OPTIMIZING ACCESS TO EXTERNAL FINANCE BY SMALL AND MEDIUM-SIZED ENTERPRISE START-UPS: TOWARDS THE DEVELOPMENT OF A CONCEPTUAL FRAMEWORK

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How to cite this paper: Bamata, N. H., & Phiri, M. A. (2022). Optimizing access to external finance by small and mediumsized enterprise start-ups: Towards the development of a conceptual framework. *Journal of Governance & Regulation, 11*(1), 125–140.

https://doi.org/10.22495/jgrv11i1art12

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ISSN Print: 2220-9352 ISSN Online: 2306-6784

Received: 26.07.2021 Accepted: 20.01.2022

JEL Classification: M130, M530, M210 **DOI:** 10.22495/jgrv11i1art12

Abstract

This study aims to experimentally analyse how start-up awareness, management skills, and financial providers' requirements relate to the key drivers of business success. A framework has been developed to increase start-ups' capacity to obtain external financing (Bamata, 2019). Data were collected by a simple random sample from a survey of 253 SMEs in Pietermaritzburg, South Africa. Data analyses from the questionnaire using the statistical program SmartPLS were carried out utilizing descriptive and inferential analyses and structural equation modelling. It was shown that start-up awareness and management skills positively affect SMEs' access to government, corporate, and personal/social sources of financing. Seven hypothetical connections were evaluated, and the results were obtained. The suggested framework maps the entrepreneurial awareness and management abilities of a start-up entrepreneur with funding provider needs and gives an idea of the type and optimum funding choices to be applied for the company (Bamata, Govender, & Fields, 2019). By utilising this framework, SME owner-managers would become aware of their financing needs and be ready to choose the most suitable source of external finance.

Keywords: Entrepreneur, Entrepreneurship, New Enterprise, New Firm Growth, Start-Up, Start-Up Financing, Management Skills, Start-Up Awareness

Authors' individual contribution: Conceptualization — N.H.B. and M.A.P.; Methodology — N.H.B. and M.A.P.; Formal Analysis — N.H.B. and M.A.P.; Investigation — N.H.B.; Writing — Original Draft — N.H.B.; Writing — Review & Editing — N.H.B. and M.A.P.; Supervision — M.A.P.; Project Administration — N.H.B. and M.A.P.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

The critical role of SMEs in economic growth has been acknowledged in most countries' SMEs (Lekhanya, 2016). Small companies are an epicentre of the growth of many countries and the principal source of state income (Bongini, Ferrando, Rossi, & Rossolin, 2017). SMEs contribute about 60 percent of the global gross domestic product (GDP) worldwide, and more than 95 percent of total global jobs, according to Domeher, Abdulai, and Yeboah (2016). In the European Union, SMEs make up more than

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99 percent of all non-financial commercial enterprises, with 93 percent being micro-businesses, less than 6% being small businesses, and fewer than 1% being medium businesses (Rotar, Pamić, & Bojnec, 2019; Bongini et al., 2017).

The World Bank Task Team (The World Bank, 2017) has described a range of reasons, which are known as limitations for start-up SMEs to access foreign funding to illustrate the difficulties that start-up SMEs face in accessing external financing. Factors such as the absence of finance skills, the abuse of financial industries, the asymmetry of intelligence, and the high risk of lending to start-ups included (Osano & Languitone, 2016; Zondi, 2017). According to EVA Financial Solutions (2019) and Fatoki (2016), most South African small firms do not progress after the start-up stage and their failure rates of 75% are amongst the highest in the world. The main vehicle for tackling problems of sustainable economic development, job creation, deprivation, and integrated acceleration of national economic growth are expected from South African SMEs (Ayandibu & Houghton, 2017). Through the Department of the Presidency and National Planning Commission, the Government of South Africa started a 2030 National Development Plan (NDP) to overcome poverty and injustice gaps by 2030 (Government of South Africa, 2012).

Even though SMEs continually boost a country's economic growth, the difficulty in obtaining funding limits their development and growth (Hoque & Koali, 2021; Islam, Sarker, Hossain, Ali, & Noor, 2020). While it is vital that SMEs have access to financial services, banks typically do not offer sufficient loans to SMEs (Rahman, Rahman, & Belas, 2017). This clearly validates the motivation for researching resource-based theory in the context of start-up SMEs. According to the resource-based theory, companies have resources, a subset of which allows them to gain a competitive advantage and some of which leads to better long-term performance. Both entrepreneurs and possible external financing providers evaluate the projected returns of a new firm based on their assessments of the entrepreneur's capacity to create unique resources that can be used for a specific market or markets (Shibin et al., 2020).

A significant amount of study (Abraham & Schmukler, 2017; van Scheers, 2018; Akinyemi & Adejumo, 2017) has been conducted on how South African SMEs can handle the numerous business issues that they face.

However, until now very limited literature particularly focused on the influence that the determinants of business success have on start-up SME access to external finance.

To fill this research gap, this study investigates the relationship between the determinants of the success of start-up SMEs and their access to external financing within the South African context, with the intention of developing a framework for these SMEs to access external finance. More specifically, the relationships between the SME "start-up awareness" and their access to external sources of start-up finance, as well as the relationships between the SME "management skills" and their access to external sources of start-up finance, will be empirically explored using inferential statistical techniques to analyse survey data.

Previous research (Bamata et al., 2019) has only analysed the relationships between the groups of business success factors such as start-up awareness (SUA) and management skills (MS), the sources of finance such as government finance (GF), corporate finance (CF), and personal and social finance (PSF). However, this paper additionally analyses the influence of each determinant of SUA and MS on access to different sources of finance. Bearing in mind that these factors, as presented in Table 1, do not all impact the access to SME financing the same way.

The following research question has been generated to direct the research study:

RQ1: Which key determinants of the success of start-up SMEs can be used to develop a financing framework to assist their access to external finance?

The quantitative research is appropriate in situations where the variables are known, and it is possible to develop reasonable ways of measuring or controlling them. The key determinants of the success of SME start-ups and their application by entrepreneurs is a quantifiable phenomenon, and it can be controlled. Thus, this empirical study has been systematically undertaken in such a way that the key determinants of the success of SME start-ups are described and tested in the context of the resource-based theory. The study was conducted in Pietermaritzburg, the capital and the secondlargest city in the province of KwaZulu-Natal, South Africa (Pietermaritzburg Tourism, 2016). whose population was 750,860 at the time of the study. The sample was randomly selected at a 95 percent level of certainty and a confidence level of 5%, and this resulted in a sample size of 253. Data analyses from the questionnaire using the statistical program SmartPLS were carried out utilizing descriptive and inferential analyses and structural equation modelling.

The present study has proposed a financing framework that maps the start-up entrepreneur's business awareness and the requisite management skills with the finance providers' requirements for granting finance and provides the entrepreneur with a clear idea of the type of finance to apply for and the optimal financing options for their businesses. Thus, a financing framework may greatly improve the chances of accessing funding by SME start-ups, and this may contribute to their growth and development which eventually impacts the greater economy of the country.

The structure of this paper is as follows. Section 1 provides the introduction to the study, focusing on the research background, research problem, objectives, research questions significance of the study, and the main findings/contributions. Section 2 reviews the relevant literature. Section 3 analyses the methodology that has been used to conduct empirical research. Section 4 presents the research findings and an analysis and discussion thereof. Section 5 highlights the discussion of results. Section 6 presents the financing framework for start-up SME access to external finance. Section 7 highlights the conclusions and presents the recommendations, and limitations of this research, as well as suggestions for further research.



2. LITERATURE REVIEW

2.1. South Africa's SME financing barriers and alternatives

Small businesses are known as innovation and production engines globally (Sibanda, Hove-Sibanda, & Shava, 2018). The barriers to small business development include lack of funding, lack of management expertise, obstacles to the sector, regulatory problems, and country infrastructure (Aardt, 2017). The study focuses on the start-up process, as a result of inter-alia lack of finances several companies are failing at the moment.

Zondi (2017) noted that large enterprises can reach the financial market and obtain fast finance at minimal costs, but that is not the case for SMEs in South Africa. Financing sources for SMEs are very few and thus require them to focus on GF, CF, and PSF (Fatoki, 2016). The needs of lending institutions do not quite balance the capacity of SMEs by making it more difficult to receive funding on a suitable and affordable basis (Zondi, 2017).

South African government launched different entities through the Department of Trade and Industry (DTI), Small Development Agency (SEDA), NPOs, and donors to boost the performance of the SME sector with crystal clear objectives. However, Zondi (2017) expressed his opinion that although the South African Government has provided ample funds for supporting SMEs, access to finance remains troublesome, in particular, in the start-up process for SMEs. In addition, the number of requests for external funding from start-up SMEs has decreased considerably. Mayombe (2016) has stressed the issue not so much that the fund is not available for South African start-up SMEs, but that the method of accessing external funding is stringent and lengthy.

2.2. Determinants of start-up SME success

The dynamically linked success of start-up companies and the availability of SMEs to external finance leads to uncertainty for small companies in South Africa and little knowledge is available in this area (Quang, Huu, & Pham, 2017; Fatoki, 2016).

This does not prevent the development of management regulations on what to do and what criteria to utilize to improve their access to external funding. Although it can reasonably be expected that finance providers demand certain corporate performance fundamentals or metrics (determinants) before they recommend awarding funding to small and medium-sized enterprises, there is no broad agreement on the determinants of business success. Yeoh and Popovic (2016) have pointed out that every competency and condition placing a firm in a leading place on the market is determining a start-up success as an advantage of competitive strategy which represents a lasting advantage or just partnerships.

There may exist a very comprehensive list of determinants of success of start-ups, but for this analysis, 22 will be considered (Table 1) (Quang et al., 2017; Yeoh & Popovic, 2016; Fatoki, 2016; Smorfitt, 2008).

Table 1.	Start-up	success	determinants
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Start-up awareness	No.	Management skills
Opportunity awareness	1	General management skills
Differentiating factors	2	Strategic management skills
Business model	3	Organisational skills
Strategy	4	Technical skills
Feasibility study	5	Financial management skills
Business plan	6	Leadership skills
Location	7	Communication skills
Amount of seed capital	8	Inventory management skills
Source of seed capital	9	Marketing skills
Decision-making ability	10	Contingency management skills
	11	Controls and systems skills
	12	Growth-oriented skills
	Start-up awareness Opportunity awareness Differentiating factors Business model Strategy Feasibility study Business plan Location Amount of seed capital Source of seed capital Decision-making ability	Start-up awarenessNo.Opportunity awareness1Differentiating factors2Business model3Strategy4Feasibility study5Business plan6Location7Amount of seed capital8Source of seed capital9Decision-making ability101112

Source: Quang et al. (2017), Yeoh and Popovic (2016), Fatoki (2016), Smorfitt (2008).

The concept of opportunity involves a set of ideas, beliefs, and possible actions to not only identify new buyers or enter new markets but also to create and develop new or existing products and services, improvise production mechanisms and identify new sources. It is about recognizing raw materials and recognizing opportunities to achieve higher economies of scale to penetrate existing markets or enter new markets (Mostafiz, Sambasivan, & Goh, 2020; Costa, Santos, Wach, & Caetano, 2018).

According to organizational theorists, business strategy is a distinct and basic component of a firm's identity and concerns how businesses compete in each business; this is decided very early in a firm's existence. In other words, a company's business strategy influences many other company traits or tactics, such as client orientation or market orientation (Yuan, Lu, Tian, & Yu, 2018). According to Braun, Latham, and Porschitz (2016), a business model is crucial for a start-up SME, as it reflects a preliminary reflection on how a business provides "what benefit" and "to whom". In a variety of situations where a business model is a dynamic, pre-concepted structure, a business plan, which is formulated as "a thought out beforehand" is successful. Braun et al. (2016) further argued that small enterprises are prone to utilize strategies that arise over time, are flexible, and are unconstrained. In small organizations, business planning is more likely to be regarded than just generating a written document for strategy development.

The feasibility analysis requires, according to Aardt (2017), consumer analysis that serves the business to ensure that a new product or service is demanded and whether the market is sufficiently large, and whether the competitive field can handle the new product or service comfortably. The corporation would help determine its marketing



plan through a feasibility review. Aardt (2017) further stresses the need for an internal governance tool while a business strategy for applicants and co-investors is necessary. The entrepreneur must answer the question of seed money, the sum, and the sources, which are very critical in starting a company after setting up the start-up business plan and strategy. An improper supply of seed capital could lead to a lack of funding and therefore company loss (Dhliwayo, Mmako, Radipere, & Shambare, 2017). Fatoki (2016) observed that the position of a new company still influences consumer demand and growth opportunities. Freeman and Styles (2014) noted that "through their proximity to markets and services, the geographical location impacts of the new company remain" (p. 182).

The importance of management skills to performance of start-up SMEs has been the investigated by Fatoki (2016) and Jones and George (2018), the main causes for the differences between start-ups in small and medium-sized companies include lack of leadership, competence, and personal traits, and other factors, such as adverse economic conditions, inadequate business planning and lack of funding. Schiffman and Wisenblit (2019) highlighted the ability of the businessman to make decision choices within the organisation both quickly and appropriately. SME owners should also have technical skills and sound business experience. To intelligently consider all facets managers must acquire adequate knowledge of company technologies (Jones & George, 2018). Danso and Adomako (2014) argued that the ability to interpret financial statements and processes are crucial factors for the continuing performance of a company.

Danso and Adomako (2014) and Dhliwayo et al. (2017) stressed that in a start-up SME where the entrepreneur could be the only company boss contributing to inadequate management of workers, it could be critical for the absence of leadership skills. Leadership skills are crucial in any industry because of the limited number of managers in the organisation, individual leadership skills are much more necessary in a small business. Entrepreneurs are not excellent leaders or managers by birth, but they have to make a detailed evaluation and learn the expertise necessary to plug the holes in their portfolio of capacities (Kearns, Livingston, Scherer, & McShane, 2015).

The right to demand the goods or services of companies depends completely on how effectively the company is communicating according to Jones and George (2015). In any contact with the environment today, communication technologies such as e-mail are still critically essential, and the use of intranet and extranets can also improve the communication system and information systems in the company. Bovée and Thill (2016) have indicated that personnel management capabilities are closely linked to communications, management, and leadership. Managers with a small group of employees are more likely to be able to communicate with each other in a way that later leads to fruitful interactions in growing companies and builds trust, reputation, and prestige as they transition to the latter stage of their company (Bovee & Thill, 2016).

According to Singh and Verma (2018), inventory management is a component of supply chain management that plans, implements, and controls the efficient, effective, forward, and reverse flow and storage of goods, services, and related information from the point of origin and the point of consumption in order to meet the needs of customers. Jones and George (2015) found out that a company's marketing capabilities and contingence management skills are crucial to all business success, enabling the owner to respond to ever-changing conditions. In addition, contingency management would have more requirements, as SMEs are not industry leaders or market leaders, but market leaders and niches (Bamata, 2013; Schiffman & Wisenblit, 2019). They, therefore, tend to adjust more than market leader requirements and must alter in response to changes made by the global market leader (Schiffman & Wisenblit, 2019).

The management control structure reflects the organizational practices aimed at achieving its aims by ensuring organizational adherence to the credibility and success of the societal political expectations (Schäffer, Strauss, & Zecher, 2015). Da Silva, Lunardi, Serpa-Ganz, and da Silva-Zonatto (2020) report that in the present era of information, programs which fulfil the existing and possible intelligence needs are significant in the performance criterion portfolio of the company. Many companies have a reactive approach to the introduction of information technology rather than a strategic plan. This interconnected system can have an accounting feature, a revenue control function, a contact system (Mariotti & Glackin, 2014).

2.3. Conceptual model and hypotheses development

Uyar and Guzelyurt (2015) found that the availability of funding is one of the major barriers to South Africa's start-ups. This demonstrates, thus, that the supply shortage for start-up SMEs is crucial. The choice of external financing is so important that most start-up SME failures are due to their insufficiency or inappropriateness (Kumar & Rao, 2016). Because SMEs vary in many ways, they employ different techniques and choices for funding. Uyar and Guzelyurt (2015) further argue that, in contrast to large and publicly listed firms, SMEs have minimal access to external funding sources, for example, long-term debt and stock issues.

This supports the need to establish a SME access system for external finances that should be based on a combination of business knowledge and management abilities and the processes of the market that contribute to preferred external financial options for SMEs. Therefore, it is essential to devise a mechanism which would offer guidance in the identity and analysis of market performance variables that will increase access for SMEs to external finance in the start-up process. Size and age of the company would influence its funding need and choices. SME start-ups in South Africa have foreign sources of funding including government grants, commercial bank financing and private equity financing.



Fatoki (2016) has reported that one of the major challenges SMEs face in accessing external financing is that businesses cannot meet the criteria of financial institutions. The literature review described and addressed three key sources of SME start-up funding and the financing conditions (Fatoki, 2016). Sources such as the PSF, the GF, and the CF.

In the context of the start-up sector of South African SMEs, important drivers of SME start-up performance are examined and summarized, attempts are made to evaluate their value and influence on access for SMEs for external financing and to fulfil the criteria of their financial providers.

The conceptual framework is used to explain variables considered in the research and their relationships (Freitas, Borges, & de Carvalho, 2020). The concept below indicates the importance of each variable and the relationships in enhancing the dependability of SME access to finance on business success factors.

Figure 1. Conceptual framework



The success that start-up SMEs achieve in accessing external financing depends on different factors, two categories of which are considered dramatically relevant, namely SUA and MS. Penrose (1959) is one of the seminal contributions to the theory known today as the resource-based view of the firm. In applying the Resource-based theoretical foundation to the current study, the key determinants of the success of start-up SMEs influencing the ability of start-up businesses to access external finance are considered as key resources and capabilities that the entrepreneurs should develop in order to establish a successful start-up business.

In the following hypothesis formulation, each determinant is considered as a particular business resource and its relation to the source of external financing is therefore analysed.

Hypothesis 1 (H1): There is a relationship between start-up awareness and management skills.

Kirana and Reddy (2019) argue that a simple definition of the strategic elements, in which the company must excel to rivals, should be viewed as core determinants of start-up SMEs' growth. The need for critical competencies in particular business activities and the management of the relationship between business activities reinforces this situation. The key determinants for the growth of start-up SMEs — start-up awareness and management skills — are external and internal. While internal determinants are connected elements of the organisation that are regulated by the company owner or the entrepreneur, the external determinants all have to do with the business environment. The relationship between management skills and essential elements of growth creation is an important way to achieve successful micro and small business in Africa, according to Yeoh and Popovic (2016).

Hypothesis 2 (H2): There is a positive relationship between start-up awareness and the choice of personal/social networks as a source of finance.

Zondi's (2017) survey indicated that lack of credit is also a big limitation on South African small companies expanding, which rely on family and friends for their personal savings and loans.

Hypothesis 3 (H3): *There is a positive relationship between start-up awareness and the choice of government as a source of finance.*

Prior research (Fatoki, 2016) finds that South African start-up knowledge contributes to government selection of business financing as their primary source. Fatoki (2016) further indicated that earlier market research and associated characteristics have been found as having a positive impact on start-up SME access to government financing.



Hypothesis 4 (H4): There is a positive relationship between start-up awareness and the choice of corporate as a source of finance.

Earlier studies (Fatoki, 2016) showed that start-up awareness has a favourable influence on the wishes of founders to choose corporations as sources of financing (e.g., banks). Prior market analysis, a marketing strategy, and related considerations also influence the access to various kinds of bank funds for start-up SMEs (Fatoki, 2016).

Hypothesis 5 (H5): There is a positive relationship between management skills and the choice of personal/social networks as a source of finance.

According to Bibi, Anwar, and Rana (2021), management skills are good for entrepreneurs' willingness to leverage their personal or social networks as a potentially lucrative source. Bibi et al. (2021) further noted that the priority of borrowing money from family groups should be to show integrity, transparency, and market opportunities and risks.

Hypothesis 6 (H6): There is a positive relationship between management skills and the choice of government as a source of finance.

The expertise in management has a favourable effect on the government's choice of start-up financing. Fatoki (2016) indicated that market achievement determinants have a positive influence on access for start-up SMEs to all forms of government financing.

Hypothesis 7 (H7): There is a positive relationship between management skills and the choice of corporate as a source of finance.

The reality that founders with managerial experience see corporate finance as the main source of start-up SME finance, has a positive impact on corporate finance. The decision of financial institutions to support start-ups in small and medium-sized firms is influential according to Bibi et al. (2021). The determinants of SUA and MS, and the relationships described above are empirically examined using the following approaches.

3. RESEARCH METHODOLOGY

Among three key approaches to analysis, that is, qualitative, quantitative, and mixed methods (Mohajan, 2017), a quantitative approach has been taken in this review since this is the only means of assessing the different hypotheses. In Pietermaritzburg, the target population was SMEs, and the population was made up of SMEs registered in the Pietermaritzburg Chamber of Business (PCB), the registered NPO of the Chamber of Commerce, and Industry of South Africa (SACCI). Honorary PCB officials, governmental and NGOs, and schools have been omitted and the population has been limited to 678, with 253 participants chosen randomly. Random sampling is characterized as a sampling process for a population based on chance and each population variable has a known, non-zero probability coincidental selection (Dudovskiy, 2017).

The sample was randomly selected at a 95 percent level of certainty and a confidence level of 5%, and this resulted in a sample size of 252 from using the following formula:

$$n = \frac{N}{1 + (N(e^2))}$$
(1)

where, N = population, e = precision = 5%, confidence level = 95%, P = 5.

Table 2. Sample size

	Database	Large	Ν	e = 0.05	Ν
PCB	832	154	678	0.05	252

The data collection procedure was completed e-mailing questionnaires to the different hv companies selected for study purposes. Those without access to the Internet were given the questionnaires physically by the researcher. After a week, the participants were asked to return the survey questionnaires by e-mail, and if this was not done, the fieldworker went to the non-compliant respondents' premises and collected the questionnaire, as well as answering any questions the respondents may have had. Primary data were collected in September and October 2016. During the two-month field study session, the researcher and team collected 253 completed survey questionnaires.

The questionnaire only contained quantitative questions (closed-ended) (Rowley, 2014). The end-toend questions used were binary with "yes" or "no" answers and multiple choices, which required respondents to tick all applicable responses. The five-point questionnaires for measuring the awareness of determinants of the growth of SME start-ups and the funding choices. Likert scale ranging from, 1 "Strongly disagree", 2 "Disagree", 3 "Neutral", 4 "Agree", and 5 "Strongly agree". The questionnaire used the five-point Liker scale as well to measure the impact of the financing options on the success of SME start-ups and were ranged from 1 "No impact", 2 "Small impact", 3 "Moderate impact", 4 "High impact" and 5 "Exceptional impact". The researchers (Chyung, Roberts, Swanson, & Hankinson, 2017) proposed using a five-point Likert scale ranging from "Strongly agree" to "Strongly disagree" since it would minimize patient respondents' annoyance levels while also increasing response rate and quality. The interviewer can easily read out the whole list of scale descriptions when using a five-point scale.

In previous studies of Bamata (2013), Fatoki (2015), and Smorfitt (2008), this questionnaire was adapted. It was divided into 3 categories, demographic characteristics and market features, key determinants of the performance of start-up SMEs, and access to relevant financing knowledge. Section A aims at identifying firm ownership demographics and business characteristics such as ethnicity, skills, expertise, and years of work and workers. These demographics provide further insight for responders. Section B attempted to uncover company owners' assumptions about the determinants of business growth, like SUA and MS. It also sought to establish the applicability for SME start-up management of these determinants. Section C asked the respondents to be informed of various sources of external funding that their



companies have and of the procedures needed for accessing those funds. This segment also gathered information on obstacles to access to external finances for start-up entrepreneurs. In conclusion, this section attempted to determine the impact of external funding on SME start-ups' establishment and growth.

To analyse answers from formal questionnaires, the Statistical Package for Social Sciences (SPSS), Version 24, has been used. Data analysis from the questionnaire was conducted using descriptive and inferential statistical analyses and structural equation modelling, using the SmartPLS statistical software. Qureshi and Kang (2015) characterised SME as "a multivariate statistical technique which is mainly used to research relationships between latent variables (or constructions) and observed model variables".

4. FINDINGS

4.1. Testing of the key determinants of the start-ups SME success

The quantitative data was analysed and descriptive statistics including means and standard deviations, where applicable, as well as frequencies, are represented in tables or figures. Several tests have been conducted, such as ANOVA, a statistical method used to test differences between two or more means. Such as one-way ANOVA between groups, used when testing two groups to see if there is a difference between them, and two-way ANOVA without replication, used when having one group and double-testing that same group. The analyses have tested the applicability of each business success factor on accessing different sources of SME financing and the results are shown in Tables 3, 4, 5, and 6; and ascertain that all business success factors do not have the same influence on different sources of SME financing.

4.1.1. Start-up awareness (SUA) testing

The results of the one-sample t-test in Table 3 and Table 4 show that there is neither agreement nor disagreement among the respondents that a "business plan" and a "business model" were considered when starting their businesses. It is, however, evident from the abovementioned tables that there is significant agreement among the respondents that the following determinants were considered when starting their businesses: market research, differentiating factors, business model, business strategy, feasibility study, business plan, location, decision-making, amount of seed capital, source of seed capital.

Table 3. One-sample statistics (SUA)

Start-up awareness	Ν	Mean	Std. deviation	Std. error mean
Market research	252	3.27	1.305	.082
Differentiating factor	252	3.45	1.038	.065
Business model	251	3.01	1.200	.076
Business strategy	252	3.46	1.257	.079
Feasibility study	251	3.47	1.201	.076
Business plan	251	3.03	1.350	.085
Location	252	3.99	.722	.046
Decision-making	252	4.25	.475	.030
Amount of seed capital	251	3.76	.842	.053
Source of seed capital	251	3.74	.863	.054

Table 4. One-sample test (SUA)

	Test value = 3							
Start-up awareness	т	Df	Sig.	Mean	95% confidence interval of the difference			
	1	DI	(2-tailed)	difference	Lower	Upper		
Market research	3.282	251	.001	.270	.11	.43		
Differentiating factor	6.919	251	.000	.452	.32	.58		
Business model	.105	250	.916	.008	14	.16		
Business strategy	5.813	251	.000	.460	.30	.62		
Feasibility study	6.254	250	.000	.474	.32	.62		
Business plan	.374	250	.709	.032	14	.20		
Location	21.715	251	.000	.988	.90	1.08		
Decision-making	41.600	251	.000	1.246	1.19	1.31		
Amount of seed capital	14.397	250	.000	.765	.66	.87		
Source of seed capital	13.605	250	.000	741	63	.85		

4.1.2. Management skills (MS) testing

The respondents' awareness and application of different management skills as revealed in the literature review were explored, by requiring them to indicate their agreement to various statements on a scale ranging from "Strongly disagree" to "Strongly agree". It is evident that with respect to general management skills, the findings indicate that the majority (65.3%) agreed that they applied general management in their businesses. The majority (66%) agreed that they conducted

strategic planning in their businesses, and 51.8% agreed to have acquired organisational management skills. With respect to technical skills, it was ascertained that 3.6% of respondents disagreed to not having knowledge of the technology related to their businesses. The vast majority (63.7%) of respondents agreed that they have the ability to understand and interpret the financial statements of their businesses; 69.8% agreed to possess the skills necessary to effectively lead their businesses; 73.4% agreed to have developed good communication; 57.1% agreed and 13.5% strongly agreed to having



inventory management skills; 55.2% agreed to using marketing skills; 46.4% agreed and 38.1% strongly

agreed to planning for future expansion of their businesses.

Table 5. One-	sample	statistics	(MS)
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Management skills	Ν	Mean	Std. deviation	Std. error mean
General management skills	251	4.12	.656	.041
Strategic management skills	252	3.82	.892	.056
Organisational management skills	253	3.97	.804	.051
Technical skills	252	4.25	.781	.049
Financial management skills	251	3.87	.706	.045
Leadership skills	252	4.17	.547	.034
Communication skills	252	4.20	.475	.030
Inventory skills	252	3.73	.831	.052
Marketing skills	252	3.87	.813	.051
Contingency management	252	3.71	.774	.049
Control system management skills	252	3.62	.855	.054
Growth oriented skills	252	4.23	.697	.044

Table 6. One-sample test (MS)

	Test value = 3							
Management skills	Т	df	Sig.	Mean	95% confidence interval of the difference			
			(2-tullea)	uijjerence	Lower	Upper		
General management skills	26.933	250	.000	1.116	1.03	1.20		
Strategic management skills	14.552	251	.000	.817	.71	.93		
Organisation management skills	19.242	252	.000	.972	.87	1.07		
Technical skills	25.395	251	.000	1.250	1.15	1.35		
Financial management skills	19.486	250	.000	.869	.78	.96		
Leadership skills	33.881	251	.000	1.167	1.10	1.23		
Communication skills	40.167	251	.000	1.202	1.14	1.26		
Inventory skills	14.030	251	.000	.734	.63	.84		
Marketing skills	17.045	251	.000	.873	.77	.97		
Contingency management	14.492	251	.000	.706	.61	.80		
Control system management skills	11.495	251	.000	.619	.51	.73		
Growth oriented skills	27.908	251	.000	1.226	1.14	1.31		

The one-sample test results (Tables 5 and 6) confirm the findings reported above that there is significant agreement that the respondents possess the following skills which are the key determinants of the success of SME start-ups: general management skills, strategic management skills, organisational management skills, technical skills, financial management, leadership skills, communication skills, inventory skills, marketing skills, contingency management, control system management skills, and are growth-oriented.

4.2. Reliability

Both Cronbach's alpha coefficients and composite reliability (*CR*) metrics evaluated the efficiency of measuring instruments. Kipkebut (2010) showed that values greater than 0.6 were known to have been accurate with a Cronbach's alpha scale of 0 to 1 and that of Hair, Black, Babin, and Anderson (2009). The closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale. Al-Khamaiseh, Halim, Afthanorhan, and Alqahtani (2020) provide the following rules of thumb: " $_>$ 9: Excellent; $_>$.8: Good; $_>$.7: Acceptable; $_>$.6: Questionable; $_>$.5: Poor, and $_<$.5: Unacceptable".

The lowest Cronbach's alpha value in the current research was 0.688 while the higher was 0.929, suggesting that the Cronbach's alpha values met the acceptable threshold of 0.6, thus confirming that the measurements used in the study are all accurate as set out in Table 4.

Ramayah, Lee, and In (2011) showed how much study variables determine the latent variable in the *CR* indicators. Urbach and Ahlemann (2010) have stated that suitable *CR* values are usually between zero and one, and it is proposed that *CR* values surpass 0.7 under Vicente, Abrantes, and Teixeira (2015). The *CR* test results were determined using the formula below:

$$CR_{\eta} = (\Sigma\lambda_{yi})^2 / \left[(\Sigma\lambda_{yi})^2 + (\Sigma\varepsilon_i) \right]$$
(2)

where, CR = (square of the summation of the factor loadings) / {(square of the summation of the factor loadings) + (summation of error variances)}.

The lowest *CR* value in the current analysis was 0.701 and 0.941. The *CR* values of those above 0.7 are reflected in Table 4, which further confirms measure reliability.

4.3. Validity

Table 4 shows a higher convergent value calculation for factor loading/uniform regression weights that were all higher than 0.5. The lowest charge weight or regression was 0.522, which represented CF, while the highest charge was GF with 0.950. These results show that at least 52% of what is to be measured by all measuring instruments used during this analysis.

Table 3, which is associated with Fraering and Minor's (2006) recommendations and Hair, Black, Babin, Anderson, and Tatham (2006), ranged from 0.500 to 0.615 thresholds. The values were estimated using the Amos program and again manually calculated, which resulted in the same values the following formula was used:

$$V_{\eta} = \Sigma \lambda_{yi}^{2} / (\Sigma \lambda_{yi}^{2} + \Sigma \varepsilon_{i})$$
(3)

where, $AVE = \{$ (summation of the squared of factor loadings) / $\{$ (summation of the squared of factor loadings) + (summation of error variances) $\}$. The *AVE* values greater than 0.5 further confirmed the convergent validity of the research constructs.

In order to determine the discrimination validity in the present analysis, inter-construction correlation matrices and average variance extracted (*AVE*) relative to shared variance (*SV*) were used. Thesis analysis of similarity principles of the test constructions tested the discriminatory validity of the study. A low correlation between research

structures shows that the research buildings are distinctive and distinct — while the opposite means that they do not have discrimination. A correlation magnitude less than 0.6 is theoretically considered a discrimination validity predictor. However, a correlation value less than 0.85 is also considered to be technically suitable (Chinomona, 2011). The highest correlation value is thus 0.407, as seen in Table 7, confirming that the analysis constructs included in the current study have discriminating validity.

Table 7. Correlation between the constructs

Research constructs	SUA	MS	PSF	GF	CF
SUA	1.000				
MS	0.173	1.000			
PSF	0.243	0.407	1.000		
GF	0.228	0.155	0.404	1.000	
CF	0.338	0.362	0.182	0.018	1.000
Notes: Correlation is significant at th	e 0.01 level (2-taile	d) SUA = Start-un	wareness: MS = M	anaaement skills [,] P	SF = Personal/social

Notes: Correlation is significant at the 0.01 level (2-tailed). SUA = Start-up awareness; MS = Management skills; PSF = Personal/social source of finance; <math>GF = Government source of finance; CF = Corporate source of finance.

The discriminant validity was further checked by comparing the AVE to HSV (the largest mutual variance), either by comparing the AVE to the HSV or by comparing the square root and its relationship to other research buildings for each building (Fornell & Larcker, 1981). Table 8 reflects the HSV calculated by the quadrating of the highest mutual correlation value between the constructs. HSV is projected to be less than its AVE in a special structure and distinct from other research constructions (Chinomona, 2011). As the findings of Table 8 show, the HSVs are all lower than their AVE coefficients and thus suggest that discriminatory validity is present. Otherwise, as proposed by Fornell and Larcker (1981), discrimination was also obtained when a square AVE root was found to be higher than the link with the other build in each research structure, which showed that discrimination was accomplished. The descriptive statistics and the evaluation statistical measurement model are summarized in Table 8. The mean values provided below indicate that the majority of the respondents agreed with the measures asked (> 3 - < 5). The standard deviations of all the constructs were less than 2, therefore, indicating that the mean values are correct reflection of the majority average perceptions.

Та	able	8.	Scale	accurac	y
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Basaarah constructs		Scale	item	Cronbach's test	CD	A 1/F	Highest shared	Factor
Researc	n constructs	Mean	SD	α -value	CR	AVE	variance	loadings
DCF	PSF2	3.296	0.971	0.720	0.744	0.555	0.167	0.722
PSF	PSF7	2.510	0.872	0.720	0.744	0.555	0.107	0.767
	SUA1	3.122	1.365					0.847
	SUA2	3.449	0.991					0.581
	SUA3	2.980	1.205					0.812
CUIA	SUA4	3.306	1.265	0.000	0.007	0.552	0.114	0.825
SUA	SUA5	3.418	1.221	0.880	0.907	0.555	0.114	0.717
	SUA6	2.908	1.220					0.857
	SUA8	4.184	0.460				-	0.648
	SUA9	3.643	0.872					0.600
	MS1	4.051	0.734			0.616	0.167	0.796
	MS2	3.735	0.964					0.902
	MS3	3.796	0.936					0.846
	MS5	3.745	0.863					0.765
MC	MS6	4.143	0.760	0.020	0.041			0.756
MS	MS7	4.153	0.553	0.929	0.941	0.010		0.593
	MS8	3.643	0.413					0.808
	MS9	3.755	0.884					0.783
	MS10	3.571	0.783					0.774
	MS11	3.480	0.782					0.792
CE	GF1	3.857	0.515	0.702	0.001	0.820	0.162	0.859
Gr	GF2	3.857	0.440	0.792	0.901	0.820	0.163	0.950
CE	CF1	3.796	0.606	0.699	0.701	0.504	0.114	0.522
CF	CF5	3.857	0.201	0.088	0.701	0.504	0.114	0.722
Martin Carrie	1 01 1	1	16.1					

Note: Scores: 1 -Strongly disagree; 3 -Moderately agree; 5 -Strongly agree.

4.4. Model fit summary

SmartPLS offers restricted model fit indices, as opposed to a covariance dependent approach providing absolute fit, increased fit, and parsimony fit indices (Hair et al., 2009). These are the 2/DF rectangle, NFI, and the GFI which are manually calculated according to a formula provided by Tenenhaus, Vinzi, Chatelín, and Lauro (2005). They are calculated on a manual basis, according to the

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formula. Table 5 shows that the Chi-square was 2,332 (CMIN/DF) which is below the recommended 3 thresholds (Chinomona, 2011). The standard-fit

index was 0.857, which is higher than the 0.800 acceptable range (Hooper, Coughlan, & Mullen, 2008).

Model fit indices	Acceptable threshold	Current study threshold	Decision: Acceptable/unacceptable
SRMR		0.104	Acceptable
d_ULS		3.535	Acceptable
d_G		2.075	Acceptable
Chi-square value: $\chi^2/(df)$	< 3	2.332 (857.225/df)	Acceptable
Normed fit index (NFI)	0.800	0.857	Acceptable
Goodness of fit index (GFI)	> 0.36	0.421	Acceptable

Table 9. Model fit summary

The global goodness-of-fit (*GFI*) statistics were computed using the equation for the research model according to Tenenhaus et al. (2005):

$$GFI = \sqrt{\overline{AVE} * \overline{R^2}} \tag{4}$$

As seen in Table 5, *GFI* is 0.421, above the *GFI* > 0.36 threshold as Wetzels, Odekerken-Schröder, and van Oppen (2009) have proposed. The findings of the fit indices of the initial evaluation of the measurement model of all the manifestations variables and their measures are all suitable as set forth in Table 9 can be determined as a good overall fit. The results from the measuring model thus demonstrated that the conceptual model represented the data obtained for the analysis. Pungchompoo and Sopadang (2015) noted that, once a good match for a hypothesized model is achieved, the direction meaning and variance of each interaction in the study model can be calculated. In the next part, route modelling and testing are translated. In Table 10, each of the structural structures has a determination coefficient (R² value) in the structural model. Evidently, the values of R² rank 0.053 to 0.598, whereas R^2 values of 0.75, with major forecasting capacity, 0.50 medium predictive power, and 0.25 low predictive power, are deemed important. The findings show that the exogenous constructions linked to the awareness of beginning are SUA — the difference accounted for 59.8% of MS, while the variances for GF, CF, and PSF represented 5.3%, 14%, and 17.9% in this construct's variance. Consequently, these factors are known to have a small to moderate predictive capacity in the current study.

Table 10. Coefficient of determination (R²)

Variables	R-square (R ²)	Adjusted R-square (R ²)
CF	0.140	0.122
GF	0.053	0.033
MS	0.598	0.594
PSF	0.179	0.162

Table 11. VIF results in the structural model

Research constructs	CF	GF	MS	PSF	SUA
CF					
GF					
MS	2.488	2.488		2.488	
PSF					
SUA	2.488	2.488	1.000	2.488	
Natan Comulation is similiant	at the 0.01 local (0.t)	ailad) CUIA Channen	MC	Mana a a sus sust al illas DC	

Notes: Correlation is significant at the 0.01 level (2-tailed). SUA = Star-up awareness; MS = Management skills; PSF = Personal/social source of finance; GF = Government source of finance; CF = Corporate source of finance.

The following collections of exogenous and endogenous structures, namely SUA — Alto CF; SUA — Alto GF; SUA — Alto GS; SUA — Alto MS have been analysed in the assessment of the collinearity, namely SUA — Alto GF; SUA — Alto MS — Alto PSF. The findings from Table 11 show that none of the VIF values are above maximum 5, indicating critical collinearity thresholds. Inflation factor (VIF) levels are not above the maximum 5. Thus, the collinearity of exogenous constructions is not a problem to be addressed in further evaluating the model with VIF values ranging between 1,000 and 2,488.

4.5. Structural model assessment and hypotheses testing

Figure 1 shows the structural model sometimes called the "road model" showing the effects of the hypotheses checked. The start-up institutional model describes the knowledge of MS, GF, CF, and PSF that has a significant impact. The results of the structural model direction coefficients and important results are shown in Table 12 below. Table 8 above presents the effects of the path coefficient, the description of the mentioned hypotheses, the likelihood value (P-value), and the outcome of their respective relationship.



Proposed hypothesis relationship	Hypothesis	Path coefficients	T-statistics	P-values	Rejected/supported
$SUA \rightarrow MS$	H1	0.773	21.777	0.000	Supported and significant
$SUA \rightarrow PSF$	H2	0.180	0.961	0.339	Supported but insignificant
$SUA \rightarrow GF$	H3	0.269	2.669	0.009	Supported and significant
$SUA \rightarrow CF$	H4	0.145	1.167	0.246	Supported but insignificant
$MS \rightarrow PSF$	H5	0.547	3.600	0.000	Supported and significant
$MS \rightarrow GF$	H6	0.053	0.381	0.704	Supported but insignificant
$MS \rightarrow CF$	H7	0.250	2.047	0.043	Supported and significant

Table 12. Hypothesis test results

Notes: SUA = Star-up awareness; MS = Management skills; PSF = Personal/social source of finance; GF = Government source of finance; CF = Corporate source of finance. Levels of significance: p < 0.05; t > 1.96.

Table 12 reflects the decision on the seven hypotheses postulated for the study. The path coefficients analysis estimates for the hypotheses H1, H2, H3, H4, H5, H6, and H7 were 0.773, 0.180, 0.269, 0.145, 0.547, 0.053, and 0.250, respectively. It is clear from Table 12 that, while all proposed

> SUA1 SUA2

hypotheses are supported, four out of the seven hypotheses stated are significant. In assessing the p-value and t-statistics, it was observed that six of the hypotheses were significant at the level of 0.05 and 1.96, respectively.

0.847 0.581 0.812 0.825 0.722 0.180 0.717 0.857 0.648 sψA 0.600 PSF 0.269





Note: SUA = Star-up awareness; MS = Management skills; PSF = Personal/social source of finance; GF = Government source of finance; CF = *Corporate source of finance.*

5. DISCUSSION OF RESULTS

The results, as shown in Table 12, indicate that SUA has a strong positive and significant effect on MS $(\beta = 0.773; t = 21.77; p-value = 0.00)$. This finding means that start-up awareness in South Africa can explain the majority of the entrepreneurs' need to acquire management skills that are necessary for their small enterprises to succeed (Bushe, 2019). These findings show that SUA in South Africa has a substantial impact on MS. The findings correspond to Yeoh and Popovic's (2016) analysis that shows that the relationship between MS and growth factor is an opportunity to achieve viable SMEs in South Africa.



The findings of Table 12 also indicate that *SUA* has a poor positive but negligible impact on *PSF* ($\beta = 0.180$; t = 0.961, p-value = 0.339), which means SUA in South Africa could potentially account for approximately 18% of entrepreneurs' ability to use PSF resources. These findings are backed up by Zondi's (2017) and Msomi and Olarewaju's (2021) studies, which indicated that loan deficit is also a major constraint for emerging African SMEs, who depend on personal savings or loans from family or friends as their primary source of start-up capital.

SUA also shows that the preference of government as a conduit for *CF* by entrepreneurs has a comparatively high positive and substantial impact ($\beta = 0.269$; t = 2.669; p-value = 0.009). This conclusion means that start-up perception in South Africa could be explained by about 26.9%, relative to *PSF* ($\beta = 0.180$; t = 0.961; p-value = 0.339) and *CF* ($\beta = 0.145$; t = 1.157; p-value = 0.246), by the preference of entrepreneurs for the government as the first source of business finances. The findings are consistent with those of Fatoki (2016), who found that MS have considerably positive effects on access to GF for start-up SMEs.

The results also demonstrate the comparatively low level of optimistic and negligible effect of *SUA* on the ability of entrepreneurs to choose *CF* (e.g., banks) as sources of financing, compared to *GF* and *PSF* ($\beta = 0.180$; t = 0.961; p-value = 0.339) ($\beta = 0.269$; t = 2.669; p-value = 0.009). This result meets with the possibility that SUA can describe 14.5% of the company's considered CF option as a source of finance in South Africa. The findings are backed up by previous Fatoki's (2016) studies, which have shown that the accessibility of SMEs to various forms of CF by start-ups has a substantial effect on the prior analysis of the markets and related variables.

The decision to use their *PSF* as potential sources of funding has also been seen to have a greater and more optimistic impact on *MS* ($\beta = 0.047$; t = 3.600; p-value = 0.00), as opposed to *CF* ($\beta = 0.250$; t = 2.047; p-value = 0.043) and *GF* ($\beta = 0.053$; t = 0.381; p-value = 7.04). This result means that MS may explain about 25% of the choice of PSF by entrepreneurs as their first source of finance. The findings were consistent with Mariotti and Glackin's (2014), and Msomi and Olarewaju's (2021) research, which showed the priority of borrowing money from the inner circles of the family must be frank and transparent about the potential and risks of the company.

MS has the lowest and most negligible impact on the option of *GF* ($\beta = 0.053$; t = 0.381; p-value = 7.04), as opposed to *PSF* ($\beta = 0.547$; t = 0.600; p-value = 0.00; p-value = 0.250; t = 2.047; p-value = 0.043). This result shows that in South Africa the need for GF as a source of funding may likely only be explained by around 5.3% of entrepreneurs. The findings are consistent with Fatoki (2016) and Hoque and Koali (2021), who have shown that market performance determinants comparatively affect the accessibility of finance by start-up SMEs.

Lastly, the optimistic and important *MS* on *CF* is relative ($\beta = 0.250$; impact of t = 2,047; p-values = 0.043). Thus, businessmen with management experience are likely to prefer CF for *PSF* as a second option. This result also suggests that South African MS may potentially explain about 25% of the entrepreneurs' willingness to choose CF such as banks as the alternative source of financing for start-up SMEs. The findings are consistent with those of Bibi, Anwar, and Rana (2021), which showed that MS have a substantial and positive effect on the accessibility by start-up SMEs to all bank finance.

Statistical testing shows that not all factors driving the growth of start-ups have similar effects on the access of SME start-ups to external finance. The framework for access by start-up SMEs to external funding includes three components: entrepreneurial awareness, key requirements and financing options.

6. FINANCING FRAMEWORK FOR START-UP SME ACCESS TO EXTERNAL FINANCE

The financing framework for start-up SME access to external finance, as shown in Figure 3, has three components, namely: entrepreneurial awareness, key requirement, and financing options. It emerged from the findings that these components are related to access to external financing of start-up SMEs.

Entrepreneurial awareness: This first component of the framework, as shown in Figure 3, reflects the determinants that impact directly SME access to external finance. The findings of this study show that all the key determinants of SME success do not directly impact start-up SME access to external finance. SUA emanates from determinants, such as market research, business strategy, business plan, amount and source of seed capital, and location, and MS are made of determinants, such as general management skills, strategic management skills, financial management skills, communication skills, and marketing skills. It was ascertained in this study that the above determinants, which were clustered as start-up awareness and management skills, affect access to different sources of business financing.

Key requirements: This second component of the framework, as shown in Figure 3, reflects the key criteria for accessing government grants, commercial bank financing, and/or private equity finance.

Financing options: The third component of the framework, as shown in Figure 3, reflects three sources of external finance, namely: government grants referred to as government financing (GF); bank finance, referred to as corporate finance (CF); and private equity finance, referred to as personal/social source of finance (PSF). These three sources of finances were considered in this study since they broadly constitute the principal sources of finance for SMEs. It was ascertained in this study that there is a relationship between the start-up awareness and management skills of the ownermanager and access to these sources of finance.





Figure 3. Financing framework for SME's access to external finance

7. CONCLUSION

Most start-up SME entrepreneurs are confused and concerned about the parameters which are considered while granting finance to business firms (Raghu & Pankaj, 2019). Financing applications are evaluated based on the parameters defined by the finance providers. It is therefore important to understand these criteria and create awareness on these criteria parameters to improve the finance flow to start-up SMEs. It was established in this study that most start-up SMEs know about external funding sources. However, the biggest challenge in accessing this funding has been identified as the complex application process for both government and bank financing, followed by bank interest rates that generally appear to be high despite the nature of the bank or the business sector. This study empirically examined the relationships between the determinants of start-up SME success, namely start-up awareness, management skills, and finance suppliers, and developed a framework to assist SME owners to become aware of their financing needs and be ready to choose the most suitable source of external finance.

The proposed framework will help solve the problems faced by SMEs in accessing external financing, especially start-ups. By knowing and using the funding framework, small and medium-sized enterprises might plan their financing needs and select from three primary external financing sources. In general, the acquisition by start-up SMEs of appropriate professional, technical, and business skills is viewed as a competitive advantage. Furthermore, entrepreneurship is viewed as being particularly crucial in allowing South African small and medium-sized companies to make progress from survival to substantial, greater earnings.

To enhance their capacity to obtain external funding, business owner-managers should grasp the drivers of start-up awareness and management skills. During the business start-up phase, the entrepreneur must be aware of the business opportunity, as there is no sustainable business potential without an opportunity. To obtain a competitive advantage, this firm's distinctiveness must be recognised, the business model developed, and the strategy clearly stated. To understand, the quantity of seed money necessary and the source from which this cash may be received, a business plan that ties all the parameters together must be established.

To sustain and expand a firm and enhance the possibilities of getting external funding, the entrepreneur must recognize that general management experience, as well as strategic management abilities, are critical. A lack of technical skills may also contribute to the failure of a new firm; however, this may be remedied by hiring appropriately trained employees. However,



the entrepreneur may still be at a disadvantage if he is reliant on employees, particularly in the early phases of the firm. A lack of understanding of financial management, as well as bad financial management, can also lead to the business's collapse. Similarly, uncontrolled growth and inadequate inventory control are key causes of business failure. Marketing abilities, as well as contingency management skills, are important to the success of any firm and allow the ownermanager to react to ever-changing conditions. Above all, the entrepreneur must be eager to expand.

The funding framework built in this study can also be used by business advisory companies to help small entrepreneurs access external funding. Banks should be able to evaluate applications for SME financing based on the system components built in this study. Private equity financing providers should also emphasize the financing components established in this study when assessing applications for funding by start-up SMEs.

Moreover, financial institutions and other providers must create customized schemes by using a standard evaluation approach for start-up SMEs to satisfy their specialised financial demands because most start-up SMEs are not able to meet the financing criteria of most providers. The South African government in cooperation with the credit providers should offer interest subsidies to start-up SMEs based on their potential to be successful. For these companies, in particular small ones, access to external financing will therefore be less difficult.

The survey used in this analysis was restricted from small and medium-sized start-ups in KwaZulu-Natal, Pietermaritzburg. Not every SME in KwaZulu-Natal or South Africa is represented in this community. Thus, for the general SME population of South Africa, the primary study results cannot be correctly extrapolated. The limitations of the sample size should also be taken into account in light of the more general objective of the research, namely, to be a doctoral/academic output that itself is bound by time and funding constraints.

In order to assess the contribution of the South African SME access finance system in general, future researchers should expand the sampling size. Further analysis should follow a combined research design in which data collection can be based on both quantitative and qualitative approaches. The procedure helps the researchers carry out follow-ups and clarifies where appropriate. The new framework is not tested but proposed because of the test of the previous relationship which may be a potential research route for longitudinal testing.

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