

ASSESSMENT OF ENTREPRENEURIAL SKILLS IN SMALL, MICRO AND MEDIUM-SIZED BUSINESS ENTERPRISES IN THE VAAL TRIANGLE REGION OF GAUTENG PROVINCE

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Abstract: Olutuase, Brijlal and (2020) have found that low level of entrepreneurial skills is a major cause of failure in newly established small businesses. Hahn, Minola, Bosio and Cassia (2020) have pointed out the need for entrepreneurial education in high schools and universities. The purpose of study was to identify and quantify factors that are responsible for the high rate of failure in newly established SMMEs in the Vaal Triangle region. The study was based on a stratified random sample of size n=303. Stratified random sampling was used for collecting data by using a structured, pre-tested and validated questionnaire of study. Five strata were used (central, east, west, north and west) for conducting the study in the Vaal Triangle. A combination of quantitative and qualitative methods of data collection and analyses were used in the study. The variables used for quantitative analysis were socioeconomic variables that were associated with the viability of SMMEs operating in the Vaal Triangle region of Gauteng Province. Businesses that made profit were defined as viable. In accordance with the criteria set out by Henrekson (2014), businesses that had lost money at the time of study were defined as not viable. The degree of entrepreneurial skills was assessed by using the criteria defined by Ayyagari & Demirguc-Kunt (2014). Statistical analyses were performed by using descriptive methods such as frequency tables, cross-tab analyses and factor analysis.

The study found that 21% of businesses were not viable financially. The study also showed that viability in small and medium-sized enterprises in the Vaal Triangle area was adversely influenced by difficulty in securing loans, lack of training opportunities, and shortage of entrepreneurial skills. The study showed that the growth of newly established businesses was hampered due to difficulty in securing loans on favourable terms from micro lending institutions and the lack of training opportunities on entrepreneurial activities.

Keywords: SMMEs, Vaal Triangle, Entrepreneurial skills, Microfinance, Factor analysis

JEL classification: E30, L26

1. Introduction and background of study

1.1 Introduction

Gieure, del Mar Benavides-Espinosa and Roig-Dobon (2019) have shown that it is vital to introduce entrepreneurial education at university level curriculum so that the youth acquire and develop business skills. The Vaal Triangle is a major industrial area that a part of Gauteng Province that consists of Vereeniging, Vanderbijlpark and Sasolburg. The region is home to large iron and steel mining companies. The Vaal Triangle region is located 60 km to the south of Johannesburg, and includes smaller geographical regions such as Meyerton, Sharpeville, Boipatong, Bophelong, Sebokeng, Evaton, the Orange Farm, Heidelberg, Zamdela, and Potchefstroom. The Vaal Triangle is home to the Vaal River. The region also has various processing facilities for oil, iron and steel. Most notably, the Vaal Triangle is home to corporations such as Arcelor Mittal South Africa and SASOL. The Vaal Triangle region is synonymous with water and air pollution resulting from the massive production of iron and steel. The region is characterized by environmental pollution, bad smell and respiratory tract infectious diseases such as asthma, wheeze, lung disease and tuberculosis. According to results obtained from the Census conducted by Statistics South Africa in 2011 (Statistics South Africa, 2014), the total area of the Vaal Triangle is equal to 177.84 square kms, and the region is home to about 100, 000 people. Studies conducted by Ladzani and Netswera (2009) and the South African Chamber of Commerce and Industry (2014) indicate that there has been a steady growth in the number of small, micro and medium-sized enterprises (SMMEs) operating in the Vaal Triangle region since April 1994. The Vaal Triangle is located fairly close to the Vaal Dam from where Pretoria, Johannesburg and Vereeniging get their

water supplies. The region has water recreation facilities that are a major attraction to local and international visitors. About 60% of the workforce in the Vaal Triangle region is employed in factories. The Vaal Triangle region is well known for its iron and steel production. The remaining workforce is employed in Government Departments, private businesses, shops or in the service sector. Rossini Boulevard used to be a residential area, but in recent years most of the homes have been turned into informal businesses.

The purpose of the study was to assess and evaluate socioeconomic factors that are known to adversely affect sustained growth and development in SMMEs in the Vaal Triangle region. The study assesses the degree of entrepreneurial skills of SMMEs that were selected for the study by using the criteria defined by Ayyagari and Demirguc-Kunt (2014) for SMMEs operating in developing nations. Tools that were used for the measurement of entrepreneurial skills at each SMME were validated and standardized (Frank, 2009).

According to Ndege (2015), more than half of all newly established small, micro and medium-sized enterprises (SMMEs) that conduct business in the Vaal Triangle region of Gauteng Province in South Africa fail in the first year of their operation due to lack of entrepreneurial skills and access to microfinance. The study conducted by Srinivas (2013) shows that the SMME sector is a key engine of sustained growth and development in developing nations such as South Africa, and that national governments must promote growth and development in SMMEs by creating an economically enabling environment for small businesses. According to Herson (2012) and Karlsson & Warda (2014), it is prudent for national governments to use macroeconomic policy for the creation of an economic environment that promotes entrepreneurial activities by SMMEs. Reports published by the South African National Department of Trade and Industry (2013, 2014), the South African Parliament (2008) and the South African Small Enterprises Development Agency (SEDA, 2014) point out that South African SMMEs must be provided with support in terms of finance, mentorship and practical training on entrepreneurial activities as a means of enabling the SMME sector to create a large number of employment opportunities for the unemployed youth. According to recent reports published by Herrington & Kelley (2012, 2013) and the Global Entrepreneurship Monitor (2014), only 2.1% of newly established SMMEs in South Africa survive beyond the age of three and a half years, and that the global average is as high as 7.6%. The fact that the global average (7.6%) is much higher than the local average (2.1%) clearly suggests that local SMMEs need to be supported by the South African National Department of Trade and Industry with vigour by way of providing microfinance to SMMEs and by implementing tailor-made and skills-based training programmes on entrepreneurial activities.

According to the Global Entrepreneurship Monitor (2014), the key obstacles to sustained growth and viability in newly established businesses are lack of entrepreneurial skills, poor quality of vocational skills at the high school level, lack of access to microfinance needed for basic operation by businesses, the shortage of mentorship programmes, and lack of access to local and international markets. Mbonyane & Ladzani (2011) have pointed out that the growth of SMMEs in South African townships is hampered due to lack of entrepreneurial skills, lack of access to microfinance, and inability of newly established businesses to compete against well established businesses and retailers. Ligthelm (2010) and Marks & Huzzard (2010) have pointed out that national governments and local municipalities should actively support newly established businesses as a means of creating employment opportunities and reducing the degree of dependence on national governments.

Based on a study conducted in the Nelson Mandela Metropolitan Municipality, Perks (2010) has found that the degree of entrepreneurial skills among operators and owners of SMMEs in South African is low, and that the SMME sector needs assistance from the national government. National governments must support newly established and start-up businesses by providing tangible assistance in microfinance, skills-based training, mentorship and monitoring and evaluation. The study conducted in Indonesia by Praharsi, Wee, Sukwadi and Padilan (2014) has shown that it is essential to support newly established businesses in their first three and a half years of operation as a means of ensuring viability. The study conducted by Rasdan, Eriyatno, Affandi and Machfud (2014) in Nigeria has shown that newly established businesses fail mostly due to lack of entrepreneurial skills and lack of access to microfinance.

McGuinness & Hutchinson (2013) and Martinez-Caro & Cegarra-Navarro (2010) have pointed out that the ability to market goods and services effectively are important for sustained growth and viability in newly established SMMEs. The authors have pointed out that the ability to penetrate local markets depends on the degree of entrepreneurial, networking and marketing skills. However, such skills are not taught in South African schools as part of the curriculum (Worku, 2014). The South African curriculum does not equip young South African

entrepreneurs with the entrepreneurial skills that they need for ensuring sustained growth and viability in SMMEs. A similar problem has been reported by Bekele and Worku (2008) based on a study of SMMEs in Ethiopia. Rooij (2014) and Seeletse (2014) have reported that the most common causes of failure in newly established businesses in developing nations are lack of entrepreneurial skills and difficulty in securing finance from formal money lending institutions such as commercial banks. Studies conducted by Ndege (2015) and Seeletse (2014) have shown that these problems are known to stifle growth in SMMEs operating in and around the West Rand region of Gauteng Province. Mayhew, Simonoff, Baumol, Wiesenfeld and Klein (2012) have reported that it is prudent for the curriculum taught to the youth at the high school and undergraduate levels to be made relevant to the needs of potential entrepreneurs.

1.2 Background to study

There is a shortage of recent studies that could explain why more than half of all newly established small and medium-sized enterprises fail during their first three and a half years of establishment in the Vaal Triangle region (Ndege, 2015). According to a report published by the South African Small Enterprise Development Agency (2013), 60% of all newly established small businesses in South Africa fail within their first year of operation. According to the report, although the South African Department of Trade and Industry provides incentives and support to small and medium sized enterprises, the degree of support provided is grossly inadequate. As a result, small and medium sized enterprises are seen failing in a number of areas of specialization (South African Chamber of Commerce and Industry, 2014; South African Department of Trade and Industry, 2014; South African Small Enterprise Development Agency, 2014). According to the annual report issued by the South African Receiver of Revenue (SARS, 2015) for the financial year 2013/2014, the total number of tax payers who are registered on the South African is a little more than 15 million individuals registered on the SA Revenue Service's personal income tax register is a little more than 15 million out of which just over 6 million pay tax to the national treasury.

Studies conducted by Ndege (2015), Seeletse (2014), Henrekson (2014), Herrington & Kelley (2013), Rogerson (2012), Ng (2012), Moses, Olokundum & Akinbode (2014), Narthey (2013), Mingji & Ping (2014) and Mok (2012) have shown that newly established SMMEs in Sub-Saharan African countries including South Africa fail in their first three and a half years of operation due to a number of reasons. The key obstacles are lack of entrepreneurial skills (Henrekson, 2014; Herrington & Kelley, 2013; Worku, 2013; Rogerson, 2012), poor background in vocational and artisan skills (Narthey, 2013; Moses, Olokundum & Akinbode, 2014), poor networking skills and inability to exploit social capital (Mok, 2012), poor marketing skills (Fauconnier & Mathur-Helm, 2010), inability to utilize innovative sourcing and marketing skills (Ng, 2012), inability to render services outside normal working hours (Geldhof, Weiner, Agans, Mueller & Lerner, 2014), and inability to order large volumes of goods and stock in bulk from mega distributors at a competitive price (Herrington & Kelley, 2013; Seeletse, 2014). According to Seeletse (2014), one of the key obstacles to the growth and development of SMMEs that are operated by indigenous South Africans in South African townships is the lack of awareness about support programmes that are provided to SMMEs by the South African National Department of Trade and Industry. Studies conducted by Islam (2014), Kewlani & Singh (2012), Hadaya & Pellerin (2010) and Harris & Rae (2010) have shown that newly established SMMEs must be willing to provide innovative services to the general public outside normal working hours at no extra cost as a means of attracting loyal customers. Jiang and Mike (2011) have pointed out that employees and operators of newly established SMMEs must render innovative services and products as a means of attracting customers from well-established and traditional businesses.

Not enough is known about support programmes that are provided to small, micro and medium-sized businesses in the Vaal Triangle region (Ndege, 2015). The degree of support provided by the South African National Department of Trade and Industry to newly established small businesses operating in the Vaal Triangle region has so far been minimal. The study was conducted in order to address the need for current studies that could explain the environment in which SMMEs in the Vaal Triangle region operate and conduct business. The study was motivated by the need for identifying and quantifying key predictors of viability in newly established small, micro and medium-sized business enterprises operating in the Vaal Triangle region of Gauteng Province.

1.3 Objective of study

The overall objective of study was to identify and quantify factors that affect viability in small, micro and medium-sized enterprises that operate in the Vaal Triangle region of Gauteng Province. The aim of the study was to explain the general characteristics of small, micro and medium-sized enterprises in the Vaal Triangle region of Gauteng

Province, and to identify and quantify key socioeconomic factors that are known to adversely affect sustained growth and viability in newly established and emerging small, micro and medium-sized enterprises operating in the Vaal Triangle region of Gauteng Province. Findings of the study are valuable for developing and implementing plans of intervention for monitoring and evaluating the growth and development of newly established and emerging SMMEs conducting business in the Vaal Triangle region of Gauteng Province.

2. Literature review

2.1 Programmes of assistance to South African SMMEs

The South African Government provides two broad categories of assistance to SMMEs (financial and training). Financial assistance is provided to SMMEs by the South African Small Enterprises Finance Agency (SEFA), whereas skills based training on entrepreneurial activities is provided to SMMEs by NTSIKA Enterprises. SEFA started providing assistance to SMMEs in 2012. Before then, financial assistance was provided to SMMEs by Khula Enterprise Development Fund (KHULA). According to studies conducted by Ndege (2015), Booysens (2011), Rogerson (2012), Seeletse (2012), Urban & Naidoo (2012), Mboniyane & Ladzani (2012), Herrington and Kelley (2013) and Worku (2013), it is prudent to provide South African SMMEs with a combination of financial and non-financial assistance as a means of enabling the SMME sector to grow and develop on a sustainable basis. Karlsson and Warda (2014) have pointed out that the key predictors of incubation in Small, Micro and Medium-Sized business enterprises (SMMEs) are level of entrepreneurial, artisan and vocational skills, the ability to network with business partners and customers, the ability to provide cost effective, reliable, highly efficient and affordable services to customers, the ability to satisfy the business and operational requirements of clients, degree of access to microfinance, and the degree of hands-on mentoring of entrepreneurs working in newly established SMMEs. Although numerous programmes have been implemented by the South African National Department of Trade and Industry to promote the incubation of SMMEs since April 1994, the failure rate in newly established SMMEs is still quite high (Herrington & Kelley, 2013).

The South African Small Enterprise Development Agency (2014) was established in order to provide financial and training-related support to the SMME sector as a means of alleviating poverty and unemployment among the masses. Support is provided to newly established businesses and their operators in terms of finance and entrepreneurial training, mentorship and supervision. The key programmes of support are KHULA Enterprise Development Fund (KHULA), the National Youth Development Agency (NYDA), the Small Enterprise Development Agency (SEDA) and the Tshumisano Trust (South African National Department of Trade and Industry, 2010). A report published by the Small Enterprise Finance Agency (2015) shows the range of financial assistance programmes that could be used by newly established businesses along with the requirements for securing financial assistance. Annual reports issued by the South African National Department of Trade and Industry for the financial year 2012/2013 indicates that the amount of financial assistance provided to newly established small businesses as well as awareness about the financial programmes of assistance has increased steadily on a year-on-year basis between 2008 and 2014 (South African National Department of Trade and Industry, 2014).

A report issued by the South African Chamber of Commerce and Industry (2015) indicates that the business confidence index of South African businesses has decreased between 2008 and 2015 gradually from 107 in 2008 to 90 in 2015. The business confidence index is generated monthly as a measure of the level of business confidence within the South African economy. According to the World Bank (2014) and Gregg and Stewart (2013), the gradual decrease in business confidence between 2008 and 2015 could be attributed to bureaucratic inefficiency, an increase in inflation, an increase in the cost of goods and services, lack of transparency, accountability and good governance, shortage of entrepreneurial skills, shortcomings in macroeconomic policy and the presence of an adverse political environment. According to Ndege (2015), there is a statistically significant association between the degree to which entrepreneurs working in small enterprises can utilize their enterprising knowledge as a means of increasing revenue and the availability of an economically enabling environment.

Since April 1994, various acts have been promulgated in order to provide an economically enabling environment for small businesses. Most of these acts have been implemented by the South African Small Enterprise Development Agency (2013), and indicate that entrepreneurial skills must be developed, monitored and evaluated on a regular basis in emerging and newly established SMMEs as a means of reducing the high failure rate in newly established small businesses. The South African Industrial Development Corporation (IDC, 2015) provides financial assistance

for industrial development to South African entrepreneurs. The IDC falls under the Department of Economic Development. In 2008 and 2009, the IDC provided financial assistance to 159 small enterprises at a cost of 2.13 Billion Rand. The requirements for securing financial assistance from the IDC are the feasibility and viability of the proposed industrial project, the ability to pay back the loan borrowed for development, and the availability of adequate technical and entrepreneurial expertise and skills by applicants.

The Services Sector Education and Training Authority (SSETA) were established in the year 2000 in terms of the skills development Act of 1998 and are responsible for the disbursement of the training levies payable by all employers. These levies are collected by the South African Revenue Service (SARS) via the Department of Higher Education and Training (DHET), and are ploughed back into entities that provide skills-based training programmes to the youth. The authority provides quality education and training that meets sector needs in rural and urban areas. The Skills Development Act requires all employees earning over 500, 000 Rand per year to contribute a skills levy of 1% of their annual income.

KHULA Enterprise Finance (KEF) was established in 1996 by the South African Government in order to provide financial assistance to Small, Micro and Medium-Sized Enterprises (SMMEs) in South Africa (South African National Department of Trade and Industry, 2015).

The Small Enterprise Finance Agency (SEFA) was established in 2012 as a result of the merger of South African Micro Apex Fund, Khula Enterprise Finance Ltd and the small business activities of IDC. The key mandate of SEFA is to foster the establishment, survival and growth of SMMEs as a means of alleviating poverty and creating jobs for the unemployed. SEFA has offices in all nine regions of South Africa and provides loans of 50, 000 Rand to 5 million Rand to SMMEs that meet the criteria for borrowing money needed for entrepreneurial activities (SEFA, 2015).

The primary aim of KHULA Enterprises was to provide loans to SMMEs that do not qualify for loans at commercial banks. The agency provided assistance to retailers, and provided credit guarantee to applicants with no collateral. KHULA was operational between 1996 and 2011. Since 2012, the services of KHULA are being offered by SEFA. The key services that are offered to SMMEs by SEFA are financial assistance. This is done in phases known as mentorship and segmentation. Mentorship entails a pre-loan process in which the business seeks assistance for a business project. SEFA would then evaluate the proposal and assign a mentor to it to develop a sound business plan. SEFA would also pay up to 75% of the consultant's costs. The business would then submit this business plan to the banks to gain financing.

The second stage refers to the start-up process. SEFA provides a mentor to that business project for a period of three months at no cost to the business. They would then monitor and assess the skills of that business, would recommend any form of training needed and even link that business with the right kind of people that would take the business venture forward. At the end of the 3-month period, the business operator could negotiate with SEFA to provide additional assistance at a nominal cost to the business. SEFA provides financial assistance to SMMEs that are owned by South African citizens.

The South African Micro Finance Apex Fund (SAMAF) was established to provide access to microloans and support to the social capital mobilisation. SAMAF is a wholesale funding institution tasked to facilitate the provision of affordable access to finance by micro, small and survivalist businesses for the purpose of growing their own income and asset base. The primary purpose of SAMAF is to reduce poverty and unemployment among the youth. It places a special emphasis on rural youth. The agency provides finance to financial intermediaries such as Financial Services Cooperatives (FSCs) and MFIs who in turn on-lend to their members and clients. Therefore, anyone who wants to obtain a SAMAF-backed loan should first join an FSC or apply to the MFI for a loan. SAMAF offers two types of loans via its financial intermediaries, microenterprise loans and development loans.

The National Youth Development Agency (NYDA) was established in 2009 in order to help the youth to start and run businesses. The NYDA funds training and gives out loans. The Agency disbursed 7, 500 micro loans to value of R23 million and a further R4 million in loans in the 2009/10 financial year. The Micro-Agricultural Financial Institute of South Africa (MAFISA) was established to contribute to the working poor's ability to run existing agricultural businesses; to start new ones and be able to develop these into fully commercial operations. MAFISA

propels and facilitates the development of financial services intended to uplift very small and micro level farmers, farm workers, farm tenants, small holders, landless emerging farmers and processes.

The South African Small Enterprise Finance Agency (SEFA, 2014) is a wholly owned subsidiary of the Industrial Development Corporation (IDC) and brings together the activities of the three previous structures (KHULA Enterprises, SAMAF and IDC small business activities). SEFA provides financial assistance to the following SMME sectors: services (including retailing, wholesaling and tourism), manufacturing (including agro-processing), agriculture (specifically land reform beneficiaries and micro-farming activities), construction (small construction contractors), mining (specifically small miners) and green industries (renewable energy, waste and recycling management). The requirements for securing financial assistance from SEFA are citizenship or permanent residence in South Africa, registration as a business entity within South Africa including, sole traders with a fixed physical address, proof of fulfilling the required contractual capacity, compliance with generally accepted corporate governance practices appropriate to the legal status of the client, having a written business plan or proposal that meets the requirements of SEFA’s loan application criteria, demonstration of the ability to pay back the loan applied for, personal or credit references, proof of majority shareholder or manager of business status, proof of collateral for loan applied for and proof of a valid tax clearance certificate at the time of submitting application for a loan. Table 1 shows a summary of the financial assistance provided by SEFA to various economic sectors in in South Africa in 2013. It can be seen from the table that the services and trade sector was a recipient of more than half of the total assistance (53.74%) provided by SEFA.

Table 1: Financial assistance provided by SEFA to various economic sectors in 2013

Economic sector assisted by SEFA	Number of approvals	Percentage	Assistance provided in Rand
Agriculture and agro-processing	5	1.70%	14, 763, 000
Manufacturing	31	10.54%	50, 256, 000
Construction and engineering	87	29.59%	142, 379, 000
Services and trade	158	53.74%	145, 314, 000
Others	13	4.42%	13, 817, 000
Total	294	100.00%	366, 529, 000

Source: Annual report of SEFA for 2013 (2014)

Table 2 shows a summary of loans provided by SEFA to various SMMEs in South Africa in 2013. It can be seen from the table that 27.82% of all loans were provided to 272 SMMEs that fulfilled the requirements for securing loans from SEFA. The table also shows that wholesalers received 22.89% of all loans provided by SEFA in 2013 by virtue of fulfilling the requirements for securing loans from SEFA.

Table 2: Loans provided by SEFA to SMMEs in 2013

Type of loan provided by SEFA	Percentage	Assistance provided in millions of Rand
Loan provided for wholesalers	22.89%	209
Credit guarantee disbursed to MFIs	1.53%	14
Loan provided to MFIs	7.12%	65
Loan provided to 272 SMMEs	27.82%	254
Loan provided to 60 youth owned enterprises	5.70%	52
Loan provided to 95 enterprises in priority rural provinces	10.51%	96
Loan provided to 68 women enterprises	7.45%	68
Loan provided to 78 black owned enterprises	11.17%	102
Small loans provided to 179 entrepreneurs	5.81%	53
Total	100.00%	913

Source: Annual report of SEFA for 2013 (2014)

2.2 Obstacles to growth in South African SMMEs

According to a report issued by the South African Chamber of Commerce and Industry (2014), the SMME sector accounts for more than 30% of the total gross domestic product of South Africa, and 20% of all units exported by South Africa are produced by SMMEs. Experience from Japan (Shi & Yonezawa, 2012) shows that it is not possible to grow national economies on a sustainable basis without simultaneously achieving sustained growth and development in small and medium-sized enterprises (Soares, Sepulveda, Lima & Dinis-Carvalho, 2013). According to Stephens, Partridge and Faggian (2013), the promotion of innovative entrepreneurial strategies and techniques is required for ensuring sustained growth and development in small and medium-sized enterprises. Globally, national economies that thrive well are characterized by a robust SMME sector that generates a large number of employment opportunities and a vibrant manufacturing sector that uses innovative technologies (Sun & Liu, 2010; Werner, Gast & Kraus, 2014; World Bank, 2013). Accordingly, failure to support the SMME sector of the economy often undermines the rate of overall economic growth in national economies (Zheng, O'Neill & Morrison, 2011; Zhao, 2012; Zoogah, Vora, Richard & Peng, 2011).

According to Ndege (2015) and Zhang (2010), national governments must provide adequate policy-related support to the SMME sector in order for the SMME sector to be vibrant. Wilson (2010) has pointed out that it is the duty and responsibility of national governments to support informal businesses as a means of transforming them into formal and tax-paying businesses. According to Jagoda, Maheshwari and Lonseth (2010), it is prudent for the South African National Department of Trade and Industry to provide a combination of financial and non-financial support to the SMME sector as a means of ensuring sustained growth and development in the sector. The study conducted by Imai, Arun and Annim (2010) has shown that ensuring sustained growth in SMMEs has the potential for alleviating poverty among the masses in developing nations such as South Africa. The youth in South Africa are characterized by a high rate of unemployment, lack of artisan skills, poor academic background, and lack of access to microfinance from formal money lending institutions such as commercial banks. According to Statistics South Africa (2014), the unemployment rate among the youth (aged between 15 and 34 years) has increased from 32.7% to 36.1% between 2008 and 2014.

According to studies conducted by Seeletse (2012) and Urban & Naidoo (2012), the unemployed youth in South Africa cannot be employed mostly due to lack of vocational, artisan and entrepreneurial skills for which there is a demand in the marketplace. A report issued by the South African Chamber of Commerce and Industry (2014) has shown that the possession of vocational, artisan and entrepreneurial skills is a requirement for operating viable small business enterprises in South Africa. Studies conducted by Herrington & Kelley (2013), Rogerson (2012), Ng (2012), Moses, Olokundum & Akinbode (2014), Nartey (2013), Mingji & Ping (2014) and Mok (2012) have also led to similar findings. Small businesses that are operated by people who lack entrepreneurial skills are characterized by a high failure rate in all parts of South Africa including the Vaal Triangle region (Henrekson, 2014; Herrington & Kelley, 2013; Worku, 2013; Rogerson, 2012; Nartey, 2013; Moses, Olokundum & Akinbode, 2014).

Studies conducted by Ndege (2015), Seeletse (2012) and SETA (2015) indicate the dire need for entrepreneurial skills and access to microfinance Emerging SMMEs that are owned and operated by Black South Africans in townships need The need for entrepreneurial skills and access to microfinance has been highlighted by Ndege (2015). This particular study is essential for finding out the root causes of failure in small and medium-sized enterprises that are conducting business in the Vaal Triangle region of South Africa. Very few studies have been conducted so far in the Vaal Triangle region. For this reason, this study carries significant weight and importance. Future researchers can use findings from this study for conducting large scale studies at other regions of South Africa.

According to the South African Small Enterprise Development Agency (2013), 60% of all newly established small businesses in South Africa fail within their first year of operation. Reports published by the South African Chamber of Commerce and Industry (2014), the South African Department of Trade and Industry (2014), the South African Small Enterprise Development Agency (2014) suggest that financial and non-financial programmes of assistance that are provided to the SMME sector are not utilized optimally by newly established and emerging businesses.

The benefit of tailor-made training programmes on entrepreneurial skills for emerging businesses in South Africa was pointed out by Lee (2014) and Rogerson (2010). Seeletse (2012) has pointed out that failure to utilize innovative entrepreneurial methods is a primary cause of failure in most newly established SMMEs in Sub-Saharan African countries including South Africa. Zheng, O'Neill and Morrison (2011) have found that inability to market services and goods efficiently and failure to compete adequately with well-established businesses are principal causes of

failure in newly established SMMEs in Sub-Saharan African countries such as Nigeria, Ghana, Kenya and South Africa. There is a shortage of empirical studies conducted in the Vaal Triangle geographical region on SMMEs that operate in the region. As such, the study has the potential for making a meaningful contribution to the relevant literature by identifying and quantifying key predictors of viability in small businesses operating in the Vaal Triangle region of Gauteng Province.

Abor & Quartey (2010) and Agyapong (2010) argue that a vibrant SMME sector is a requirement for a strong national economy. The authors have pointed out that the world's leading economies rely on the growth and development of small and medium-sized enterprises for the creation of employment opportunities and sustained growth at the national level. Booyens (2011) and Brownson (2014) have pointed out that the degree of support provided to emerging and newly established SMMEs is grossly inadequate. As a result, small and medium sized enterprises are seen failing in a number of areas of specialization (South African Chamber of Commerce and Industry, 2014; South African Department of Trade and Industry, 2014; the South African Small Enterprise Development Agency, 2014).

The South African National Department of Trade and Industry (2014) uses a policy that seeks to actively support and promote small businesses that adhere to Black Economic Empowerment (BEE) codes of practice and partnerships. In South Africa, small, micro and medium-sized enterprises are defined in South Africa by the South African National Small Business Act of 1996 (Act no. 102 of 1996). The Act defines a micro enterprise as a businesses whose turnover is below 150, 000 Rand. The business involves the owner and family members or at most four employees. A micro business is required to fulfill all regulations that apply to micro businesses in South Africa. The Act defines a small enterprise as a business that employs between 5 and 10 employees. A small business has between 5 and 100 employees and is managed by the owner. A small business is required to fulfill all regulations that apply to small businesses in South Africa. The Act defines a medium-sized enterprise as a business that employs between 100 and 200 employees. Medium-sized enterprises are managed by the owner. A medium-sized business is required to fulfill all regulations that apply to mediums-sized businesses in South Africa. The Act states that SMMEs are enterprises with a minimum asset base of 25 million Rand excluding the cost of land and working capital. A medium-sized business is required to fulfill all regulations that apply to medium-sized businesses in South Africa. There are various business structures that are suitable for small businesses. The structure of the business determines the legal status of the business enterprise. Depending on the nature of the business, the number of people involved, management capabilities, personal risk and future business plans, a suitable business structure can be chosen for a newly established company.

According to the South African Department of Trade and Industry (2014), the SMME sector contributes 40% of South Africa's gross domestic profit, and employs more than half of the private sector work-force. The study conducted by Karlsson and Warda (2014), 80% of new jobs are created by SMMEs. According to Herrington and Kelley (2013), the South African SMME sector has created 1.5 million jobs for self-employed people in the SMME sector, and small businesses contribute about 40% of the total remuneration in South Africa. Studies conducted by Daley-Harris (2011) and Ferreira, Strydom & Nieuwenhuizen (2010) indicate that it is beneficial for newly established small businesses to be able to order stock by credit from mega-suppliers. According to the Small Business Act of 1996, operators of SMMEs can order stock by credit from mega distributors by establishing their business as a close corporation (CC) company. A sole-trading company is suitable for running a business that has no fixed assets. The owner is the sole employee. Income accrues directly to the owner and there are no complicated statutory returns other than meeting basic legal and tax requirements. The disadvantage is that the business is not a separate legal entity, so the owner is liable for, and can be sued for, the business's debts. If the owner of the business dies, the business ceases to exist. A business based on partnership enables 20 or fewer partners to operate a business by pooling their resources and skills together. A close corporation (CC) company enables a business to assume a separate legal identity without the formalities of the Companies Act that governs (Pty) Ltd companies. This structure is ideal for a business that purchases stock on credit. A CC company can have between one and 10 members, each of whom owns an agreed percentage of the business and who is liable for managing it properly. A CC company cannot be owned by a company or be a subsidiary of another CC or company. A CC company can sue and be sued. All CC companies in South Africa are governed by the Close Corporations Act, which is administered by the Companies and Intellectual Property Registration Office (CIPRO).

Following the democratic transition of April, 1994, a large number of emerging small businesses have managed to set up shop in the Vaal Triangle region. During the same period, the population size of the Vaal Triangle region has

increased gradually. The purchasing power and complexity of choice in the variety and quality of goods and services has also increased at the same time. This development has enabled small businesses to render a wide variety of goods and services to the local population in the Vaal Triangle region. The importance of small and medium-sized enterprises is well documented in terms of economic development, competitiveness, and innovation. The contribution and importance of small enterprises to the national economy is based on the ability of the sector to create employment opportunities to the masses, utilization of local resources, output expansion, transformation of traditional and local technology, the production of intermediate goods, the promotion of an even development, the reduction of income disparities, and its ability to increase the revenue base for the South African Government. Small, micro and medium-sized enterprises (SMMEs) are of a great importance in the area of low capital and output ratio, optimal utilization of local inputs and other multiplier effect per unit of investment. The SMME sector is viewed by the South African Department of Trade and Industry (2014) as the key element in fostering economic growth among the unemployed masses in urban and semi-urban areas including the Vaal Triangle. Small and medium-sized enterprises often use locally made and available technologies for operation, growth in SMMEs amounts to growth in local and indigenous technology. The SMME sector is crucially needed for achieving overall economic growth and for the alleviation of poverty among the masses. The SMME sector is supported by the South African Government as a means of building capacity in local entrepreneurs and to promote the use of local raw materials, technologies and manpower.

The SMME sector plays a critical role in job creation, skills development, technology transfer, and the alleviation of poverty among the unemployed. As a result, the South African Government regards the SMME sector as an engine of growth and economic expansion. The SMME sector in South Africa is similar to the SMME sectors in other Sub-Saharan African countries, and is exposed to high failure rate, lack of entrepreneurial skills, lack of resources, lack of access to finance and lack of modern technology. Although growth in the SMME sector is essential for establishing sustained growth in the overall economy, the sector is characterized by high failure rate due to lack of entrepreneurial and technical skills that are essential at the market place (Globerman, Mike & Daniel, 2011).

Herrington and Kelley (2013) have reported that the key obstacles to the growth and viability of SMMEs in developing countries are related to policy, lack of entrepreneurial skills, and the lack of access to funds that are needed for development. The South African government is committed to boosting small business development as a means to alleviate unemployment and poverty which has been exacerbated by the global financial crisis. The strongest rationale for policies in support of the small business sector is explained by the high labour absorption ability of SMMEs. The small business sector has the ability to create jobs at a significantly higher rate than the large business sector. Labour markets are sharply dependent on a relatively small private sector in which large unions bargain with large firms, setting high wages that in many cases are extended to other firms in the sector by bargaining councils. This fact deters entry of small enterprises into larger and well established markets.

The South African Government aims to use small, micro and medium-sized enterprises for the creation of employment opportunities for the masses (South African National Department of Trade and Industry, 2014). To this end, the South African Government has invested heavily in the sector with a view to foster economic growth, job creation and the alleviation of poverty at the national level. The South African Government has an agreement with the European Union in the European Union donates 550 million Rand for establishing a risk capital fund for small and medium-sized enterprises (South African Small Enterprise Development Agency, 2015). According to Audretsch (2014), the viability and long-term survival of small businesses depends on the quality of entrepreneurial skills and leadership. Jones (2010) and Ingstrup (2010) have reported that entrepreneurial skills are essential for competing with global competitors. The authors point out that although access to finance is critical for the growth and development of small businesses, entrepreneurial skills are equally important. Small and medium-sized enterprises in the Vaal Triangle are similar to enterprises in other parts of South Africa. They are characterized by a high failure rate in the first three years of establishment, lack of entrepreneurial skills, failure to assess the market condition, failure to utilize financial and logistical resources prudently, poor quality of leadership, the wastage and abuse of scarce resources, failure to meet the expectations of customers, inability to acquire training on essential entrepreneurial skills, and failure to draw up business plans for their operations. Lack of leadership is a critical problem in the SMME sector. According to Jack, Moul, Anderson & Dodd (2010), SMMEs that fail in their first three and a half years of establishment are often characterized by poor leadership qualities, low entrepreneurial skills, low access to microfinance and poor organizational skills.

Entrepreneurial skills are essential for steering small businesses in a manner in which they are profitable and viable. A good entrepreneur has good leadership skills. Such leadership skills and the ability to make the right choices enable small businesses to thrive under difficult circumstances. Leadership skills are key attributes of successful companies locally and globally (Wennberg & Lindqvist, 2010). The study conducted by Audretsch (2014) has shown that entrepreneurial skills are essential for competing with global competitors. Entrepreneurial skills are essential for utilizing microfinance effectively according to business plan. Coltman (2013) has pointed out that good business leaders adhere to the key principles of corporate governance. These principles are accountability and transparency. Carroll & Wagar (2010) and Datta (2011) have reported that good corporate governance and sound leadership skills are critically needed for ensuring sustained growth in newly established and emerging small, micro and medium-sized enterprises. In successful businesses, significant market research is conducted by leaders and stakeholders. In addition, business processes are well defined in order to cut down operational cost. Industry benchmarks and standards of service delivery are adhered to by business leaders as a means of satisfying the needs and requirements of customers. Coltman (2013) has reported that viable small, micro and medium-sized enterprises are often led by competent business leaders with superior entrepreneurial skills and sound market research experience.

Entrepreneurial success depends on market conditions, the possession of adequate skills and capital, and the ability of business owners to secure a reliable clientele base. High performance institutions and vibrant small businesses require superior technical and entrepreneurial skills and the ability to negotiate amicable terms of service delivery with potential customers at the marketplace. Globally, all national governments of the world's leading economies actively support the Small, Micro and Medium Enterprises (SMME) sector globally. Support is provided to the SMME sector in various ways. One commonly used method of providing SMMEs with support is the adoption of tax-related policies that provide preferential treatment to newly established small businesses. Small and medium enterprises that thrive to protect the environment are often granted tax breaks in view of their contribution to values that are deemed important to the national economy. The other commonly used method of supporting small and medium-sized enterprises is the provision of skills-based and entrepreneurial trainings free of charge. Small and medium-sized enterprises that spend significant resources in promoting basic innovation and research and development are often provided with adequate support by national governments as a means of promoting science and technology in the economic sector. In this regard, the most notable examples are small and medium-sized enterprises in countries such as China, South Korea, Singapore and Japan. The rationale of providing such support is motivated by the desire to use the SMME sector as a driver of national technological advancement. Small businesses complement large organisations by supplying products that are used as raw materials. The ability to innovate, adopt new technologies and apply them to local conditions is crucial to increase the productivity of SMMEs. Rogerson (2012) and Booyens (2011:67) have pointed out that innovative entrepreneurship is a key requirement for the growth of small enterprises.

Keller (2006: 202-208) has reported that superior business leadership is required for ensuring the survival of small businesses in competitive markets. Otusanya (2004:10-12) has found that superior business leadership is a critical requirement for ensuring viability in small businesses, and that leadership skills must be constantly improved by business leaders. The study by Luke (2009: 588-590) has found that the ability to provide superior services at competitive price is a critical requirement for establishing reputation. The ethical aspect of conducting business carries enormous weight in the eyes of customers. This is especially true in newly established businesses because newly established businesses often take a long period of time before they can establish their credibility at the market place.

In South Africa, a series of procedures need to be followed in order to set up a small business. Newly established businesses must be registered with the South African Department of Trade and Industry (DTI) and the South African Receiver of Revenues (SARS). The registration of closed corporations (CC companies) is governed by the Closed Corporations Act. The Act is administered by the Companies and Intellectual Property Registration Office (CIPRO).

The establishment of private companies (PTY) or Limited Companies (Ltd) is also governed by an Act in South Africa. Such companies need to be audited annually. For this reason, auditing skills are essential in setting up PTY or Ltd companies. In order to set up a new small business, it is essential to have adequate capital, stock and a good marketing skill. Working capital is needed for at least six months according to guidelines set out by the South African Department of Trade and Industry (2013:3) to new beginners. The guideline recommends that new entrepreneurs must have the ability to determine their start-up cost. Such entrepreneurs must be able to take

inventory, draw up a list of items that need to be stocked and ordered, estimate selling prices, and market their goods and services effectively. Failure to have such skills often results in a loss and failure (Mboniyane & Ladzani, 2011).

According to Meyer and Heppard (2000: 98-99), start-up costs include expenses before the starting date such as market research, registration fees, legal fees, office stationery, design and printing of corporate identity (business cards and letterheads), registration of a domain name and creation of a website, installations and utility connections (if moving into a new property), start-up inventory, cash reserve to support the company during the early months before sales reach break-even levels, current assets, such as fixtures and signage, office furniture and vehicle, and fixed assets. Newly established businesses must make arrangements for overdrafts with their banks. Most banks demand collateral as a requirement for extending loan to new entrepreneurs. As such, it may not be easy for newly established businesses to borrow money from commercial banks at favourable rates. Lack of access to easy finance has been pointed out as a major cause of failure in SMMEs in most Sub-Saharan African countries (Macpherson & Holt, 2007).

Newly established small businesses are often exposed to hidden costs such as wastage of valuable time on bureaucracy, water and light expenses, telephone fees, transportation cost, maintenance fees, employee turnover, outsourcing functions, and the payment of commission and administration fees to service providers. Most newly established businesses pay consultants to set up business plans. They also pay fees to have their tax returns completed and submitted in time. The cost of renting business premises in central business districts is often a costly exercise for newly established small businesses (Kirchgeorg & Winn, 2006).

Newly established small businesses often do not have the skills to manage their cash flow and perform auditing exercises. The study conducted by McGrath and Macmillan (2000: 43-44) indicates that auditing and accounting skills are essential for viability in small and medium-sized enterprises. According to the researchers, newly established firms are often characterized by over-spending, wastage of scarce resources such as time, failure to take stock and inventory, failure to order items that are needed in time and in good quantity, and lack of skills in welcoming constructive suggestions from potential customers. Lynn (2003: 4-5) has reported that failure to manage or control finances according to approved business plans is a differential factor that adversely affects business processes in newly established firms globally, and that such problems are rampant in the world's poorly developed economies. Poor cash flow is one of the major causes of failure in small businesses. Businesses may be profitable. However, if they fail to manage cash flow issues efficiently, they could easily go bankrupt. The ability to manage cash flow enables business owners and operators to forecast their cash flow. Cash flow problems are abundant in South African small and medium-sized enterprises due to lack of formal education in the preparation of business plans, forecasting, auditing and accounting among business owners and operators. In this regard, the problem in the Vaal Triangle region of Gauteng Province is not so different from the problem in all South African metropolitan cities. There is an acute need for training newly established businesses on auditing, accounting, business plan preparation, report writing, oral presentations, stock taking and inventory.

The majority of small businesses fail to acquire technical assistance in areas related to auditing and accounting in an attempt to save cost. The ability to develop a cash flow forecast enables business operators to estimate the amount of money that is likely to flow into and out of their business over a period of time, thereby enabling them to allocate suitable budgets for their operations, set realistic targets and operational budgets, and monitor their overall performance. Mullins (2007: 101-103) has pointed out that efficient organizational skills are essential for viability in small business enterprises, and that such skills enable business operators to manage utilization of their resources effectively.

According to Mullins (2007: 87-89), business operators, managers and owners working in newly established enterprises must have the ability to determine what portion of their sales should be kept in cash, what purchases should be made in order to secure enough stock, when such stock must be ordered and purchased, how much opening stock is needed, how much capital is required, how much loan is needed for operational requirements and needs, where such loans should be obtained, the rate at which loans should be raised, the list of routine daily, weekly and monthly expenses, ways and means of reducing such expenses, fees paid for employees in exchange for their labour-related services, how much monthly salaries should be paid out to employees, and how marketing should be done to potential customers. According to O'Donnell (2004: 10), it is essential to have adequate information on the cost of similar goods and services by rival business operators.

Based on findings from the study conducted by Porter and Tanner (2004: 8-9), the world's most successful and vibrant small businesses and enterprises are characterized by service excellence, dedication for satisfying their customers, research, innovation and development, and attention to quality. In this regard, small and medium-sized enterprises in Sub-Saharan African countries including South Africa are characterized by lack of entrepreneurial skills and relatively lower professional standards. The authors argue that service excellence often leads to a solid and sustainable customer base, and that dedication for rendering quality services is a requirement for sustained growth and development at the market place. The level of skills possessed by the majority of business operators in newly established businesses is often poor. As such, operators working in newly established businesses must be dedicated for achieving service excellence and reliable clientele. However, it is impossible to secure reliable clientele without demonstrating devotion for service excellence (Clemens, 2006: 491). The study by Chromie (2000: 5-60) has found that dedication for service excellence is a key requirement for credibility at the marketplace, and that newly established businesses cannot survive without possessing solid reputation and credibility at the market place. This assessment is consistent with findings reported by Cooper and Schindler (2006: 113-115) and Bosworth (2009: 663). According to Chapman (2000: 100), the vast majority of newly established businesses that fail in their first three years of establishment are characterized by poor reputation and low entrepreneurial skills in the eyes of potential customers, and often struggle to establish credibility. This explains why service excellence is critically needed in newly established small and medium-sized enterprises in the Vaal Triangle region of Gauteng Province. It follows that newly established firms need to allocate enough resources for the acquisition of essential entrepreneurial and technical skills in their first three years of establishment.

Nieman (2001: 446) has suggested a few useful methods of minimizing operational cost at small enterprises. These methods include keeping overheads down, avoiding credit terms, debt collection, improving supplier payment terms, keeping stock to a minimum. The author argues that newly established small businesses must not possess more stock than is needed because they could easily tie up all their free cash in stocks that are too difficult to sell fast enough. The author also cautions new entrepreneurs against the habit of selling on credit. Efficient debt collection requires business owners and operators to be aggressive in demanding monies that are owed by customers. If businesses fail to collect debt in time, they stand to go bankrupt. As such, the ability to collect outstanding debt from customers in time is critical for the survival of newly established businesses.

The cost of labour and human capital is often high in South African businesses. It is essential for newly established businesses to save cost by minimizing labour. At the Vaal Triangle region, a few small businesses make an attempt to use family members as a means of saving money that should otherwise be paid for labour. The practice becomes useful if family members possess the entrepreneurial skills that are needed for business operation. Otherwise, the practice could be detrimental for sustained growth. Zhu, Chew and Spangler (2005: 39-43) have reported that the ability to utilize human capital efficiently as well as leadership and organizational qualities are essential for long term survival and viability in small and medium-sized enterprises globally. According to Foster (2007: 59-61), the cost of labour and capital in small business enterprises should be managed at competitive rates based on market conditions. The cost of goods and services fluctuates seasonally. The cost of some goods and services increases depending on demand that comes in certain seasons of the year. For example, the cost of warm clothes and winter shoes increases in winter. It would be prudent to keep extra stock for the next season in cases where it is not possible to sell such items currently. The other innovative method of managing cash flow is to allow customers to pay phase by phase depending on how much they can afford. However, in selling items on credit, the proper paperwork and procedures must be followed as a means of avoiding loss. In some cases, late payment should be allowed by debtors.

According to Hashim, Ahmad and Leng (2006: 56-58), good leadership is a pre-requisite for the effective accomplishment of organizational tasks in small and medium-sized business enterprises globally. The style of leadership of an entrepreneur has a significant bearing on the ability of the business enterprise to win and retain loyal customers on a sustainable basis. Good leaders have the ability to interact with their potential customers effectively. In cases where there are complaints from customers, good leaders have the ability to resolve disputes and misunderstandings promptly to the complete satisfaction of customers. Such a track record counts heavily in the eyes of the community. Good business leaders foster integrity, good leadership, and high efficiency in the eyes of potential customers. Different leadership styles result in different organizational effectiveness and performance in small and medium-sized enterprises.

Workers employed in business enterprises where the leadership is autocratic in style are less efficient and productive in comparison with workers employed in business enterprises where the leadership is democratic (Peng, Rabi & Sea-

Jin, 2010). The styles of managerial leadership towards subordinate staff and the focus of power can be classified into three categories. The authoritarian style of leadership is autocratic, and the focus of power is with the manager and all interactions within the group move towards the manager. The manager alone exercises decision-making and authority for determining policy, procedures for achieving goals, work tasks and relationships, control of rewards or punishment (Hicks, 2009; Dasanayaka & Sardana, 2010; Fuller & Tian, 2006).

The ability of small firms in South Africa to be a source of sustained income and employment depends on whether they have the financial capacity to embark on new projects and remain competitive in the market. The next section focuses on entrepreneurship and small businesses. These concepts are often perceived as being identical; while they are related, they are not synonymous (Longencker, Moore & Petty, 2003). The Global Entrepreneurial Monitor (2010) reported a significantly lower entrepreneurial activity level in South Africa compared to other developing countries. The total entrepreneurial activity rate in South Africa was 7.3% in 2012 which decreased from its rate in 2011 at 9.1% and yet is far below the average for efficiency driven economies (14.3%).

The ability to respond to queries from customers and the manner in which customers are treated are crucially important for viability in small businesses. The study by Harms, Kraus and Reschke (2007: 661-667) shows that small and medium-sized enterprises that fail to respond to queries made by customers often fail in the first three years of their existence. A good example in this regard is the failure of over 50% of all newly established small businesses in areas such as Soweto, Alexandra, Tembisa and Sebokeng in their first three years of establishment over the period from 1994 to 2012 (South African Chamber of Commerce and Industry, 2003: 4). Street vendors often thrive in areas where formally setup small businesses fail. Consumers have a tendency to look for competitive prices at all times. This indicates that small businesses must be adequately informed about the selling price of goods and services. This requires the ability to do research in the market by gathering information on selling price and the quality of goods and services. Judge and Piccolo (2004: 756-758) have found that good entrepreneurs have good business leadership skills. According to the authors, leadership skills such as learning from competitors and fellow subordinates are quite helpful. The other key leadership skills are the ability to improve organizational leadership and performance by improving the degree of customer satisfaction, staff satisfaction, and financial performance. Understanding leadership is important to small and medium scale enterprises (SMMEs) because leadership binds subordinates to work together and stimulate employees' motivation. Effective leadership provides the building block for organizational performance. It is absolutely essential to the survival and growth of every organization. Autocratic leadership is detrimental to the growth of businesses. In autocratic business institutions, the leaders are not democratic enough in their relations with their sub-ordinate, and problems that affect organizational performance are not frankly and effectively brought to the attention of leaders for fear of reprisal. As a result, overall productivity is low.

3. Methods and materials of study

3.1 Study design and sampling technique

The design of the study was descriptive and cross-sectional. A stratified random sample of size $n=303$ small, micro and medium-sized businesses conducting business in the Vaal Triangle was selected for the study. Stratification was done by geographical zone. That is, eligible businesses were selected from the five geographical zones of the Vaal Triangle (central, east, west, north and south of the Vaal Triangle).

3.2 List of variables of study

Data collection was done on variables of study that are known to affect viability in small, micro and medium-sized enterprises conducting business in the Vaal Triangle region of Gauteng Province (Ndege, 2015; Global Entrepreneurship Monitor, 2014). These variables are: loss making, amount of initial capital of business, the question of whether the business operator has formal entrepreneurial skills, the cost of labour, market condition, failure in securing a loan required for business, ownership of business premises, the ability to draw up business plan, the ability to perform bookkeeping tasks, the practice of selling goods and services to clients on credit, the legal status of business, the question of who the founder of the business is, the question of who the owner of the business is, the age of business in years, the type of business, the gender of the business operator, the age of the business operator in years, the level of education of business operator, the average net monthly income of business, and attending a business-related training with a view to perform better at business. The variables of study listed

above are all highly relevant to the study. Each of the variables of study was selected for the study based on a review of the relevant literature.

3.3 Validity and reliability of measurements

A combination of nominal and ordinal variables was used in the study. Validity is a technique that is used in surveys for making sure that the variables of study measure what the study intends to measure. Reliability is a technique that is used in surveys for making sure that the measurements made in the study are accurate, and can be reproduced independently under similar circumstances. In the study, validity was ascertained by pre-testing the questionnaire of study in the field. The Cronbach-Alpha test (Frank, 2009) was used for ensuring internal consistency and reliability of each one of the nominal and ordinal scales used in the study. All magnitudes of estimated Cronbach-Alpha coefficients were above 75%.

3.4 Methods of data collection and analyses

A combination of quantitative (statistical) and qualitative methods of data collection and analyses were used in the study. Quantitative data collection was done by using a structured, pre-tested, validated and standardized questionnaire of study. Statistical data analyses were conducted by obtaining frequency tables for each of the variables of study, and by performing cross-tab analyses (Hair, Black, Babin and Anderson, 2010), factor analysis (Field, 2010) and binary logistic regression analysis (Hosmer & Lemeshow, 2013). In-depth interviews were conducted with 4 business owners. Two of the four business owners had viable businesses. The other two business owners had non-viable businesses. Interviews were conducted with the 4 respondents by using a tape recorder. Responses obtained from the 4 respondents were later transcribed, coded and categorized.

Standard ethical guidelines and procedures were followed for gathering data from each of the 303 business operators who took part in the study. Each of the participants took part in the study voluntarily, and signed an informed consent form prior to data collection. An explanation was provided to each of the respondents about the purpose of the study, along with their right to drop out of the study without having to explain why. They were informed that responses obtained from each participant would be kept in confidence, and that responses provided by respondents would be made anonymous. Respondents were not exposed to any risk as a result of taking part in the study.

4. Results of data analysis

In accordance with the criteria set out by Ndege (2015), Henrekson (2014) and Seeletse (2012), businesses that had lost money at the time of study were defined as not viable. Businesses that made profit were defined as viable. The study showed that 63 of the 303 businesses that were selected for the study (20.79%) lost money, and hence were not viable. This finding is fairly similar to the result reported by Ndege (2015) based on a similar study conducted with a sample of size 133 SMMEs in the Vaal Triangle region. Table 3 shows a frequency table for the 303 businesses that were selected for the study. It can be seen from the table that 17.83% of businesses were mini-supermarkets or convenience stores, 12.87% of businesses were food outlets and eateries, 11.55% of businesses were textile shops, 9.57% of businesses were footwear shops, and that 4.95% of businesses were agriculture, fruits and vegetable shops.

Table 3: Types of businesses (n=303)

Type of business	Number	Percentage
Agriculture, fruits or vegetables	15	4.95%
Automotive or garage	11	3.63%
Barber shop or hairdresser	12	3.96%
Construction related work	8	2.64%
Laundry shop or washing and cleaning	5	1.65%

Electronic services	5	1.65%
Food outlet	39	12.87%
Footwear shop	29	9.57%
Furniture store	11	3.63%
Hotel business	6	1.98%
Computer shop or internet café	6	1.98%
Mini supermarket or convenience store	54	17.83%
Music or video store	6	1.98%
Newspaper or media outlet	5	1.65%
Pharmacy of clinic	6	1.98%
Photography	8	2.64%
Printing, photocopying or book shop	9	2.97%
Professional services	6	1.98%
Textile shop	35	11.55%
Tour operator	5	1.65%
Transportation services	12	3.96%
Miscellaneous businesses	10	3.30%
Total	n = 303	100%

Table 4 shows a comparison between 63 businesses (20.79%) that lost money (non-viable businesses) and 240 businesses (79.21%) that did not lose money (viable businesses) with regards to key variables of study. It can be seen from the table that businesses that lost money are characterized by low level of initial capital, low level of entrepreneurial skills, low level of net monthly income, low level of formal education, the habit of selling on credit, poor access to loan grants, operating under adverse market conditions, poor auditing skills, high labour cost, failure to draw up business plans, and lack of opportunities with regards to acquiring training on entrepreneurial skills that are valuable for conducting business. Fairly similar results have been reported by Ndege (2015).

Table 4: Comparison between viable and non-viable businesses

Characteristic	Viable businesses (n=240)	Non-viable businesses (n=63)
Initial capital	≤ 50, 000 Rand: 3.28% > 50, 000 Rand: 96.72%	≤ 50, 000 Rand: 51.09% > 50, 000 Rand: 48.91%
Labour cost	Fair: 80.25% High: 19.75%	Fair: 31.45% High: 68.55%
Entrepreneurial skills	Adequate: 77.45% Poor: 22.55%	Adequate: 36.43% Poor: 63.57%
Market conditions	Fair: 80.22% Adverse: 19.78%	Fair: 9.15% Adverse: 90.85%
Access to loan	Yes: 86.76% No: 13.24%	Yes: 37.48% No: 62.52%
Business premises	Own: 43.05% Rent: 56.95%	Own: 63.75% Rent: 36.25%
Business plan	Available: 74.35% Not available: 25.65%	Available: 62.18% Not available: 37.82%
Book-keeping skills	Yes: 75.11% No: 24.89%	Yes: 55.05% No: 44.95%
Selling on credit	Yes: 2.03% No: 97.97%	Yes: 54.36% No: 45.64%
Gender of business operator	Male: 75.44% Female: 24.56%	Male: 81.55% Female: 18.45%
Training on entrepreneurial skills	Yes: 9.02% No: 90.98%	Yes: 8.07% No: 91.93%

Results from cross-tab analyses

Cross-tab analyses were used for assessing the strength of association between pairs of categorical variables. At the 5% level of significance, the strength of association between two categorical variables is said to be statistically significant if the P-value is smaller than 0.05. If the P-value is greater than or equal to 0.05, it is said that the two variables are independent of each other at the 5% level of significance. In this study, all expected cell frequencies were greater than 5. As such, results of data analysis obtained from Pearson’s chi-square tests of association were all valid. Table 5, below, shows significant two-by-two associations obtained from Pearson’s chi-square tests of

associations. Significant associations ($P < 0.05$) showed that businesses fail due to lack of initial capital, high labour cost, shortage of entrepreneurial skills that are needed for operating business, adverse market conditions, difficulty in securing loans needed for business, inability to pay fees that are required for renting business premises, inability to do bookkeeping, the practice of selling on credit, the status of business being operated, the age of the business being operated (young businesses are exposed to loss more than old businesses are), and lack of training opportunities that are relevant to the business being operated. Fairly similar results have been reported by Ndege (2015).

Table 5: Results obtained from cross-tab analyses

List of variables significantly associated with financial loss in businesses	Calculated value of chi-square statistic	P-value
Low amount of initial capital	14.2504	0.000***
High cost of labour	13.2511	0.000***
Lack of entrepreneurial skills	12.1182	0.000***
Adverse market conditions	11.4187	0.000***
Difficulty in securing loan needed for business	10.0308	0.000***
Inability to pay fee needed for renting business premises	8.0548	0.000***
Inability to do bookkeeping	7.2315	0.000***
Selling on credit	6.0819	0.001**
Status of business	5.2354	0.004**
Age of business	4.2808	0.015*
Lack of training opportunities	3.2619	0.027*

Legend: significance levels at * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

Results obtained from factor analysis

Table 6 shows estimates obtained from factor analysis. The estimates show that the use of factor analysis for analysis is appropriate. The method produced 3 influential predictor variables that influenced viability in small businesses. Factor analysis is useful in cases where the correlation among the variables of study is significant. The correlation matrix in this study showed that several pairs of variables had correlations exceeding 0.3, thereby showing that factor analysis was appropriate. In this study, a cutoff point of 0.3 was used as is recommended by Field (2010:138). The variables that were significantly influential over the viability of businesses were difficulty in securing loans needed for business, lack of training opportunities, and lack of entrepreneurial skills, in a decreasing order of strength. The Cronbach Alpha test for internal consistency was used for testing the suitability of the 20-item structured questionnaire of study. The test gave a value of 0.801 and an associated level of significance that was smaller than 0.001. Furthermore, Bartlett’s test of Sphericity was used for testing the adequacy of the correlation matrix, and gave an estimate of 0.795, a figure that was greater than the cut-off point of 0.5, thereby confirming the suitability of factor analysis.

Table 6: Estimates obtained from the Kaiser-Meyer-Olkin and Bartlett's test

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	0.801
Observed value of chi-square statistic for KMO test	1012.35
Bartlett's Test of sphericity degrees of freedom	255
P-value for Bartlett's Test of sphericity degrees of freedom	0.000

Table 7 shows Eigen values and the total variance explained by the fitted factor model. According to Field (2010), Eigen values of 1 or greater are useful for accounting for variability in viability. Accordingly, 3 influential predictor variables were identified by using factor analysis. These variables were difficulty in securing loans, lack of training opportunities, and shortage of entrepreneurial skills, in a decreasing order of strength. The table shows that the

fitted factor model accounts for 87.413% of the total variability in viability. This figure is above 75%. According to Field (2010), this suggests that the fitted factor model is fairly well reliable.

Table 7: Eigen values estimated from factor analysis

Extracted factor	Eigen value	Percentage of explained variance in viability	Cumulative percentage of explained variance
Difficulty in securing loan needed for business	4.371	48.702	48.702
Lack of training opportunities	3.566	25.006	72.628
Lack of entrepreneurial skills	2.746	17.443	87.413

The results in Table 7 provide estimates for the percentage of variance explained by the 3 factors that were extracted by using the principal axis factoring method. Each of the 3 extracted factors has an Eigen value of magnitude greater than 1, thereby indicating its level of importance in terms of accounting for viability in business. The 3 extracted factors collectively account for 87.413% of the total variability in viability (the dependent variable of study). Based on the estimates shown in Table 7 above, it can be concluded that viability in small businesses operating in the Vaal Triangle region of Gauteng Province is significantly and adversely affected by the following 3 factors. These three factors were: difficulty in securing loans, lack of training opportunities, and shortage of entrepreneurial skills, in a decreasing order of strength. The 3 factors listed above accounted for 87.413% of total variability. This figure is above 75%. Fairly similar results have been reported by Ndege (2015) and Seeletse (2012).

Results obtained from in-depth interviews

Qualitative interviews were conducted with 5 respondents (one from each of the 5 strata of the study) by using 1-hour interviews. Interviews were tape-recorded and transcribed later. Results obtained from in-depth interviews showed that difficulty in securing loans on favourable terms from micro lending institutions was a key obstacle among SMMEs operating in the Vaal Triangle region of Gauteng Province. The key results obtained from in-depth interviews are summarized as follows:

Lack of access to finance

The difficulty in accessing finances for the business was a major problem cited by many of the respondents. The majority of the respondents complained about the long procedures of getting sufficient loans from well-established financial institutions. The challenges faced by small enterprises in securing access to finance are described as being severe.

Lack of entrepreneurial skills

The actual shortage of entrepreneurial skills was also identified as a major factor. The majority of the respondents admitted not to have initial experience or training business management but had the urge to take part in tourism related activities. It was evident that their poor entrepreneurial skills put them at a disadvantage. Geldhof, Weiner, Agans, Mueller & Lenner (2014) have pointed out that shortage of entrepreneurial skills in SMMEs pose a real threat to the survival of small enterprises in South Africa, and has emphasized that the National Skills Development System should be implemented with vigour as a means of alleviating this major problem.

Lack of mentorship, monitoring and evaluation programmes

The respondents indicated that there is a dire need for mentorship, monitoring and evaluation programmes from the South African National Department of Trade and Industry as a means of supporting and promoting small enterprises. Coltman (2013) argues that mentorship programmes are essential for ensuring long-term viability in small enterprises. Seeletse (2012) has also pointed out that skills-related mentorship programmes are essential for ensuring viability in small enterprises. One key area of need is auditing and financial management. Financial management and marketing are specialised skills that require a particular level of education. If local communities are left to acquire these skills and operate small businesses on their own, their competitive level will remain low, as is currently the case. Fairly similar results have been reported by Ndege (2015) and Seeletse (2012).

Key findings of study

The study found that 21% of businesses were not viable financially. The study also showed that viability in small and medium-sized enterprises in the Vaal Triangle area was adversely influenced by difficulty in securing loans, lack of training opportunities, and shortage of entrepreneurial skills, in a decreasing order of strength. The study showed that the growth of newly established businesses was hampered due to difficulty in securing loans on favourable terms from micro lending institutions and the lack of training opportunities on entrepreneurial activities. Results obtained from frequency tables showed that non-viable businesses were characterized by low level of initial capital, low level of entrepreneurial skills, low level of net monthly income, low level of formal education, the habit of selling on credit, poor access to loan grants, operating under adverse market conditions, poor auditing skills, high labour cost, failure to draw up business plans, and lack of opportunities with regards to acquiring training on entrepreneurial skills that are valuable for conducting business. Results obtained from Pearson's chi-square tests of associations ($P < 0.05$) showed that businesses fail due to lack of initial capital, high labour cost, shortage of entrepreneurial skills that are needed for operating business, adverse market conditions, difficulty in securing loans needed for business, inability to pay fees that are required for renting business premises, inability to draw up business plans, inability to do bookkeeping, the practice of selling on credit, the status of business being operated, and lack of training opportunities that are relevant to the business being operated. Results obtained from factor analysis showed that the loss of money in small and medium-sized enterprises was significantly influenced by lack of entrepreneurial skills and lack of access to finance on favourable terms. Results obtained from in-depth interviews showed that the loss of money in small and medium-sized enterprises was significantly influenced by lack of entrepreneurial skills and lack of access to finance on favourable terms. Findings reported in this study are consistent with findings reported by Ndege (2015) and Seeletse (2012).

The study has shown that viability in small and medium-sized enterprises operating in the Vaal Triangle region of Gauteng Province is adversely influenced by lack of entrepreneurial skills and lack of access to finance. The study has also shown that non-viable businesses have difficulties and structural challenges such as low level of initial capital, low level of entrepreneurial skills, low level of net monthly income, low level of formal education, the habit of selling on credit, poor access to loan grants, operating under adverse market conditions, poor auditing skills, high labour cost, failure to draw up business plans, and lack of opportunities with regards to acquiring training on entrepreneurial skills that are valuable for conducting business. The study has managed to reveal challenges that persist to deny small and medium-sized enterprises room towards sustainable development and prosperity in the Vaal Triangle region. Results obtained from Pearson's chi-square tests of associations have shown that the viability of small and medium-sized enterprises in the SMME sector of Vaal Triangle is adversely affected by an acute shortage of entrepreneurial skills and lack of access to finance from micro lending institutions. Non-viable small enterprises lack vision for business. They also lack clear strategy for business. They are synonymous with poor productivity or inefficiency, lack of project management skills and lack of entrepreneurial skills. Socioeconomic factors such as adverse political environment and lack of transparency in tender processes are known to affect small and medium-sized enterprises.

Based on the key findings of the study, feasible measures should be taken in order to improve the plight of small and medium-sized enterprises operating in the Vaal Triangle region of Gauteng Province. The South African Department of Trade and Industry needs to support newly established small businesses by providing them with training and supervision on business skills. The current regulatory framework governing operations conducted by small enterprises allows the South African Government to provide such assistance to small enterprises. It is also equally important to create an economically enabling environment for newly established businesses.

The roll out of capacity building programmes directed at small and medium-sized enterprises must be intensified. The study has found that small and medium-sized enterprises are in dire need of entrepreneurial and technical skills. Enough resources must be made available for training and capacity building programmes so that small and medium-sized enterprises can be assisted better. The study has found that agencies that are established for providing assistance to small and medium-sized enterprises are seriously underfunded. As a result, they are not providing small and medium-sized enterprises with the assistance they require in order to compete more favourably with well established businesses. It is necessary for the South African Department of Trade and Industry to make more resources available for supporting agencies that are established for assisting SMMEs.

The study conducted by Geldhof, Weiner, Agans, Mueller & Lenner (2014) has shown the numerous benefits of teaching entrepreneurial, artisan and vocational skills to high school and undergraduate students in developing nations such as South Africa. The study has found that the curriculum used in South African tertiary level academic institutions does not educate small and medium-sized entrepreneurs on how to acquire and improve their entrepreneurial skills. The curriculum must be revised so that small and medium-sized entrepreneurs can be educated on how to develop business plans, how to grow their business, how to formulate long-term strategy for business, how to conduct audits, and how to write progress reports. It is essential to encourage potential entrepreneurs to enter the SMME sector by providing clear incentives. One method in which this can be done is by promoting openness and transparency in the procedures and regulations governing tender processes. Government tenders should be conducted in a transparent manner so that projects are awarded to the most deserving competitors. In order to ensure transparency, feedbacks should be provided to participants at the different stages of the tender assessment procedure. Failure to address this will require a holistic approach to ensure that government objectives are met.

Supervisory assistance should be provided to newly established businesses in their first three years of operation. Newly established firms often lack the capacity to do inventory, take stock, utilize their finance appropriately and prudently, and refrain from selling items on credit. By providing small enterprises with supervisory assistance, it will be possible to reduce the current high failure rate of failure in newly established business enterprises in the Vaal Triangle region.

Unemployed youth should be encouraged to attend vocational training programmes at tertiary level academic institutions. Such programmes can easily be offered by the Vaal University of Triangle (VUT) in collaboration with the South African Department of Trade and Industry. The curriculum for training can easily be worked out by the two institutions. Such collaboration has the potential for reducing the current unemployment rate among the youth who have been unable to find jobs.

Although there is an understanding that the SMME sector has the potential for contributing to the growth of the national economy, the sector needs to be supported by the national Government. The study conducted by Seeletse (2012) has shown that the sustained growth of the national economy depends on the sustained growth of the SMME sector. This is especially true in developing economies such as South Africa. There are clear benefits in ensuring that all tender procedures are conducted with adequate transparency and accountability as a means of ridding the SMME sector of corruption. Joseph (2005: 11-12) has reported that strategic partnerships between national and provincial Governments as well as academic institutions benefit the SMME sector in terms of producing workable plans of actions. Business processes that aim to benefit small, micro and medium enterprises must be free from bureaucratic procedures and bottlenecks in order to enable small businesses to reach their full potential in the SMME sector of the economy. In Vaal Triangle, black-owned enterprises need tangible support in order to grow and make a sustainable contribution to job creation and the alleviation of poverty among the masses.

The strategic benefit of entrepreneurial and managerial skills for the long term survival of SMMEs has been pointed out by SETA (2015) and the South African Chamber of Commerce and Industry (2014). Ndege (2015) has pointed out that the acute lack of entrepreneurial and managerial skills constitutes a major obstacle to the development of SMMEs in the Vaal Triangle region of Gauteng Province. These findings have been corroborated by the World Bank (2014) and Carroll & Wagar (2010). Henrekson (2014) has pointed out that the acute shortage of entrepreneurial and technical skills has become one of the key reasons why newly established small and medium-sized enterprises fail to grow on a sustainable basis.

The constant shortage of entrepreneurial skills in small and small and medium-sized enterprises is further exacerbating the plight of emerging firms in Vaal Triangle. The shortage of such skills is responsible for the high rate of failure of newly established companies. According to the World Bank (2014), it is strategically important to have access to skills-based programmes of training if newly established companies are to bridge the skills gap in the SMME sector. Business programmes that are offered by South African universities are not relevant to the survival needs of small and medium-sized enterprises. The absence of accredited training programmes in this regard has aggravated problems that arise from the lack of technical skills.

Due to the nature of the SMME sector, access to finance remains vital because projects can get delayed in cases where contractors fail to raise adequate working capital for the project being done. Since contractors are expected to

utilize initial capital before claiming for work done, the extent to which they are able to access financial backing is fundamental. Under financial constraints, small and small and medium-sized enterprises are likely to perform poorly on a contract. According to Ndege (2015), the key reason why the majority of newly established SMMEs in the Vaal Triangle region out of business in the first three years following establishment is their inability to raise the finance needed for the completion of projects.

There are a few financial institutions operating in Vaal Triangle. Examples of such institutions are the Industrial Development Computation (IDC), Business Partners Limited (BPL), the Small Enterprises Development Agency (SEDA) as well as the big four South African commercial banks (Amalgamated Bank of South Africa (ABSA), First National Bank (FNB), Standard Bank and Nedbank). Although the commercial banks have adequate funds to lend, their lending policies are quite stringent, and are based on collateral. The other microfinance institutions do not have adequate funds to satisfy the needs of newly established firms. Also, their lending rates are quite high, and are not affordable to small enterprises. It is quite difficult for newly established SMMEs to borrow money on unfavourable terms from financial institutions due to lack of track record and collateral. Microfinance institutions in the Vaal Triangle region have limited resources, and impose rather stringent repayment conditions on borrowers. This condition exacerbates the plight of newly established firms in the Vaal Triangle. Ndege (2015) has found that newly established firms often lack the ability to utilize borrowed money wisely and according to plan. They have poor auditing, managerial and entrepreneurial skills. They do not report their progress at the workplace regularly to financial institutions that choose to lend them money. As a result, the majority of commercial banks and micro-lending financial institutions are often reluctant to lend monies to newly established small and medium-sized enterprises conducting business in the Vaal Triangle region of Gauteng Province.

Recommendations

The study has found that development and assistance programmes that are aimed at fostering sustained growth and viability in SMMEs have not curbed the high rate of failure in newly established and start-up SMMEs in the Vaal Triangle region. One of the key priorities of the Gauteng Provincial Government and the South African National Department of Trade and Industry is to support and promote newly established SMMEs as a means of alleviating poverty and unemployment. To this end, the following recommendations are made to both the Gauteng Provincial Government and the South African National Department of Trade and Industry based on findings obtained from the study with a view to improve viability in the SMME sector of the economy in the Vaal Triangle region of Gauteng Province. The recommendations have the potential for improving the plight of struggling small and medium-sized enterprises in the region. It is vital to provide tailor-made skills based training programmes on vocational and entrepreneurial activities in which young matric graduates are targeted specifically. It is useful to provide supervisory and monitoring and evaluation assistance to small and medium-sized enterprises. It would be prudent for the South African National Department of Trade and Industry to collaborate with Vaal University of Triangle in order to create entrepreneurial and skills based training programmes in which tangible assistance is offered to young matric level graduates who have failed to find employment opportunities in the Vaal Triangle region of Gauteng Province. Finally, it is vital to provide financial, supervisory and mentorship programmes of support to newly established SMMEs in the region. These recommendations are consistent with similar recommendations made by Seeletse (2012) and Ndege (2015).

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