding (Jacobs 2003:46).

4.4 RESPONSE RATES

As stated earlier, two questionnaires were used to collect the data. Of the issued questionnaires, only 150 were returned by SMEs and 30 by venture capital providers. The table below

presents the response rate for both SMEs and venture capital providers.

Table 4.1: Response rate

SMEs	<i>Distributed</i>	<i>Responded</i>	<i>Percentage</i>
Sole ownerships	154	107	69.48%
Partnerships	84	39	46.43%
Close corporations	9	4	44.44%
Total	247	150	60.73%
Venture capital providers			
Commercial banks	5	4	80.00%
Micro-lenders	28	15	53.57%
Government institutions	13	10	77.00%
Business owners	2	1	50.00%
Total	48	30	62.50%

Even though less than 100 questionnaires from SMEs were not returned, the response rate was found to be sufficient for the researcher to proceed with the analysis of data.

4.5 DESIGN OF QUESTIONNAIRE

The two sets of questionnaires which were used, the first for SMEs and the second for venture capitalists, are included in Appendix 1a and 1b. Both were designed in a simple and uncomplicated way. These questionnaires were developed after a pilot study was conducted among SMEs and venture capitalists. The pilot study helped to classify the questions in the questionnaires and the sequence in which questions should be arranged. The questionnaire commenced with questions on the age of the business and the type of knowledge owners

possessed before the business was formed. This sequence was found to be uncomplicated for most SME operators.

Both questionnaires had structured and open-ended questions. The use of structured questions limits the number of responses available, while open-ended questions allow the respondents considerable freedom in answering (Wisker 2001:170; Zikmund 1994:181).

Both questionnaires had an attached covering letter. Ideally the covering letter is the first document examined by the respondent when picking up the questionnaire. It should encourage the respondent to complete the questionnaire and return it expeditiously (Dillmar 1978:165). The covering letter explained to respondents the purpose of the study and that respondents would not have to identify themselves. The letter also indicated the name of the researcher and his contact telephone numbers.

4.5.1 The questionnaire for SMEs

The questionnaire for SMEs was divided into five sections, each section with its subsections. Some of the questions could be answered with a *yes* or *no*, with respondents marking the applicable alternatives with an *x*. There were also open-ended questions, which required SME owners to provide additional information not covered on the face of the questionnaire. A five-point Likert scale was used to rate certain questions. The advantage of using Likert scales is that the respondents are more inclined to answer all the questions on the questionnaire

(Lapan & Quartaroli 2009:62). The scale used ranged from 1 to 5 with the following meanings:

- 1 = strongly disagree
- 2 = disagree
- 3 = neither agree nor disagree
- 4 = agree
- 5 = strongly agree

4.5.1.1 Section 1 of the questionnaire

This section of the questionnaire dealt with the background of the business. It included the age and the development stage of the business.

Question 1.1: How long have you been operating the business?

The main aim of asking this question was to determine the number of respondents at each stage of business since they had started their business.

Question 1.2: Describe the development stage of your business.

The purpose of asking this question was to determine the number of businesses at each level of development.

4.5.1.2 Section 2 of the questionnaire

This section of the questionnaire, just like section 1, investigated the background of the respondents (SMEs). Its main focus was on the reasons for starting a business, the type of business operated and the management accounting skills the owners had acquired before starting a business.

Question 2.1: What was your reason for starting the business?

The purpose of asking this question was to determine the reasons why most of the respondents joined the craft industry.

Question 2.2: Business type

This question was asked to determine the form of business that the SME owners were operating in the craft industry.

Question 2.3: Were you involved in the same type of business before you started this business?

If the respondent answered yes to the main question, then they could choose between various alternatives that were provided in the sub-question.

This question and sub-question were asked to determine the number of respondents who worked in the same industry and their experience of different functional areas before opening their own manufacturing businesses.

Question 2.4: What is your educational background?

The purpose of asking this question was to determine the level of education that respondents in the craft industry had attained before opening their own businesses. The respondents were given a number of alternatives to choose from.

Question 2.5: Was the above education business-related?

The purpose of asking this question was to determine the number of respondents who had acquired business-related education.

Question 2.6: Have you ever attended workshops or short courses to develop specific business skills?

Some SME owners have the luxury of being trained by their ex-employers. Therefore the purpose of asking this question was to determine the number of participants who had undergone any formal training.

Question 2.7: Did you have any experience of the following prior to your decision to start your own business?

Most venture capital providers prefer to provide finance to SME owners with experience. The purpose of asking this question was to determine the number of SME owners who had been trained in the skills mentioned.

Question 2.8: Are you skilled in, or did you receive any training regarding the following aspects?

As the purpose of the study was to determine the gap in management accounting skills possessed by SME owners and those required by venture capital providers, it was fitting to have a section that required the respondents to determine the types of management accounting skills the SME owners possessed before starting their own businesses. The respondents were provided with a number of alternatives they could choose from.

4.5.1.3 Section 3 of the questionnaire

The third section of the questionnaire dealt with the financial background of the SME operators. Questions were basically about the experience of the SME operators in raising capital for their operations. Questions asked dealt with, for example, how long it took them to raise capital using their personal savings, borrowing from a relative or local bank and the difficulties experienced during the process.

Question 3.1: How did you finance your business?

The purpose of asking this question was to determine some of the problems these SME owners had experienced.

Question 3.2: Was the capital sufficient?

Insufficient capital is considered to be one of the major factors contributing to lower start-up rates. Therefore by including this

question in the questionnaire the researcher was aiming to determine how many SME owners still considered this to be a reason for their business failures.

Question 3.3: How much capital did you have available to start the business?

Questions 3.2 and 3.3 were linked to determine the size of capital most SMEs started their businesses with. The respondents were required to state the amount they had used at the initial stage of the business.

Question 3.4: How long did it take you to raise this capital?

SME owners who have failed to realise the dream of operating a business, usually cite the delay in funding as one of the major reason for their failure. Therefore in order to understand the causes of failure the researcher included a question on how long it took SME owners to raise initial capital.

Question 3.5: How long did the institution take to approve your loan?

Question 3.4 was linked with question 3.5 to determine where the problem lay in terms of time.

4.5.1.4 Section 4 of the questionnaire

This section of the questionnaire covered the relationship that SMEs had with financial institutions prior to starting a business either for their business or personal use. The aim was to

determine whether the respondents believed that personal accomplishments and their educational background had an influence on financial providers granting them loans.

Question 4.1: Prior to starting this business, have you ever borrowed money from the bank or venture capital providers for business or personal use?

The purpose of asking this question was to determine how familiar the SME owners were with loan application processes of banks.

Question 4.2: If you have business education, do you think your educational background influenced the decision for a bank to approve a loan?

Developing a business from start-up to growth stage needs business management skills more than capital. Therefore by including this question in the questionnaire the researcher was aiming at determining the number of SME owners with or without business education or training.

Question 4.3: Do you think personal accomplishments, like having operated or worked in a similar business influenced the decision to approve your loan?

This question aimed at determining whether personal accomplishments had any influence on the decision to obtain a loan.

Question 4.4: How long did it take the financial institution to approve your loan?

The process of scrutinising an application for a loan differs between venture capitalists. So the aim of asking this question was to determine on average how long it took a venture capitalist to approve a loan application.

Question 4.5: Were any of your applications for a loan ever turned down?

In a previous chapter the success rate of loan applications was discussed. By asking this question the researcher was able to compare the literature review in chapters 2 and 3 and the empirical study in chapter 5 to determine whether the situation has improved.

Question 4.6: If yes, what was stated as the reason for turning down the application?

Question 4.6 was linked with question 4.5 to determine some of the reasons loan applications were denied. This was an open-ended question.

4.5.1.5 Section 5 of the questionnaire

Identification of possible financial providers is one of the major problems experienced by SME operators. The aim of this section was basically to determine the experience of operators in their bid to secure loans. In terms of identifying possible financial providers and other difficulties that they had, some of

those difficulties were mentioned in this section and the respondents had to select those most relevant to them.

4.5.2 Questionnaire for venture capital providers

The questionnaire for venture capital providers was divided into two sections. Most of the questions required respondents to answer yes or no. Some answers were ranked on a scale of 1-5 and some were open-ended questions.

4.5.2.1 Section 1 of the questionnaire

Questions in this section of the questionnaire covered the period that venture capital providers had been funding SMEs, the business types they were more interested in, the development stage of the business likely to be funded and whether the applicants knew the types of funds they could apply for.

Question 1.1: How long has your organisation been funding SMEs?

By including this question in the questionnaire the researcher was aiming to determine how long the respondents have been involved in funding SMEs.

Question 1.2: Does the form of business have an influence on the decision to fund an applicant?

The purpose of asking this question was to determine whether the form of business operated had an influence on the decision to grant a loan.

Question 1.3: Which forms of business are most likely to get financial support?

Question 1.3 was linked to question 1.2 to determine which form of business was most preferred.

Question 1.4: Does the development stage of a business have any influence on the decision to finance a venture?

The literature review has revealed that some venture capitalists prefer to invest at a late stage of business development. So by including this question the researcher was determining whether this was in fact true.

Question 1.5: At which stage of development are you most likely to finance a venture?

Question 1.5 was linked with question 1.4 to determine the development stage that was least or most preferred.

Question 1.6: Are applicants aware of the relevant sources of finance for which they can apply for their businesses?

During the literature review and pilot study it was discovered that some applicants did not know the sources of finance they could apply for. So the researcher realised it was necessary to include a question on relevant sources of finance for SMEs.

Question 1.7: If the answer to 1.6 above is yes, please state the number of applications you receive per month for each of the following sources of finance.

This question was linked with question 1.6 to determine which source of finance applicants applied for the most.

Question 1.8: Why was funding granted to these applicants? Can you give some of the factors?

Question 1.8 was an open-ended question. The aim of this question was to discover some of the reasons finance was granted to applicants.

Question 1.9: Does the location of the applicant's business have any influence on the decision to grant a loan?

In the literature review it was revealed that some venture capitalists concentrate more on certain areas. Therefore the researcher found it necessary to include a question to discover if this was still true.

Question 1.10: If the answer to 1.9 above is yes, which of the 9 provinces is the preferred one?

Question 1.10 was linked with question 1.9 to determine the most preferred region.

Question 1.11: Does settlement strategy have an influence on the decision to grant a loan?

Most venture capitalists prefer to be part of the management team so that they can reap the rewards early. A repayments method is assumed to be one of the attracting factors to venture capitalists. Therefore the researcher found it necessary to include a question on the preferred method of payment.

Question 1.12: Does understanding the criteria used by the company in selecting a new venture increase the applicant's chances?

Having gone through a previous venture capital screening process is considered important to some venture capital providers. The researcher therefore included a question confirming whether this was true.

Question 1.13: If the answer to 1.12 is yes, please mention some of the factors working against the applicants.

Question 1.13 was linked with question 1.12 to determine some of the factors that work against the loan applicants.

Question 1.14: Does the applicant's industry sector have an influence on the decision to grant a loan?

Some venture capitalists are considered to focus on industrial sectors. The researcher wanted to find out if this was true.

Question 1.15: On a scale of 1 to 5, which of the following sectors are likely to get funding?

Question 1.15 was linked with question 1.14 to determine the most preferred sector of the economy.

4.5.2.2 Section 2 of the questionnaire

This section of the questionnaire was about the major aspects that venture capital providers look for before granting a loan. Yes and no questions and a five-point Likert scale were used in this section.

Questions ranged from **question 2.1** up to **question 2.22**. All these questions were more about investigating the aspects of management accounting that venture capitalists consider important before they can grant a loan.

4.6 LIMITATIONS OF THE EMPIRICAL SURVEY

Some limitations of the study were experienced during the collection of the data. Among them was that many SMEs in the craft industry are not registered as legal businesses. The lack of offices where they operate also created a problem as it was difficult to differentiate between an employee and the owner of the business. Most of the questions were directed at the

owners but answered by employees and this may have affected the accuracy of the information provided by the SME owners. Some of these employees were not part of deal negotiating teams and they did not have relevant experience in running a business. It was also very difficult to determine whether respondents were telling the truth about the age of their businesses, educational background, reasons for starting a business and the initial capital they used and whether they were indeed involved in the production or were merely selling the products. The other limitation is that the study was not done across the country but in one area. It can therefore not be concluded that the trends might be the same across the country. What is happening in Tshwane area in terms of operating SMEs may or may not be the same as in other areas.

4.7 SUMMARY

This chapter discussed the methodology used in collecting the data for this study. The two sets of questionnaires used, the research sites, population of interest (size), representative sample and the responses required from respondents were explained.

The criteria for choosing the craft industry and venture capital providers as the main population were also set out. The sampling techniques used were described. The limitations of the study were identified. The results of the empirical study are discussed in chapter 5.

CHAPTER 5 RESULTS OF THE RESEARCH

5.1 INTRODUCTION

In this chapter the results of the empirical research, based on the data collected, are analysed, and the findings and discussions form the basis of the recommendations and conclusions.

Firstly, the results from the SME respondents are analysed. This is followed by the results from the venture capital provider respondents. The gaps in the management accounting skills identified will be discussed towards the end of the chapter.

5.2 RESEARCH FINDINGS - SMEs

5.2.1 *Age and development stage of the business*

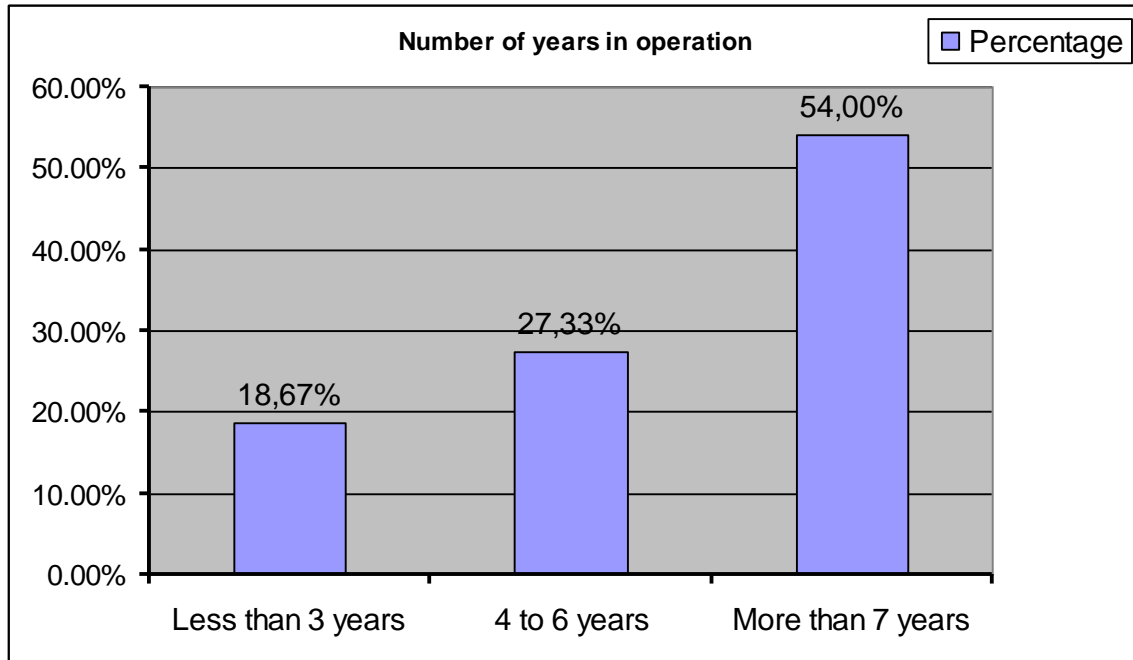
Question 1.1: How long have you been operating the business?

The aim of asking this question was to find out when the SMEs started operating. This question was linked to questions 1.2 and 2.2, which created the second aim as being to determine the development stage of the SMEs in the craft industry.

The results for the period of operating a business are presented in figure 5.1. Twenty-eight of the SME respondents had businesses that had been in operation for less than three years, which represents 18,67%. Out of 150 only 41 respondents indicated that their businesses had been in

operation for between four and six years, which represents 27,33%. The highest number was 81, whose businesses were seven years old or more, which represents 54,00%.

Figure 5.1: Period of operating the business

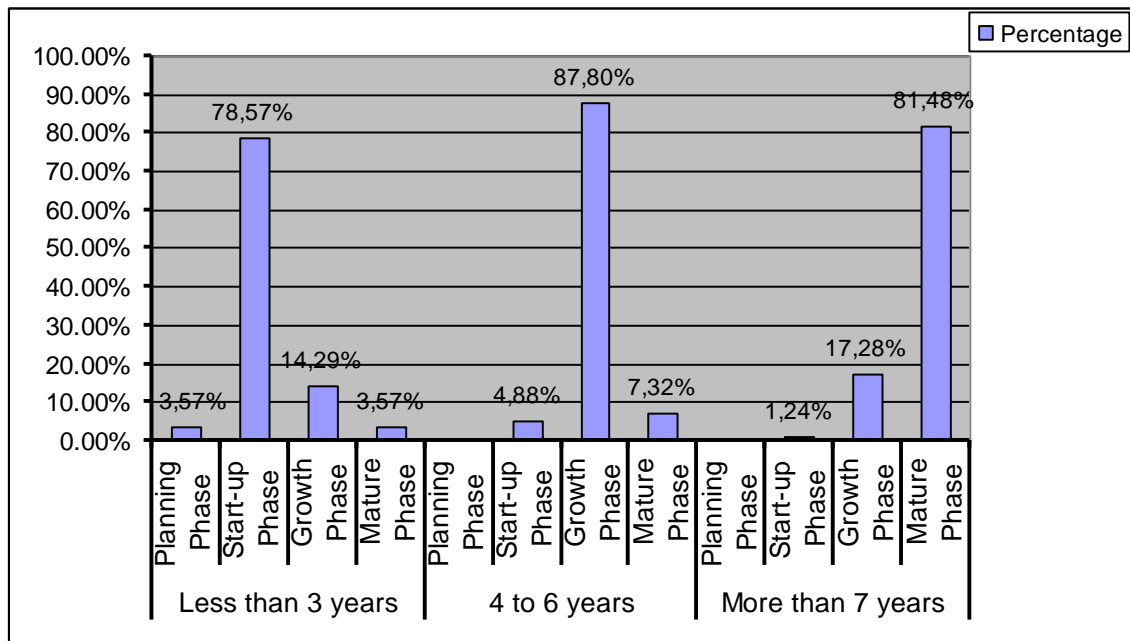


In **question 1.2** the respondents were asked to describe the development stage of their businesses. In the category of businesses which were less than three years old only one (3,57%) out of 28 respondents confirmed that the business was still at the planning phase. Twenty-two (78,57%) confirmed that the business was at the start-up phase, while four (14,29%) were at the growth phase and the remaining one (3,57%) at the mature stage.

In the category of businesses between four and six years old, two out of 41 respondents confirmed that their businesses were at the start-up phase. Thirty-six (87,80%) were at the growth stage and three (7,32%) were at the mature stage.

In the category of businesses seven years old or more, only one (1,24%)out of 81 respondents confirmed that the business was still at the start-up phase. Fourteen (17,28%) were at the growth phase and 66 (81,48%) confirmed that their businesses were at the mature stage. The results of question 1.2 are presented in figure 5.2 below.

Figure 5.2: Development stage of business



As illustrated in figure 5.2, SMEs do not remain in one stage for long, as there were no businesses that were still at the planning phase when they reached the age of between four and six years and more than seven years. The total number of businesses at the mature stage keeps increasing as the businesses go through their life cycles.

The decision to rank businesses in terms of development stages was guided by the number of products they were able to sell. The questionnaire for each of the development stages

provided phrases in brackets like “relatively new and limited market”. These phrases were used so that the respondents could be guided while completing the questionnaires.

5.2.2 Reasons for starting the business

Question 2.1: Reasons for starting the business

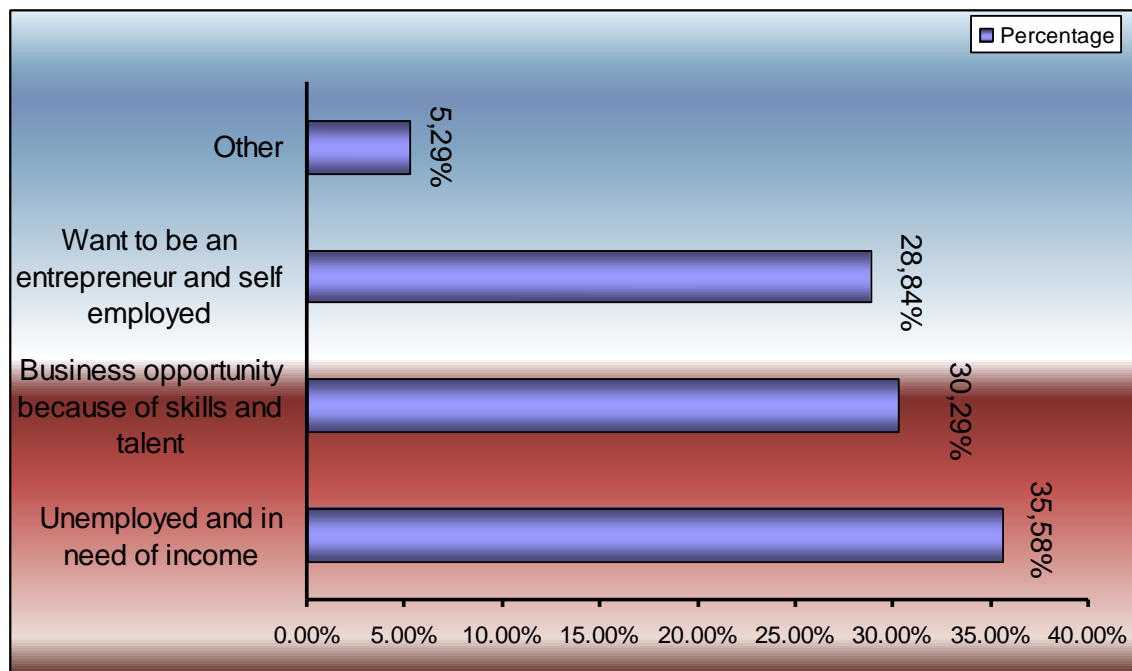
Respondents were allowed to select a combination of reasons. The number of reasons selected is more than the number of respondents, because respondents could select more than one reason.

As illustrated in figure 5.3 below, the major reason for starting this type of business was unemployment. Of the total number of respondents, 74 (35,58%) stated that they were unemployed and needed an income before they started the business.

Business opportunity is the second biggest reasons why people participated in the craft industry. A total of 63 (30,29%) respondents confirmed this.

Of the total sample size, only 60 (28,84%) confirmed that they entered the industry because of the desire to be entrepreneurs. Other reasons were that they started their business as a hobby and to supplement an income (5,29% of the entire sample size).

Figure 5.3: Reasons for starting SMEs



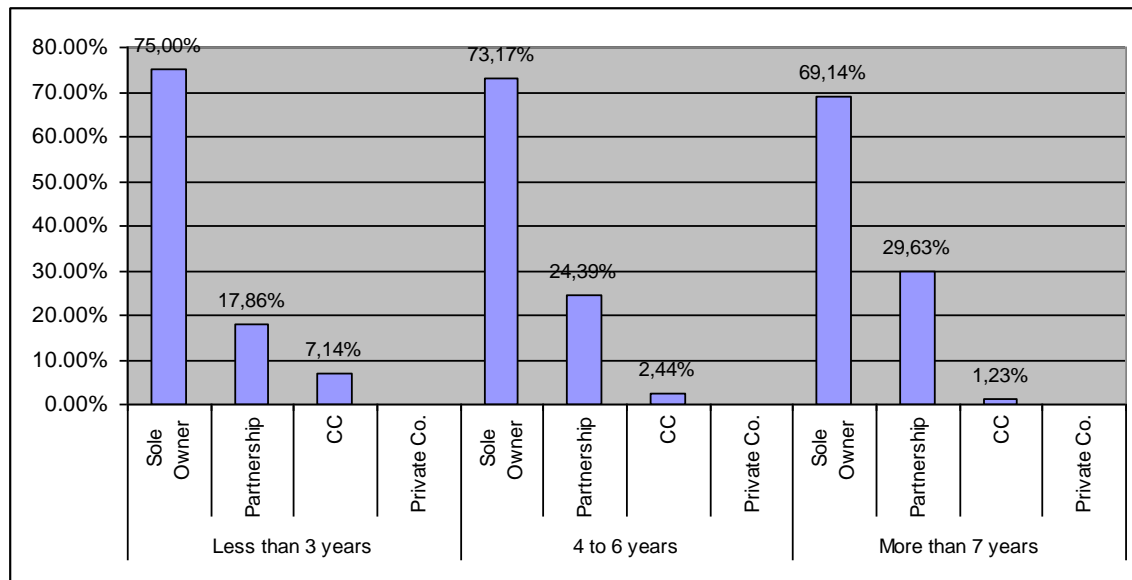
5.2.3 Business type

Question 2.2: Business type

The aim of asking this question was to determine the form of business SME owners in the craft industry were operating.

The results for question 2.2 (see figure 5.4) indicate that the majority of people in the craft industry were operating a sole ownership. A total of 107 of the whole sample (71,33%) confirmed this. Partnerships was the second highest form of business 39 (26,00%) in the craft industry and close corporations were the third, at 4 (2,67%). None of the respondents operated as a private company.

Figure 5.4: Types of business



From figure 5.4 it can be seen that the respondents whose businesses were less than three years old (28), 75,00%(21) confirmed that they operated a sole ownership. In the category of businesses that were between the age of four and six years (41), 73,17%(30) confirmed that they also operated a sole ownership and in the category of seven years or more (81), 37,33% (56) operated a sole ownership.

In the category of businesses less than three years old (28), partnerships constituted 17,86%(5) of businesses. In the category of businesses between four and six years old (41) there were 24,39%(2) and the highest rate was in the category of businesses seven years old or more (81) with 29,63%(24) operating partnerships.

Close corporations were the third form of businesses included in the questionnaire. This form was not popular, as can be seen from the findings. In the category of businesses less than

three years old 7,14%%(2) of respondents confirmed that they operated a close corporation. Under each of the remaining categories only 2,44% and 1,23% of the respondents operated a close corporation.

These results confirm that most SMEs in the craft industry operate sole ownership form of business. They are comfortable with operating either as sole ownerships or partnerships (figure 5.4). Only 2,00% of the total sample of the respondents operated close corporations. These results in relation to q 2.1's response, also indicate that people enter the craft market industry either as a hobby or to supplement their income. Under q 2.1, respondents confirmed that they had entered the craft industry to supplement their income. People who enter the market for the above reasons will usually operate the business alone. That is probably why sole ownership is the most preferred form of business.

5.2.4 Involvement in similar business, roles performed and educational background

Question 2.3: Were you involved in the same type of business before you started your business?

A total of 86 out of 150 respondents answered yes to this question and 64 answered no. This indicates that the majority of people entering this industry gain some experience in the industry before deciding to enter it.

In questions 2.31 to 2.38 the respondents were asked to select various roles that they had performed before entering the industry. Respondents could choose more than one option.

The roles, which are considered to be management accounting related or useful for an entrepreneur when managing a business successfully, were presented to respondents. The roles included the following:

- Purchases,
- Material handling,
- Manufacturing,
- Quality control,
- Marketing and sales,
- Administrative tasks,
- Management, and
- Other.

As illustrated in table 5.1, people in the craft industry do enter the industry with some exposure to manufacturing, quality control, marketing and sales or material handling and less exposure to purchases, administrative tasks and management. It seems as if respondents worked with similar businesses first to acquire some knowledge and then decided to go solo and start their own business.

Exposure to different aspects of business will improve the entrepreneurs' chances to succeed. Liles (1974:473) states that one of the major reasons why venture capitalists invest in a business is that the owner is aware of all major facets of the business. Any SME owner who can convince the venture

capitalist that he/she is aware of these facets of the business will most probably improve their chances to be granted a loan.

The results for the above roles are shown in table 5.1 below.

Table 5.1: Previous roles

	Less than 3 years		4 to 6 years		More than 7 years	
	Freq.	Percentage	Freq.	Percentage	Freq.	Percentage
Purchases	2	5,13%	3	5,45%	8	6,84%
Material handling	8	20,51%	11	20,00%	24	20,51%
Manufacturing	14	35,90%	21	38,18%	39	33,33%
Quality control	4	10,26%	6	10,91%	13	11,11%
Marketing and sales	5	12,82%	8	14,55%	22	18,80%
Administrative tasks	2	5,13%	3	5,45%	4	3,42%
Management	2	5,13%	2	3,64%	5	4,27%
Other	2	5,13%	1	1,82%	2	1,71%
Total	39	100,00%	55	100,00%	117	100,00%

Question 2.4: What is your educational background?

The aim of asking this question was to determine the number of people in the craft industry who had attended school or whose education was business related. The respondents were required only to indicated their highest level of education.

Table 5.2: Level of education

Business duration	No education at all	Limited Schooling	Matric	Certificate for skills development programme	Certificate Course	Diploma or degree
Less than 3 years (28)	2	2	6	7	4	7
Between 4 and 6 years (41)	0	1	10	17	5	8
7 years or more (81)	4	17	19	13	16	12
Total	6	20	35	37	25	27
Percentage	4,00%	13,33%	23,33%	24,67%	16,67%	18,00%

Table 5.2 indicates that a total of 144 (96,00%) respondents had some form of schooling, while only six (4,00%) had not. A total of 37 respondents had certificates for skills development, which represents 24,67% of the total population. These figures are followed by the number of people with a matric certificate, that is, a total of 35 respondents, representing 23,33%. The third category had diploma courses with a total of 27 respondents (18,00%). The lowest number was people with no education. There were six (4,00%) of these respondents.

Of the 28 respondents whose businesses were less than three years old, seven (25,00%) had a diploma or degree, seven (25,00%) had a certificate for skills development, while six (21,43%) had a matric certificate. Two (7,14%) respondents had no education, two (7,14%) had limited education and four (14,29%) had attended one-year certificate courses. This is an

indication that most people do not just enter the industry without some form of basic education.

Of the 41 respondents who operated businesses which were between four and six years of age, ten (24,39%) confirmed that they had acquired a matric certificate, 17 (41,46%) had attended certificate courses, five (12,20%) had a certificate for a skills development programme, eight (19,51%) had degrees and one (2,44%) had limited schooling.

Table 5.2 shows that in the category of seven years or more, four (4,94%) had no education, 17 (20,99%) had limited education and 19 (23,46%) had matric. Thirteen individuals had a certificate for a skills development programme (16,05%), while 16 individuals had attended a certificate course (20,00%) and 12 had diplomas (14,81%).

In **question 2.5**, the respondents were asked to indicate whether their education was business-related or not. A total of 144 respondents answered the question, with 55 (38,19%) confirming that their education was business-related, while 89 (61,81%) indicated that it was not.

Only seven (28,00%) of the 25 respondents with businesses less than three years old stated that their education background was business-related and 18 (72,00%) indicated that it was not. Of the 41 respondents with businesses between four and six years old, 19 (46,34%) had business-related education and 22 (53,66%) did not. Of those respondents whose businesses were more than seven years old, only 78

answered this question, of them, 29 (37,18%) had business-related education and 49 (62,82%) did not.

The above results indicate that business-related education is not a drive or motivation for people to enter the craft industry. Availability of skills and unemployment are the main reasons, as indicated in question 2.1. Buttner and Rosen (1989:249) state that the technical know-how and competence of the owner are some of the factors that persuade venture capitalists to invest in SMEs. This indicates that any SME owner who can prove that he/she has acquired at least some form of management accounting skills either through formal education or other forms of training will most probably stand a good chance of being granted a loan.

In **question 2.6** respondents were asked as to whether they have attended workshops or short courses to develop their business skills. A total of 64,43% has confirmed that they have attended workshops or short courses while only 35.57% have answered no.

In **question 2.7** respondents were asked to select the experiences they possessed before opening a business. A total of 4 were provided in the question and they were also allowed to state any experience except the four provided in the question. Only 11,11% of the respondents confirmed that they have managed other businesses before, while 16,16% confirmed that they had done bookkeeping. A total of 26,77% of the respondents confirmed that they performed administrative duties for a business while 37,37% confirmed that they have

done some inventory control and only 8,59% specified other functions.

5.2.5 Management accounting skills and experience obtained prior to operating a similar business

Identification of the gap in management accounting skills required by venture capitalists and those possessed by SME operators in the craft industry is the main focus of the study. A number of management accounting skills were presented to the respondents in **question 2.8** and respondents were asked to select those they possessed during operation of a business.

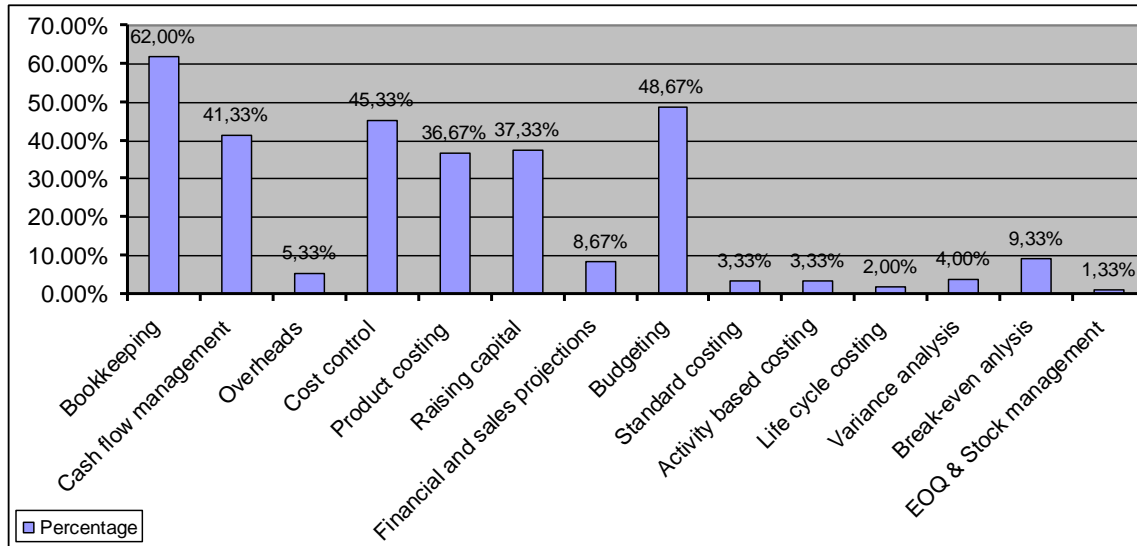
The purpose of this section was to determine how they have skilled themselves during the operation of the business. Figure 5.5 presents the total number of responses.

From figure 5.5 it is clear that only 62,00% of the respondents selected bookkeeping as the skill that they had acquired during operation of business. This number includes those who said that they had enhanced their skill by keeping their own books even though they did not have formal training. The lowest number of responses was found for economic order quantity (EOQ) (1,33%), break-even analysis (9,33%), activity-based costing (3,33%), variance analysis (4,00%), life cycle costing (2,00%) and standard costing (3,33%). These low results confirm that they did not receive any training in these management accounting skills.

From the results it can be confirmed that some respondents in the craft industry could perform duties including bookkeeping,

cost control, cash flow management, product costing and budgeting.

Figure 5.5: Existing experience and skills



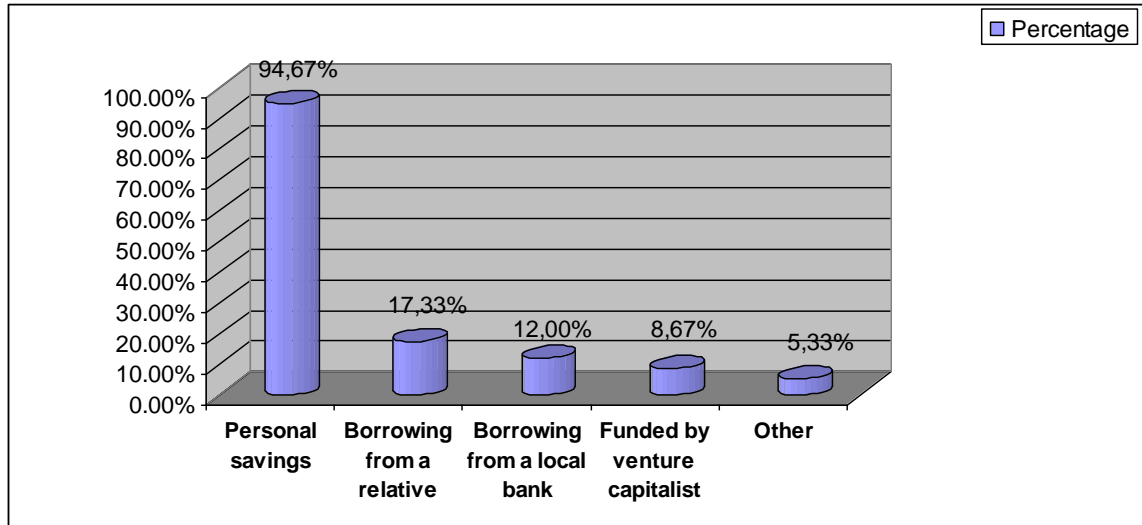
5.2.6 Sources of funds

Question 3.1: How did you finance your business?

The aim of asking this question was to determine the sources of finance the SME operators used in financing their business when they initially started their operations.

The question allowed the respondents the opportunity to select a combination of sources. Therefore the number of selected sources are more than the number of questionnaires returned.

Figure 5.6: Sources of finance



Most of the people who participated in this survey (see figure 5.6) confirmed that their sources of funds were limited to their personal savings, relatives and local micro-lenders. Most of the respondents in question 4.1 reported that they had never worked with big banks or approached a venture capital provider for a loan. These results are in line with what was highlighted by Ntsika Enterprise Promotion Agency (2002:111) that most SMEs in South Africa have never accessed a loan from either a private or public institution.

Some of the respondents selected more than one source of finance, especially those who were operating partnerships and close corporations. A significant 142 of the respondents stated that they used their personal savings. The other sources of finance that were mentioned in question 3.1 were sponsorships or awards from companies after recommendations by an employee. Stokvel, as mentioned in chapter 2 is also a type of association that people in townships can use to obtain funding.

In **question 3.4** only 24,14% of the SMEs respondents agreed that on average it took them less than 12 months to raise the capital either by using personal savings or borrowing money from a local bank. SME owners also indicated that the capital was not sufficient to start operation of the business (**question 3.2**).

Participants were requested to state the minimum amount of capital they used in buying their first inventory or their working tools. From the answers received to **question 3.3**, the minimum amount was R450 and the majority used less than R2 000. Those who used a combination of personal savings and borrowing from a local bank and relatives 13 (8,67%) out of 150 respondents used a minimum of R15 000, and 13 (8,67%) used R5 000. From these results it can be seen that most craft industry business people do not require much capital to establish their businesses. Only five (3,33%) and one (0,67%) of the respondents used R20 000 and R50 000, respectively. The results for this section are provided in appendix 2a, question 3.3.

The response to question 3.5 indicated that on average it took micro-lenders less than two months to approve a loan application (13 respondents) while it took venture capital providers about 6 to 12 months to approve a loan amount of less than R15 000 (18 respondents). However, the majority of the respondents (119) indicated that they had never borrowed money from financial institutions (banks) for either personal or business use, which represents 79,33%.

5.2.7 Relationship with financial institutions

Respondents who used financial institutions were asked whether they believed that personal accomplishments (**Question 4.3**) and educational background (**Question 4.2**) had an influence on the institution's decision to grant loans. The results indicate that respondents believed that education (78,79%) and personal accomplishments (65,63%) did not have much influence.

In **question 4.6** reasons for not being granted loans were listed on the questionnaire. A total of 67 respondents answered this question. The highest number of responses (34 out of 67) confirmed not having enough security while the lowest (10 out of 67) confirmed limited management experience as the main reasons for turning down the application. Of the 67 only 23 stated other reasons, such as the unavailability of tax certificates and registration documents to run a business.

5.2.8 Problems experienced in acquiring a loan

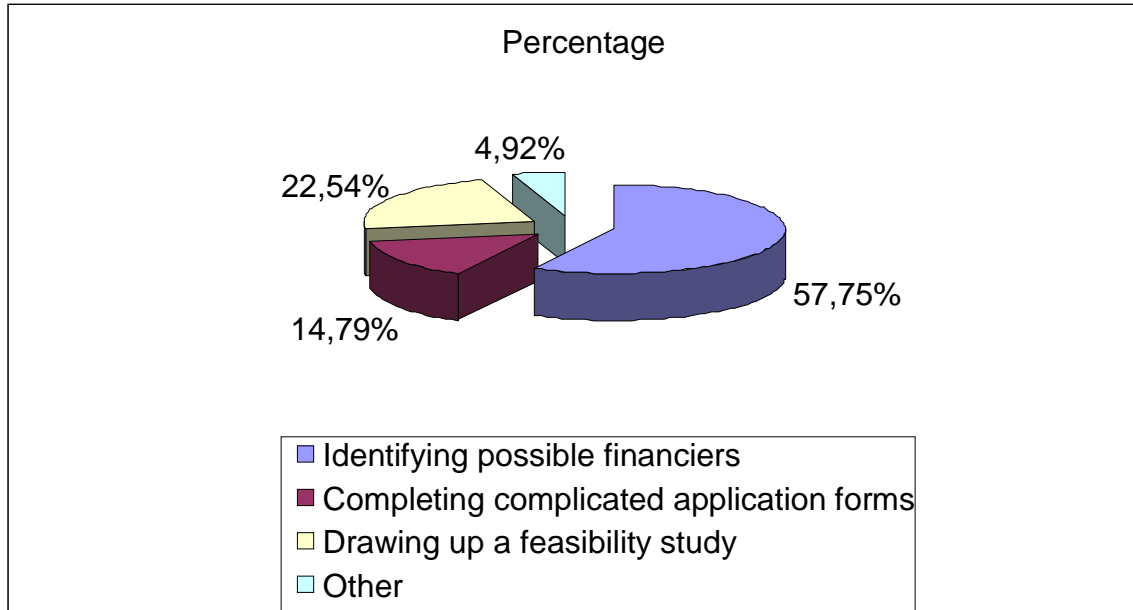
Question 5: What was the biggest problem you experienced in acquiring a loan?

The aim of asking this question was to ascertain the different problems respondents had experienced in acquiring a loan from financial institutions, relatives and other sources.

A total of 142 out of 150 respondents answered this question. The respondents were asked to select a combination of reasons, and therefore the number of reasons selected is more

than the number of questionnaires returned. Only four of the five problems listed were selected. None of the respondents chose “time lapse between application and approval of loan” as a problem experienced.

Figure 5.7: Problems experienced in acquiring a loan



From figure 5.7 it is evident that, most of the respondents confirmed that the biggest problem they experienced was identifying the possible financial providers, with 82 (57,75%) indicating that this was a problem experienced whenever they have to apply for a loan.

The second highest problem they experienced was drawing up a feasibility study (22,54%), while the third highest was completing application forms (14,79%).

The other problems experienced were:

- Not being aware of the process used,

- Business plan not in order,
- Feasibility studies not conducted, and
- Incorrect estimated amount required.

Seven (4,92%) of the respondents confirmed that they had experienced one or more of the above problems. As illustrated in figure 5.7 the results indicate that the majority of respondents were not aware of where to raise funds. The level of education in terms of completing application forms is also a problem that financial institutions need to address.

5.3 RESEARCH FINDINGS - VENTURE CAPITALISTS

As discussed in chapter 4 most of the SME operators cite lack of interest by venture capitalists in the small business sector as one of the major reasons why there is low investment in the sector. Except interest in the sector, risk is also a major reason cited by venture capitalists for low investment in SMEs.

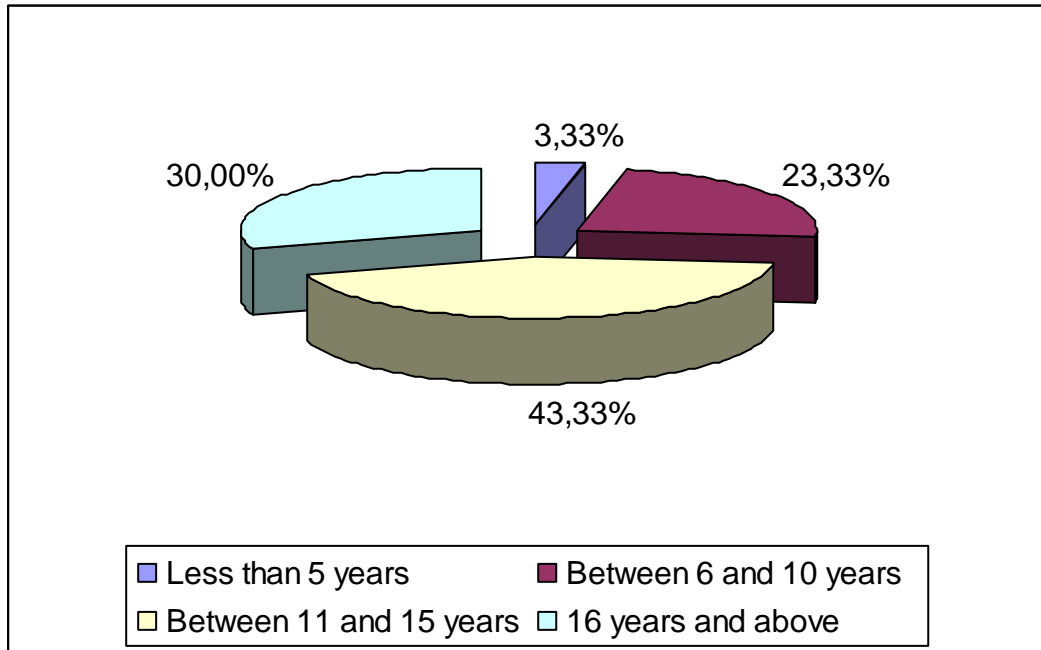
5.3.1 Years of experience of funding SMEs

Question 1.1: How long has your organisation been funding SMEs?

The results of this question are presented in figure 5.8 below. Out of the total number of respondents who answered this question only one confirmed that their business had been funding SMEs for less than five years, which represents 3,33% of respondents. Seven had between six and ten years of experience in funding SMEs, which represents 23,33%. Of the respondents, 13 confirmed that they had between 11 and 15

years' experience of funding SMEs, which represents 43,33% and nine had 16 years or more, which represents 30,00% of the respondents.

Figure 5.8: Years of experience of funding SMEs



As illustrated in figure 5.8, not many venture capital providers have funded in the craft industry. Only 43,33% of the respondents confirmed that they had between 11 and 15 years' of experience in helping SMEs with funds. This finding indicates that most SMEs may still experience a problem accessing funds because venture capitalists perceive SMEs as risky (Ross et al 1996:448).

5.3.2 Form and development stage of business

In **question 1.2** of the questionnaire the respondents were asked to mention whether the form of business had an influence on the decision to finance a small business.

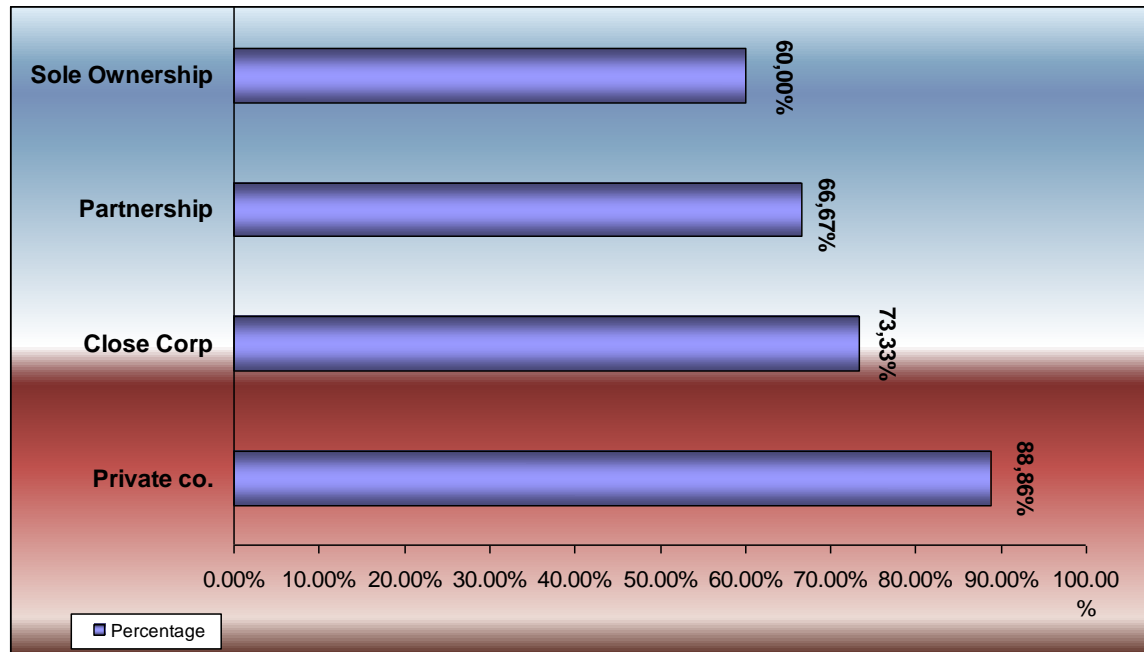
Out of a total of 30 respondents 21 (70,00%) answered yes, while only 9 (30,00%) answered that the form of business did not have an influence on the decision to finance a small business.

The results indicate that the respondents perceived that the form of business does indeed have an influence on the decision to finance a business. This means that it will be vital for the fund applicants to check which form of business they start before applying for funds and which form the venture capitalists prefer to fund.

In **question 1.3** of the questionnaire the respondents were asked to rank the forms of businesses they were likely to fund. All forms of business were ranked high above 57,00%, which indicates that they are all valued. These results are presented in figure 5.9 in the order in which they were ranked, starting with the form of business with the highest number of responses.

A total of 26 out of 30 respondents (86,67%) ranked private companies at 5 out of 30 (high). The second highest form of business was close corporations with a total of 22 out of 30 (73,33%) respondents and the third highest was partnerships with a total of 20 (66,67%) respondents. Sole ownerships were the fourth ranked form of business with a total of 18 out of 30 (60,00%) respondents.

Figure 5.9: Form of business likely to receive funding



The results in figure 5.9 illustrate that all forms of business stand a chance of being granted a loan. However, the development stages of these businesses as seen from results in **question 1.4** will influence the decision whether to grant a loan or not.

In **question 1.4**, the respondents were asked to determine whether the development stage of the business had an influence on the decision to grant a loan or approve funding. A total of 20 (66,67%) respondents answered yes, while 10 (33,33%) answered no.

The results illustrate that the development stage of a business influences the decision to grant a loan or fund a business. This supports the statement that was made in a DTI report (2005) that first-stage SMEs are unlikely to obtain loans as compared to other stages.

In **question 1.5** the respondents were asked to rank the development stages of businesses that they would invest in. The rating was based on the most likely to least likely development stage to be funded.

According to the results, the most likely development stages that would be funded are the mature and growth stages. Both stages were ranked highly by 26 of 30 (86,67%) and 25 of 30 (83,33%) respondents, respectively. A total of 13 of 30 (43,33%) respondents neither agreed nor disagreed that they would fund start-up businesses. The least likely development stage that they would fund is the planning stage with 25 of 30 (83,33%) respondents ranking the planning stage at 1. The results of the above discussion are presented in appendix 2b, questions 1.51 to 1.54.

5.3.3 Awareness of the applicants about sources of funds available

In **question 1.6** the respondents were asked to mention whether the finance applicants were aware of the types of funds they could apply for. A total of 19 out of 30 (63.33%) respondents answered that they are of the opinion that applicants were aware of the types of funds, while 11 of 30 (36,67%) respondents answered no.

The results illustrate that most applicants are aware of the different sources of finance. This is indicated by the high number of venture capitalists who confirmed that applicants are aware of the sources of funds.

In **question 1.7** the respondents had to mention the number of applications they received per month per source of finance. A list of the sources of funds was presented to the respondents. The most applications were received for start-up funds and expansion at 50 applications per month, followed by replacements and buy-outs both at 40 applications per month. Seed capital was applied for the least, at 10 applications per month. The results for the above paragraph are presented in appendix 2b.

5.3.4 *Reasons for and against granting loans to applicants*

In **questions 1.8** and **2.21** the respondents were asked to mention some of the reasons for granting and refusing a loan. During the collection of data from SMEs, some respondents indicated reasons that work for and against being granted a loan. This therefore led to the inclusion of a question in the venture capital providers' questionnaire on reasons for granting and refusing a loan.

Two open-ended questions specifically requested the respondents to provide some of the main reasons why funding was granted to applicants and why funding was denied. Table 5.3 states reasons mentioned by more than one respondent for and against granting loans to applicants.

Table 5.3: Reasons for and against granting loan applications

Reasons for granting a loan (q 1.8)	Reasons against granting a loan (q 2.21)
The market is new	Management team inexperienced
An outstanding management team	No community involvement
A well-defined industry focus	Owners between the ages of 18 and 35
Feasibility studies conducted	Gender representation
Affordability of the loan amount	Business idea not viable
Commercial viability of the project	Financial projections not prepared by an expert
Black-economic-empowerment compliant	Business not registered
Business plan looks good/promising	Affordability of loan amount
The barriers to entry into the market are built on intellectual capital or brands	Growth prospects not clear
Can provide 6 months' financial records	Consumer/applicant is a minor

Table 5.3 also indicates the reasons why funding is granted or denied to loan applicants. These reasons could be used by loan applicants for self-checking before lodging an application for funding with fund providers. They give an applicant a chance to determine the likelihood of success of the application for funds. It was also deduced that location and settlement strategies of the business do not influence the likelihood of success when applying for a loan (**Question 1.9 to 1.11**)

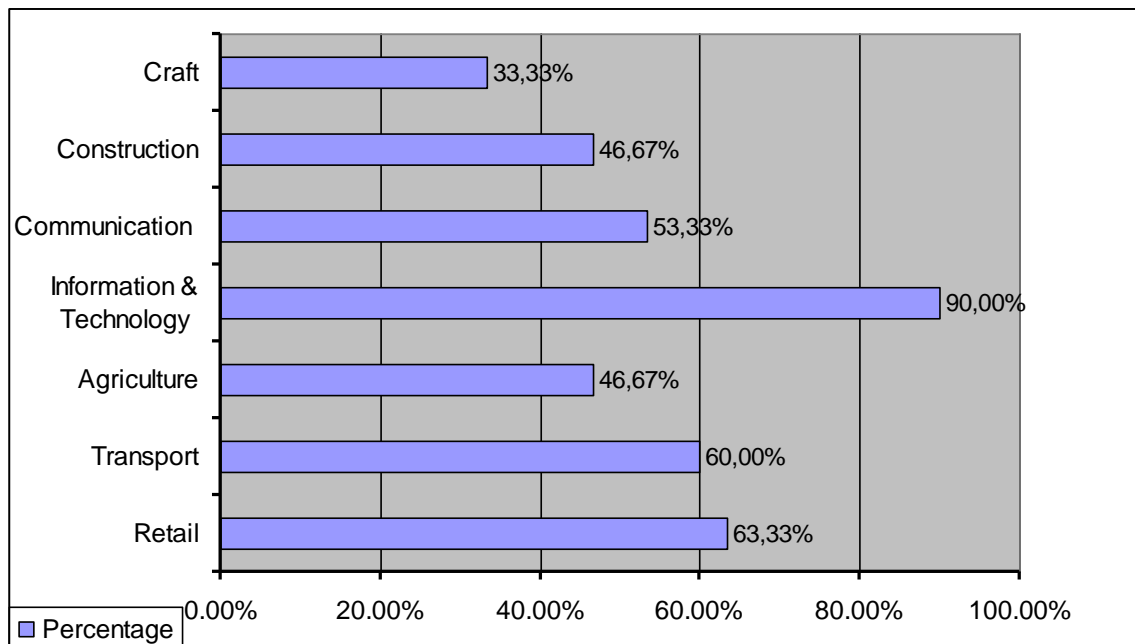
5.3.5 Sectors of the industry most preferred

In **question 1.14** the respondents were asked to mention whether the sector of the industry influenced the decision to grant a loan and a total of 20 (66,67%) respondents answered yes while 10 (33,33%) answered no.

In **question 1.15** of the questionnaire the respondents were asked to rank the industry sector that was most likely to receive a loan. The aim of this question was to determine the most preferred industry sector by venture capital providers. The results for this question are presented according to their ranking, starting with the most likely and finishing with the least likely sector to receive funding (see figure 5.10). Respondents could rank more than one industry sector.

The sectors were ranked in the following order: information and technology was ranked highly by 27 (90,00%) respondents as the sector most likely to receive funding, followed by the retail sector with 19 (63.33%) respondents, third is the transport sector with 18 (60.00%) respondents, the fourth-ranked sector is the communication industry with 16 (53.33%) respondents, followed by both agriculture and construction with 14 (46.67%) respondents. The least likely sector is the craft sector with 33.33% of respondents ranking it at 5. The results for the above paragraph are presented in figure 5.10 below.

Figure 5.10: Sectors of economy



As illustrated in figure 5.10, the preferred sector of the economy is information and technology. This indicates that if the applicant is in information and technology, they are most likely to receive funding. However, this will only depend on whether the applicant understands the criteria used in assessing the loan applications (**question 1.12**). A total of 18 (60,00%) of the respondents agreed that understanding the criteria used by venture capitalists increased the chances of obtaining a loan, while 12 (40,00%) did not agree.

5.3.6 Major aspects that financial institutions consider before allocating funds

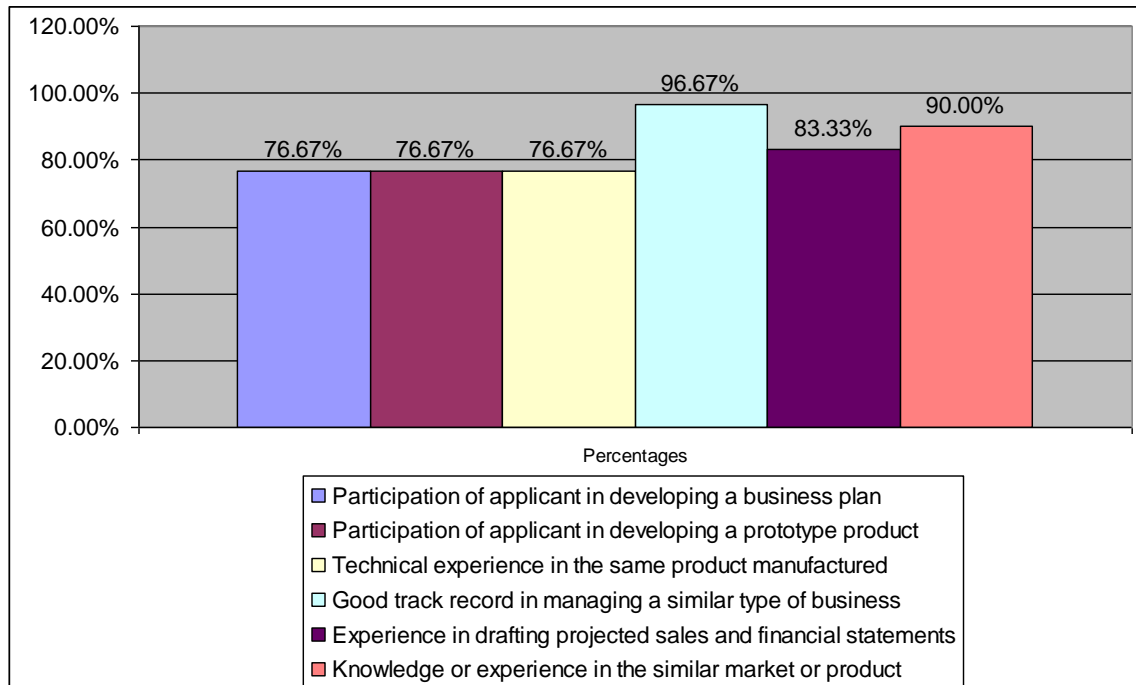
In **question 2.1** the respondents were asked to rank aspects of management they considered before granting a loan to applicants. The respondents indicated that most, if not all, of the aspects listed were important because most of them were

ranked 5. None of the 30 respondents rated these aspects less than 3.

A total of 29 out of 30 (96,67%), 27 (90,00%) and 25 (83,33%) respondents respectively ranked good track record in managing a similar type of business, knowledge or experience in a similar market or product and experience in drafting projected sales and financial statements at 5 (high), respectively. On the other hand, participation of the applicant in developing a business plan, participation of the applicant in developing a prototype product and technical experience in the same product manufactured were ranked at 4. These results are presented in figure 5.11 below.

The results in figure 5.11 indicate that the participation and experience of the applicant in running a similar type of business are highly recommended. These results are in line with what was reported by Buttner and Rosen (1989:250) that the chances of the applicant obtaining a loan depend on full involvement in the business. Knowledge of a prototype product and market is also highly recommended.

Figure 5.11: Aspects considered before granting a loan



5.3.7 Analysis of independent questions

Apart from the aspects listed for the respondents, there were general questions related to the management or successful operation of the business that were included in the questionnaire. In **question 2.2**, respondents were asked whether the revenue generated in the past had an influence on the decision to finance a business. A total of 26 (86,67%) of the respondents answered yes, while four (13,33%) answered no.

In **question 2.3** respondents were asked to mention whether the projected revenue influenced the decision to grant a loan. A total of 28 (93,33%) agreed that the projected revenue had an influence, while only two (6,67%) disagreed.

Question 2.4 was important question as it was related to **question 2.5**. Respondents were asked whether the guaranteed return on investments directly influenced the decision to finance a business. A total of 10 (33,33%) respondents agreed that the return on investment had a direct influence on the decision to grant a loan, while 20 (66,67%) disagreed. In Question 2.5 respondents who answered yes to question 2.4 were asked to mention the expected return on investment that would convince the respondents to grant a loan. The results indicate that 42,86% of those who answered this question stated 15,00% as the expected return on investment, 28,57% stated 10,00% and another 28,57% stated 25,00%. The results from the above indicate that return on investment does not in fact have a direct influence on the decision to grant a loan.

In **question 2.6** respondents were asked to indicate whether the product characteristics influenced the decision to finance a business. A total of 13 (43,33%) respondents agreed that the product characteristics had an influence, while 17 (56,67%) disagreed.

In **question 2.7** a range of options were available for selection. In **question 2.7a** the respondents were asked to indicate whether projected market share had an influence on the decision to grant a loan. Of the respondents 24 (80,00%) agreed that projected market share had a direct influence, while six (20,00%) disagreed.

In question 2.7b the respondents were asked whether growth prospects influenced the decision to grant a loan. Most of the respondent 25 (83,33%) agreed, while five (16,67%) disagreed.

Question 2.7c asked respondents whether competitiveness of the business had a direct influence on the decision to grant a loan. Twenty-four (80,00%) agreed and six (20,00%) disagreed.

Question 2.7d asked respondents to specify other factors that they considered important. The following factors were mentioned:

- Type of customers,
- Type of product,
- Diversification of investment portfolio,
- Strategy and direction of the business,
- High barriers to entry, and
- High margin products.

In **question 2.8** the respondents were required to indicate the venture capitalist's expected growth rate in the business before making a financial commitment. Only 14 respondents answered this question. The lowest and maximum expected growth rates were 10,00% (indicated by 14,29% of respondents) to 25,00% (indicated by 14,29% of respondents).

In **question 2.9** the respondents were asked whether the intellectual property (registered brand) had a direct influence on the decision to grant a loan. A total of 23 (76,67%) respondents agreed that it did, while only seven (23,33%) disagreed.

In **question 2.10** the respondents were asked whether the previous record of management had a direct influence on the decision to grant a loan. A total of 19 (63,33%) agreed, while 11 (36,67%) disagreed. Question 2.10 was linked to question

2.11. In **question 2.11** the respondents had to mention some of the factors or previous achievements that would be considered before making a financial commitment. The following factors were mentioned:

- A successful contractor,
- Integrity,
- Successful operation of a business,
- Having previously been involved in the production of the main product, and
- Being able to repay the loan without any problems.

Question 2.12 asked the respondents to indicate whether the role of the founder as a manager or owner had an influence on the decision to grant a loan. A total of 27 (90,00%) agreed and three (10,00%) disagreed.

In **question 2.13** respondents were asked to indicate whether the composition of the management team in terms of gender had an influence on the decision to grant a loan. A total of only six (20,00%) of the respondents agreed, while 24 (80,00%) disagreed.

Question 2.14 was linked to **question 2.15** and the respondents had to indicate whether financial contribution by the founder or management team influenced the decision to grant a loan. A total of 20 (66,67%) agreed, while 10 (33,33%) disagreed. In question 2.15, respondents were asked to state the preferred percentage, if the answer to 2.14 was yes. The minimum and maximum contributions required were 10,00% and 50,00% of the required capital, respectively.

5.3.8 Management accounting skills likely to influence the decision

In **question 2.16** venture capitalists respondents were asked to rank various management accounting skills likely to influence a decision to grant a loan. Various options were provided for selection. The results are provided in table 5.4 below.

Table 5.4: Management accounting skills - highly recommended

	Frequency	Percentage
Management of cash flow	25	83,33%
Product costing	24	80,00%
Ability to calculate profit	23	76,67%
Inventory management	23	76,67%
Budgeting	21	70,00%
Bookkeeping	20	66,67%
Calculation of financial and sales projections	14	46,67%
Calculation of break-even point	11	36,67%

Table 5.5: Management accounting skills - less highly recommended

	Frequency	Percentage
Knowledge of analysing price trends	15	50%
Analysis, identification or awareness of overheads	12	40%
Identification and separation of fixed and variable overheads	11	36,67%
Calculation of expected rate of return	11	36,67%

The figures above indicate the skills which venture capital providers recommended as being necessary and those which were less highly recommended. The results indicate that without basic management accounting or financial accounting skills, such as cash flow management, product costing and budgeting, it might be very difficult to convince venture capital providers that the SME is worthy of being granted a loan. This simply means that it is quite important for the applicants to make sure that they possess these minimum skills before approaching most, if not all, financial providers.

This supports the statement that was made by Hansohm (1992:141) that a lack of management accounting skills and limited small business management skills in carrying out organisational functions is one of the reasons why SMEs are not granted loans by venture capitalists.

5.3.9 Other aspects that influence a decision

In **question 2.17** the respondents were asked whether non-management accounting aspects had an influence on

applications for funding. They were asked to rank the potential of sales growth on the success of the application for funding. A total of 26 (86,67%) respondents ranked potential of sales growth at 5 (high).

Respondents felt that management composition had no direct influence on their decision to grant a loan to applicants and 17 (56,67%) ranked it at 1 (very low).

With regard to exit time and route (the way the business owner would settle the loan), 13 (43,33%) respondents indicated that these factors had no direct influence on granting a loan.

In **question 2.18** the researcher wanted to establish the importance of the business plan, a feasibility study, projected financial statements, standard application forms and details of business strategy to the venture capital providers. A total of 30 (100%) ranked a business plan at 5 (high), and 27 (90,00%) ranked a feasibility study at 5 (high).

Other responses were that projected financial statements were very important, with 24 (80,00%) of the respondents ranking it at 5 (high). With regard to standard application forms, 12 (40,00%) neither agreed nor disagreed, while 26 (86,67%) of the respondents indicated that details of business strategy were very important.

The responses indicate that the business plan is very important because all the respondents ranked it high. The same can be said about a feasibility study, projected financial statements and the details of business strategy. They were all ranked at 5

by 27, 24 and 26 respondents, respectively. However, the completion of standard application forms was not considered that important, as 12 of the 30 respondents, representing 40,00%, ranked it at 3, which is an average response rate.

The penultimate question of this section was based on problems experienced by applicants on presenting their business plans or completing application forms. The responses (80,00%) indicate that venture capitalists do not perceive applicants to have a problem in presenting their business plans or completing application forms.

The last question was based on the number of applications that are successful. The respondents had to base their rate of success out of 10 applications. The lowest and highest numbers were two and seven, respectively. A success rate of four out of 10 was the most frequent answer given. This confirms that there is a low success rate in SMEs being granted loans by venture capital providers.

5.3.10 Forms of security

The last section of the questionnaire requested respondents to rank their most preferred forms of security or collateral. The results indicate that the most preferred forms of security are:

- Owner's house, and
- Surety.

The least preferred are:

- Ordinary shares,
- Preference shares, and

- Debt.

Forms of security that received an average ranking were car, equipment and insurance policies (see **Question 2.22**).

5.4 COMPARISON OF MANAGEMENT ACCOUNTING SKILLS

Table 5.5 below compares the responses of SMEs and venture capitalists with regard to management accounting skills.

Table 5.6: Comparison of management accounting skills

SMEs	%	Venture capital providers	%
Bookkeeping	62.00	Bookkeeping	66.67
Product costing	45.33	Product costing	80.00
Budgeting	48.66	Budgeting	70.00
Preparing sales and financial projections	8.67	Preparing sales and financial projections	46.67
Inventory management	28.67	Inventory management	76.67
Break-even analysis	9.33	Calculation of break-even point	36.67
Cash flow management	41.33	Management of cash flow	83.33
Identification, classification and measurement of overheads	5.33	Analysis, identification or awareness of overheads	23.33

The percentages for management accounting skills possessed by SMEs are based on the responses of 150 respondents. Those for venture capital providers are based on factors given the highest rank of 5, which the total of 30 (venture capital

providers) respondents confirmed were very important or most likely to influence the decision to grant a loan to applicants.

5.5 ANALYSIS OF THE GAPS IN MANAGEMENT ACCOUNTING SKILLS

The main purpose of this study was to determine the gap in management accounting skills required by venture capital providers and those possessed by SME operators in the craft industry. Only skills that are applicable to each group of respondents have been used to compare the percentages based on the total number of respondents.

5.5.1 *Bookkeeping*

A total of 62,00% of the SME respondents indicated that they had acquired bookkeeping skills before they decided to start an SME in the craft industry. Venture capitalist respondents (66,67%) felt that bookkeeping was most likely to influence a decision to grant an applicant a loan. The gap with regard to bookkeeping is low. However, based on the fact that most of the SME operators said that this was a skill they had at a personal level and that they had never received any formal training, this will affect their success rate in getting loans from venture capital providers.

5.5.2 *Product costing*

Product costing incorporates all three elements of costs (direct materials, direct labour and overheads). People without the ability to calculate product cost means that their businesses

may either under- or over-estimate costs, leading to over- or under-pricing of products. Of the 150 SME respondents, 45,33% reported that they were able to cost their products without any problems, while 80,00% of the venture capital providers ranked product costing at 5, meaning that it was very likely to influence their decision to grant a loan. The big gap is an indication that there is a shortage of skills in terms of product costing.

5.5.3 Budgeting

Of the 150 SME respondents, 48,67% stated that they were able to prepare budgets, while 70,00% of the venture capital providers said that budgeting was most likely to influence their decision to grant loans to applicants. There is thus a wide gap which might mean that without budgeting skills applicants might not succeed in securing loans or operating a business successfully.

5.5.4 Preparing sales and financial projections

Emerging and existing companies alike must provide sales and financial projections when first lodging an application for funds with financial providers. Only 8,67% of the SME respondents indicated that they had this skill before deciding to start a business. Of the capital providers, 46,67% confirmed that this was one of the most likely skills that applicants had to possess before an application for funds with various financial providers would be successful. A wide gap could mean that that people may not succeed in getting funds without being able to do sales and financial projections.

5.5.5 Inventory management

Of the total of 150 SME respondents, 28,67% asserted that they had acquired this skill before deciding to start a business. Of the venture capital providers, 76,67% indicated that inventory management was most likely to influence the decision to grant a loan to the applicant. The gap with regard to inventory management is quite wide. This confirms that there is a shortage of skills in inventory management. Inventory is a revenue-generating asset of the company. Proper management of this asset is very important. Keeping inventory that is not moving means keeping an asset that is accumulating costs and not revenue. Therefore it is vital that the skill of the entrepreneur be up to scratch in terms of controlling inventory.

5.5.6 Break-even analysis

Only 9,33% of the SME respondents confirmed that they had knowledge of break-even analysis, while 36,67% of the venture capital providers confirmed that the ability to calculate and apply break-even analysis was most likely to influence a decision to grant the applicant a loan. The gap between the two groups of respondents is quite high, which means that only a few of the SMEs know how to calculate or analyse the break-even point.

5.5.7 Cash flow management

Cash flow management monitors the cash flow of the business, but only 41,33% of the SMEs indicated that they had acquired this skill before deciding to start a business. Some of these

SMEs confirmed that they did not have any formal training in cash flow management. On the other hand, 83,33% of the venture capital respondents said that cash flow management was most likely to influence the decision to grant a loan. The gap in terms of the ability to perform cash flow management is quite high. This is a significant gap.

5.5.8 Identification, classification and measurement of overheads

Overheads are the third element of costing. A person who operates a business without proper training fails to recognise this important element in the process of costing products. Only 5.33% of the SME respondents claimed that they were aware of overheads and could measure them without any problem. Of the venture capital providers, 23,33% stated that overheads were most likely to influence a decision to grant an applicant a loan. The gap between the two groups of respondents is wide. This gap is wide considering the fact that only 5.33% of the SMEs reported having this skill.

The management accounting skills discussed above were not the only skills assessed. The other skills that were not ranked above 3 are discussed below.

5.6 OTHER MANAGEMENT ACCOUNTING SKILLS ASSESSED

Cost control, ability to raise capital and other management accounting skills were included in the questionnaire. Most of the following skills were ranked less than 3 as compared to the management accounting skills included in table 5.4 above.

5.6.1 Cost control

A total of 45.33% of the SME respondents indicated that they could control their production costs. This percentage is very good considering the fact that 45.33% of venture capital providers indicated that this skill was important. This knowledge is very important because it will increase the chances of SMEs getting funds from capital providers.

5.6.2 Raising capital

The ability to raise capital was included under management accounting skills because any person applying for capital who knows the types of sources of capital must know the advantages and disadvantages of those sources of capital. Knowledge of the sources of finance can be enhanced by taking some commercial subjects or attending some workshops. Some 37.33% SME respondents indicated that they knew how to raise capital. This percentage is good considering the fact that most respondents in the craft industry had not studied financial related subjects. Raising capital will therefore increase the applicants' chances to obtain funding.

5.6.3 Standard costing

Only five of the total number of SME respondents knew what standard costing entailed. This number is very low. However, considering that most respondents had no financial education, the number is not that disturbing because in most cases only big companies make use of standard costing.

5.6.4 Activity-based costing

Just like standard costing, any person without financial education will not know what activity-based costing entails. Only five of the SME respondents knew what it entailed.

5.6.5 Life cycle costing

Only three of the total sample of SME respondents knew what life cycle costing entailed. Life cycle costing is one of the most important management accounting concepts. It enables the owner of the business to know what and when consumers need a product. The owner will be able to determine whether the product is reaching the market or not. Without this knowledge, the entrepreneur may keep a product in the business for a long time when this should not in fact be done. Therefore it is advisable for business owners to have at least an idea of what it entails.

5.6.6 Variance analysis

Variance analysis is considered one of the most important management accounting skills. Only six of the total SME population were aware of what variance analysis was and could perform such an analysis. These low rate of SME respondents indicates that there is a shortage of skills in this area and therefore more training in it should be encouraged. Without proper training, most SMEs will reduce their scorecard if variance analysis is one of the requirements for funding.

5.6.7 Ability to calculate profits

Any business person who cannot calculate their business's profit is destined for failure. Of the total population of venture capital providers, 23 providers recommended that all business owners should be able to calculate profits. Of all the SMEs surveyed 93 could do bookkeeping. That is an indication that some SME operators are able to calculate profits. Ability to calculate profits on its own will at least increase the chances of SMEs getting finance.

5.7 SUMMARY

This chapter presented the results of the research instrument. A total of 150 questionnaires were received back from SMEs, and a total of 30 questionnaires were used to collect data from venture capital providers. The collection of data took about six to seven months.

The results from the survey amongst SMEs in the craft industry were presented first. The respondents indicate that the majority of the SMEs surveyed operated as sole ownerships, i.e. 107 respondents out of a total of 150. The results also indicated that there is a gap in management accounting skills. Most of the respondents confirmed that they had never attended any formal training in the majority of accounting skills needed for the successful operation of a business.

The second phase of the survey was conducted to collect data from venture capital providers. These respondents confirmed

that the possession of management accounting skills do have an influence on the decision to grant an applicant a loan.

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

In this chapter a summary of the study findings, the conclusions, implications and recommendations are presented. Chapter 1 identified the main purpose of this study as determining the gap in management accounting skills required by venture capitalists and those possessed by SME operators in the craft industry. The study further identified the following objectives:

- To identify management accounting skills venture capitalists expect from small business owners before investments are made.
- To ascertain the availability of sufficient management accounting skills which entrepreneurs must have before they approach venture capitalists for capital funding.
- To compare the requirements of venture capitalists and the knowledge of SMEs in management accounting.

A summary of the literature review will be presented first, followed by a summary of the findings, and then the overall conclusion, suggestions and the recommendations for further research will conclude the chapter.

6.2 SUMMARY OF LITERATURE REVIEW AND EMPIRICAL STUDY

The study made use of two approaches, that is a literature review and an empirical study. A summary of both approaches is presented below.

6.2.1 Literature review

In the literature review the theoretical background of the study was provided. Chapter 2 and chapter 3 were used for this purpose. The main sources of information used for the literature review were books, articles, journals, periodical reports, theses and dissertations.

In chapter 2 the study focused on the current situation with regard to the venture capital market and SMEs. The study also made reference to sources of venture capital available, different venture capital providers and critical success factors for SMEs. In addition, the difficulties experienced by loan applicants, approaches preferred by capital providers when loan applicants apply for loans and minimum requirements that need to be met by applicants before loans are granted were also highlighted.

In chapter 3 the study focused more on management accounting skills required by venture capital providers. Apart from the management accounting skills required by venture capitalists, reference was made to management shortcomings and various management accounting skills necessary to secure a loan.

In both chapter 2 and 3 the researcher also found it fitting to mention the type of financial information most wanted by venture capitalists, the procedure and process of acquiring venture capital and the success rate of applicants in the past.

6.2.2 Empirical study

Empirical research was conducted to determine the gap between management accounting skills required by venture capitalists and those possessed by SME operators in the craft industry. The research methodology used was described in chapter 4. Questionnaires were used to collect the data for both types of respondents. The results from the survey were interpreted and analysed in chapter 5.

A number of the management accounting skills were presented to respondents on the questionnaire. SMEs were requested to choose the skills they possessed before they started their businesses and venture capitalists were requested to indicate those they considered important.

A number of management accounting skills that were presented to the respondents are discussed below, together with their implications. Most of the skills discussed below are presented in table 5.4 of chapter 5. The reason for choosing these skills is that they are similar to those presented to venture capital providers. These skills were compared in chapter 5 and the gaps for each were identified and measured.

6.2.2.1 Bookkeeping

Bookkeeping is included in the questionnaire and was presented to both the SMEs and venture capital providers as an option for selection. A total of 62.00% of the SME respondents who answered this question indicated that they knew what bookkeeping was all about even though they have never attended any formal training or a workshop. The reason for no formal training was that their educational background was not business-related. On the other hand, 66.67% of the venture capital providers who answered a similar question indicated that bookkeeping was most likely to influence a decision to grant SMEs a loan. By comparing the two answers, the answers illustrate a small gap.

The implication of these findings for SMEs is that their chances of getting loans or any form of funding from venture capitalists are very slim without knowledge of bookkeeping.

Most of the SMEs in the craft industry operate sole ownerships and do not make use of professional accountants or even bookkeepers. Therefore it is advisable for them to have knowledge of bookkeeping before applying for funding. However, the gap between the two groups of respondents in this area is small, so it can therefore be deduced that SMEs have this skill to operate their businesses.

6.2.2.2 Cash flow management

Cash flow management is one of the management accounting skills presented to both SMEs and venture capital providers. A total of 83.33% of venture capitalists confirmed that management of cash was most likely to influence their decision to grant a loan. Of the SME respondents only 41.33% stated that they possessed this skill, although at a personal and not business (expert) level. This is because their educational background was not business-related and they had not received any form of training in it.

This means that the chances of SMEs obtaining any form of loan from venture capitalists are very low. The gap in this skill is quite high, and almost 50% of the venture capital providers required SME operators to have this skill. Therefore, more formal training in cash flow management is needed for operators to acquire funds and to increase the government's creation rate of SMEs.

6.2.2.3 Product costing

Product costing is one of the functions SME operators perform daily in the craft industry. Almost 45.33% of the SME operators who answered this question indicated that they knew how to cost their products. Some who had no commercial education reported that they had attended some workshops to enhance their knowledge and skill with regard to product costing. However, in looking at the number of respondents who answered this question, it is quite clear that more training is needed in product costing. A total of 80% of the venture capital

providers confirmed that knowledge of product costing is very important. This implies that without this skill, SMEs will most likely not be granted loans, unless they use a qualified management accountant.

6.2.2.4 Budgeting

Budgeting is an important element of any business and of any business plan that is to be presented to the venture capital provider (Farrow 1994:287-288). This management accounting technique is highly recommended by venture capital providers, with almost 70% of the respondents indicating that it will most likely influence their decision to grant loans to SME operators. Only 48.66% of the SME operators stated that they knew how to prepare a budget. Considering the number of respondents with business-related education, it is evident that there is a need for further training to close the gap. The implication of the gap in this skill means that SME operators without budget preparation skills are not likely to receive funding from providers.

6.2.2.5 Preparation of sales and financial projections

A statement of sales and financial projections, in other words budgeting, forms an important part of the business plan (Farrow 1994:290-291). Therefore inaccurate figures mean that an application for funds cannot be successful. Only 8.67% of the SME operators asserted that they knew how to prepare sales and financial projections. Of the venture capital providers 46.47% stated that this skill was very important and was most likely to influence their decision to grant a loan.

The gap between the two groups of respondents is quite large. This gap implies that the SMEs' chances of getting finance are very slim. This also means that further training has to be done to increase the SMEs' chances, unless they decide to use qualified accountants to prepare the projections on their behalf.

6.2.2.6 Inventory management

Inventory is an income-generating asset for any form of business in any sector of the economy. Any business owner who can perform inventory management duties on his/her own can be sure that most venture capital providers will be willing to do business with that owner. Almost 76.67% of the venture capital providers reported that inventory management was highly recommended and most likely to influence their decision to grant a loan. Only 28.67% of the SME operators confirmed that they knew what inventory management entailed. The gap between the respondent groups is very large and it implies that the chances of obtaining funds without this skill are very low.

6.2.2.7 Break-even analysis

Almost 90.67% of the SME operators indicated that they had never heard of break-even analysis. Only 9.33% of the respondents knew a little about it. This percentage is very small compared to the 36.67% of venture capital providers who recommended the use of break-even analysis very highly.

The gap implies that there is a shortage of training in this management accounting skill and also that the chances of

obtaining finance are very low if SME operators do not know how to do break-even analysis. Training is needed for operators to enhance their skills and to increase their chances of getting funding from financial providers.

6.2.2.8 Identification, classification and measurement of overheads

Overheads are the third element of costing after material and labour cost and form part of a product's cost even though it is regarded as a secondary cost (supplementary cost). But for people without a management accounting background, it is quite difficult to identify and recognise non-production overheads when costing their products. Only 5.33% of the SME operators confirmed that they knew what an overhead was, while 23.33% of the venture capital providers confirmed that the allocation, identification and measurement of overheads was very important.

The gap between the two groups of respondents is large, considering the low percentage of SME respondents who knew what an overhead was. The implication of this low percentage is that the number of SMEs that can be considered for funding will be low if overheads are included in the assessment criteria.

6.3 CONCLUSIONS

The major conclusions drawn from this study are summarised as follows:

- The analysis of the types of skills that SME operators possess and those that venture capital providers requires indicates that there are both big and small gaps in the knowledge and skills levels compared. The results show that there is a need for training of SME operators in management accounting skills.
- The lack of some of the management accounting skills was highlighted by most of the micro-lenders who participated in this survey as one of the reasons why funding in most cases was not granted. Most financial providers use a scorecard to assess loan applications. The use of a scorecard means that all the management accounting skills included on the scorecard are allocated a weight. If most of the skills are ranked low because the applicant does not have them, then on average the applicants will have a low score. If an applicant has a low score, the application will be unsuccessful. Therefore it would be advisable for venture capitalists to include the minimum or basic skills on the face of their application form used in the assessment of loan applications. Loan applicants will then be able to measure their success rate even before final outcome of the application is released.
- In addition to the scorecard, business type or economic sector forms a major part of the selection criteria. Therefore it would be advisable for any applicant to know which selection criteria the venture capital providers use in assessing their loan applications. By doing so the

- applicants can assess themselves beforehand and determine their chances of success or failure. It will also help them in selecting the relevant funder.
- Since most SME operators have some of the skills required, venture capital providers should determine the minimum skills that they consider important. Therefore if an applicant can prove that they have an idea of what that management accounting skill entails in practice, then the capital provider should at least give the applicant a chance. They could also reduce the amount of the loan rather than rejecting the application outright.
 - There are applicants who have a good track record in operating their businesses. Some venture capital providers surveyed indicated that based on these track records and the minimum skills that the SME owners possess, they would be willing to help such applicants. This technically means that applicants should set up their business before they apply for a loan. Some of the venture capital providers indicated that they were willing to do business with any registered business. Some of the applicants also mentioned that the reason why they were not given funds was that they were operating unregistered businesses.

6.4 RECOMMENDATIONS

- Most of the venture capital providers highly recommended most, if not all, of the management accounting skills mentioned in the questionnaire. In order to give the loan applicants a chance of succeeding in business, it is

advisable for venture capital providers to publish the most and less important skills required.

- Since a scorecard is used to assess applicants, venture capital providers should advise applicants on the types of skills they value before applications can be made for funding.
- The application forms for funding should list the types of the businesses that venture capitalists are most likely to fund. This will save applicants having to go through the whole application process only to be rejected because of the form of business they have.
- The success rate of applicants in the past should be considered rather than only the skills. There are people who have other forms of business in operation. These people have proven that they can operate a business irrespective of the skills they have.
- Mentors: Previous successful applicants can be introduced as mentors on how to prepare an application.

6.5 SUGGESTIONS FOR FURTHER RESEARCH

The initial main objective of this study was to determine the gap in management accounting skills between SME operators and venture capital providers in the craft industry. The study has identified specific gaps in management accounting skills. A future need is to determine, among other things, standardised criteria which venture capital providers can use specifically to assess other SMEs and not only those involved in the craft industry. The same research of the similar type can be carried out in other industries, with the aim of developing a model that could cover all sectors of the economy.

An implementation policy of these recommendations is an issue that will also need to be addressed in the future. Some research has been done on the same sector in the past but some of the recommendations were not implemented. The reason appears to be that the private and public sectors seem to have different objectives when lending capital.

Educational institutions can use the capital providers' scorecard as guideline to develop informal short learning management accounting programmes for SME owners or managers.

BIBLIOGRAPHY

Acs, ZJ & Audretsch, DB. 1990. *Innovation & small firms*. Cambridge, Massachusetts: MIT Press.

African Merchant Bank. n.d. *Targets* [Online]. Available: http://www.amb.co.za/PDF/0579_AMB_Newsletter_PRINT.PDF. (Accessed 20 April 2007).

Agrebi, M. 2009. Financing SMEs[Online]. Available: http://www.oecdobserver.org/news/fullstory.php/aid/3102/Financing_SMEs.htm. (Accessed 5 December 2009).

Aldrich, H & Zimmer, C. 1985. *Entrepreneurship through social networks*. In DL Sexton & RW Smilor (eds). *The art and science of entrepreneurship*. New York: Ballinger.

Allen, T & Thomas, A (eds). 2000. *Poverty and development into the 21st century*. New York: Oxford University Press.

Allon, J. 2001. *Turn your passion into profits – How to start the business of your dreams*. New York: Hearts Books.

Argil. 2006. *Philosophy* [Online]. Available: <http://www.argil.com/philosophy>. (Accessed 15 August 2007).

Aureos Capital Limited. 2005. *Portfolio: Deal type and sector export capital: Portfolio companies* [Online]. Available: http://www.aureos.com/about/investment_overview007 (Accessed 12 July 2005).

Aureos Capital Limited. 2006. *Investment information* [Online]. Available: <http://www.aureos.com/region/africa/investments>. (Accessed 14 August 2007).

Authemet, JP & Roe, CW. 1992. Understanding a business strategy: The key to successful small business lending. *The Journal of Commercial Lending*, 74(5):33-40.

Barrickman, JR & Charges, MJ. 1995. Small business lending: Will we blow it again? *The Journal of Commercial Lending*, 78(3):12-22.

Barrow, C. 2003. *The complete small business guide - A sourcebook for new and small business*. Oxford: Capstone.

Bates, T. 1990. Entrepreneurial human capital inputs and small business longevity. *Review of Economics and Statistics*, 74(4):551-559.

Bates, T. 1997. Financing small business creation: The case of Chinese and Korean immigrant entrepreneurs. *Journal of Business Venturing*, 12(1):109-110.

Baty, GB. 1981. *Entrepreneurship for the eighties*. Virginia: Reston.

Bbenkele, EK. 2007. An investigation of small business and medium enterprises perceptions towards services offered by commercial banks in South Africa. *African journal of Accounting, Economics, Finance and Banking Research*,1(1):13-25

Beesley, M & Wilson, P. 1992. Government aid to the small firms since Bolton. In J Stanworth, A Westrip, D Watkins & J Lewis et al (eds). *Perspectives on a decade of small business research*. Aldershort: Gower.

Berry, A. 2002. The role of small and medium enterprises sector in Latin American and similar developing countries. *Seton Hall Journal of Diplomacy and International Relations*, Winter/Spring 2002:104-119 [Online]. Available: http://www.cirano.qc.ac/EFM10/pdf/programme_en.pdt. (Accessed 10 January 2011).

Bowler, A & Dawood, MS. 1986. *Entrepreneurship and small business management*. Cape Town: Nasou.

Boyd, N & Vozikis, G. 1994. The influence of self efficacy on the development of entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 18:28-36.

Brau, JC, Brown, RA & Osteryoung, JS. 2004. Do venture capitalists add value to small manufacturing firms? An empirical analysis of venture and non-venture capital backed initial public offering. *Journal of Small Business Management*, 24(1):78-92.

Brown, CM. 1999. *Nobody's business but your own- A small business start-up guide with advice from today's most successful young entrepreneurs*. New York: Hyperion

Bruno, AV & Tyebee, TT. 1985. Entrepreneur's search for capital. *Journal of Business Venturing*, 1(1):61-71.

Bulmer, M. 2004. *Questionnaires, vol.1*. London: Sage.

Business Day. 2005. Why SA's small businesses stay that way. [Online].

Available: http://www.tips.org.za/files/bd_small_business_review_launch_030105.pdf. (Accessed 20 August 2006).

Business link. 2005. No-nonsense guide to small business financing. [Online]. Available:

http://www.businesslink.gov.uk/Finance_files/SBFcomplete2008.pdf. (Accessed 11 June 2009).

Business Partners. 2004. *Making success of independent enterprise - Key success factors for entrepreneurs* [Online].

Available: (Accessed 20 May 2005).

Business Reports. 2006. *SMMEs need entrepreneurial skills, say banks* [Online]. Available:

<http://www.myfnb.co.za/news/latest-news/smmes-need-entrepreneurial-skills,-say-banks-%11-09022006> . (Accessed 9 February 2007).

Buttner, EH & Rosen, BH. 1988. Bank loan officers' perceptions of characteristics of men, women and successful entrepreneurs. *Journal of Business Venturing*, 3(3):249-258.

Buttner, EH & Rosen, BH. 1989. Funding new business ventures, are decision makers biased against women entrepreneurs? *Journal of Business Venturing*, 4(1):249-250.

BVCA, vide British Venture Capital Association. 2002. *Small business loans* [Online].

Available: <http://www.bvca.co.uk/publications/entrepreneurs>. (Accessed 11 June 2007).

Bygrave, WD, Hay, M & Peeters, JB. 1999. *The venture capital handbook*. Great Britain: Financial Times-Prentice Hall.

Caley, K, Chall, E, Chittendam, F & Mason, C. 1992. *Small enterprise development - Policy and practice in action*. Bristol: Chapman.

Cavalluzo, K & Wolken, J. 2005. Small business loan turndowns, personal wealth and discrimination. *Journal of Business*, 78(5):2153-2154.

Chilton, KW, Warren, M & Weidenbaun, ML. 1990. *American manufacturing in a global market*. Boston: Kluwer Academic.

Chittenden, F, Robertson, M & Watkins, D. 1993. *Small firms: Recession and recovery*. London: Chapman.

Churchill, NC & Lewis, VL. 1985. Bank lending to new and growing enterprises. *Journal of Business Venturing*, 1(1):193-200.

CIMA. n.d. *Making a success of your business - Essential checklist* [Online]. Available: <http://www.cimaglobal.com/researchpublication>. (Accessed 21 August 2010).

CIMA. 2002. *Finance*. 3rd edition. London: Bpp.

Coetzee, JK, Graaff, J, Hendriks, F & Wood, G. 2001. *Development – Theory, policy and practice*. Cape Town: Oxford University Press.

Cohan, WA. 2006. *The entrepreneur and small business problem solver*. 3rd edition. New York: John Wiley and Sons.

Cortes, M, Berry, RA & Ishaq, A. 1987. *Success in small and medium-scale enterprises*. New York: Oxford University Press.

Dagogo, DW & Ollor, WG. 2009. The effect of venture capital financing on the economic value added profile of Nigerian SMEs. *African Journal of Accountancy, Economics, Finance and Banking Research*, 5(5): 37-51.

Damitio, JW & Schmidgall, RS. 2007. *What accounting skills do managers value? Strategic Finance* [Online]. Available: <http://www.allbusiness.com/legal/tax-law-income-tax/6202628-1.htm> . (Accessed 19 August 2010).

Davis, TT, Jr & Stetson, CP, Jr. 1984. Creating successful venture backed companies. *Journal of Business Strategy*, 5:45-58.

De Clerca, D & Sapienza, H. 2006. Effect of rational capital and commitment on venture capital perception of portfolio company performance. *Journal of Business Venturing*, 21(3):326-347.

Desi, K. 1998. *Financial funding mechanisms for black economic empowerment organizations in South Africa*. MBA dissertation. University of Cape Town.

Development and Planning Commission. 1999. Document DCP 4/99, April [Online]. Available: <http://www.info.gov.za/greenpapers/1999/deveplan.pdf>. (Accessed 3 May 2006).

Dibernado, N (ed). 1984. *The business failure record*. New York: Dun & Bradstreet.

Dillmar, DA. 1978. *Mail & telephone survey - The total design method*. London: Willey-Interscience.

Dlamini, P. 2010. Small business misses out. *Sowetan*, 20 September.

Drury, C. 2008. *Management and cost accounting*. 7th edition. United States: South Western-Cengage Learning

Dorsey, T. 1979. *Operating guidelines for effective venture capital funds management*. Austin: University of Texas.

DTI, vide Department of Trade and Industry. 1998. *Financial access for SMMEs: Toward a comprehensive strategy – A draft discussion document*. Pretoria: Centre for Small Business.

DTI, vide Department of Trade and Industry. 2002/2003. *Annual report* [Online]. Available: <http://www.dti.gov.za/downloads/annualreport2002.pdf>. (Accessed 20 July 2009).

DTI, vide Department of Trade and Industry. 2005. *Small business service - Department of Trade and Industry. A mapping of study of venture capital provision to SMEs in England, October* [Online]. Available: <http://www.bis.gov.uk/files/file38273.pdf>. (Accessed 14 October 2007).

DTI, vide Department of Trade and Industry. 2006. *Integrated strategy on the promotion of entrepreneurship and small enterprises* [Online]. Available: <http://www.dti.gov.za/smme/strategy.pdf>. (Accessed 20 June 2006).

Dushnitsky, G & Lenox, MJ. 2006. When does corporate venture capital investment create firm value? *Journal of Business Venturing*, 21(6):753-754.

Elitzur, P & Gavius, A. 2003. Contracting, signalling and moral hazard: A model of entrepreneurs, angels and venture capitalists. *Journal of Business Venturing*, 18(1):709-710.

Elliot, DR. 1997. Does growth cause structural transformation? Evidence from Latin America and the Caribbean. *Journal of Development Areas*, 32(2):187-198.

Elliot, JA. 2000. *An introduction to sustainable development*. 2nd edition. Oxford: Routledge Taylor and Francis.

Engineering News. 2005. *Small business, SA's biggest test* [Online]. Available: <http://www.engineeringnews.co.za/article/small-business-sas-biggest-test-2005-01-17> . (Accessed 10 June 2007).

EPRI vide Economic Policy Research Institute.1999. *Poverty-Eradicating Job Creation-EPRI Research Paper#7*[Online]. Available: <http://www.epri.org.za/researchpublications> . (Accessed 14 May 2005).

Erikson, T. 2002. Entrepreneurial capital: The emerging venture's most important asset and competitive advantage. *Journal of Business Venturing*, 17(1):275-290.

European Commission. 2008. *Summary of report of workshops on cross-border venture capital with national experts, industry representatives and researchers* [Online]. Available: http://ec.europa.eu/enterprise/policies/finance/files/summary_report_vc_workshops_2008.pdf. (Accessed 18 August 2009).

Evans, D & Jovanovic, B. 1989a. An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, 97(4):808-827.

Evans, D & Jovanovic, B. 1989b. Demonstrates that capital constraints effectively kill the plans of numerous potential small business owners. *Journal of Political Economy*, 97(4):55-76.

Export Capital. 2001. *Private equity and venture capital Black management forum seminar* [Online]. Available: <http://www.exportcapital.co.za/press.html>. (Accessed 8 August 2007).

Faber, B. 2005. *A catalyst for entrepreneurship* [Online]. Available: <http://www.bluecatalyst.co.za/news>. (Accessed 15 November 2005).

Fafchamps, M. 1994. Industrial structure and micro-enterprises in Africa. *Journal of Development Areas*, 29(1):1-30.

Farrow, D. 1994. *Mastering finance and accounting*. London: McGraw-Hill.

Frank, AG. 2004. The sovereign debt restructuring mechanisms: Is it the proposal or the proposal's failure to find support? *The South African Journal of Economics*, 72(4):707-709.

Fratoe, FA. 1984. *Abstracts of the sociological liberation on minority business ownerships*. Research Division MBDA, US. Department of Commerce.

Fratoe, FA. 1986. A sociological analysis of minority business. *The Review of Black Political Economy*, Fall:5-29

Freear, J, Sohl, JE & Wetzel, WE. 1996. *Creating new capital markets for emerging ventures*. New Hampshire: University of New Hampshire.

Freshwater, D, Barkley, DL, Markley, DM, Rubin, JS & Shaffer, R. 2001. *Non-traditional venture capital institutions: Filling a financial market gap*. Columbia, MO: Rural Policy Research Institute.[Online]. Available: http://www.ruraleship.org/content/cr_2/2_000027.pdf. (Accessed 10 December 2010).

Futuse, B. 2007. Stokvels set to enter BEE big league - State backs plan by R12billion a year on informal saving sector. *City Press - Business*, 22 April:5.

Gaston, RJ. 1989. The scale of informal capital markets. *Small Business Economics*, 1:223-232.

GEM vide Global Entrepreneurship Monitor. 2003. South African Executive Report 2003 Update.[Online]. Available: <http://www.gsb.uct.ac.za/files/GEM2003BW.pdf>. (Accessed 11 November 2010).

GEM vide Global Entrepreneurship Monitor. 2005. South African Report 2005.[Online]. Available: http://www.uwc.ac.za/usrfiles/importcms/gen11Srv7Nme54_9708_1210050485/man731_GEM2005SouthAfrica.pdf. (Accessed 11 November 2010).

Gifford, S. 1997. Limited attention and the role of the venture capitalist. *Journal of Business Venturing*, 12(1):459-482.

Gladstone, D. 1988. *Venture capital handbook: An entrepreneur's guide to obtaining capital to start a business or expand an existing business*. Englewood Cliffs: Prentice Hall.

- Glocapital. 1996. *Venture capital* [Online]. Available: <http://www.glocapital.com/venturecapital>. (Accessed 20 April 2007).
- Gobignetwork. 2007. *Financing your business* [Online]. Available: <http://www.gobignetwork.com>. (Accessed 20 November 2007).
- Goldscheider, C & Kobrin, F. 1980. Ethnic continuity and the process of self employment. *Ethnicity*, 7:256-278.
- Goosen, W, Pampallis, A, Van der Merwe, A & Mdluli, L. 1999. *Banking in the new millennium*. Kenwyn: Juta.
- Government Gazette. 1998. South Africa: Vol.400(19412): Pretoria: Government Printer
- Government Gazette*. 2004. South Africa. Vol. 471 (26762). Pretoria: Government Printer.
- Gowthorpe, C. 2008. *Management accounting*. London: Cengage Learning.
- Gray, C. 1991. *The Barclays guide to managing growth in the small business*. Massachusetts: Blackwell.
- Gray, WJH. 1975. The development of an entrepreneurial finance division in South African financial institution. MBL, University of South Africa.
- Graziano, AM & Raulin, ML. 1997. *Research methods - A process of inquiry*. 3rd edition. New York: Longman.
- Gregory, BT, Rutherford, MW, Oswald, S & Gardiner, L. 2005. An empirical investigation of growth cycle theory of small firm financing. *Journal of Small Business Management*, 43(4):382-384.
- Gumming, DJ. 2006. The determinants of venture capital portfolio size: Empirical evidence. *Journal of Business*, 79(3):1083-1089.
- Hakim, C. 1989. *Identify fast growth firms*. Department of Employment.
- Hall, G. 1989. Lack of finance as a constraint on the expansion of innovatory small firms. In J Barber, JS Metcalfe & M Porteous. *Barriers to growth in small firms*. London: Routledge.

Hall, G, Hutchinson, P & Michaels, N. 2000. Industry effects of the determinants of unquoted SMEs' capital structure. *International Journal of Economics and Business*, 7(3):297-312.

Hall, J & Hofer, CW. 1993. Venture capitalists' decision criteria in new evaluation. *Journal of Business Venturing*, 8(1):25-27.

Hannig, J & Joubert, M. 2003. State of equity finance in South Africa: A review of the industry and the techniques used for successful investment. MBA: University of Cape Town.

Hansohm, D. 1992. Small industry development in Africa - lessons from Sudan. *Bremer Africa-StudienBd2, Lit Verlag*. Munster, Hamburg.

Harper, M. 1984. *Small business in the third world*. New York: John Wiley.

Harrison, RT & Mason, CM. 1990. The role of the business expansion scheme in the UK. *OMEGA*, 17(2):147-157.

Hart, G. 2002. *Disabling globalization: Places of power in post apartheid South Africa*. Berkeley: University of California Press.

Hawkins, AM. 1997. *Economic policy and performance in Africa - what can South Africa learn?* Cape Town: AIPA/Francolin.

HBD. 2005. *Investment process and procedures* [Online]. Available: <http://www.hbd.co.za>. (Accessed 20 May 2007).

Helsing, AHJ & Kolstee, TH (eds). 1993. *Small enterprises and changing policies: Structure adjustments, financial policy and assistance programmes in Africa*. London: IT Publications.

Hess, DW. 1995. How bankers can develop the small business market. *Journal of Commercial Bank Lending*, 68(1):11-18.

Hisrich, RD & Peters, MP. 2002. *Entrepreneurship*. 5th edition. Boston: McGraw Hill/Irwin.

Holliday, R. 1995. *Investigating small firms: Nice work?* New York: Routledge.

Horizon Equity. 2005a. *Investment criteria* [Online]. Available: <http://www.horzonequity.co.za/INVESTMENTPHILOSOPHY/OurInvestmentCriteria/tabid/14792/Default.aspx>. (Accessed 20 May 2006).

Horizon Equity. 2005b. *Entrepreneurs*. [Online]. Available: <http://www.horzonequity.co.za/INVESTMENTPHILOSOPHY/Entrepreneurs/tabid/14787/Default.aspx>. (Accessed 9 August 2006).

Hornigren, CH, Datar, SM & Foster, G. 2006. *Cost accounting a managerial emphasis*. 12th edition. New Jersey: Pearson International.

Hornigren, CH, Datar, SM, Foster, G, Rajan, M & Ittner, C. 2010. *Cost accounting a managerial emphasis*. 13th edition. New Jersey: Pearson International.

Hortgetts, RM & Kuratko, DF. 1995. *Effective small business management*. 5th edition. Tokyo: The Dryden Press – Harcourts Brace College Publishers

Hull, CJ & Hjem, B. 1987. *Helping small firms to grow - An implementation approach*. London: Croom Helm.

Hustedde, R & Pulver, G. 1992. Factors affecting equity capital acquisition: The demand. *Journal of Business Venturing*, 7:363-374.

Icapital. 2005. *Overview* [Online]. Available: <http://www.icapital.co.za/portfolios.htm>. (Accessed 1 June 2006).

IDC, vide Industrial Development Corporation. 2006. *An overview of recent trends in the South African economy 2005* [Online]. Available: <http://www.idc.co.za/publications/researchreports2005>. (Accessed 5 August 2007).

Jacobs, RM. 2003. *Education Research: Sampling a population*. Education Research.[Online]. Available: <http://www.83.homepage.villanova.edu/Richard.jacobs/.../sampling.ppp>. (Accessed 7 November 2009).

Jackowicz, A & Hisrick, R. 1987. Institution in small business lending decisions. *Journal of Small Business Management*, 25:45-52.

Jeppesen, S. 2009. Initiative I: Accesses to investment finance to SMEs.[Online]. Available: <http://www.ddrn.dk/filer/forum/File/Africa Commission initiative areas I II and IV.pdf>. (Accessed 20 September 2009).

John, JA, Whitaker, D & Johnson, DG. 2006. *Statistical thinking in business*. 2nd edition. New York: Chapman & Hall.

Johns, BL, Dunlop, WC & Sheehan, WJ. 1983. *Small business in Australia - Problems and prospects*. 2nd edition. Sydney: Allen & Urwin.

Jones, K & Tullos, R. 2002. Behaviour of pre-venture entrepreneurs and perceptions on their financial needs. *Journal of Small Business Management*, 40(3):233-236.

Jones, N. 1989. Small business commercial loan selection decision, an empirical evaluation. *American Journal of Small Business*, 6:45-49.

Kasekende, L & Opondo, H. 2003. *Financing small and medium scale enterprises (SMEs): Uganda's experience* [Online]. Available: http://www.aacb.org/IMG/pdf/FINANCING_SMEs.pdf. (Accessed 20 June 2005).

Khula Enterprise. n.d. *Khula brings more South Africans into the mainstream economy* [Online]. Available: <http://www.khula.org.za/publication>. (Accessed 10 September 2005).

Khula Enterprise. 2004. *Khula maps the way forward* [Online]. Available: <http://www.khula.org.za/main.html>. (Accessed 12 November 2005).

Khula Enterprise. 2005. *Guarantee schemes* [Online]. Available: <http://www.khula.org.za/credit.htm>. (Accessed 10 April 2006).

Kim, J. 2000. "The effects of workplace financial education on personal finances and workout", Unpublished Phd thesis. Blacksburg: Virginia Polytechnic Institute and State University

Kinunda-Rutashobya, L & Olomi, DR. 1999. *Entrepreneurship and small business development*. Tanzania: University of Dar-es-Salaam.

Knott, G. 2004. *Financial management*. 4th edition. New York: Palgrave MacMillan.

Kotze, L & Smit, AVA. 2008. Personal financial literacy and personal debt management: the potential relationship with new venture creation. *SAJESBM NS*, 1(1):35-50

Kuriloff, AH, Hemphill, J, Jr & Cloud, D. 1993. *Starting and managing the small business*. 3rd edition. New York: McGraw-Hill.

Langdon, K & Bonham, A. 2000. *Smart things to know about business finance*. Oxford: Capstone.

Lapan, SD & Quartaroli, MT. 2009. *Research essentials - An introduction to design and practice*. Hoboken, NJ: John Wiley & Sons.

Le Roux, H. 2004. New initiatives to turn ideas into profits.[Online]. Available: <http://www.engineeringnews.co.za/article/new-initiative-to-turn-ideas-to-profit-2004-08-20> . (Accessed 12 August 2005).

Levin, JS. 2000. *Structuring venture capital, private equity and entrepreneurial transactions*. Chicago, IL: Panel.

Levinson, D & More, KS. 1998. Household works as a deterrent to schooling: An analysis of adolescent girls in Peru. *Journal of Developing Areas*, 32(1):339-356.

Lewis, J, Stanworth, J & Gibb, A. 1984. *Success and failure in small business*. Aldershot: Gower.

Liles, PR. 1974. *New business ventures and the entrepreneur*. Homewood, Illinois: Richard D. Irwing.

Littlefield, E, Morduch, J & Hashemi, S. 2003. Is micro-finance an effective strategy to reach the millennium development goals? *Focus Note*, 24, January.

Longenecker, JG, Moore, CW & Petty, JW. 1994. *Small business management - An entrepreneurial emphasis*. 9th edition. Cincinnati: South-Western.

Lorenz, T. 1985. *Venture capital today: A guide to venture capital market in the United Kingdom*. Cambridge: Woodhead-Faulker.

Louw, I & Ntingi, A. 2007. Labour shuns government's strategy to drive growth. *City Press - Business*, 22 April:3.

Maasdorp, L. 2005. BEE: Not just business as usual in the boardroom. *Sunday Times - Business Times*, 20 March:4.

MacLeod, G. 1995. *Starting your own business in South Africa*. 8th edition. Cape Town: Oxford University Press.

MacLeod, G & Terblanche, B. 2004. *Starting your own business in South Africa*. 10th edition. Cape Town: Oxford University Press.

Macmillan, IC, Siegel, R & Subba Narasimha, PN. 1985. Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing*, 1(1):119-122.

Madi, PM. 1997. *Black economic empowerment in the new South Africa, the rights and the wrongs*. Randburg: Knowledge Resources.

Maier, JB (II) & Walker, DA. 1987. The role of venture capital in financing small business. *Journal of Business Venturing*, 2(1):207-210.

Majola, CH. 2000. Local economic empowerment initiatives and urban poverty alleviation in the city of Johannesburg. MSc(DP), University of the Witwatersrand.

Malgas, H (ed). 2002. *The state of small business in South Africa - Annual review 2002*. Pretoria: Ntsika Enterprise Promotion Agency.

Malhota, M, Chen, Y, Cruscuolo, A, Fan, Q, Hamel, II & Savchenko, Y. 2006. *Expanding access to finance: Good practice for Micro, Small and Medium Enterprises*. Washington: World bank institute

Mann, PH. 1990. Non-traditional business education for black entrepreneurs: Observation from a successful program. *Journal of Small Business Management*, 28(2):28-32.

Marais, H. 2001. *South Africa: Limits to change – The political economy of transition*. 2nd edition. London: Zed Books.

Maree, K. 2007. *First steps in research*. Pretoria: Van Schaik.

Mbeki, T. 2004. *State of the Nation address*. Pretoria.

McBennet, R. 2002. *Budget start-up - 101 ways to start a new business on £10 000 or less*. Charlloff: Management Books.

McCormack, B & Hill, E. 1997. *The SPSS workbook - Conducting surveys*. London: International Thompson Business Press.

McGrath, S. 2005. Skills for productive citizenship for all: The place of skill development for micro and small enterprises in South Africa. *Journal of Education and Work*, 18(1): 111-125

McIntyre, RJ & Dallago, B. 2003. *Small and medium enterprises in transitional economies*. Basingstoke: Palgrave-Macmillan.

McLaney, EJ. 2003. *Business finance - Theory and practice*. 6th edition. Harlow: Financial Times Prentice Hall.

Meyer, EC & Allen, KR. 1994. *Entrepreneurship and small business management*. New York: Glencoe-McGraw-Hill.

Mhome, G & Edigheji, O. 2003. *Governance in the new South Africa – The challenges of globalization*. Lansdowne: University of Cape Town Press.

Mondi, L. 2006. *The IDC's role in the promotion of industrial development* [Online]. Available: <http://www.idc.co.za/Conference%20Papers/2006/Africa%20Development%20Finance%20Week/LumkileMondi.pdf>. (Accessed 5 August 2007).

Mopp, RA. 1997. *A critical review of government policy instruments to ensure black economic empowerment in South Africa*. MA, University of Western Cape.

Morris, R. 2004. *Small businesses are still short changed, says Standard Bank* [Online]. Available: <http://www.financialmail.co.za>. (Accessed 15 June 2006).

Morrisson, C, Lecomte, SHB & Oudin, X. 1994. *Micro-enterprises & the institutional framework in developing countries*. Paris: OECD.

Murphy ,M. 1996. *Small business management*. London.: Pitman Publishing

Nafukho, FM. 1998. Entrepreneurial skills development programs for unemployed youth in Africa: A second look. *Journal of Small Business Management*, 36(1):100-103.

National Small Business Amendment Act 26. 2003. Government Gazette Republic of South Africa

Newburgh, C. 1991. Character assessment in the lending process. *The Journal of Commercial Bank Lending*, 73(8):34-37.

Newton, K. 2001. *Management skills for small business*. Canada: Small Business Policy Branch [Online]. Available: <http://dsp-psd.pwgsc.gc.ca/Collection/lu188-21-2001E.pdf>. (Accessed 20 September 2010).

Ndegwa, P. 1985. *Philip Ndegwa on Africa's development crisis and related international issues*. Nairobi: Heinemann.

Niemand, G. 2006. *Small business management*. Pretoria: Van Schaik.

Niemand, G & Pretorius, M. 2004. *Managing growth - A guide for entrepreneurs*. Cape Town: Juta Academic.

Nompozolo, MT. 1997. Factors contributing to the success of black economic empowerment strategic alliances. MBA, University of the Witwatersrand.

NPI, vide National Productivity Institute. 2003. *Grant for SMME development* [Online]. Available: <http://www.npi.co.za>. (Accessed 20 July 2005).

Ntingi, A. 2007. Equity skills acquisition will be a capital gain - Mogase. *City Press - Business*, 4 February:1.

Ntsika Enterprise Promotion Agency. 1999. State of small business development in South Africa. *Annual Review*. Pretoria.

Ntsika Enterprise Promotion Agency. 2002. State of small business development in South Africa. *Annual Review*. Pretoria.

Ntsika Enterprise Promotion Agency. 2005. State of small business development in South Africa. *Annual Review*. Pretoria.

Olawale, F & Gware, D. 2010. Obstacles to the growth of the new SMEs in South Africa: A principal component analysis approach. *African journal of small business management*, 4(5):729-738

Olivier, LT. 1999. *A practical guide to obtain finance for small and medium enterprises - An insight into the South African banking and financing industry*. Small Business Project.

Olusapo, FA. 2005. Local government and rural development. *Journal of Development Alternatives and Area Studies*, 24(1 &2):185-203.

Oswald, J & Tilley, F. 2003. *Competitive advantage in smes - organising for innovation and change*. London: John Wiley.

Oxford. J. 2004. *SA's one big need: Experienced mentors* [Online]. Available: <http://www.bluecatalyst.co.za/news>. (Accessed 20 November 2005).

Panneerselram, R. 2005. *Research methodology*. India: Prentice Hall.

Parhankangas, A & Landström, H. 2006. How venture capitalists respond to unmet expectations: The role of social environment. *Journal of Business Venturing*, 21(6):773-801.

Paton, C. 2004. *Keep it loose or we will lose it*. *Financial Mail* [Online]. Available: <http://www.financialmail.co.za/04/1210/business>. (Accessed 12 August 2007).

Patricio, A & Mitchell, P. 2000. *Up & running – A guide to running your own business*. South Africa: Massive Publishing.

Pearce, R & Barnes, S. 2006. *Raising venture capital*. West Sussex: John Wiley.

Peck, JA & Wai-Chung Yeung, H. 2003. *Remaking the global economy*. London: Sage.

Policy Co-ordination and Advisory Service. 2003. *Towards a ten-year review - Synthesis report implementation of government programmes - Discussion document*. The Presidency.

Priyanath, HMS. 2006. Managerial deficiencies in the small and medium enterprises (SMEs) in Sri Lanka: An empirical evidence of the SMEs in the Ratnapura District. *Sabaragamuwa University Journal*, 6(1):90-110.[Online]. Available: http://www.sab.ac.lk/Acade-Activity/vol_6/8.DOC. (Accessed 09 December 2010).

Publishing Research Consortium. 2009. Access by UK small and medium sized enterprises to professional and academic information.[Online].

Available:http://www.publishingresearch.net/documents/SME_AccessResearchReport.pdf. (Accessed 10 January 2011).

Rea, RH. 1989. Factors affecting success and failures of seed capital/start-up negotiations. *Journal of Business Venturing*, 4(1):149-158.

Reid, S. 1987. Designing management education and training programs for service firms entrepreneurs. *Journal of Small Business Management*, 25(1):49-52.

Reider, J. 2008. *Effective operations and control for small property held business*. New Jersey: John Wiley.

Reuvid, J. 2001. *Doing business in South Africa*. London: Kogan Page.

Robinson, RB, Jr. 1987. Emerging strategies in the venture capital industry. *Journal of Business Venturing*, 2(1):53-54.

Rose, PS. 2002. *Commercial bank management*. 5th edition. Boston: McGraw-Hill/Irwin.

Ross, SA, Westerfield, RW & Jordan, BD. 1996. *Essentials of corporate finance*. Chicago: Irwin.

Ross, SA, Westerfield, RW, Jordan, BD & Firer, CS. 2001. *Fundamentals of corporate finance*. 2nd edition. Roseville: McGraw-Hill.

Ryan, B, Scapens, RW & Theobald, M. 2002. *Research method & methodology in finance & accounting*. 2nd edition. London: Thomson.

Ryan, E. 2005a. Economic equality is decades away. *Sunday Times - Business Times*, 11 September:4.

Ryan, E. 2005b. SMEs' survival hinges on BEE. *Sunday Times - Business Times*, 11 September:5.

Ryan, JD & Hiduke, GP. 2005. *Small business - An entrepreneur's business plan*. 7th edition. Ohio: Thompson-South Western.

Samson, M, Macquene, K & Van Niekerk, I. 2001. *Capital/skills-intensity and job creation: An analysis of policy option*. EPRS, TIPS Annual Forum.

Samson, M, Van Niekerk, I & Bovula, N. 1999. *Poverty-eradicating job creation - EPRI Research Paper#7* [Online]. Available: <http://www.epri.org.za/rp7.html>. (Accessed 14 May 2005).

SAVCA, vide South African Venture Capital Association. 2003. *SAVC KPMG private equity survey - 2003* [Online]. Available: <http://www.savca.co.za/downloads/SAVCA%20KPMG%20Private%20Equity%20Survey%202003.pdf>. (Accessed 18 March 2006).

SAVCA, vide South African Venture Capital Association. 2004. *SAVCA KPMG private equity survey - 2004* [Online]. Available: <http://www.savca.co.za/downloads/SAVCA%20KPMG%20Private%20Equity%20Survey%202004.pdf>. (Accessed 18 March 2006).

SAVCA, vide South African Venture Capital Association. 2005a. *Associate members of SAVCA* [Online]. Available: <http://www.savca.co.za/associatemembers/default.aspx>. (Accessed 18 March 2006).

SAVCA, vide South African Venture Capital Association. 2005b. *SAVCA KPMG private equity survey - 2005* [Online]. Available: <http://www.savca.co.za/downloads/SAVCA%20KPMG%20Private%20Equity%20Survey%202005.pdf>. (Accessed 18 March 2006).

SBP, vide Small Business Project. 2009. *Accelerating small business growth in South Africa* [Online]. Available: <http://www.africa.fnst-freiheit.org/news/sbp-alert-digital-october.pdf>. (Accessed 24 August 2010).

SBP, vide Small Business project. 2009. *Small business development in South Africa*. [Online]. Available: <http://www.arica.fnst-freiheit.org/new/sbp-alert-smmes-development-in-sa-august-09-digital.pdf>. (Accessed 24 August 2010).

Scarborough, NM, Wilson, DL & Zimmerer, TW. 2009. *Effective small business management - An entrepreneurial approach*. 9th edition. London: Pearson International Edition.

Schepherd, DA & Zacharakis, A. 2002. Venture capitalists' expertise: A call for research into decision aid and cognitive feedback. *Journal of Business Venturing*, 17(1):1-20.

- Schoombee, A. 2000. *Banking for the poor: The successes and failures of South African banks*. DEVNET Conference on Poverty, Prosperity and Progress, Victoria University of Wellington, Wellington, New Zealand, 17-19 November.
- Shilson, D. 1984. Venture capital in the United Kingdom. *Bank of England Quarterly Bulletin*, 24(4):207-211.
- Silverman, D. 1997. *Qualitative research - Theory, methods and practice*. London: Sage.
- Simpson, R. 1997. *Managing finance and information*. London: Pitman.
- Sims, A & Smith, R. 2000. *Management accounting - Business strategy - CIMA study text*. London: CIMA.
- Sims, A & Smith, R. 2002. *Management accounting - Business strategy - CIMA study text*. London: CIMA.
- Singh, K. 2010. *Explaining the venture capital investing process* [Online]. Available: <http://www.brighthub.com/office/entrepreneurs/articles/82037.aspx>. (Accessed 18 August 2010).
- Sinswat, W & Subhanji, T. 2010. *A cross-country survey on SMEs financial access and implication for Thailand*. Bank of Thailand.[Online]. Available: http://www.jcic.org.tw/history_eng.htm .(Accessed 13 January 2011).
- Sirtaine, S. 2006. *Access to finance by Chilean corporations - World Bank. World Bank Policy Research Working Paper 3845, February* [Online]. Available: http://mfbbva.org/uploads/tx_bbvagbmicrof/wps3845.pdf. (Accessed 12 March 2007).
- Sithole, X. 2006. *Maximising access for finance SMMEs* [Online]. Available: <http://www.idc.co.za.Conference%20papers/2006/Africa%20Development%20Finance%20Week/XolaSithole.pdf>. (Accessed 14 January 2007).
- Sizanani Advisory. 2004. *Sizanani head says training will help SMEs get loans* [Online]. Available: www.businessowners.co.za/startyourownbusiness. (Accessed 14 September 2004).

Sizanani Advisory. 2006. *Evaluation process* [Online]. Available: <http://www.sizananiadvisory.org.za/process.htm>. (Accessed 20 August 2007).

Small Business Administration. 1997. *Trends in venture capital funding in the 1990s. Who supplies venture capital, who receives it, and how is it changing the US economy?* [Online]. Available: <http://www.sba.gov.advo>. (Accessed 10 August 2005).

Small business lending survey results. 1995. *Journal of Commercial Lending*, 78(1):56-57.

Small capital - The practical guide for SMEs in South Africa. 2005. Issue 3, September [Online]. Available: http://www.standardbank.co.za/portal/images/standardbank/staticFile/Business/Business_guides/SmallCapitaliss3.pdf. (Accessed 10 June 2006).

Sohl, JE. 2003. The US angel and venture capital markets: Recent trends and developments. *Journal of private equity*, 6(2): 7-17

Solo, MT & Manroth, A. 2006. *Access to financial services in Colombia*. World Bank Policy Research Paper 3834, February [Online]. Available: <http://elibrary.worldbank.org/docserver/download/3834.pdf?expires=1297237256&id=id&accname=guest&checksum=C79F0E6891C77D7E5D99FBCDE71F8F14>. (Accessed 12 June 2007).

South Africa. 1995. *White Paper on Small Business*. Pretoria: Government Printer.

South Africa. 1996. *National Small Business Development Act 112 of 1981*. Pretoria: Government Printer.

Southall, R. 2004. *Black empowerment and corporate capital. In State of the nation: South Africa 2004-2005*. Cape Town: HSRC Press.

Staff writer. 2004. *Where to get finance?* [Online]. Available: <http://www.businessowner.co.za/Article.aspx?Page=23&type=30&Item=1850>. (Accessed 5 December 2004).

Stanworth, J & Gray, C. 1991. *Bolton 20 years on: The small firm in the 1990s*. London: Chapman.

Statssa, vide Statistics South Africa. 2006. *MYPS, mid-year-population-estimates-2005* [Online]. Available: <http://www.statssa.gov.za/publications/P0302/P03022006.pdf>. (Accessed 25 March 2007).

Steyn, R. 2005. *When your bank turns you down again, consider equity finance* [Online]. Available: <http://www.businessowner.co.za/Article.aspx?Page=23&type=21&Item=288>. (Accessed 5 September 2006).

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

Stoll, HR. 1984. Small firms' access to public equity financing. In PM Horvitz & R Richardson Pettit (eds). *Small business finance, Problems in the financing of small business*. Greenwich, Conn.: JAI Press.

Storey, DJ. 1982. *Entrepreneurship & the new firm*. London: Croom Helm.

Storey, DJ. 1994. *Understanding the small business sector*. London: Routledge.

Strydom, I. 2005. Banks are to spend R5million on balck smes.[Online]. Available: <http://www.businessowner.co.za/Article.aspx?Page=23&type=27&Item=2800>. (Accessed 20 August 2006).

Sumser, J. 2001. *A guide to empirical research in communication - Rules for looking*. London: Sage.

Sunday Times – Business Times. 2007a. Chartered accountant award record number of bursaries, 29 March.

Sunday Times - Business Times. 2007b. Education rises to top of the list, 29 March.

Sunday Times - Business Times. 2007c. More for social causes, 29 March.

Sunderland, R. 2001. *Complete guide to running your own business*. New York: Random House.

- Sunje, A. 2003. The role of government in supporting entrepreneurship and SMEs.[Online]. Available: <http://www.ecorys.nl/dmdocuments/Sunje%20-%20Support%20to%20Entrepreneurship%20&%20SMEs%20BiH.pdf>. (Accessed 12 August 2005).
- Tati, S. 2005. Finding finance - Challenge rather than hurdle. *City Press - Money*, 3(11), 5 March.
- Taylor, TW. 1985. *The financing of industry and commerce*. London: Heinemann.
- Tech Monitor. 2007. *Venture capital – Alternative source of financing for SMEs* [Online]. Available: http://www.techmonitor.net/tm/images/7/74/09nov_dec_venture_financing.pdf. (Accessed 29 October 2009).
- Terblanche, B. 2004. *Look beyond banks to finance those big tenders* [Online]. Available: <http://www.businessowner.co.za/Article.aspx?Page=23&type=21&Item=2271>. (Accessed 20 April 2005).
- Terblanche, B. 2005. *Top financiers for business owners, Business Report* [Online]. Available: <http://www.businessowner.co.za/Article.aspx?Page=23&type=30&Item=2445>. (Accessed 17 April 2006).
- Terpstra, DE & Olson, PD. 1993. Entrepreneurial start-up and growth, a classification of problems. *Entrepreneurial Theory and Practice*, 17(3):5-15.
- The Indus Entrepreneurs. 2003. *The essentials of entrepreneurship - What it takes to create a successful enterprise*. Toronto: John Wiley.
- Timmons, JA. 1999. *New venture creation - Entrepreneurship for the 21 century*. 5th edition. Boston: Irwin/McGraw-Hill.
- Timmons, JA & Bygrave, WD. 1997. Venture capital: Reflections and projections. In DL Sexton & RW Similor (eds). *Entrepreneurship 2000*. Chicago: Upstart.
- Timmons, JA & Sapienza, H. 1992. Venture capital: The decade ahead. In DL Sexton & JD Kasarda (eds). *The state of the art of entrepreneurship*. Boston: PWS-Kent.

Timmons, JA & Spinelli, S. 2007. *New venture creation: entrepreneurship for the 21st century*. 7th edition. New York: McGraw Hill

Tustin, DH. 2003. *Small business skills audit in peri-urban areas of Northern Tshwane (Skills requirements of small business establishments in Northern Tshwane)*. Unisa: Bureau of Market Research : Research Report no.315 [Online]. Available: <http://www.unisa.ac.za/contents/faculties/ems/docs/Press315.pdf>. (Accessed 20 September 2010).

Tyebee, TT & Bruno, AV. 1984. A model of venture capitalists investment activity. *Management Science*, 30:1051-1066.

Tyson, E. 2003. *Investing for dummies*. 3rd edition. New York: Wiley.

United Nations. 2001. Improving the competitiveness of SMEs in developing countries. [Online]. Available: http://www.unctad.org/en/docs/itetebmisc3_en.pdf. (Accessed 10 December 2010).

Van Aardt, I, Van Aardt, C, Bezuidenhout, S & Mumba, M. 2008. *Entrepreneurship and new venture management*. Cape Town: Oxford-Southern African University Press.

Van Niekerk, JT. 1995. Entrepreneurial skills as evaluation criteria in granting financial assistance to applicants in the business sector with reference to region G. MBA. University of the North.

Vinturella, JB & Erickson, SM. 2004. *Raising entrepreneurial capital*. New York: Elsevier Butterworth Heinemann.

Vosloo, WB. 1994. Entrepreneurship and economic growth. Pretoria: *Human Sciences Research Council*.

Walker, D. 1989. Financing the small firm. *Small Business Economics*, 1:285-296.

Watson, R & Wilson, N. 2002. Small and medium size entrepreneurs financing: A note on some of the empirical implications of a pecking order. *Journal of Business Finance and Accounting*, 29(3&4):557-558.

Weissman, RL. 1979. *Small business and venture capital*. New York: ARNO Press.

Welman, JC & Kruger, SJ. 2001. *Research methodology for the business and administrative sciences*. 2nd edition. Cape Town: Oxford University Press.

Westfall, L. 2008/9. Sampling Methods. [Online]. Available: <http://www.westfallteam.com/Papers/Sampling%20Methods.pdf>. (Accessed 20 February 2011).

Weston, JF & Copeland, TE. 1999. *Managerial finance*. 19th edition. Fort Worth: Drydan Press.

Wisker, G. 2001. *The postgraduate research handbook - Succeed with your MA, MPhil, EdD & Phd*. Great Britain: Palgrave Study Guides.

World Bank. 2003. *World development report 2003*. World Bank and Oxford University Press.

Wright, C. 1995. *Successful small business management in South Africa: Choosing a small business, starting a business, raising capital, avoiding pitfalls, running your business*. Wynberg: Struik.

Zikmund, WG. 1994. *Business research methods*. London: Dryden Press.

Zimmerer, TW & Scarborough, NM. 1994. *Essentials of small business management*. New York: MacMillan College.

APPENDIX-1A

Consent for participation in an academic research study

The gap in management accounting skills required by venture capitalists and those possessed by small and medium enterprises (SMEs) in the craft industry

Questionnaire to SMEs owners in the craft industry

Dear respondent

You are invited to participate in an academic research study conducted by David Shaku, a master's student under the supervision of Professor PC du Plessis of the Department of Management Accounting at the University of South Africa.

Lack of awareness by SMEs of the type of management accounting skills required by providers of capital is among major reasons why SMEs in South Africa fail to raise sufficient capital to start their business on time. There is minimum management accounting skills providers of capital need to identify in a business before they can grant a loan to a business owner.

The purpose of this study is to investigate the gap in management accounting skills required by venture capitalists and those possessed by SMEs in the craft industry.

The questionnaire comprises mostly of questions where the respondent can mark with an X to an alternative and some yes/no questions.

The responses obtained from the individual questionnaires will be analysed and statistically processed into final results. The information from individual respondents will at all times be treated as confidential and will not be made available to any entity or third party. Neither your name nor your company will be linked to your contributions to this study. The data obtained from the questionnaires will be used for academic research purposes only.

Your participation in this study is very important and will be appreciated. You may, however, choose not to participate and you may also stop participating at any time without any adverse consequences.

As soon as the research is completed, an electronic copy of the final research will be made available to all participants requesting such information.

As soon as the research is completed, an electronic copy of the final research will be made available to all participants requesting such information.

Should you require any further information, please do not hesitate to contact David Shaku at:

Telephone : 012 549 5030 / 012 382 0634
Fax : 012 382 0808
Email : shaku@accamail.com or shakumd@tut.ac.za
Postal address : P O BOX 42341
Boordfontein

0201

Your response to the enclosed questionnaire would be greatly appreciated.

Thank you in anticipation for your kind cooperation and assistance with this research project.

Yours sincerely

Mr. M.D. Shaku

1. Development stage of business					OFFICIAL USE		
1.1.	How long have you been operating the business →	Less than 3 years	4-6 years	More than 7 years	1	2	3
1.2.	Describe the development stage of your business: (Mark with X)			↓			
	Planning phase (Still an idea; not yet started)				1		
	Start-up phase (Preliminary sales)				2		
	Growth phase (Relatively new business; limited markets)				3		
	Mature phase (well established)				4		
2. Background of the entrepreneur/owner							
2.1.	Reason for starting the business: (Mark with X)			↓			
	Unemployed and in need of earning an income				1		
	Business opportunity because of special skills and talent				2		
	Wants to be an entrepreneur and self-employed				3		
	Others (Please specify):				4		
2.2.	Business type: (Mark with X)			↓			
	Sole owner				1		
	Partnership				2		
	Close corporation				3		
	Private company				4		

2.3.	Have you been involved in the same type of business before you started your business? →	Yes	No	0	1
	If yes, what was your involvement? (Mark with X) ↓				
	Purchases			1	
	Material handling (Store, etc)			2	
	Manufacturing			3	
	Quality control			4	
	Marketing and sales			5	
	Administrative tasks			6	
	Management			7	
	Others (Please specify):			8	
2.4.	What is your educational background? (Mark with X) ↓				
	No education at all (Never attended school)			1	
	Limited schooling (No matric)			2	
	Matric			3	
	Certificate for skills development programme (Short course)			4	
	Certificate course (One year formal training)			5	
	Diploma or degree (Three years formal training)			6	
2.5	Was the above education business related? →	Yes	No	0	1
2.6	Have you ever attended workshops or short courses to develop specific business skills? →	Yes	No	0	1
2.7	Did you have any experience of the following prior to your decision to start your own business? (Mark with X) ↓				
	Managing a business or a segment of a business			1	
	Bookkeeping			2	
	Administration			3	
	Stockholding			4	
	Others (Please specify):			5	

2.8	Are you skilled in, or did you receive any training regarding the following aspects? ↓			
	Bookkeeping			1
	Cash flow management			2
	Identification, classification and measurement of overheads			3
	Cost control			4
	Product costing			5
	Raising capital			6
	Preparing financial and sales projections			7
	Budgeting			8
	Standard costing			9
	Activity based costing			10
	Life cycle costing			11
	Variance analysis			12
	Break-even analysis			13
	EOQ & Stock management			14
3.	Financial background of the business			
3.1.	How did you finance the business? (Mark with X) ↓			
	Personal savings			1
	Borrowing from a relative			2
	Borrowing from a local bank			3
	Funded by a venture capitalist			4
	Others (Please specify):			5
3.2.	Was the capital sufficient? →	Yes	No	0 1
3.3.	How much capital did you have available to start the business? Please mention the amount? →	R		
3.4.	How long did it take you to raise the capital? →			
3.5.	How long did the institution take to approve your loan? State number of months. →			

4. Relationship with financial institutions					
4.1	Prior to starting this business, have you ever borrowed money from a bank or venture capitalist for business or personal use? →	Yes	No	0	1
4.2.	If you have a business education, do you think your educational background influenced the decision for a bank to approve you a loan? →	Yes	No	0	1
4.3	Do you think personal accomplishments, like having operated or worked in the similar business, have influenced the decision to approve your loan? →	Yes	No	0	1
4.4	How long did it take the financial institution to approve your loan? Please state the number of months. →				
4.5	Was any of your applications for a loan ever turned down? →	Yes	No	0	1
4.6	If yes, what was stated as the reason for turning down the application? (Please mark with X)				
	Not enough security			1	
	Limited management experience			2	
	Others (Please specify):			3	
5. What was the biggest problems you experienced in acquiring a loan? ↓					
	Identifying possible financiers			1	
	Completing a complicated application form			2	
	Drawing up a feasibility study			3	
	Time lapse between application and approval of loan			4	
	Others (Please specify):			5	

APPENDIX-B

Consent for participation in an academic research study

The gap in management accounting skills required by venture capitalists and those possessed by small and medium enterprises (SMEs) in the craft industry

Questionnaire to venture capital providers

Dear Respondent

You are invited to participate in an academic research study conducted by David Shaku, a master's student under the supervision of Professor PC du Plessis of the Department of Management Accounting at the University of South Africa.

Lack of awareness by SMEs of the type of management accounting skills required by providers of capital is among the major reasons why SMEs in South Africa fail to raise sufficient capital to start their business on time. There is a minimum of management accounting skills that providers of capital need to identify in a business before they can grant a loan to a business owner.

The purpose of this study is to investigate the gap in management accounting skills required by venture capitalists and those possessed by SMEs in the craft industry.

The questionnaire comprises mostly questions where you can choose an alternative, there are some yes/no questions and space is provided next to some questions for reasons, percentages and/or figures.

The responses obtained from the individual questionnaires will be analysed and statistically processed into final results. The information from individual respondents will be treated as confidential at all times and will not be made available to any entity or third party. Neither your name nor your company will be linked to your contributions to this study. The data obtained from the questionnaires will be used for academic research purposes only.

Your participation in this study is very important and would be appreciated. You may, however, choose not to participate and you may also stop participating at any time without any adverse consequences.

As soon as the research is completed, an electronic copy of the final research will be made available to all participants requesting such information.

Should you require any further information, please do not hesitate to contact David Shaku at:

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Postal address : PO BOX 42341
Boordfontein

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Your response to the enclosed questionnaire would be greatly appreciated.

Thank you in anticipation for your kind cooperation and assistance with this research project.

Yours sincerely

M.D. Shaku

1. Background on funding SMEs							OFFICIAL USE			
1.1	How long has your organisation been funding SMEs?	Less than 5 years	6-10 years	11-15 years	More than 16 years	1	2	3	4	
1.2	Does the form of business have an influence on the decision to fund an applicant?			Yes	No	0	1			
1.3	Which forms of business are most likely to get financial support? Please rate them	Low → High								
		1	2	3	4	5				
1	Sole ownership						1			
2	Partnerships						2			
3	Close corporations						3			
4	Private companies						4			
1.4	Does the development stage of the business influence the decision to finance the venture? →			Yes	No	0	1			
1.5	At which stage of development is a venture capitalist most likely to finance a venture?	Least likely → Most likely								
		1	2	3	4	5				
1	Planning phase (Still an idea; not yet started)						1			
2	Start-up phase (Prototype; preliminary sales)						2			
3	Growth phase (Relatively new business; limited markets)						3			
4	Mature phase (established; operating at a profit)						4			
1.6	Are applicants aware of the relevant sources of finance for which they can apply for their businesses? →			Yes	No	0	1			
1.7	If the answer to 1.6 above is yes, please state the number of applications you receive per month for each of the following sources of finance: ↓									
1	Seed						1			
2	Start-up						2			
3	Expansion						3			
4	Replacement capital						4			
5	Buy-outs						5			
1.8	Why funding was granted to these applicants? Can you give some of the factors?									

1.9	Does the location of the applicant's business have any influence on the decision to grant a loan? →	Yes	No	0	1	
1.10	If the answer to 1.9 above is yes, which of the nine provinces is the most preferred one? →					
1.11	Does settlement strategy have an influence on the decision to grant a loan? →	Yes	No	0	1	
1.12	Does understanding the criteria used by the company in selecting a new venture increase the applicant's chances? →	Yes	No	0	1	
1.13	If the answer to 1.12 above is yes, please mention some of the factors working against the applicant. →					
1.14	Does the applicant's industry sector have an influence on the decision to grant a loan?	Yes	No	0	1	
1.15	On a scale of 1 to 5, which of the following sectors are likely to get funding?	Least likely	→			Most likely
		1	2	3	4	5
1	Craft					1
2	Construction					2
3	Communication					3
4	Information and technology					4
5	Agriculture					5
6	Transportation					6
7	Retail					7
2.	Major aspects that financial institutions consider before allocating funds					
2.1	On a scale of 1 to 5, when granting a loan/capital, which of the following aspects of management have an influence on the decision?	Low	→			High
		1	2	3	4	5
1	Participation of applicant in developing a business plan					1
2	Participation of applicant in developing a prototype product					2
3	Technical experience in the same product manufactured					3
4	Good track record in managing a similar type of business					4
5	Experience in drafting projected sales and financial statements					5
6	Knowledge or experience in the similar market or product					6

2.2	Does revenue generated in the past have a direct influence on the decision to finance a business? →	Yes	No	0	1
2.3	Does projected revenue have a direct influence on the decision to finance a business? →	Yes	No	0	1
2.4	Does the guaranteed return on investment directly influence the decision to finance a company? →	Yes	No	0	1
2.5	If the answer to 2.4 above is yes, mention the expected return on investment that will help the applicant to secure the funding. →				
2.6	Do product characteristics have an influence on the decision to finance a company? →	Yes	No	0	1
2.7	Do any of the following have a direct influence on the decision to finance the business?				
	a. Projected market share	Yes	No	0	1
	b. Growth prospects	Yes	No	0	1
	c. Competitiveness of the company	Yes	No	0	1
	d. Others, please specify				
2.8	What should a venture's expected growth rate be for the capitalist to grant a loan? →				
2.9	Does intellectual property have a direct influence on the decision to finance a business, e.g. registered brand? →	Yes	No	0	1
2.10	Does the previous record of the management team or the entrepreneur in a similar type of business have a direct influence on the decision to finance the business? →	Yes	No	0	1
2.11	If the answer to 2.10 above is yes, name some of the management achievements that will directly influence the decision.			
2.12	Does the role of the founder as manager/owner have an influence on the decision to give financial support? →	Yes	No	0	1
2.13	Does the composition of the management team in terms of gender have an influence on the decision to grant a loan? →	Yes	No	0	1
2.14	Does any financial contribution by the entrepreneur or the management team to the business have any influence on the decision to give financial support? →	Yes	No	0	1
2.15	If the answer to 2.14 above is yes, mention the preferred percentage in terms of contribution to the company that the founder should make.				

2.16	How are the following management or financial accounting skills likely to influence the decision to grant a loan?	Least likely \longrightarrow Most likely					
		1	2	3	4	5	
1	Bookkeeping						1
2	Product costing						2
3	Budgeting						3
4	Management of cash flow						4
5	Ability to calculate profits						5
6	Knowledge of analysing price trends						6
7	Analysis, identification or awareness of overheads						7
8	Inventory management						8
9	Calculation of break-even point						9
10	Identification and separation of fixed and variable overheads						10
11	Calculation of expected rate of return						11
12	Calculation of financial and sales projections						12
2.17	How likely are the following to influence a decision to grant a loan?	Least likely \longrightarrow Most likely					
		1	2	3	4	5	
1	The potential of sales growth						1
2	The compatibility of management assumptions with market opportunity						2
3	The exit time scale, exit valuation and exit route						3
2.18	On a scale of 1 to 5, how important are the following as requirements for successful venture capital loans?	Not important \longrightarrow Very important					
		1	2	3	4	5	
1	Business plan						1
2	Feasibility study						2
3	Projected financial statements						3
4	Standard application forms						4
5	Details of business strategy, covering reasons why the company will succeed						5
2.19	Do applicants have problems completing a form or presenting their business plan? \longrightarrow				Yes	No	0 1
2.20	Out of a total of 10 applicants, how many applicants are successful? State the number \longrightarrow						

2.21	What are the main reasons for failure?	1.....	1					
		2.....	2					
		3.....	3					
		4.....	4					
		5.....	5					
		6.....	6					
		7.....	7					
		8.....	8					
		9.....	9					
		10.....	10					
2.22	Which of the following is the most preferred form of security or collateral by a venture capitalist in a new business?	Least preferred \longrightarrow Most preferred						
		1	2	3	4	5		
	Equity							1
	➤ Ordinary shares							2
	➤ Preference shares							3
	Debt							4
	Property							5
	➤ Owner's house							6
	➤ Business premises							7
	➤ Car							8
	➤ Equipment							9
	Surety							10
	Insurance policy							11
	Investment in a bank							12

APPENDIX 2A

```
opened on: 12 Sep 2008, 07:43:14

. use "C:\Documents and Settings\Kobuep\My Documents\dauid shaku 2.dta", clear

. lab var v1_1" Duration of operating the business"

. lab var v1_2" Development stage of your business"

. lab var v1_11" Unemployment and need of earning an income"
variable v1_11 not found
r(111);

. lab var v2_11" Unemployment and need of earning an income"

. lab var v2_12" Business opportunity because of special skills and talent"

. lab var v2_13" Wants to be an entrepreneur and self-employed"

. lab var v2_14" Others"

. lab var v2_2" Business type"

. lab var v2_3" Involved in the same type of business before you started"

. lab var v2_31" Purchases"

. lab var v2_32" Material hanling"

. lab var v2_33" Quality control"

. lab var v2_34" Marketing and sales"

. lab var v2_35" Administrative tasks"

. lab var v2_36" Management"

. lab var v2_37" Others"

. lab var v2_38" Others"

. lab var v2_37" Management"

. lab var v2_36" Administrative tasks"

. lab var v2_35" Marketing and sales"

. lab var v2_34" Quality control"

. lab var v2_33" Manufacturing"

. lab var v2_4" Educational background"

. lab var v2_5" Education business related"
```

. lab var v2_6" Attended workshop or short courses "

. lab var v2_71" Managing a business or a segment of a business "

. lab var v2_72" Bookkeeping "

. lab var v2_73" Administration "

. lab var v2_74" Stockholding "

. lab var v2_75" Other "

. lab var v2_81" Bookkeeping "

. lab var v2_82" Cash flow management "

. lab var v2_83" Overheads "

. lab var v2_84" Cost control "

. lab var v2_85" Product costing "

. lab var v2_86" Raising capital "

. lab var v2_87" Financial and sales projections "

. lab var v2_88" Budgeting "

. lab var v2_89" Standard costing "

. lab var v2_810" Activity based costing "

. lab var v2_811" Life cycle costing "

. lab var v2_812" Variance analysis "

. lab var v2_813" Break-even analysis "

. lab var v2_814" EOQ & Stock management "

. lab var v3_1" How did you finance the business "

v3_1 ambiguous abbreviation
r(111);

. lab var v3_11" Personal savings "

. lab var v3_12" Borrowing from a relative "

. lab var v3_13" Borrowing from a local bank "

. lab var v3_14" Funded by a venture capitalist "

. lab var v3_15" Others "

. lab var v3_2" Capital sufficient "

. lab var v3_3" Capital available to start business "


```

. lab var v3_4" How long did it take to raise the Capital "
. lab var v3_5" How long did it take to approve your loan "

. lab var v4_1" Prior to stating this business, borrowed money from a bank or
> venture capitalist "
note: label truncated to 80 characters

. lab var v4_2" If you have a business education, it influenced the decision
> to approve your loan? "
note: label truncated to 80 characters

. lab var v4_3" Personal accomplishments influenced the decision to approve y
> our loan? "

. lab var v4_4" How long did the financial institution take to approve your l
> oan "

. lab var v4_5" Was any of your applications for a loan ever turned down? "

. lab var v4_6" Reason for turning down the application? "
v4_6 ambiguous abbreviation
r(111);

. lab var v4_61" Not enough security "
. lab var v4_62" Limited management experience "
. lab var v4_63" Others "

. lab var v5_1" Identifying possible financiers "
. lab var v5_2" Compliting a complicated application form "
. lab var v5_3" Drawing up a feasible study"
. lab var v5_4" Time lapse between application and approval of loan"
. lab var v5_4" Others"

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> ce
file C:\Documents and Settings\Kobuep\My Documents\ david shaku 2.dta saved

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```

. tab v1_1

```

Duration of operating the business	Freq.	Percent	Cum.
1	28	18.67	18.67
2	41	27.33	46.00
3	81	54.00	100.00
Total	150	100.00	

```
. tab v1_1 - v5_4
too many variables specified
r(103);
```

```
. for all var X, tab X,
invalid syntax
r(198);
```

```
. help tab
```

```
. help frequency
```

```
. tab v1_1 v1_2
```

Duration of operating the business	Development stage of your business				Total
	1	2	3	4	
1	1	22	4	1	28
2	0	2	36	3	41
3	0	1	14	66	81
Total	1	25	54	70	150

```
. tab v1_1 v2_2
```

Duration of operating the business	Business type			Total
	1	2	3	
1	21	5	2	28
2	30	10	1	41
3	56	24	1	81
Total	107	39	4	150

```
. tab v1_1 v2_3
```

Duration of operating the business	Involved in the same type of business before you started		Total
	0	1	
1	15	13	28
2	26	15	41
3	45	36	81
Total	86	64	150

```
. tab v1_1 v2_31
```

Duration of operating the business	Purchases	Total
1	2	2
2	3	3
3	8	8
Total	13	13

```
. tab v1_1 v2_32
```

Duration of operating the business	Material handling	Total
1	8	8
2	11	11
3	24	24
Total	43	43

```
. tab v1_1 v2_33
```

Duration of operating the business	Manufacturing	Total
1	14	14
2	21	21
3	39	39
Total	74	74

```
. tab v1_1 v2_34
```

Duration of operating the business	Quality control	Total
1	4	4
2	6	6
3	13	13

Total	23	23
-------	----	----

. tab v1_1 v2_35

Duration of the business operating the business	Marketing and sales	Total
1	5	5
2	8	8
3	22	22
Total	35	35

. tab v1_1 v2_36

Duration of the business operating the business	Administrative tasks	Total
1	2	2
2	3	3
3	4	4
Total	9	9

. tab v1_1 v2_37

Duration of the business operating the business	Management	Total
1	2	2
2	2	2
3	5	5
Total	9	9

. tab v1_1 v2_38

Duration of the business operating the business	Others	Total
	8	

1	2	2
2	1	1
3	2	2

Total	5	5

```
. tab v1_1 v2_4
```

Duration of operating the business	Educational background					
Total	1	2	3	4	5	6
1	2	2	6	7	4	7
28						
2	0	1	10	17	5	8
41						
3	4	17	19	13	15	12
80						

Total	6	20	35	37	24	27
149						

```
. tab v1_1 v2_4
```

Duration of operating the business	Educational background					
Total	1	2	3	4	5	6
1	2	2	6	7	4	7
28						
2	0	1	10	17	5	8
41						
3	4	17	19	13	15	12
80						

Total	6	20	35	37	24	27
149						

```
. tab v1_1 v2_5
```

Duration of operating the	Education business related
---------------------------	----------------------------

business	0	1	Total
1	9	18	27
2	19	22	41
3	29	49	78
Total	57	89	146

```
. summarize v1_1-v5_4
```

Variable	Obs	Mean	Std. Dev.	Min	Max
v1_1	150	2.353333	.7783709	1	3
v1_2	150	3.286667	.7626927	1	4
v2_11	74	1	0	1	1
v2_12	63	2	0	2	2
v2_13	60	3	0	3	3
v2_14	11	4	0	4	4
v2_2	150	1.313333	.519895	1	3
v2_3	150	.4266667	.4962499	0	1
v2_31	13	1	0	1	1
v2_32	43	2	0	2	2
v2_33	74	3	0	3	3
v2_34	23	4	0	4	4
v2_35	35	5	0	5	5
v2_36	9	6	0	6	6
v2_37	9	7	0	7	7
v2_38	5	8	0	8	8
v2_4	149	3.899329	1.422526	1	6
v2_5	146	.609589	.4895218	0	1
v2_6	149	.3557047	.4803409	0	1
v2_71	22	1	0	1	1
v2_72	32	2	0	2	2
v2_73	53	3	0	3	3
v2_74	74	4	0	4	4
v2_75	17	5	0	5	5
v2_81	93	1	0	1	1
v2_82	62	2	0	2	2
v2_83	8	3	0	3	3
v2_84	68	4	0	4	4
v2_85	55	5	0	5	5
v2_86	56	5.982143	.1336306	5	6
v2_87	13	7	0	7	7
v2_88	73	8	0	8	8
v2_89	5	9	0	9	9
v2_810	5	10	0	10	10
v2_811	3	11	0	11	11
v2_812	6	12	0	12	12
v2_813	14	13	0	13	13

v2_814		2	14	0	14	14
v3_11		142	1	0	1	1
v3_12		26	2	0	2	2

v3_13		18	3	0	3	3
v3_14		13	4	0	4	4
v3_15		8	5	0	5	5
v3_2		150	.7666667	.4243695	0	1
v3_3		0				

v3_4		150	7.626667	7.580925	1	60
v3_5		29	4.103448	1.988266	1	8
v4_1		149	.7651007	.4253657	0	1
v4_2		66	.7878788	.4119429	0	1
v4_3		64	.65625	.4787136	0	1

v4_4		29	2.931034	2.170106	0	6
v4_5		131	.6870229	.4654852	0	1
v4_61		34	1	0	1	1
v4_62		10	2	0	2	2
v4_63		23	3	0	3	3

v5_1		82	1	0	1	1
v5_2		21	2	0	2	2
v5_3		32	3	0	3	3
v5_4		7	4	0	4	4

. tab1 v1_1-v5_4

-> tabulation of v1_1

Duration of operating the business	Freq.	Percent	Cum.
1	28	18.67	18.67
2	41	27.33	46.00
3	81	54.00	100.00

Total	150	100.00	

-> tabulation of v1_2

Development stage of your business	Freq.	Percent	Cum.
1	1	0.67	0.67
2	25	16.67	17.33
3	54	36.00	53.33
4	70	46.67	100.00

Total	150	100.00	

-> tabulation of v2_11

Unemployment and need of earning an income	Freq.	Percent	Cum.
1	74	100.00	100.00
Total	74	100.00	

-> tabulation of v2_12

Business opportunity because of special skills and talent	Freq.	Percent	Cum.
2	63	100.00	100.00
Total	63	100.00	

-> tabulation of v2_13

Wants to be an entrepreneur and self-employed	Freq.	Percent	Cum.
3	60	100.00	100.00
Total	60	100.00	

-> tabulation of v2_14

Others	Freq.	Percent	Cum.
4	11	100.00	100.00
Total	11	100.00	

-> tabulation of v2_2

Business type	Freq.	Percent	Cum.
1	107	71.33	71.33
2	39	26.00	97.33
3	4	2.67	100.00
Total	150	100.00	

-> tabulation of v2_3

Involvement in the same type of business before you started	Freq.	Percent	Cum.
0	86	57.33	57.33
1	64	42.67	100.00
Total	150	100.00	

-> tabulation of v2_31

Purchases	Freq.	Percent	Cum.
1	13	100.00	100.00
Total	13	100.00	

-> tabulation of v2_32

Material handling	Freq.	Percent	Cum.
2	43	100.00	100.00
Total	43	100.00	

-> tabulation of v2_33

Manufacturing	Freq.	Percent	Cum.
3	74	100.00	100.00
Total	74	100.00	

-> tabulation of v2_34

Quality control	Freq.	Percent	Cum.
4	23	100.00	100.00
Total	23	100.00	

-> tabulation of v2_35

Marketing and sales	Freq.	Percent	Cum.
5	35	100.00	100.00
Total	35	100.00	

-> tabulation of v2_36

Administrative tasks	Freq.	Percent	Cum.
6	9	100.00	100.00
Total	9	100.00	

-> tabulation of v2_37

Management	Freq.	Percent	Cum.
7	9	100.00	100.00
Total	9	100.00	

-> tabulation of v2_38

Others	Freq.	Percent	Cum.
8	5	100.00	100.00
Total	5	100.00	

-> tabulation of v2_4

Educational background	Freq.	Percent	Cum.
1	6	4.03	4.03
2	20	13.42	17.45
3	35	23.49	40.94
4	37	24.83	65.77
5	24	16.11	81.88
6	27	18.12	100.00
Total	149	100.00	

-> tabulation of v2_5

Education business related	Freq.	Percent	Cum.
0	57	39.04	39.04
1	89	60.96	100.00
Total	146	100.00	

-> tabulation of v2_6

Attended workshop or short courses	Freq.	Percent	Cum.
0	96	64.43	64.43

1	53	35.57	100.00
Total	149	100.00	

-> tabulation of v2_71

Managing a business or a segment of a business	Freq.	Percent	Cum.
1	22	100.00	100.00
Total	22	100.00	

-> tabulation of v2_72

Bookkeeping	Freq.	Percent	Cum.
2	32	100.00	100.00
Total	32	100.00	

-> tabulation of v2_73

Administration	Freq.	Percent	Cum.
3	53	100.00	100.00
Total	53	100.00	

-> tabulation of v2_74

Stockholding	Freq.	Percent	Cum.
4	74	100.00	100.00
Total	74	100.00	

-> tabulation of v2_75

Other	Freq.	Percent	Cum.
5	17	100.00	100.00
Total	17	100.00	

-> tabulation of v2_81

Bookkeeping	Freq.	Percent	Cum.
1	93	100.00	100.00
Total	93	100.00	

-> tabulation of v2_82

Cash flow management	Freq.	Percent	Cum.
2	62	100.00	100.00
Total	62	100.00	

-> tabulation of v2_83

Overheads	Freq.	Percent	Cum.
3	8	100.00	100.00
Total	8	100.00	

-> tabulation of v2_84

Cost control	Freq.	Percent	Cum.
4	68	100.00	100.00
Total	68	100.00	

-> tabulation of v2_85

Product costing	Freq.	Percent	Cum.
5	55	100.00	100.00
Total	55	100.00	

-> tabulation of v2_86

Raising capital	Freq.	Percent	Cum.
5	1	1.79	1.79
6	55	98.21	100.00
Total	56	100.00	

-> tabulation of v2_87

Finacial and sales projections	Freq.	Percent	Cum.
7	13	100.00	100.00
Total	13	100.00	

-> tabulation of v2_88

Budgeting	Freq.	Percent	Cum.
8	73	100.00	100.00
Total	73	100.00	

-> tabulation of v2_89

Standard costing	Freq.	Percent	Cum.
9	5	100.00	100.00
Total	5	100.00	

-> tabulation of v2_810

Activity based costing	Freq.	Percent	Cum.
10	5	100.00	100.00
Total	5	100.00	

-> tabulation of v2_811

Life cycle costing	Freq.	Percent	Cum.
11	3	100.00	100.00
Total	3	100.00	

-> tabulation of v2_812

Variance analysis	Freq.	Percent	Cum.
12	6	100.00	100.00
Total	6	100.00	

-> tabulation of v2_813

Break-even analysis	Freq.	Percent	Cum.
13	14	100.00	100.00
Total	14	100.00	

-> tabulation of v2_814

EOQ & Stock management	Freq.	Percent	Cum.
------------------------	-------	---------	------

	Freq.	Percent	Cum.
14	2	100.00	100.00
Total	2	100.00	

-> tabulation of v3_11

Personal savings	Freq.	Percent	Cum.
1	142	100.00	100.00
Total	142	100.00	

-> tabulation of v3_12

Borrowing from a relative	Freq.	Percent	Cum.
2	26	100.00	100.00
Total	26	100.00	

-> tabulation of v3_13

Borrowing from a local bank	Freq.	Percent	Cum.
3	18	100.00	100.00
Total	18	100.00	

-> tabulation of v3_14

Funded by a venture capitalist	Freq.	Percent	Cum.
4	13	100.00	100.00
Total	13	100.00	

-> tabulation of v3_15

Others	Freq.	Percent	Cum.
5	8	100.00	100.00
Total	8	100.00	

-> tabulation of v3_2

Capital sufficient	Freq.	Percent	Cum.

0	35	23.33	23.33
1	115	76.67	100.00
-----+-----			
Total	150	100.00	

-> tabulation of v3_3

Capital available to start business	Freq.	Percent	Cum.
-----+-----			
1 000	8	5.33	5.33
1 100	1	0.67	6.00
1 200	1	0.67	6.67
1 500	9	6.00	12.67
1 600	3	2.00	14.67
1 700	1	0.67	15.33
1 850	1	0.67	16.00
10 000	7	4.67	20.67
10 700	1	0.67	21.33
1000	1	0.67	22.00
12 000	4	2.67	24.67
13 000	1	0.67	25.33
13 800	1	0.67	26.00
14 000	1	0.67	26.67
15 000	13	8.67	35.33
2 000	4	2.67	38.00
2 500	2	1.33	39.33
2 600	1	0.67	40.00
2 700	1	0.67	40.67
2 800	1	0.67	41.33
20 000	5	3.33	44.67
25 000	2	1.33	46.00
28 000	1	0.67	46.67
3 000	4	2.67	49.33
3 500	1	0.67	50.00
3 600	1	0.67	50.67
30 000	1	0.67	51.33
4 000	4	2.67	54.00
4 500	1	0.67	54.67
4 600	1	0.67	55.33
4 800	1	0.67	56.00
4 900	1	0.67	56.67
45 000	1	0.67	57.33
450	1	0.67	58.00
480	1	0.67	58.67
5 000	13	8.67	67.33
5 400	1	0.67	68.00
5 500	1	0.67	68.67
50 000	1	0.67	69.33
500	5	3.33	72.67
6 000	8	5.33	78.00
6 500	3	2.00	80.00
6 800	2	1.33	81.33
600	4	2.67	84.00
650	2	1.33	85.33
680	1	0.67	86.00

7 000		2	1.33	87.33
7 200		1	0.67	88.00
7 500		1	0.67	88.67
7 600		1	0.67	89.33
7 800		2	1.33	90.67
700		2	1.33	92.00
750		1	0.67	92.67
780		1	0.67	93.33
8 000		2	1.33	94.67
8 500		1	0.67	95.33
8 600		1	0.67	96.00
800		2	1.33	97.33
850		1	0.67	98.00
9 000		1	0.67	98.67
900		2	1.33	100.00

Total		150	100.00	

-> tabulation of v3_4

How long did it take to raise the Capital	Freq.	Percent	Cum.	
1		15	10.00	10.00
2		18	12.00	22.00
3		16	10.67	32.67
4		9	6.00	38.67
5		4	2.67	41.33
6		22	14.67	56.00
7		13	8.67	64.67
8		10	6.67	71.33
9		4	2.67	74.00
12		28	18.67	92.67
16		1	0.67	93.33
22		1	0.67	94.00
24		6	4.00	98.00
36		2	1.33	99.33
60		1	0.67	100.00

Total		150	100.00	

-> tabulation of v3_5

How long did it take to approve your loan	Freq.	Percent	Cum.	
1		5	17.24	17.24
2		2	6.90	24.14
3		2	6.90	31.03
4		8	27.59	58.62
5		3	10.34	68.97
6		7	24.14	93.10
7		1	3.45	96.55

8	1	3.45	100.00

Total	29	100.00	

-> tabulation of v4_1

Prior to stating this business, borrowed money from a bank or venture capitalis	Freq.	Percent	Cum.

0	35	23.49	23.49
1	114	76.51	100.00

Total	149	100.00	

-> tabulation of v4_2

If you have a business education, it influenced the decision to approve your lo	Freq.	Percent	Cum.

0	14	21.21	21.21
1	52	78.79	100.00

Total	66	100.00	

-> tabulation of v4_3

Personal accomplishm ents influenced the decision to approve your loan?	Freq.	Percent	Cum.

0	22	34.38	34.38
1	42	65.63	100.00

Total	64	100.00	

-> tabulation of v4_4

How long |

did the financial institution take to approve your loan	Freq.	Percent	Cum.
0	1	3.45	3.45
1	11	37.93	41.38
2	4	13.79	55.17
3	2	6.90	62.07
4	3	10.34	72.41
6	8	27.59	100.00
Total	29	100.00	

-> tabulation of v4_5

Was any of your application s for a loan ever turned down?	Freq.	Percent	Cum.
0	41	31.30	31.30
1	90	68.70	100.00
Total	131	100.00	

-> tabulation of v4_61

Not enough security	Freq.	Percent	Cum.
1	34	100.00	100.00
Total	34	100.00	

-> tabulation of v4_62

Limited management experience	Freq.	Percent	Cum.
2	10	100.00	100.00
Total	10	100.00	

-> tabulation of v4_63

Others	Freq.	Percent	Cum.
3	23	100.00	100.00
Total	23	100.00	

-> tabulation of v5_1

Identifying possible financiers	Freq.	Percent	Cum.
1	82	100.00	100.00
Total	82	100.00	

-> tabulation of v5_2

Compliting a complicated application form	Freq.	Percent	Cum.
2	21	100.00	100.00
Total	21	100.00	

-> tabulation of v5_3

Drawing up a feasible study	Freq.	Percent	Cum.
3	32	100.00	100.00
Total	32	100.00	

-> tabulation of v5_4

Others	Freq.	Percent	Cum.
4	7	100.00	100.00
Total	7	100.00	

closed on: 12 Sep 2008, 11:37:12

APPENDIX 2B

 log: C:\Documents and Settings\Kobuep\My Documents\David Shaku1.smcl
 log type: smcl
 opened on: 5 Sep 2008, 12:49:29

. use "C:\Documents and Settings\Kobuep\My Documents\david shaku 1.dta", clear

. edit
 - preserve

. tab1 v1_1- v2_2210

-> tabulation of v1_1

v1_1	Freq.	Percent	Cum.
1	1	3.33	3.33
2	7	23.33	26.67
3	13	43.33	70.00
4	9	30.00	100.00
Total	30	100.00	

-> tabulation of v1_2

v1_2	Freq.	Percent	Cum.
0	21	70.00	70.00
1	9	30.00	100.00
Total	30	100.00	

-> tabulation of v1_31

v1_31	Freq.	Percent	Cum.
1	8	26.67	26.67
3	3	10.00	36.67
4	1	3.33	40.00
5	18	60.00	100.00
Total	30	100.00	

-> tabulation of v1_32

v1_32	Freq.	Percent	Cum.
1	2	6.67	6.67
3	3	10.00	16.67
4	5	16.67	33.33
5	20	66.67	100.00

Total | 30 100.00

-> tabulation of v1_33

v1_33	Freq.	Percent	Cum.
1	1	3.33	3.33
3	1	3.33	6.67
4	2	6.67	13.33
5	26	86.67	100.00

Total	30	100.00	

-> tabulation of v1_34

v1_34	Freq.	Percent	Cum.
1	6	20.00	20.00
4	2	6.67	26.67
5	22	73.33	100.00

Total	30	100.00	

-> tabulation of v1_4

v1_4	Freq.	Percent	Cum.
0	20	66.67	66.67
1	10	33.33	100.00

Total	30	100.00	

-> tabulation of v1_51

v1_51	Freq.	Percent	Cum.
1	25	83.33	83.33
2	2	6.67	90.00
3	1	3.33	93.33
4	1	3.33	96.67
5	1	3.33	100.00

Total	30	100.00	

-> tabulation of v1_52

v1_52	Freq.	Percent	Cum.
1	5	16.67	16.67
2	1	3.33	20.00
3	13	43.33	63.33
4	3	10.00	73.33
5	8	26.67	100.00

Total | 30 100.00

-> tabulation of v1_53

v1_53	Freq.	Percent	Cum.
3	2	6.67	6.67
4	3	10.00	16.67
5	25	83.33	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_54

v1_54	Freq.	Percent	Cum.
1	2	6.67	6.67
4	2	6.67	13.33
5	26	86.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_6

v1_6	Freq.	Percent	Cum.
0	19	63.33	63.33
1	11	36.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_71

v1_71	Freq.	Percent	Cum.
0	1	5.26	5.26
1	5	26.32	31.58
2	7	36.84	68.42
3	1	5.26	73.68
4	1	5.26	78.95
5	2	10.53	89.47
10	2	10.53	100.00
-----+			
Total	19	100.00	

-> tabulation of v1_72

v1_72	Freq.	Percent	Cum.
2	3	15.79	15.79
3	3	15.79	31.58
4	1	5.26	36.84
5	4	21.05	57.89
6	2	10.53	68.42

7	2	10.53	78.95
15	1	5.26	84.21
20	1	5.26	89.47
25	1	5.26	94.74
50	1	5.26	100.00

-----+-----
Total | 19 100.00

-> tabulation of v1_73

v1_73	Freq.	Percent	Cum.
-------	-------	---------	------

2	1	5.26	5.26
3	2	10.53	15.79
4	2	10.53	26.32
5	5	26.32	52.63
6	1	5.26	57.89
7	1	5.26	63.16
10	1	5.26	68.42
15	2	10.53	78.95
20	2	10.53	89.47
50	2	10.53	100.00

-----+-----
Total | 19 100.00

-> tabulation of v1_74

v1_74	Freq.	Percent	Cum.
-------	-------	---------	------

0	2	11.11	11.11
1	1	5.56	16.67
3	1	5.56	22.22
4	3	16.67	38.89
5	2	11.11	50.00
6	1	5.56	55.56
7	2	11.11	66.67
10	2	11.11	77.78
26	1	5.56	83.33
30	2	11.11	94.44
40	1	5.56	100.00

-----+-----
Total | 18 100.00

-> tabulation of v1_75

v1_75	Freq.	Percent	Cum.
-------	-------	---------	------

0	5	35.71	35.71
1	1	7.14	42.86
4	3	21.43	64.29
6	1	7.14	71.43
7	2	14.29	85.71
10	1	7.14	92.86
40	1	7.14	100.00

-----+-----
Total | 14 100.00

-> tabulation of v1_8
no observations

-> tabulation of v1_9

v1_9 | Freq. Percent Cum.
-----+-----

0 | 7 23.33 23.33
1 | 23 76.67 100.00
-----+-----

Total | 30 100.00

-> tabulation of v1_10
no observations

-> tabulation of v1_11

v1_11 | Freq. Percent Cum.
-----+-----

0 | 13 43.33 43.33
1 | 17 56.67 100.00
-----+-----

Total | 30 100.00

-> tabulation of v1_12

v1_12 | Freq. Percent Cum.
-----+-----

0 | 18 60.00 60.00
1 | 12 40.00 100.00
-----+-----

Total | 30 100.00

-> tabulation of v1_13
no observations

-> tabulation of v1_14

v1_14 | Freq. Percent Cum.
-----+-----

0 | 20 66.67 66.67
1 | 10 33.33 100.00
-----+-----

Total | 30 100.00

-> tabulation of v1_151

v1_151 | Freq. Percent Cum.
-----+-----

1 | 11 36.67 36.67
2 | 3 10.00 46.67

3	6	20.00	66.67
5	10	33.33	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_152

v1_152	Freq.	Percent	Cum.
-----+			
1	6	20.00	20.00
2	1	3.33	23.33
3	7	23.33	46.67
4	2	6.67	53.33
5	14	46.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_153

v1_153	Freq.	Percent	Cum.
-----+			
1	5	16.67	16.67
3	6	20.00	36.67
4	3	10.00	46.67
5	16	53.33	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_154

v1_154	Freq.	Percent	Cum.
-----+			
1	3	10.00	10.00
5	27	90.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_155

v1_155	Freq.	Percent	Cum.
-----+			
1	4	13.33	13.33
2	1	3.33	16.67
3	8	26.67	43.33
4	3	10.00	53.33
5	14	46.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v1_156

v1_156	Freq.	Percent	Cum.
-----+			
1	4	13.33	13.33

3	1	3.33	16.67
4	7	23.33	40.00
5	18	60.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v1_157

v1_157	Freq.	Percent	Cum.
--------	-------	---------	------

1	3	10.00	10.00
3	2	6.67	16.67
4	6	20.00	36.67
5	19	63.33	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_11

v2_11	Freq.	Percent	Cum.
-------	-------	---------	------

1	5	16.67	16.67
2	1	3.33	20.00
3	1	3.33	23.33
5	23	76.67	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_12

v2_12	Freq.	Percent	Cum.
-------	-------	---------	------

1	3	10.00	10.00
2	1	3.33	13.33
3	2	6.67	20.00
4	1	3.33	23.33
5	23	76.67	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_13

v2_13	Freq.	Percent	Cum.
-------	-------	---------	------

1	3	10.00	10.00
3	3	10.00	20.00
4	1	3.33	23.33
5	23	76.67	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_14

v2_14	Freq.	Percent	Cum.
-------	-------	---------	------

1	3	10.00	10.00
3	3	10.00	20.00
4	1	3.33	23.33
5	23	76.67	100.00

-----+-----
 Total | 30 100.00

3	1	3.33	3.33
5	29	96.67	100.00
Total	30	100.00	

-> tabulation of v2_15

v2_15	Freq.	Percent	Cum.
2	1	3.33	3.33
3	2	6.67	10.00
4	2	6.67	16.67
5	25	83.33	100.00
Total	30	100.00	

-> tabulation of v2_16

v2_16	Freq.	Percent	Cum.
3	2	6.67	6.67
4	1	3.33	10.00
5	27	90.00	100.00
Total	30	100.00	

-> tabulation of v2_2

v2_2	Freq.	Percent	Cum.
0	26	86.67	86.67
1	4	13.33	100.00
Total	30	100.00	

-> tabulation of v2_3

v2_3	Freq.	Percent	Cum.
0	28	93.33	93.33
1	2	6.67	100.00
Total	30	100.00	

-> tabulation of v2_4

v2_4	Freq.	Percent	Cum.
0	10	33.33	33.33
1	20	66.67	100.00
Total	30	100.00	

-> tabulation of v2_5

v2_5	Freq.	Percent	Cum.
10	2	28.57	28.57
15	3	42.86	71.43
25	2	28.57	100.00
-----+			
Total	7	100.00	

-> tabulation of v2_6

v2_6	Freq.	Percent	Cum.
0	13	43.33	43.33
1	17	56.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_7a

v2_7a	Freq.	Percent	Cum.
0	24	80.00	80.00
1	6	20.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_7b

v2_7b	Freq.	Percent	Cum.
0	25	83.33	83.33
1	5	16.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_7c

v2_7c	Freq.	Percent	Cum.
0	24	80.00	80.00
1	6	20.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_7d

no observations

-> tabulation of v2_8

v2_8	Freq.	Percent	Cum.
10	2	14.29	14.29

15	3	21.43	35.71
20	7	50.00	85.71
25	2	14.29	100.00

-----+-----
 Total | 14 100.00

-> tabulation of v2_9

v2_9	Freq.	Percent	Cum.
------	-------	---------	------

0	23	76.67	76.67
1	7	23.33	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_10

v2_10	Freq.	Percent	Cum.
-------	-------	---------	------

0	19	63.33	63.33
1	11	36.67	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_11_1

no observations

-> tabulation of v2_12_1

v2_12_1	Freq.	Percent	Cum.
---------	-------	---------	------

0	27	90.00	90.00
1	3	10.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_13_1

v2_13_1	Freq.	Percent	Cum.
---------	-------	---------	------

0	6	20.00	20.00
1	24	80.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_14_1

v2_14_1	Freq.	Percent	Cum.
---------	-------	---------	------

0	20	66.67	66.67
1	10	33.33	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_15_1

v2_15_1	Freq.	Percent	Cum.
10	2	11.11	11.11
15	2	11.11	22.22
20	6	33.33	55.56
25	7	38.89	94.44
50	1	5.56	100.00
Total	18	100.00	

-> tabulation of v2_161

v2_161	Freq.	Percent	Cum.
1	2	6.67	6.67
3	4	13.33	20.00
4	4	13.33	33.33
5	20	66.67	100.00
Total	30	100.00	

-> tabulation of v2_162

v2_162	Freq.	Percent	Cum.
1	1	3.33	3.33
3	3	10.00	13.33
4	2	6.67	20.00
5	24	80.00	100.00
Total	30	100.00	

-> tabulation of v2_163

v2_163	Freq.	Percent	Cum.
1	2	6.67	6.67
3	4	13.33	20.00
4	3	10.00	30.00
5	21	70.00	100.00
Total	30	100.00	

-> tabulation of v2_164

v2_164	Freq.	Percent	Cum.
3	3	10.00	10.00
4	2	6.67	16.67
5	25	83.33	100.00
Total	30	100.00	

-> tabulation of v2_165

v2_165	Freq.	Percent	Cum.
1	1	3.33	3.33
3	3	10.00	13.33
4	3	10.00	23.33
5	23	76.67	100.00
Total	30	100.00	

-> tabulation of v2_166

v2_166	Freq.	Percent	Cum.
1	7	23.33	23.33
3	15	50.00	73.33
4	3	10.00	83.33
5	5	16.67	100.00
Total	30	100.00	

-> tabulation of v2_167

v2_167	Freq.	Percent	Cum.
1	10	33.33	33.33
3	12	40.00	73.33
4	1	3.33	76.67
5	7	23.33	100.00
Total	30	100.00	

-> tabulation of v2_168

v2_168	Freq.	Percent	Cum.
1	1	3.33	3.33
3	4	13.33	16.67
4	2	6.67	23.33
5	23	76.67	100.00
Total	30	100.00	

-> tabulation of v2_169

v2_169	Freq.	Percent	Cum.
1	3	10.00	10.00
2	1	3.33	13.33
3	9	30.00	43.33
4	6	20.00	63.33
5	11	36.67	100.00

-----+-----
Total | 30 100.00

-> tabulation of v2_1610

v2_1610	Freq.	Percent	Cum.
1	8	26.67	26.67
3	11	36.67	63.33
4	4	13.33	76.67
5	7	23.33	100.00

-----+-----
Total | 30 100.00

-> tabulation of v2_1611

v2_1611	Freq.	Percent	Cum.
1	13	43.33	43.33
2	1	3.33	46.67
3	11	36.67	83.33
4	2	6.67	90.00
5	3	10.00	100.00

-----+-----
Total | 30 100.00

-> tabulation of v2_1612

v2_1612	Freq.	Percent	Cum.
1	3	10.00	10.00
3	11	36.67	46.67
4	2	6.67	53.33
5	14	46.67	100.00

-----+-----
Total | 30 100.00

-> tabulation of v2_171

v2_171	Freq.	Percent	Cum.
1	1	3.33	3.33
3	2	6.67	10.00
4	1	3.33	13.33
5	26	86.67	100.00

-----+-----
Total | 30 100.00

-> tabulation of v2_172

v2_172	Freq.	Percent	Cum.
1	17	56.67	56.67
2	2	6.67	63.33

3	7	23.33	86.67
4	1	3.33	90.00
5	3	10.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_173

v2_173	Freq.	Percent	Cum.
--------	-------	---------	------

1	13	43.33	43.33
2	2	6.67	50.00
3	6	20.00	70.00
5	9	30.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_181

v2_181	Freq.	Percent	Cum.
--------	-------	---------	------

5	30	100.00	100.00
---	----	--------	--------

-----+-----
 Total | 30 100.00

-> tabulation of v2_182

v2_182	Freq.	Percent	Cum.
--------	-------	---------	------

3	3	10.00	10.00
5	27	90.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_183

v2_183	Freq.	Percent	Cum.
--------	-------	---------	------

3	4	13.33	13.33
4	2	6.67	20.00
5	24	80.00	100.00

-----+-----
 Total | 30 100.00

-> tabulation of v2_184

v2_184	Freq.	Percent	Cum.
--------	-------	---------	------

1	8	26.67	26.67
2	1	3.33	30.00
3	12	40.00	70.00
4	3	10.00	80.00
5	6	20.00	100.00

-----+-----

Total | 30 100.00

-> tabulation of v2_185

v2_185	Freq.	Percent	Cum.
1	1	3.33	3.33
4	3	10.00	13.33
5	26	86.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_19

v2_19	Freq.	Percent	Cum.
0	6	20.00	20.00
1	24	80.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_20

v2_20	Freq.	Percent	Cum.
2	2	7.14	7.14
3	5	17.86	25.00
4	11	39.29	64.29
5	6	21.43	85.71
6	3	10.71	96.43
7	1	3.57	100.00
-----+			
Total	28	100.00	

-> tabulation of v2_21

no observations

-> tabulation of v2_221

v2_221	Freq.	Percent	Cum.
1	27	90.00	90.00
3	2	6.67	96.67
4	1	3.33	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_222

v2_222	Freq.	Percent	Cum.
1	17	56.67	56.67
3	3	10.00	66.67
4	1	3.33	70.00

5	9	30.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_223

v2_223	Freq.	Percent	Cum.
1	19	63.33	63.33
2	3	10.00	73.33
3	4	13.33	86.67
4	1	3.33	90.00
5	3	10.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_224

v2_224	Freq.	Percent	Cum.
1	1	3.33	3.33
2	1	3.33	6.67
3	1	3.33	10.00
4	1	3.33	13.33
5	26	86.67	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_225

v2_225	Freq.	Percent	Cum.
1	2	6.67	6.67
2	1	3.33	10.00
3	1	3.33	13.33
4	2	6.67	20.00
5	24	80.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_226

v2_226	Freq.	Percent	Cum.
1	14	46.67	46.67
2	8	26.67	73.33
3	3	10.00	83.33
4	2	6.67	90.00
5	3	10.00	100.00
-----+			
Total	30	100.00	

-> tabulation of v2_227

v2_227	Freq.	Percent	Cum.
1	15	50.00	50.00
2	8	26.67	76.67
3	4	13.33	90.00
4	3	10.00	100.00
Total	30	100.00	

-> tabulation of v2_228

v2_228	Freq.	Percent	Cum.
1	6	20.00	20.00
2	5	16.67	36.67
3	8	26.67	63.33
4	7	23.33	86.67
5	4	13.33	100.00
Total	30	100.00	

-> tabulation of v2_229

v2_229	Freq.	Percent	Cum.
1	5	16.67	16.67
2	4	13.33	30.00
3	4	13.33	43.33
4	8	26.67	70.00
5	9	30.00	100.00
Total	30	100.00	

-> tabulation of v2_2210

v2_2210	Freq.	Percent	Cum.
1	6	20.00	20.00
2	4	13.33	33.33
3	7	23.33	56.67
4	4	13.33	70.00
5	9	30.00	100.00
Total	30	100.00	

. for var v1_2 v1_31 v1_32 v1_33 v1_34 v1_4 v1_51 v1_52 v1_53 v1_54 v2_2 v2_3
 > v2_4 v2_6 v2_7a v2_7b v2_7c v2_7d: tab v1_1 X,

-> tab v1_1 v1_2,

	v1_2		Total
v1_1	0	1	
1	1	0	1

2	3	4	7
3	10	3	13
4	7	2	9
-----+			
Total	21	9	30

-> tab v1_1 v1_31,

		v1_31			
v1_1	1	3	4	5	Total
-----+					
1	0	0	0	1	1
2	2	0	0	5	7
3	3	2	0	8	13
4	3	1	1	4	9
-----+					
Total	8	3	1	18	30

-> tab v1_1 v1_32,

		v1_32			
v1_1	1	3	4	5	Total
-----+					
1	0	0	0	1	1
2	1	1	1	4	7
3	1	1	2	9	13
4	0	1	2	6	9
-----+					
Total	2	3	5	20	30

-> tab v1_1 v1_33,

		v1_33			
v1_1	1	3	4	5	Total
-----+					
1	0	0	0	1	1
2	1	0	0	6	7
3	0	1	1	11	13
4	0	0	1	8	9
-----+					
Total	1	1	2	26	30

-> tab v1_1 v1_34,

		v1_34		
v1_1	1	4	5	Total
-----+				
1	1	0	0	1
2	2	0	5	7
3	3	1	9	13

4	0	1	8	9

Total	6	2	22	30

-> tab v1_1 v1_4,

	v1_4		
v1_1	0	1	Total

1	0	1	1
2	5	2	7
3	8	5	13
4	7	2	9

Total	20	10	30

-> tab v1_1 v1_51,

	v1_51					
v1_1	1	2	3	4	5	Total

1	1	0	0	0	0	1
2	5	0	1	1	0	7
3	10	2	0	0	1	13
4	9	0	0	0	0	9

Total	25	2	1	1	1	30

-> tab v1_1 v1_52,

	v1_52					
v1_1	1	2	3	4	5	Total

1	0	0	1	0	0	1
2	1	0	1	2	3	7
3	2	1	6	0	4	13
4	2	0	5	1	1	9

Total	5	1	13	3	8	30

-> tab v1_1 v1_53,

	v1_53			
v1_1	3	4	5	Total

1	0	0	1	1
2	0	2	5	7
3	0	1	12	13
4	2	0	7	9

Total | 2 3 25 | 30

-> tab v1_1 v1_54,

v1_1	v1_54			Total
	1	4	5	
1	0	0	1	1
2	2	0	5	7
3	0	2	11	13
4	0	0	9	9
Total	2	2	26	30

-> tab v1_1 v2_2,

v1_1	v2_2			Total
	0	1		
1	1	0		1
2	4	3		7
3	12	1		13
4	9	0		9
Total	26	4		30

-> tab v1_1 v2_3,

v1_1	v2_3			Total
	0	1		
1	1	0		1
2	6	1		7
3	12	1		13
4	9	0		9
Total	28	2		30

-> tab v1_1 v2_4,

v1_1	v2_4			Total
	0	1		
1	0	1		1
2	0	7		7
3	7	6		13
4	3	6		9
Total	10	20		30

-> tab v1_1 v2_6,

v1_1	v2_6		Total
	0	1	
1	1	0	1
2	2	5	7
3	6	7	13
4	4	5	9
Total	13	17	30

-> tab v1_1 v2_7a,

v1_1	v2_7a		Total
	0	1	
1	1	0	1
2	5	2	7
3	10	3	13
4	8	1	9
Total	24	6	30

-> tab v1_1 v2_7b,

v1_1	v2_7b		Total
	0	1	
1	1	0	1
2	5	2	7
3	11	2	13
4	8	1	9
Total	25	5	30

-> tab v1_1 v2_7c,

v1_1	v2_7c		Total
	0	1	
1	1	0	1
2	4	3	7
3	11	2	13
4	8	1	9
Total	24	6	30

-> tab v1_1 v2_7d,

v1_1	v2_7d		Total
	0	1	
1	1	0	1
2	4	3	7
3	11	2	13
4	8	1	9
Total	24	6	30

no observations

```
. for var v1_2 v1_31 v1_32 v1_33 v1_34 v1_4 v1_51 v1_52 v1_53 v1_54 v2_2 v2_3  
> v2_4 v2_6 v2_7a v2_7b v2_7c v2_7d: tab v1_1 X, CHI2
```

```
-> tab v1_1 v1_2, CHI2  
option CHI2 not allowed  
r(198);
```

```
. for var v1_2 v1_31 v1_32 v1_33 v1_34 v1_4 v1_51 v1_52 v1_53 v1_54 v2_2 v2_3  
> v2_4 v2_6 v2_7a v2_7b v2_7c v2_7d: tab v1_1 X, row col exp chi2
```

```
-> tab v1_1 v1_2, row col exp chi2
```

```
+-----+  
| Key      |  
|-----|  
| frequency |  
| expected frequency |  
| row percentage |  
| column percentage |  
+-----+
```

v1_1	v1_2		Total
	0	1	
1	1	0	1
	0.7	0.3	1.0
	100.00	0.00	100.00
	4.76	0.00	3.33
2	3	4	7
	4.9	2.1	7.0
	42.86	57.14	100.00
	14.29	44.44	23.33
3	10	3	13
	9.1	3.9	13.0
	76.92	23.08	100.00
	47.62	33.33	43.33
4	7	2	9
	6.3	2.7	9.0
	77.78	22.22	100.00
	33.33	22.22	30.00
Total	21	9	30
	21.0	9.0	30.0
	70.00	30.00	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 3.4403 Pr = 0.329

```
-> tab v1_1 v1_31, row col exp chi2
```



```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

	v1_31				
v1_1	1	3	4	5	Total
1	0	0	0	1	1
	0.3	0.1	0.0	0.6	1.0
	0.00	0.00	0.00	100.00	100.00
	0.00	0.00	0.00	5.56	3.33
2	2	0	0	5	7
	1.9	0.7	0.2	4.2	7.0
	28.57	0.00	0.00	71.43	100.00
	25.00	0.00	0.00	27.78	23.33
3	3	2	0	8	13
	3.5	1.3	0.4	7.8	13.0
	23.08	15.38	0.00	61.54	100.00
	37.50	66.67	0.00	44.44	43.33
4	3	1	1	4	9
	2.4	0.9	0.3	5.4	9.0
	33.33	11.11	11.11	44.44	100.00
	37.50	33.33	100.00	22.22	30.00
Total	8	3	1	18	30
	8.0	3.0	1.0	18.0	30.0
	26.67	10.00	3.33	60.00	100.00
	100.00	100.00	100.00	100.00	100.00

Pearson chi2(9) = 4.7975 Pr = 0.852

-> tab v1_1 v1_32, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

	v1_32				
v1_1	1	3	4	5	Total

1	0	0	0	1	1
	0.1	0.1	0.2	0.7	1.0
	0.00	0.00	0.00	100.00	100.00
	0.00	0.00	0.00	5.00	3.33
-----+					
2	1	1	1	4	7
	0.5	0.7	1.2	4.7	7.0
	14.29	14.29	14.29	57.14	100.00
	50.00	33.33	20.00	20.00	23.33
-----+					
3	1	1	2	9	13
	0.9	1.3	2.2	8.7	13.0
	7.69	7.69	15.38	69.23	100.00
	50.00	33.33	40.00	45.00	43.33
-----+					
4	0	1	2	6	9
	0.6	0.9	1.5	6.0	9.0
	0.00	11.11	22.22	66.67	100.00
	0.00	33.33	40.00	30.00	30.00
-----+					
Total	2	3	5	20	30
	2.0	3.0	5.0	20.0	30.0
	6.67	10.00	16.67	66.67	100.00
	100.00	100.00	100.00	100.00	100.00

Pearson chi2(9) = 2.2503 Pr = 0.987

-> tab v1_1 v1_33, row col exp chi2

+-----+					
Key					

frequency					
expected frequency					
row percentage					
column percentage					
+-----+					
	v1_33				
v1_1	1	3	4	5	Total
-----+					
1	0	0	0	1	1
	0.0	0.0	0.1	0.9	1.0
	0.00	0.00	0.00	100.00	100.00
	0.00	0.00	0.00	3.85	3.33
-----+					
2	1	0	0	6	7
	0.2	0.2	0.5	6.1	7.0
	14.29	0.00	0.00	85.71	100.00
	100.00	0.00	0.00	23.08	23.33
-----+					
3	0	1	1	11	13
	0.4	0.4	0.9	11.3	13.0
	0.00	7.69	7.69	84.62	100.00

	0.00	100.00	50.00	42.31	43.33
4	0	0	1	8	9
	0.3	0.3	0.6	7.8	9.0
	0.00	0.00	11.11	88.89	100.00
	0.00	0.00	50.00	30.77	30.00
Total	1	1	2	26	30
	1.0	1.0	2.0	26.0	30.0
	3.33	3.33	6.67	86.67	100.00
	100.00	100.00	100.00	100.00	100.00

Pearson chi2(9) = 5.4466 Pr = 0.794

-> tab v1_1 v1_34, row col exp chi2

```

+-----+
| Key      |
|-----|
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	v1_34			Total
	1	4	5	
1	1	0	0	1
	0.2	0.1	0.7	1.0
	100.00	0.00	0.00	100.00
	16.67	0.00	0.00	3.33
2	2	0	5	7
	1.4	0.5	5.1	7.0
	28.57	0.00	71.43	100.00
	33.33	0.00	22.73	23.33
3	3	1	9	13
	2.6	0.9	9.5	13.0
	23.08	7.69	69.23	100.00
	50.00	50.00	40.91	43.33
4	0	1	8	9
	1.8	0.6	6.6	9.0
	0.00	11.11	88.89	100.00
	0.00	50.00	36.36	30.00
Total	6	2	22	30
	6.0	2.0	22.0	30.0
	20.00	6.67	73.33	100.00
	100.00	100.00	100.00	100.00

Pearson chi2(6) = 7.2028 Pr = 0.302

-> tab v1_1 v1_4, row col exp chi2

```

+-----+
| Key          |
+-----+
| frequency    |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

	v1_4		Total
v1_1	0	1	
1	0	1	1
	0.7	0.3	1.0
	0.00	100.00	100.00
	0.00	10.00	3.33
2	5	2	7
	4.7	2.3	7.0
	71.43	28.57	100.00
	25.00	20.00	23.33
3	8	5	13
	8.7	4.3	13.0
	61.54	38.46	100.00
	40.00	50.00	43.33
4	7	2	9
	6.0	3.0	9.0
	77.78	22.22	100.00
	35.00	20.00	30.00
Total	20	10	30
	20.0	10.0	30.0
	66.67	33.33	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 2.7253 Pr = 0.436

-> tab v1_1 v1_51, row col exp chi2

```

+-----+
| Key          |
+-----+
| frequency    |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_51

v1_1	1	2	3	4	5	Total
1	1	0	0	0	0	1
	0.8	0.1	0.0	0.0	0.0	1.0
	100.00	0.00	0.00	0.00	0.00	100.00
	4.00	0.00	0.00	0.00	0.00	3.33
2	5	0	1	1	0	7
	5.8	0.5	0.2	0.2	0.2	7.0
	71.43	0.00	14.29	14.29	0.00	100.00
	20.00	0.00	100.00	100.00	0.00	23.33
3	10	2	0	0	1	13
	10.8	0.9	0.4	0.4	0.4	13.0
	76.92	15.38	0.00	0.00	7.69	100.00
	40.00	100.00	0.00	0.00	100.00	43.33
4	9	0	0	0	0	9
	7.5	0.6	0.3	0.3	0.3	9.0
	100.00	0.00	0.00	0.00	0.00	100.00
	36.00	0.00	0.00	0.00	0.00	30.00
Total	25	2	1	1	1	30
	25.0	2.0	1.0	1.0	1.0	30.0
	83.33	6.67	3.33	3.33	3.33	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

Pearson chi2(12) = 11.0110 Pr = 0.528

-> tab v1_1 v1_52, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	1	2	3	4	5	Total
1	0	0	1	0	0	1
	0.2	0.0	0.4	0.1	0.3	1.0
	0.00	0.00	100.00	0.00	0.00	100.00
	0.00	0.00	7.69	0.00	0.00	3.33
2	1	0	1	2	3	7
	1.2	0.2	3.0	0.7	1.9	7.0
	14.29	0.00	14.29	28.57	42.86	100.00
	20.00	0.00	7.69	66.67	37.50	23.33
3	2	1	6	0	4	13

2.2	0.4	5.6	1.3	3.5	13.0
15.38	7.69	46.15	0.00	30.77	100.00
40.00	100.00	46.15	0.00	50.00	43.33

4	2	0	5	1	1	9
1.5	0.3	3.9	0.9	2.4	9.0	
22.22	0.00	55.56	11.11	11.11	100.00	
40.00	0.00	38.46	33.33	12.50	30.00	

Total	5	1	13	3	8	30
5.0	1.0	13.0	3.0	8.0	30.0	
16.67	3.33	43.33	10.00	26.67	100.00	
100.00	100.00	100.00	100.00	100.00	100.00	

Pearson chi2(12) = 9.7947 Pr = 0.634

-> tab v1_1 v1_53, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	v1_53			Total
	3	4	5	
1	0	0	1	1
	0.1	0.1	0.8	1.0
	0.00	0.00	100.00	100.00
	0.00	0.00	4.00	3.33
2	0	2	5	7
	0.5	0.7	5.8	7.0
	0.00	28.57	71.43	100.00
	0.00	66.67	20.00	23.33
3	0	1	12	13
	0.9	1.3	10.8	13.0
	0.00	7.69	92.31	100.00
	0.00	33.33	48.00	43.33
4	2	0	7	9
	0.6	0.9	7.5	9.0
	22.22	0.00	77.78	100.00
	100.00	0.00	28.00	30.00
Total	2	3	25	30
	2.0	3.0	25.0	30.0
	6.67	10.00	83.33	100.00
	100.00	100.00	100.00	100.00

Pearson chi2(6) = 8.4615 Pr = 0.206

-> tab v1_1 v1_54, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	v1_54			Total
	1	4	5	
1	0	0	1	1
	0.1	0.1	0.9	1.0
	0.00	0.00	100.00	100.00
	0.00	0.00	3.85	3.33
2	2	0	5	7
	0.5	0.5	6.1	7.0
	28.57	0.00	71.43	100.00
	100.00	0.00	19.23	23.33
3	0	2	11	13
	0.9	0.9	11.3	13.0
	0.00	15.38	84.62	100.00
	0.00	100.00	42.31	43.33
4	0	0	9	9
	0.6	0.6	7.8	9.0
	0.00	0.00	100.00	100.00
	0.00	0.00	34.62	30.00
Total	2	2	26	30
	2.0	2.0	26.0	30.0
	6.67	6.67	86.67	100.00
	100.00	100.00	100.00	100.00

Pearson chi2(6) = 9.5858 Pr = 0.143

-> tab v1_1 v2_2, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```



v1_1	v2_2		Total
	0	1	
1	1	0	1
	0.9	0.1	1.0
	100.00	0.00	100.00
	3.85	0.00	3.33
2	4	3	7
	6.1	0.9	7.0
	57.14	42.86	100.00
	15.38	75.00	23.33
3	12	1	13
	11.3	1.7	13.0
	92.31	7.69	100.00
	46.15	25.00	43.33
4	9	0	9
	7.8	1.2	9.0
	100.00	0.00	100.00
	34.62	0.00	30.00
Total	26	4	30
	26.0	4.0	30.0
	86.67	13.33	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 7.1767 Pr = 0.066

-> tab v1_1 v2_3, row col exp chi2

```

+-----+
| Key      |
|-----|
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	v2_3		Total
	0	1	
1	1	0	1
	0.9	0.1	1.0
	100.00	0.00	100.00
	3.57	0.00	3.33
2	6	1	7
	6.5	0.5	7.0
	85.71	14.29	100.00
	21.43	50.00	23.33

3	12	1	13
	12.1	0.9	13.0
	92.31	7.69	100.00
	42.86	50.00	43.33
4	9	0	9
	8.4	0.6	9.0
	100.00	0.00	100.00
	32.14	0.00	30.00
Total	28	2	30
	28.0	2.0	30.0
	93.33	6.67	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 1.3893 Pr = 0.708

-> tab v1_1 v2_4, row col exp chi2

Key			
frequency			
expected frequency			
row percentage			
column percentage			
	v2_4		
v1_1	0	1	Total
1	0	1	1
	0.3	0.7	1.0
	0.00	100.00	100.00
	0.00	5.00	3.33
2	0	7	7
	2.3	4.7	7.0
	0.00	100.00	100.00
	0.00	35.00	23.33
3	7	6	13
	4.3	8.7	13.0
	53.85	46.15	100.00
	70.00	30.00	43.33
4	3	6	9
	3.0	6.0	9.0
	33.33	66.67	100.00
	30.00	30.00	30.00
Total	10	20	30
	10.0	20.0	30.0

33.33	66.67	100.00
100.00	100.00	100.00

Pearson chi2(3) = 6.4615 Pr = 0.091

-> tab v1_1 v2_6, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

v1_1	v2_6		Total
	0	1	
1	1	0	1
	0.4	0.6	1.0
	100.00	0.00	100.00
	7.69	0.00	3.33
2	2	5	7
	3.0	4.0	7.0
	28.57	71.43	100.00
	15.38	29.41	23.33
3	6	7	13
	5.6	7.4	13.0
	46.15	53.85	100.00
	46.15	41.18	43.33
4	4	5	9
	3.9	5.1	9.0
	44.44	55.56	100.00
	30.77	29.41	30.00
Total	13	17	30
	13.0	17.0	30.0
	43.33	56.67	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 1.9755 Pr = 0.577

-> tab v1_1 v2_7a, row col exp chi2

```

+-----+
| Key      |
+-----+
| frequency |
| expected frequency |
| row percentage |
+-----+

```



| column percentage |

+-----+

v1_1	v2_7a		Total
	0	1	
1	1	0	1
	0.8	0.2	1.0
	100.00	0.00	100.00
	4.17	0.00	3.33
2	5	2	7
	5.6	1.4	7.0
	71.43	28.57	100.00
	20.83	33.33	23.33
3	10	3	13
	10.4	2.6	13.0
	76.92	23.08	100.00
	41.67	50.00	43.33
4	8	1	9
	7.2	1.8	9.0
	88.89	11.11	100.00
	33.33	16.67	30.00
Total	24	6	30
	24.0	6.0	30.0
	80.00	20.00	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 1.0928 Pr = 0.779

-> tab v1_1 v2_7b, row col exp chi2

+-----+

| Key |

|-----|

| frequency |

| expected frequency |

| row percentage |

| column percentage |

+-----+

v1_1	v2_7b		Total
	0	1	
1	1	0	1
	0.8	0.2	1.0
	100.00	0.00	100.00
	4.00	0.00	3.33
2	5	2	7
	5.8	1.2	7.0



	71.43	28.57	100.00
	20.00	40.00	23.33

3	11	2	13
	10.8	2.2	13.0
	84.62	15.38	100.00
	44.00	40.00	43.33

4	8	1	9
	7.5	1.5	9.0
	88.89	11.11	100.00
	32.00	20.00	30.00

Total	25	5	30
	25.0	5.0	30.0
	83.33	16.67	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 1.1297 Pr = 0.770

-> tab v1_1 v2_7c, row col exp chi2

```

+-----+
| Key      |
|-----|
| frequency |
| expected frequency |
| row percentage |
| column percentage |
+-----+

```

	v2_7c		
v1_1	0	1	Total

1	1	0	1
	0.8	0.2	1.0
	100.00	0.00	100.00
	4.17	0.00	3.33

2	4	3	7
	5.6	1.4	7.0
	57.14	42.86	100.00
	16.67	50.00	23.33

3	11	2	13
	10.4	2.6	13.0
	84.62	15.38	100.00
	45.83	33.33	43.33

4	8	1	9
	7.2	1.8	9.0
	88.89	11.11	100.00
	33.33	16.67	30.00

Total	24	6	30
	24.0	6.0	30.0
	80.00	20.00	100.00
	100.00	100.00	100.00

Pearson chi2(3) = 3.1532 Pr = 0.369

-> tab v1_1 v2_7d, row col exp chi2
no observations

. save "C:\Documents and Settings\Kobuep\My Documents\david shaku 1.dta", repla
> ce
file C:\Documents and Settings\Kobuep\My Documents\david shaku 1.dta saved

. log close
log: C:\Documents and Settings\Kobuep\My Documents\David Shaku1.smcl
log type: smcl
closed on: 5 Sep 2008, 13:39:06
