The relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of small, medium and micro-enterprises

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Abstract

The major aim of this study was to analyse the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of small, medium and micro-enterprises. A simple random sampling approach was employed in conducting survey primary data collection using a self-administered structured questionnaire developed based on a 5-point Likert scale. Sample data collected from two-hundred and five respondents was first tested for construct validity and scale reliability using Keiser-Meyer-Olkin measure of sampling adequacy and Cronbach's alpha criteria, respectively. Results indicate that the questionnaire's items passed construct validity and scale reliability requirements. Exploratory factor analysis and confirmatory factor analysis were conducted to evaluate total variances explained, factor structures and associations between observed variables and latent factors using the Statistical Package for Social Sciences 24 software. Results show that no observed variables exhibited complex structures, and significant amounts of variances in observed variables were explained by the analogous constructs. Results obtained from the structural equation model estimated using Stata 14 software show presence of significant positive relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. Results from the estimated generalised structural equation model indicate that entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of small, medium and micro-enterprises.

Keywords: small, medium and micro enterprises, financial literacy, entrepreneurial leadership, entrepreneurial performance

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Mike Mhembere

Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Problem

1. Introduction

Entrepreneurship provides an effective mechanism for poverty elimination and inequality reduction for the unemployed who struggle to get absorbed through formal employment in the labour market (Bhorat, Asmal, Lilenstein & van der Zee, 2018). Rungani and Potgieter (2018) indicate that the small, medium and micro enterprises (SMME) sector in South Africa contributes about 42 percent to country's gross national output and accounts for approximately 60 percent of total employment in the country. The incomes earned by people employed in SMMEs contribute substantially towards the improvement of individuals' and households' standards of living (Jili, Masuku & Selepe, 2017).

Jili, Masuku and Selepe (2017) underscore that SMMEs in any country play a dominant role in stimulating local economic development in many sectors of the economy. The distinct ways in which SMMEs contribute towards economic development include the development of infrastructure in ways that provide community members with several opportunities for participation in economic activities, promotion of cooperatives and the advancement of technology and innovation (Molefe, Meyer, & de Jongh, 2018; Rankhumise & Letsoalo, 2019). Muriithi (2017) and Raza, Minai, Zain and Tariq (2018) also highlight that SMMEs play a key role in enabling industrialisation, productivity and social progression.

In South Africa, Ayandibu and Houghton (2017) state that SMMEs contribute toward building buoyant economic systems and promote competitiveness in functioning of product markets. Therefore, entrepreneurial performance is regarded as the cornerstone of the country's progress towards inclusive growth and development (Molefe et al., 2018). Entrepreneurial performance is defined as the analysis of the work habits of employees conducted at specific points to assess the magnitude to which enterprise goals have been achieved, measured either subjectively or objectively (Gorgievski, et al., 2014; Sebikar, 2014; Sutanto, Sigiols & Putih, 2018).

A research study conducted by Musie (2015) reports that financial literacy is amongst the main factors that affect the entrepreneurial performance of SMMEs in South Africa and globally. In entrepreneurship context, Usama and Yusoff (2018) defines

financial literacy as the ability of an entrepreneur to analyse and understand financial data based on the knowledge of financial concepts, financial behaviour and financial attitude. Therefore, low financial literacy levels of entrepreneurs who operate SMMEs limit the growth potential of their enterprises due to inadequate financial knowledge and poor financial management abilities (Gathungu & Sabana, 2018).

According to Adomako, Danso and Damoah (2015), financial literacy comprises financial knowledge and skills that are used to effectively manage financial resources towards achieving the desired financial goals of a business enterprise. Financial knowledge and skills span across mobilisation of financial resources, access to finance, budgeting, financial planning, analysis of financial statements, payments of bills, debt acquisition and servicing, containment of costs (Reich & Berman, 2015). Entrepreneurs need to have sound levels of financial literacy to understand financial needs of enterprises and concurrently make sound financial decisions that enhance entrepreneurial performance (Agyapong & Attram, 2019).

In acknowledging the significant and positive influence financial literacy has on entrepreneurial financial performance of SMMEs in South Africa, Shao (2016) accentuates the need to augment the influence of financial literacy on enterprise performance with entrepreneurial leadership. According to Latif and Karim (2018), entrepreneurial leadership enables enterprises to effectively respond to constantly changing business environment and to develop good business strategies that can optimise prospects prevailing in markets. Anyanwu (2016) describe entrepreneurial leadership as a form of leadership which builds fervent scenarios that leverage resources and pursue creativity to create strategic value for firms. Furthermore, financial literacy and entrepreneurial leadership play a great role in enhancing entrepreneurial performance (Gathungu & Sabana, 2018; Shao, 2016). In order to achieve desired enterprise performance results, financial literacy (Musie, 2015) of entrepreneurs and entrepreneurial leadership (Mkhavele & Ntshakala, 2018) are essential for SMMEs operating in South Africa.

Using the resource-based view theory, Al Mamun, Ibrahim, Yusoff and Fazal (2018) identify the constructs of entrepreneurial leadership, namely accountability, analytical thinking, responsibility and emotional intelligence, and found that each of these dimensions positively influence entrepreneurial performance. Concomitantly, Rahim,

Abidin, Mohtar and Ramli (2015) found that entrepreneurial leadership, measured by scenario enactment and cast enactment, has a significant positive influence on entrepreneurial performance. While elaborating entrepreneurial leadership as a fusion on entrepreneurship and leadership concepts, Zainol, Daud, Abubakar, Shaari and Halim (2018) identify innovation, risk-taking and proactiveness as key elements of entrepreneurial leadership, where each has a positive effect on entrepreneurial performance.

1.2. Background to the Study

Most research studies were conducted to assess the influence of financial literacy on entrepreneurial performance report the existence of a positive relationship between the respective two constructs (Chepngetich, 2016; Lusimbo & Muturi, 2016; Guthungu & Sabana, 2018; Usama & Yosoff, 2018; Ye & Kulathunga, 2019; Agyapong & Attram, 2019; Mashizha et al., 2019). In making an extended application of the resource-based view (RBV) theory regarding the link between financial literacy and entrepreneurial performance, Al Mamun et al. (2018) empirically report existence of evidence of the positive influence of entrepreneurial leadership on entrepreneurial performance. In conformity, several studies which report similar empirical results include Mgeni (2015), Rahim et al. (2015), Zainol et al. (2018) and Cai et al. (2018). However, the relationship between financial literacy and entrepreneurial leadership has to date not been analysed by past studies to assess the influence entrepreneurial leadership has on both financial literacy and entrepreneurial performance.

1.3. Research Gap and Major Contribution

Despite several studies cited above having been done in analysing the relationship between financial literacy and entrepreneurial performance, none of such preceding studies analysed the relationship between both financial literacy and entrepreneurial leadership on entrepreneurial performance of SMMEs in one study. Therefore, this study addressed this research gap and contributed to this field of entrepreneurial performance from both an empirical and theoretical standpoint.

According to Amer (2017), entrepreneurs influence performances of their enterprises by the manner in which they execute the entrepreneurial leadership role in business activities. The common conventional metrics that are used to assess entrepreneurial performance include revenue, number of employees, profitability, market share,

customer satisfaction, competitive position, customer retention, return on assets and return on equity (Matsoso & Benedict, 2016; Al Mamun et al., 2018). While recognising the great role of financial literacy in obtaining financial resources for enterprises, Amer (2017) highlights that entrepreneurial leadership is equally needed to identify lucrative prospects on which financial resources mobilised can be spent.

In context of the South African business environment which is characterised by high levels of uncertainty in market conditions, Shao (2016) underlines that entrepreneurs need to exhibit good entrepreneurial leadership capability in order to safeguard financial resources leveraged and mitigate risks of business failure. Entrepreneurial leadership thus plays an essential role in enhancing the influence of financial literacy on entrepreneurial performance, not only financially but also in terms of productivity, market positioning, customer satisfaction and market competitiveness.

1.4. Research Problem

The astounding failure rate of SMMEs in South Africa causes grave concerns among entrepreneurs, government and private sector stakeholders in the country. Whilst several new SMMEs have been, and are still being, established at prompt rates (Rungani & Potgieter, 2018), the startlingly high failure rate of such entrepreneurs remains as a serious problem. Bushe (2019) states that above seventy percent of SMMEs in South Africa fail and pull out of business within the initial five to seven years of inception due to lack of financial literacy (Rungani & Potgieter, 2018) and lack of entrepreneurial leadership (Sharmilee & Hoque, 2016) to clearly understand the changes in business environment and respond correctly to the prevailing conditions that may have potential to affect performance of enterprises.

Shao (2016) underscores that lack of entrepreneurial leadership capabilities among entrepreneurs has been one of the key factors leading to increasing failure of SMMEs in the country. Due to lack of understanding of the influence of entrepreneurial leadership on entrepreneurial performance, considerable attention from both angles of academic research and policy intervention has been placed on financial literacy. Mgeni (2015) and Zainol et al. (2018) support this notion and specify that the concept of entrepreneurial leadership has, to date, quite moderately been researched and given little attention from policy makers, yet it plays a significant role in positively influencing entrepreneurial performance. Therefore, the problem addressed in this

study is that owners of SMMEs largely focus on working towards improving their levels of financial literacy to enhance entrepreneurial performance of enterprises, yet SMMEs still face failure due to lack of entrepreneurial leadership (Shao, 2016). Despite presence of financial literacy, the lack of understanding that an equal amount of effort should be given towards improving entrepreneurial leadership in light of the contribution it makes towards enhancing entrepreneurial performance remains as a key additional contributor to failure of SMMEs (Mgeni, 2015; and Zainol et al., 2018).

1.5. Purpose Statement

The research problem identified emphasised that a study is needed to understand the influence and relationship between entrepreneurial leadership, financial literacy and entrepreneurial performance of SMMEs. Good understanding the relationship between the three constructs can provide insights and guides SMMEs that are struggling to develop both financial management and entrepreneurial leadership strategies that can assist them to enhance their entrepreneurial performances.

As indicated previously, there are limited studies (Shao, 2016) which were conducted in South Africa which bring attention to the role of entrepreneurial leadership on entrepreneurial performance of SMMEs, but without simultaneously analysing the analogous influence of financial literacy within this relationship. At the same time, Shao (2016) did not integrate the moderating role that entrepreneurial leadership has on the relationship between financial literacy and entrepreneurial performance as reported by Amer (2017). In light of this specific backdrop, this study also aimed to determine the moderating effect of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance of SMMEs. The primary purpose, research objectives and hypotheses of this research study are as follows:

1.5.1 Purpose of the Study

- To determine the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs in South Africa.

1.5.2. Research Objectives

- To determine the relationship between financial literacy and entrepreneurial performance of SMMEs.

- To determine the relationship between entrepreneurial leadership and entrepreneurial performance of SMMEs.
- To determine the relationship between entrepreneurial leadership and financial literacy of SMMEs.
- To determine the moderating effect of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance of SMMEs.

This research study is structured as follows. Chapter 1 provides an introduction to the research study's problem comprising the background to the study, research problem and purpose of the study. Chapter 2 discusses the relevant literature, while chapter 3 outlines research questions and research hypotheses formulated in the research study. Chapter 4 presents the research methodology, and chapter 5 presents results obtained from statistical data analysis conducted on primary data collected from respondents. Chapter 6 provides a discussion of results, and chapter 7 finally provides conclusions and recommendations to the entire study.

Chapter 2: Literature Review

2.1 Introduction

This specific chapter presents a review of related literature on relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. Section 2.2 provides definitions of SMMEs, Section 2.3 presents the conceptual model used in this study, and Section 2.4 discusses the theory reinforcing the study. Sections 2.5 and 2.6 discuss financial literacy and entrepreneurial leadership constructs, respectively. Section 2.7 discusses entrepreneurial performance, Section 2.8 presents empirical findings on the relationship between financial literacy and entrepreneurial performance, Section 2.9 presents empirical findings on the relationship between entrepreneurial leadership and entrepreneurial performance, and Section 2.10 provides a conclusion to the chapter.

2.2. Definitions of SMMEs

The definitions of SMMEs broadly vary across different countries, while some definitions also vary across terrestrial borders. The three main ways in which SMMEs are greatly defined include number of employees in an enterprise; level of profitability of the business enterprise, and aggregate value of assets of an enterprise. In South Africa, National Small Business Act of 1996 guides the definition of SMMEs as per aforementioned criteria across economic sectors and industries.

Section 1 of the National Small Business Act of 1996, a small business is a "*a separate and distinct business entity, including co-operative enterprises and nongovernmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy mentioned in Column I of the Schedule*". The respective Act categorises small businesses into discrete classes which include small, micro and medium. Small enterprises are those that have lower than fifty (50) workers, yearly turnover below two million to twenty-five rands (R2 000 000 to R25 000 000), and gross assets below two million to four and a half million rands (R2 000 000 to R4 500 000) subject to industry size. In addition, a medium-size enterprise has workers that are below one hundred (100) to two hundred (200), yearly turnover below four million to five million rands (R4 000 000 to R5 000 000), and gross assets below the value

of two million and eighteen million rands (R2 000 000 to R18 000 000) subject to sector and industry size. These definitions are summarised in Table 1.

Table 1: Broad definitions of SMMEs in the National Small Business Act

Size of enterprise	Number of workers	Yearly turnover	Gross assets
Micro	Below five (5) workers	Below one hundred and fifty thousand rands (R150 000)	Below one hundred thousand rand (R100 000)
Very small	Below ten (10) to twenty (20) workers	Below two hundred thousand (R200 000) and five hundred thousand (R500 000) rands	Below one hundred and fifty thousand (R150 000) to five hundred thousand (R500 000) rands
Small	Below fifty (50) workers	Below two million (R2 000 000) to twenty-five million (R25 000 000) rands	Below two million (R2 000 000) to four and a half million (R4 500 000) rands
Medium	Below one hundred (100) to two hundred (200) workers	Below four million (R4 000 000) to fifty million (R50 000 000) rands	Below two million (R2 000 000) to eighteen million (R18 000 000) rands

Source: Fotoyi and Levin (2017) and National Small Business Act of 1996

The respective Act additionally categorises small companies into diverse subgroups as shown in Table 2.

Table 2: Sub-categorisation of small companies in South Africa

Subgroup	Definition
Survivalist enterprises	“Enterprises whose incomes generated are actually less the income below the poverty line, hence the enterprises are regarded as pre-entrepreneurial, such as vendors, hawkers and subsistence farmers”.
Micro-companies	Companies with turnovers below the value added tax (VAT) registration maximum prevalent in a given financial year”.

Very small companies	Companies with below ten workers, excluding those in mining, construction, electricity and manufacturing sectors where enterprises employ less than twenty workers. Enterprises in this category operate in the formal market and also have access to technology".
Small companies	Companies with at most fifty workers and well established compared to very small companies
Medium companies	Companies with workers ranging between one hundred and two hundred in sectors which include electricity, construction, mining and manufacturing.

Source: Fotoyi and Levin (2017) and National Small Business Act, 1996

2.3. Resource-Based View (RBV) Theory supporting the construct in the study

The theory reinforcing the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs in this study is the resource based view (RBV), supported by the knowledge base view (KBV). The RBV explains the relation between entrepreneurial performance and financial literacy, while the knowledge based view (KBV) explains the mediating role entrepreneurial leadership has on the relationship between entrepreneurial performance and financial literacy.

Al Mamun et al. (2018) indicate that the RBV theory regards sufficient organisational resources as a key input and determining factor of the performance of enterprises, if utilised efficiently. Klein (2016) identifies the cognitive ability of an entrepreneur as an element of entrepreneurial leadership through which new prospects can be recognised and pursued by using aptly mobilised available resources to produce the desired outputs and results. Therefore, the RBV theory recognises entrepreneurship as a central element of strategic management process which involves managing heterogeneous resources to sustain an enterprise's competitive advantage (Halberg, 2015). Heterogeneity of resources remains as a fundamental central feature in the relationship between entrepreneurship and resources required to pursue identified entrepreneurial opportunities existing and emerging in the market (Bylund, 2015).

Since entrepreneurs possess different opinions about the relative importance of resources used as inputs to produce the desired outputs, differences in their

cognitive abilities and behaviours act as determinants of their recognition of entrepreneurial opportunities and the ability to integrate, organise and utilise such resources to achieve entrepreneurial goals (Klein, 2016). According to Kellermanns, Walter, Crook, Kemmerer and Narayanan (2016), resources include assets (tangible and intangible), human capital (knowledge, competences, skills, experience, information, abilities, insights, emotional intelligence and judgement) organisational capital (processes, structures, systems, culture, planning, procedures, coordination, activities and reporting), financial capital (finance and equity), physical capital (plant and machinery, technology, equipment, materials, land and buildings) and relationship capital (customers, loyalty, reputation, contracts, access, networks and markets). While these resources are used to leverage competitive advantages, the RBV theory asserts that competitive advantages of enterprises are enhanced when strategic resources available are ample and sustainable (Kellermanns et al., 2016).

Kiyabo and Isaga (2019) accentuates that an enterprise's competitive advantage and performance are anchored on the availability of sustainably sufficient particular resources and capabilities that are costly and difficult to be imitated or substituted by competitors. For instance, strategies of enterprises depend on the types of resources used in formulation and implementation processes. Consistent with Dogan (2015), application of the RBV theory in this study is affixed on the logic of the respective theory that performance of enterprises is enhanced when firms obtain competitive advantages depending on resources that such enterprises have ownership and control. Kiyabo and Isaga (2019) indicate that such resources include enterprise attributes, assets, organisational processes, knowledge, information and skills.

However, Kiyabo and Isaga (2019) indicate that the RBV theory fails to elucidate the significance of entrepreneurial strategies as one of the major sources of competitive advantage. In addition, the theory fails to explain how certain enterprises succeed while other firms fail to create sustainable competitive advantages in uncertain and dynamic environments. Strategically, the RBV recognises knowledge and resources as interdependent catalysts of competitive advantage. In an effort to fortify the RBV, which regards knowledge as a distinctive valuable resource input, the KBV theory was introduced to enhance entrepreneurial performance (Kiyabo & Isaga, 2019).

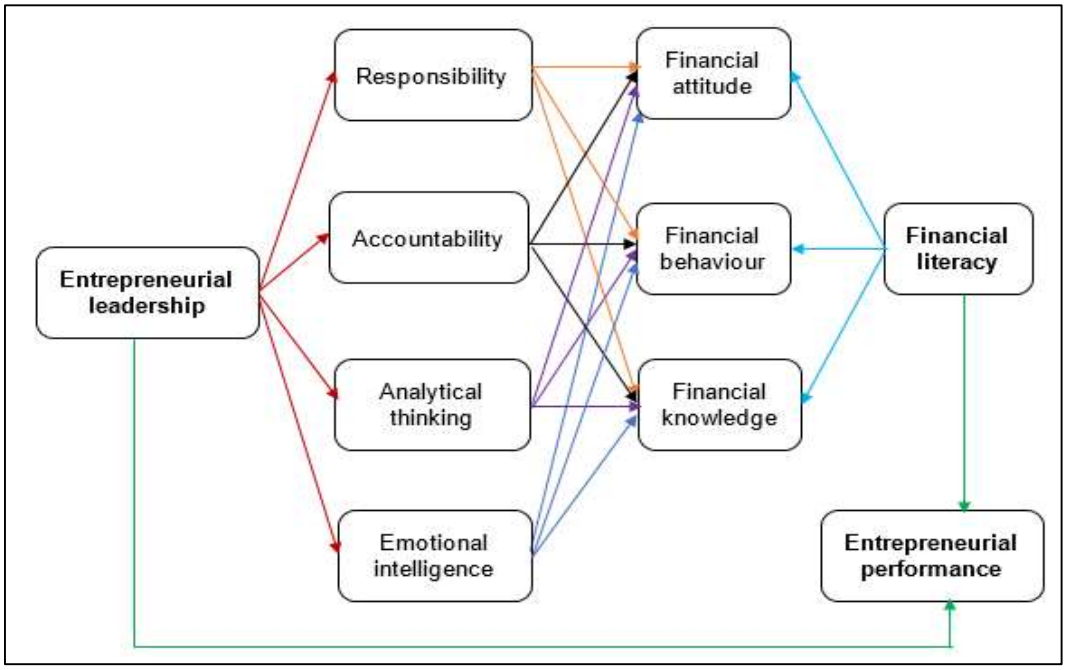
The KBV suggests that competitive advantage and overall performance of any given enterprise is determined by the particular enterprise's ability to create new knowledge-based assets which can produce major competences, hence knowledge remains as an essential input in the value chain of the enterprise. Kiyabo and Isaga (2019) emphasise that an enterprise's processes in managing knowledge in terms of creation, acquisition, storage and dissemination requires strong competences, which also influence the competitive advantage and entrepreneurial performance.

2.4. Conceptual Model: Linking financial literacy, entrepreneurial leadership and entrepreneurial performance

Several past studies that analysed the relationship between financial literacy on entrepreneurial performance (Chepngetich, 2016; Lusimbo & Muturi, 2016; Guthungu & Sabana, 2018; Usama & Yosoff, 2018; Agyapong & Attram, 2019; Mashizha et al., 2019; and Ye & Kulathunga, 2019) omitted the moderating role played by entrepreneurial leadership in the aforementioned relationship. Based on the resource based view (RBV) theory, Al Mamun et al. (2018) analysed the influence of entrepreneurial leadership on entrepreneurial performance, consistent with other relevant preceding studies which include Mgeni (2015), Rahim et al. (2015), Zainol et al. (2018) and Cai et al. (2018). However, none of such studies concurrently analysed the relation between entrepreneurial leadership and financial literacy, and their distinct influences on entrepreneurial performance.

The conceptual model (Figure 1) below fills in this research gap by identifying and integrating entrepreneurial leadership variables that moderate the relation between SMMEs' entrepreneurial performance and financial literacy.

Figure 1: A conceptual model of the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance



Source: Financial literacy and entrepreneurial literacy constructs adapted from Usama and Yusoff (2018) and Al Mamun et al. (2018), respectively.

The main variables of entrepreneurial leadership which influence entrepreneurial performance are responsibility, accountability, analytical thinking and emotional intelligence (Al Mamun et al., 2018). The distinct influences these variables have on entrepreneurial performance are discussed below.

2.5. Entrepreneurial leadership elements and entrepreneurial performance

Literature on the influence each of the elements of entrepreneurial leadership has on entrepreneurial performance is discussed as below.

2.5.1. Responsibility and entrepreneurial performance

In line with the RBV theory, responsibility reinforces beliefs, knowledge, capabilities and skills of entrepreneurial leaders to effectively manage financial and other resources to improve the performance of enterprises. The degree to which an entrepreneur takes responsibility of his or her actions somehow depicts a unique trait of leadership capability to direct the enterprise's resources and activities towards ensuring improved enterprise performance. Since entrepreneurship inherently exists in a dynamic environment, effective execution of responsibility remains vital to all

elements which feed into the functioning and improvement of enterprise performance (Beattie, 2016).

2.5.2. Accountability and entrepreneurial performance

Renko et al. (2015) assert that the degree to which entrepreneurs hold themselves accountable and accept to be held accountable by others are viewed as leaders who place considerable value in ethical practice and social order. Based on the RBV, the practice of accountability by individuals enhances performance of enterprises through influencing team members to keep their work processes in right paths. According to Nuhu and Hussani (2017), accountability is a determinant of enterprise functioning, and positively influences work performances of all the employees in enterprises. Moreover, Al Mamun et al. (2018) accentuate that entrepreneurial leadership is a vital element of organisational strategic management process which occupies at least one position of responsibility that needs to be consistently enforced to ensure that team members in an enterprise remain accountable to their actions.

In business setting, accountability is often regarded as being synonymous with the practice of entrepreneurial leadership with regards to being answerable on issues pertaining to entrepreneurial performance of the enterprise (Cameron & Caza, 2005). Thus, accountability is an integral element of entrepreneurial leadership, which is characterised by the leaders' capability to respond to situations and act in a suitable manner in order to effectively attain desired business results based on the positive organisational scholarship (POS) theory (Cameron & Caza, 2005). Consistent with this theory, accountability should be exercised in a manner that observes interests of diverse stakeholders of the enterprise (Price, 2019). Leaders must be accountable to stakeholders get affected by their decisions and actions, while accountability is an integral element of entrepreneurial leadership, and a feature of the conditions that influence entrepreneurial performance (Amao, 2013).

In order to understand the link of accountability as a central feature of entrepreneurial leadership, a distinction is made with regards to what accountability really entails in relation to entrepreneurship. Kelly (2018) defines accountability as an act of being liable for attaining an assignment or goal, or an obligation or willingness to accept responsibility for one's actions. In that regard, accountability revolves largely around providing a compelling explanation pertaining to the sequence of actions taken, while

entrepreneurial leadership revolves around locating and assigning the causality for choices made to employees and their individual actions, business leaders, employee groups or teams, and the entire enterprise (Dubnick, 2011).

According to Renko et al. (2015), the extent to which enterprise leaders hold themselves accountable and express willingness to be held accountable by others reflect the degree to which such leaders regarded as true leaders who place substantial value in ethical practice and order based on the RBV theory. The respective theory stipulates that the practice of accountability by leaders enhances entrepreneurial performance of SMMEs through influencing team members to keep their work processes on correct paths. Adams (2004) accentuates that accountability is a crucial determining factor of enterprise functioning which positively influences employee performances and entrepreneurial performance of enterprises. Moreover, Al Mamun et al. (2018) underscore that accountability is a fundamental element of leadership which occupies a central position in enforcement of responsibility to ensure that team members in an organisation remain accountable of their actions.

Based on the POS theory, the potential of employees in an enterprise is enabled and optimised when leaders take the responsibility to remain constantly accountable of the decisions they make, their actions and associated enterprise performance results (Cameron & Caza, 2005). Thus, consistent practice of accountability infuses a sense of entrepreneurial leadership among employees across distinct levels of hierarchy in almost all situations in enterprises. During times where business conditions appear challenging, the practice of accountability enables leaders and employees to remain calm and agile in finding solutions for the desired results.

In explaining the concept of accountability within the purview of entrepreneurial leadership, Tamvada (2020) underscores the relevance of the Stakeholder-Agency Theory, which specifies that the linkage between accountability and entrepreneurial leadership is anchored on the relation between the agent and its principal who controls the incentives extended to the agent based on that agent's behaviour and performance. Based on this theory, leaders have the primary responsibility of being accountable to their stakeholders who can have authority to assess an account given by an agent (Katz, 2008).

2.5.3. Analytical thinking and entrepreneurial performance

According to Al-Mamun, Nawi and Zainol (2016), analytical thinking is an intellectual capability that diagnoses prevailing conditions in the market and provides insights about the right decisions and suitable actions to be taken. Al Mamun et al. (2018) further emphasise that based on the RBV, analytical thinking is a scarce and important leadership capability which enables one to recognise and understand complex issues from unique lenses toward promoting performance of enterprises.

In the presently continuous dynamic business environment, decision making based on facts and evidence, and development and implementation of business solutions are largely dependent on analytical thinking (Elson et al., 2018). In entrepreneurial context, poor analytical thinking capabilities act as a barrier and deficiency of human resources required to constantly monitor trends and conditions in the competitive business environment in order to keep the enterprise competitive and sustainable. As such, the absence of sound analytical thinking in organisations largely lead to enterprise failure due to the inability to detect business impediments which emanate from internal and external environments (Ibdah, 2018).

2.5.4. Emotional intelligence and entrepreneurial performance

According to Aslam, Shahid, Qureshi and Qureshi (2018), emotional intelligence is a concept which derives from the idea of social intelligence. Al Mamun, et al. (2018) regard emotional intelligence as a combination of cognitive abilities and self-efficacy which allow an individual to monitor his or her own feelings, and understanding different ways via which such emotions can affect others and performance of a business in general. The ability by organisational team members to deal with their own individual emotions and also emotions of other team members is a crucial condition self-leadership and sound decision making, problem-diagnosis and problem solving. This is assertion is consistent with Aslam et al. (2018) who accentuate that, based on the RBV theory, differences in the emotional intelligence enterprises in the same industry have internally are the primary factors and forces behind the differences such entities face in terms of entrepreneurial performance.

Anyanwu and Oad (2016) indicates that emotional intelligence of entrepreneurial leaders plays a primary role in controlling relationships amongst organisational team members and creating an environment for innovation and creativity. Accordingly,

enterprises with leaders who demonstrate a higher degree of emotional intelligence are highly probable to achieve improved entrepreneurial performance in their organisations (Nanayakkara, Wickramasinghe & Samarasinghe, 2017). This claim conforms to an empirical finding by Anyanwu and Oad (2016) which shows significant positive correlation between emotional intelligence and an enterprise's level of financial performance. The empirical finding from the study by Aslam et al. (2018) indicates that emotional intelligence has a significant positive moderating effect on link between innovation and enterprise performance.

2.6. Financial Literacy

The 2015 Small and Medium Enterprises Growth Index headline results indicate that lack of financial literacy as one of the fundamental factors hindering the performance of SMMEs in South Africa (SBP, 2017). In line with the conventional RBV theory, financial knowledge, understanding of financial concepts, financial skills and access to finance play a critical role towards enhancing entrepreneurial performance of SMMEs (Agyapong & Attram (2020). Preceding empirical studies conducted by Ye and Kulathunga (2019), Lakuma, Marty and Muhumuza (2019) and Agyapong and Attram (2019) generally define financial literacy as the entrepreneur's ability to make rational financial decisions, assess and understand enterprise's financial needs and financial knowledge on the cost of financing and financial management. Owusu, Ismail, Osman and Kuan (2019) further indicate that financial literacy enables enterprises to implement sound financial decisions which stimulate the performance of enterprises.

Chepngetich (2016) indicate that financial literacy has a key role in the enterprise's ability to mobilise, allocate and use resources. In terms of the day-to-day operational basis, a firm with owners and managers with a high level of financial literacy are likely to have healthy cash flows and efficient working capital relative to enterprises with owners and managers with low financial literacy levels (Agyapong & Attram (2019). This notion is consistent with Gathungu and Sabana (2018) who indicate that high levels of financial literacy are a cornerstone for entrepreneurs in decisions regarding how to source funds from the dynamic and competitive financial and capital markets. Overall, an entrepreneurs' financial literacy levels determine the manner in which they bridge the gap of information asymmetry in the financial and capital markets regarding access to finance and interest rates (Gathungu & Sabana, 2018).

2.7. Entrepreneurial leadership

According to Latif and Karim (2018), the notion of entrepreneurial leadership now requires a new type of leaders called “entrepreneurial leaders”. Although Harrison et al. (2015) emphasise that the concept of entrepreneurial leadership derives from integration of concepts of entrepreneurship and leadership, Leitch and Volery (2017) argue that the subject of entrepreneurial leadership is evolving as a new concept rather than as a theory, hence the concept of entrepreneurial leadership currently lacks a clear definition. The concept of entrepreneurial leadership currently lacks clarity in the definition and does not have suitable tools to measure its characteristics and behaviours (Mgeni, 2015).

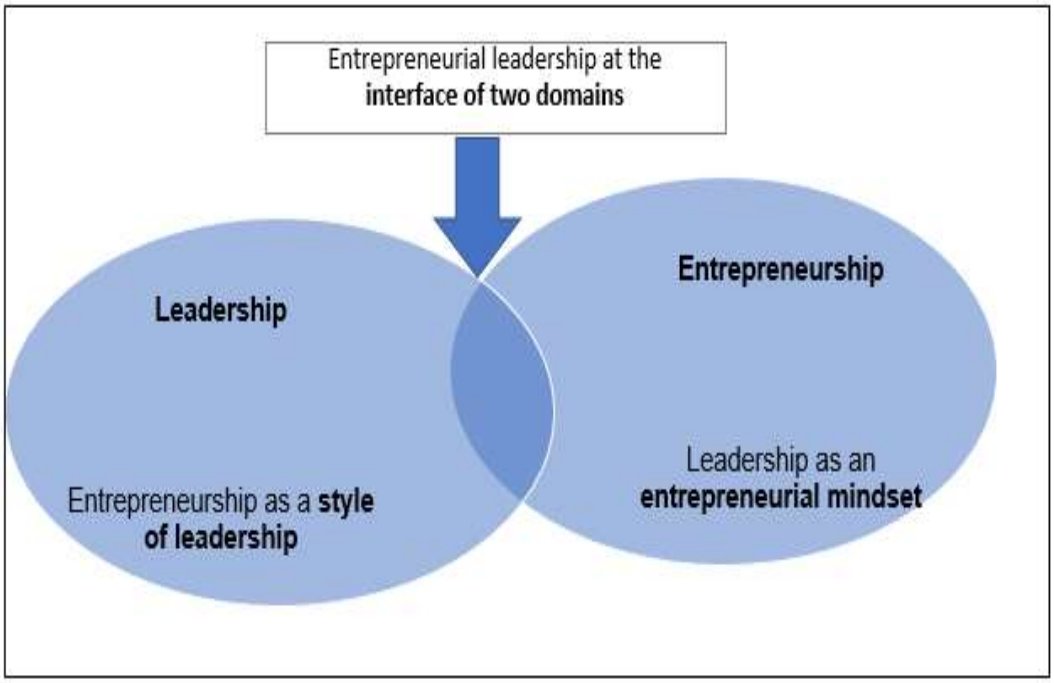
Ayankoya (2016) states that the existence of diverse perspectives and schools of thoughts on the concept of entrepreneurship correspond to numerous views about practice of leadership in entrepreneurship. Dzomonda, Fatoki and Oni (2017) describe entrepreneurial leadership as a pattern of behaviour and abilities that stimulate innovation and development of products and services using defined business models. This description of entrepreneurial leadership derives from the school of thought that regards entrepreneurship based on the creation and provision of new products and services in the relevant market with the motive of making firm profit, contrary to other schools of thought which regard entrepreneurship in terms of capabilities to identify needs and convert such ideas into opportunities by providing suitable solutions to ensure entrepreneurial performance (Ayankoya, 2016).

Entrepreneurial leadership is unique from some other types of leadership in that entrepreneurial leadership is an intersectional dimension which derives from the concepts of entrepreneurship and leadership in a firm’s life cycle. Ebere and Fragouli (2015) indicates that entrepreneurial leadership is anchored on four key pillars, namely “attention via vision, meaning via communication, trust via positioning, and confidence via respect”. The models are linked to the goal of situational leadership which aims to connect suitable leadership styles with suitable levels of development towards attaining specific goals (Mokhber et al., 2016). In light of this backdrop, entrepreneurship leadership derives from orthodox theories of entrepreneurship and leadership (Rahim et al., 2015; Mgeni, 2015; Garc´ıa-Vidal, 2019).

Entrepreneurial leadership thus involves engagement in business risk-taking, pro-activeness and innovativeness (Latif & Karim, 2018). The primary attributes possessed by entrepreneurial leaders include creativity, motive of achievement, enthusiasm, reactive to opportunities, visionary and goal-oriented (Cai, 2019). Harrison et al (2018) thus presents entrepreneurial leadership as an intersection between entrepreneurship and leadership embraced at every level and structure of the organisation in an environment where followers are motivated to be creative and innovative (Mgeni, 2015; Cai, 2019).

Key issues addressed by entrepreneurship leadership include "creating a scenario of probable prospects to transform an existing situation (scenario enactment) and convincing stakeholders that specific objectives can be achievable by using suitable resources (Mokhber, et al., 2016). Leitch and Harrison (2018) describe entrepreneurial leadership via an illustration of a diagram provided by Figure 2 below.

Figure 2: Three perspectives on entrepreneurial leadership



Source: Leitch and Harrison (2018).

Based on Figure 2, there are three perspectives which explain entrepreneurial leadership. The first perspective regards "entrepreneurial leadership as a flair of leadership". This perspective regards an entrepreneur as an individual who exercises leadership, and implies unidirectional transference of concepts from the field of

leadership to entrepreneurship. The second view regards “entrepreneurial leadership as an entrepreneurial mind-set” Sitharam and Hoque (2016). This perspective argues that leadership is a component of entrepreneurship for the reason that “entrepreneurial mind-set and behaviours are crucial for effective leadership; which makes entrepreneurship being the essence of leadership” (Harrison et al., 2015). The third view places “entrepreneurial leadership at the boundary of two domains” and regards entrepreneurial leaders as different from entrepreneurs (Renko, et al., 2015).

Despite lack of clarity of the definition, Latif and Karim (2018) indicate that it is through effective practice of entrepreneurial leadership that entrepreneurs can be able to discover entrepreneurial opportunities that can enable them to gain competitive advantage over rivals. Becoming a leader in entrepreneurship requires practice as opposed to being born as a leader (Latif & Karim, 2018). This assertion is consistent with Sitharam and Hoque (2016) and Rankhumise and Letsoalo (2019) who underscore that low levels of entrepreneurial leadership and lack of business management are major constraints faced by SMMEs in South Africa. In addition to practicing, competences in entrepreneurial leadership can also be gained through participating in entrepreneurship education either in the corporate world or at the universities. It is against this backdrop that practice of leadership in entrepreneurship has led to increasing research interest in understanding how entrepreneurial leadership influences the performance of enterprises (Renko, et al., 2015).

In order to address challenges, uncertainties and complexities in entrepreneurship, the key entrepreneurial leadership attributes entrepreneurs should include emotional intelligence, ability to create and maintain interpersonal relationships, delegation of tasks, building a strong spirit of teamwork among members of a group, organisational development and critical thinking (Latif & Karim, 2018). Al Mamun, Ibrahim, Yusoff and Fazal (2018) highlight that entrepreneurial leadership revolves in the intersection between entrepreneurship and leadership, wherein leadership creates motivation while entrepreneurship catalyses the pursuance of the identified opportunities by the entrepreneur (Renko, El-Tarabishy, Carsrud & Brännback, 2015).

The primary dimensions of entrepreneurial leadership include persistence, flexibility, creativity, planning, vision, high tolerance for improvement, risk-taking, patience,

motivating, opportunity-driven and achievement-focused (Al Mamun, Ibrahim, Yusoff & Fazal, 2018). Renko et al. (2015) established that individual-specific antecedents can influence entrepreneurial leadership. Latif and Karim (2018) designates that numerous attributes extant in entrepreneurial leadership are similarly found in transformational leadership, characterised by pursuit of joint vision, autonomy of team members, promotion of empowerment and corrective tolerance of mistakes.

2.8. Entrepreneurial performance

In the studies conducted by Gorgievski, et al. (2014), Sebikar (2014) and Sutanto, Sigiols and Putih (2018), entrepreneurial performance is defined as the analysis of the work habits of employees conducted at specific points to assess the magnitude to which the enterprise goals have been achieved, assessed either subjectively or objectively. Gorgievski, et al. (2014) regard entrepreneurial performance as an important component in business which involves analysing the behaviour and attitudes of employees towards work. These habits and attitudes are then used to determine the degree to which goals, objectives and expectations of the enterprises can be attained in the long term. According to Al Mamun, et al (2010), the attainment of goals and objectives depends on the manner in which resources are utilised to maximise the return from the existing opportunities provided by the market.

Following Fried and Tauer (2015), entrepreneurial performance provides as an indicator of an enterprise's potential for business success in future. In that regard, entrepreneurial performance is used to guide decisions regarding resource mobilisation and allocation. In terms of measurement, Al Mamun et al. (2018) states that there are no universally agreed indicators of entrepreneurial performance, and state that measurement can be done either objectively or subjectively. Objective indicators include sales, revenue, turnover, number of employees, return on investment (ROI), return on assets (ROA), market share and return on equity (ROE).

2.9. Relationship between financial literacy and entrepreneurial performance

Based on the RBV, Owusu, Ismail, Osman and Kuan (2019) state that the capability of an enterprise to mobilise, organise and allocate productive resources is one of the necessary conditions firms have to satisfy in order to gain and sustain competitive advantages over their rivals. Agyapong and Attram (2019) assessed the impact of owners' financial literacy on entrepreneurial performance of SMMEs in Ghana. The

respective study employed a cross-sectional survey design in which data was collected from a sample of one hundred and thirty-two entrepreneurs using the simple random sampling method. Statistical analysis conducted using structural equation modelling produced results which indicate the presence of a significant and positive relationship between financial literacy and entrepreneurial performance. While the study recommended policy makers to develop and implement policy programmes which improve financial literacy of entrepreneurs through industry and university trainings, it also pointed out the need for complementing financial knowledge with effective entrepreneurial leadership (Agyapong & Attram, 2019).

Rita and Wahyudi (2019) assessed the financing antecedents and entrepreneurial performance in Indonesia. The research study collected primary data from a sample of one hundred and ninety entrepreneurs, where entrepreneurs' cognitive bias was analysed. Based on the findings, the entrepreneurs' cognitive bias was found to have a significant and positive influence on financing of enterprises. In the similar vein, entrepreneur's cognitive bias was found to have demonstrated a significant positive influence on entrepreneurial performance, which was measured using ROA, ROE and sales growth. However, the study recommended that it would be more insightful if the similar study can be conducted by disaggregating the enterprises according to their sizes in order to have a clear picture on the influence of each phenomenon on one another (Rita & Wahyudi, 2019).

Ishtiaq et al (2020) analysed the influence of financial literacy in resource acquisition and entrepreneurial performance. In recognising the importance of sufficient resources in ensuring survival of enterprises, the study identified financial literacy as a critical factor for stimulating entrepreneurial performance. Using a structured questionnaire, survey data was collected from entrepreneurs running SMMEs to test the hypotheses of a positive influence of financial literacy on SMMEs' entrepreneurial performance. Empirical findings derived from using the structural equation model approach indicate that financial literacy had a significant positive influence on resource acquisition and entrepreneurial performance. The key recommendation of the research study was the great need to improve the knowledge of entrepreneurs to improve entrepreneurial performance.

2.10. Relationship between entrepreneurial leadership and entrepreneurial performance

According to Renko et al. (2015), entrepreneurial leadership is a distinct leadership style that enhances entrepreneurial performance through positively influencing performance of staff members toward attaining organisational goals and pursuing entrepreneurial prospects. In an effort to measure and understand the effectiveness of entrepreneurial leadership style toward ensuring entrepreneurial performance based on organisational, follower-specific and environmental contingencies, Renko, et al. (2015) developed and tested for the reliability and validity of an entrepreneurial leadership scale. The Cronbach's alpha coefficient for the respective scale stood at 0.89, indicating a high magnitude of internal consistency. Results derived indicates that entrepreneurial leadership was found to be more predominant among leaders who were involved in founding the enterprise than leaders who were not been involved in founding the organisation.

The study conducted by Al Mamun et al. (2018) establishes that entrepreneurial leadership competencies has a crucial role in enhancing networking, decision making, management of human and material resources, implementation of strategies and marketing which all improve the entrepreneurial performance. In the study's empirical analysis, Al Mamun et al. (2018) identified responsibility, analytical thinking, accountability and emotional intelligence as the critical dimensions of entrepreneurial leadership construct which influence entrepreneurial performance. Findings from the respective study show that accountability, emotional intelligence, responsibility and analytical thinking had statistically significant positive influences on entrepreneurial performance. Zainol, et al. (2018) used risk-taking, innovation and proactiveness as the key components of leadership and empirically found that each of these elements had a significant and positive influence on entrepreneurial performance.

Li, Makhdoom and Asim (2020) analysed the influence of entrepreneurial leadership on employees' innovative work behaviour, whereas entrepreneurial self-efficacy was a moderator variable. The entrepreneurial leadership measurement scale was adapted from the study conducted by Renko et al. (2015) and consisted of eight items. Cross-sectional survey data collected from a sample of three hundred and fifty supervisors and subordinates in different small and medium enterprises (SMEs) based in China, Jiangsu province was analysed anchored on the social cognitive

theory and self-efficacy theory. Results show a significant positive influence of entrepreneurial leadership on innovative work behaviour of employees, while entrepreneurial self-efficacy had a significant positive moderating impact on the link between entrepreneurial leadership and workers' innovative behaviour in companies.

2.11. Conclusion

This chapter presented a review of relevant literature on the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance, definitions of SMMEs, a conceptual model developed and used in the study and the RBV theory reinforcing the study. The chapter further discussed financial literacy, entrepreneurial leadership and entrepreneurial performance constructs, and finally presented key empirical findings on the link between entrepreneurial performance and financial literacy and relationship between entrepreneurial leadership and entrepreneurial performance. The next chapter presents the research questions and research hypotheses tested in the analysis towards research objectives.

Chapter 3: Research Questions and Hypotheses

3.1. Introduction

Based on the research objectives of this research study, this chapter presents the research questions and research hypotheses as follows.

3.2. Research Questions

Based on the research objectives stated above, research questions are as follows.

- What is the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs?
- What is the relationship between financial literacy and entrepreneurial performance of SMMEs?
- What is the relationship between entrepreneurial leadership and entrepreneurial performance of SMMEs?
- What is the relationship between entrepreneurial leadership and financial literacy of SMMEs?
- Does entrepreneurial leadership have a moderating effect on the relationship between financial literacy and entrepreneurial performance of SMMEs?

3.3. Research Hypotheses

Based on the aforesaid research questions, research null hypotheses are formulated as follows.

- H1: There is a positive relationship between financial literacy and entrepreneurial performance of SMMEs.
- H2: There is a positive relationship between entrepreneurial leadership and entrepreneurial performance of SMMEs.
- H3: There is a positive relationship between entrepreneurial leadership and financial literacy of SMMEs.
- H4: Entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs.

Chapter 4: Research Methodology

4.1. Introduction

This chapter presents the research methodology and design used in this specific study to address the problem statement and research objectives formulated in the research study. Section 4.2 provides the definition of research methodology and an overview of the methodological procedure utilised in the study. Section 4.3 presents the choice of methodology, Section 4.4 provides the presents the philosophy, while sections 4.5 presents the research approach employed. Section 4.6 provides the research design, section 4.7 presents the strategy, and section 4.8 confers the population out of which a sample was drawn. Section 4.9 presents the sampling approach and the sample size used in primary data collection. Section 4.10 discusses the measurement instrument, while section 4.11 discusses the data gathering process. Construct validity and scale reliability of the research instrument are conferred in Section 4.12 and section 4.13, respectively. Section 4.14 discusses the data analysis process, section 4.15 discusses the quality controls to be taken and section 4.16 provides the conclusion to the chapter.

4.2. Overview of the methodological procedure

Research methodology generally refers to a plan of enquiry that takes into account principal norms and develops a research design and an approach for data collection (Saunders, Lewis & Thornhill, 2012). The research methodology employed in this study comprises a suitable target population, research design and sampling method, questionnaire, a pilot study, tests of construct validity and reliability of questionnaire items and suitable statistical data analysis procedure used in the study.

4.3. Choice of methodology

A mono method in the form of a quantitative method was employed in this study (Collis & Hussey, 2014). A mono method was chosen because of its suitability to test hypotheses formulated on the association between financial literacy, entrepreneurial leadership and entrepreneurial performance. The quantitative method entails testing for existence of forms and significance of relationships among specified observed and/or latent variables (Welman, Kruger Mitchell, 2005). The formulated research hypotheses were tested based on the conceptual model (Sadik, 2012) developed in chapter 2 based on previous literature on the relationship between financial literacy,

entrepreneurial leadership and entrepreneurial performance. The conceptual model is supported by the RBV theory that support the literature review.

4.4. Philosophy

The positivist paradigm is the philosophy that was employed in this research. Selection of this paradigm is anchored on the rationale that it requires the researcher to remain independent to a phenomenon being analysed, collected, data analysed, interpreted and presented. The presentation of results was done by implementing a positivist philosophy of the research process (Saunders, Lewis & Thornhill, 2012). Numerical data shall be used to test and validate the presumed reality of the phenomena under investigation (Maylor & Blackmon, 2005). Thus, this paradigm was deemed suitable for use in searching for both realities and facts existing regarding the relationships between the specified variables (Leedy & Ormrod, 2010).

4.5. Research approach

Given the quantitative method and positivist paradigm to be employed as alluded earlier, this research study used a deductive approach rather than the alternative inductive approach. The major rationale for employing the deductive approach is that the deductive method allows the design of a conceptual model based on the relevant theory used which provides the basis for testing the hypotheses subsequent to collection and quantitative analysis of data (Welman et al., 2005). Statistical results derived from data analysis were used to assess whether or not the stated research hypotheses could be rejected at 5 percent significance level based on a conceptual model developed and presented in the preceding chapter (Collins & Hussey, 2014).

4.6. Research design

The research design followed was a cross-sectional survey design in which data was collected from diverse entrepreneurs at a precise point in time. The cross-sectional data collection (Saunders et al., 2012) was done from SMMEs operating in Tshwane Metropolitan Municipality. This type of design has been chosen based on the nature of the research study which aims to analyse associations between financial literacy, entrepreneurial leadership and entrepreneurial performance. The type of research questions answered in line with the hypotheses were used as a basis for selecting the chosen research design.

4.7. Strategy

The general plan which guided the process for answering research questions was developed. Following Saunders et al. (2012), a research strategy is defined as a general process or procedure to be followed in finding answers to research questions. In this research study, a survey strategy was employed through which survey primary data collection from relevant respondents was conducted. In using a structured questionnaire, respondents completed survey questions by themselves without interference or influence of the researcher.

4.8. Population

The population used in this study consists of owners of SMMEs operating in South Africa. The total number of owners of SMMEs in South Africa as of 2019 (Quarter 3) stood at 2 653 424 (Small Enterprise Development Agency, 2020). Initially, this research study was intended to be confined to the City of Tshwane which comprised of about 5 140 owners of SMMEs (Small Enterprise Development Agency, 2020) at the time the ethical clearance for this study was sought. Following lack of success in obtaining a list of registered SMMEs in Tshwane Metropolitan Municipality from the Small Enterprise Development Agency at potentially no cost, the services of a professional and experienced online data collection firm were sought and utilised.

The services of an online data collection company were sought and utilised in light of the backdrop that the researcher could not successfully proceed with physical data collection in the field in personal capacity due to the changes in working norms brought by the advent of the COVID-19 global health pandemic. In order to mitigate the risk of low response rate and collect a reasonably acceptable sample of the respondents, the population was expanded to the national level. Finally, survey data was extended to the national population of SMMEs operating across South Africa.

4.9. Sampling technique and sample size

A probability simple random sampling approach was employed in this research study. This study used the simple random sampling method because it involves drawing sample elements randomly from a sampling frame in such a way that all population elements have an equal chance of selection (Collins & Hussey, 2014). This sampling method was used given its strength of providing representativeness of the study population, and thus minimum sampling error (Ben-Zvi, Bakker & Makar, 2015).

Unbiased random selection of a representative sample enhances formulation of reasonable conclusions and generalisations based on findings from the study (Sharma, 2017). A simple random sampling technique was used to determine the minimum sample size required for data collection is given by the formula:

$$n = \frac{\chi^2 N \hat{p}\left(1-\hat{b}\right)}{\alpha^2 (N-1) + \chi^2 \hat{b}\left(1-\hat{b}\right)}$$

n = calculated sample size,
N is population size,
$\hat{b}$ = population proportion = 0.5,
α = degree of accuracy = 0.05, and
χ^2 is the chi-square

Using the statistical formula of simple random sampling method by Collins and Hussey (2014) specified above, a minimum sample size of 358 respondents (SMMEs) was required for collection of data at 95% confidence interval, 50% response distribution and 5% margin of error as shown by Figure 3 below.

Figure 3: Determination of Sample Size

Confidence Level:	95% 99%
Confidence Interval:	5
Population:	5140
Sample size required:	358

4.10. Measurement instrument

The measurement instrument, provided in Appendix 1, was developed using items adapted from validated research instruments used in prior studies by Owusu, et al. (2019) and Al Mamun, et al. (2018). Items under each construct are based on a 5-point Likert scale and had Cronbach's alpha coefficients equal to at least 0.7 (Likert,

1932). The 5-point Likert scale is considered as an optimum scale of response options due to its strength that it provides independence to participants to select answers to questions in a symmetric and balanced way in either direction by allowing the participant to have an option of neutrality in his or her responses (Joshi, Kale, Chandel & Pal, 2015). Mirahmadizadeh, Delam, Seif and Bahrami (2018) stress based on findings from 532 articles on designing, construction and analysis of Likert scale data that a 5-point scale is used more often than other multi-choice options due to its strength to normalise and analyse asymmetric data.

The preceding studies from which validated scales were adapted in designing the data collection for this particular study include Berkowitz and Daniels (1964), Epstein, Pacini, Denes-Raj and Heier (1996), Schutte et al. (1998), Thoms, Dose and Scott (2002), Morgan and Strong (2003), Usama and Yusoff (2018), Al Mamun, et al. (2018) and Owusu, et al. (2019). The scales used by these studies were used in the research instrument of this study based on the rationale that such scales have consistently and reliably been used in numerous different studies due to their ability to maintain acceptably high validity scores.

4.11. Data gathering process

Data collection was conducted by distributing a self-administered structured research questionnaire for completion by participating entrepreneurs. Respondents submitted their completed questionnaire via a google link that was created by a professional data collection company whose services were outsourced by the researcher. The questionnaire explained the structure of the questionnaire to research participants. A self-administered structured questionnaire was used since it does not impose disturbances to complete by the respondents compared to either group focus or face-to-face interviews (Field, 2009). The questionnaire comprises four sections, namely:

Part A: Demographic profiles,
Part B: Financial literacy,
Part C: Entrepreneurial leadership, and
Part D: Entrepreneurial performance.

4.12. Validity of the questionnaire

The questionnaire developed for this specific study was first tested for construct validity, which was done using a Kaiser-Meyer-Olkin Measure of Sampling Adequacy gauge using the Statistical Package for Social Sciences (SPSS) software. Validity of a measurement instrument refers to a level to which a research instrument assesses what it intended measured (Saunders, et al., 2012). This study tested the content validity, internal validity and construct validity.

Content validity relates to operationalisation of items for each dimension (Collis & Hussey, 2014). The validity testing process was used to hypothesise relationships between constructs to assess participants' understanding of operational definitions. Validity of content was done to analyse questionnaire items to assess whether question items were enough. This test was performed using a statistician to review contents of a questionnaire, and a statistician revised items of the questionnaire for correction and amendments of item wording wherever necessary.

4.13. Scale reliability of the measurement instrument

The research instrument developed for this study was tested for internal consistency of items under each dimension and overall for all items using the SPSS software (Saunders, et al., 2012). The scale reliability of the research instrument's items under each construct was tested as per Cronbach's alpha coefficient gauge (Likert, 1932). The respective alpha coefficients were produced to judge the point to which questionnaire items under each construct positively correlate among themselves. The respective computed coefficients of items under each construction were calculated based on the statistical function specified below.

$$\alpha = \frac{m}{m-1}\left(1 - \frac{\sum_{i=}^{m} \phi^2 v_i}{\phi^2 w}\right) \tag{3.3}$$

where m is the number of items under each construct, $\phi^2 w$ represent the variance of observed total scores, and $\phi^2 v_i$ denote the variance of item I for the given sample. The research expects using a threshold cut-off of 0.70 which is the acceptable size in many empirical research studies.

4.14. Data analysis approach

Data capturing, data processing and finally statistical data analysis was undertaken using SPSS and Stata softwares. Descriptive statistics, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM) were conducted (Leedy & Ormrod, 2010). EFA is a multivariate procedure that analyses dimensionality or structure of sets of observed indicators attributed to latent factors, while CFA is used to determine if items measure what they were intended to measure (Welman, et al., 2005).

4.15. Exploratory Factor Analysis

Technically, this approach uses algebraic computations to produce determinants, communalities, amounts (total and relative) variances explained and factor structures obtained after running a Keiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) that is be based on the formula.

$$\Phi_j = \frac{\sum_{i \neq j} r_{ij}^2}{\sum_{i \neq j} r_{ij}^2 + \sum_{i \neq j} z_{ij}^2} \quad (1)$$

where Φ_{ij} represents the Keiser-Meyer-Olkin (KMO) value, correlation matrix R = [r_{ij}] and partial covariance matrix Z = [z_{ij}]. The KMO values range between 0 and 1, where a value close to 0 shows that the total of fractional correlations is larger than the sum of correlations, correlations are widely dispersed and not clustering among a few variables, which presents a difficulty for factor analysis. Contrariwise, a value close to 1 shows a good fit to conduct some factor analysis. EFA was conducted based on the classical function:

$$Z_k = \alpha_{k1} G_1 + \alpha_{k2} G_2 + ... + \alpha_{ju} G_u + \varepsilon_j \quad (2)$$

where u is the number of indicators $(Z_1, Z_2, ..., Z_p)$ hence an indicator Z_k is included in construct, u is the number of factors $(G_1, G_2, ..., G_u)$, and k = 1, 2, …, p. Loadings of items under factors $\alpha_{k1}, \alpha_{k2}, ..., \alpha_{ku}$ show that α_{k1} is a factor structure loading of k^{th} indicator on the initial factor, and α_{k2} is the factor structure loading of k^{th} variable on the second factor. Hence, loadings of indicators on factors reveal the extent to which an indicator makes some contribution to a relevant factor.

4.16. Confirmatory Factor Analysis

CFA was initially conducted to assess the associations between latent variables and their related indicators. Three latent variables whose observed indicators' variations were analysed are financial literacy, entrepreneurial leadership and entrepreneurial performance in line with the research objectives and research hypotheses.

4.17. Structural Equation Model Estimation

Subsequent to analysing the amount of variation in each indicator accounted for by its corresponding construct, SEM was conducted to assess relationship between financial literacy and entrepreneurial leadership on entrepreneurial performance of SMMEs as depicted by Figure 4 below.

Figure 4: Relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs

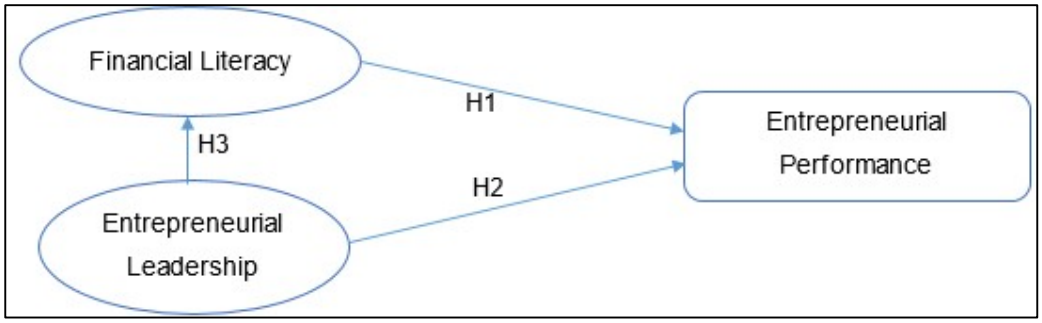
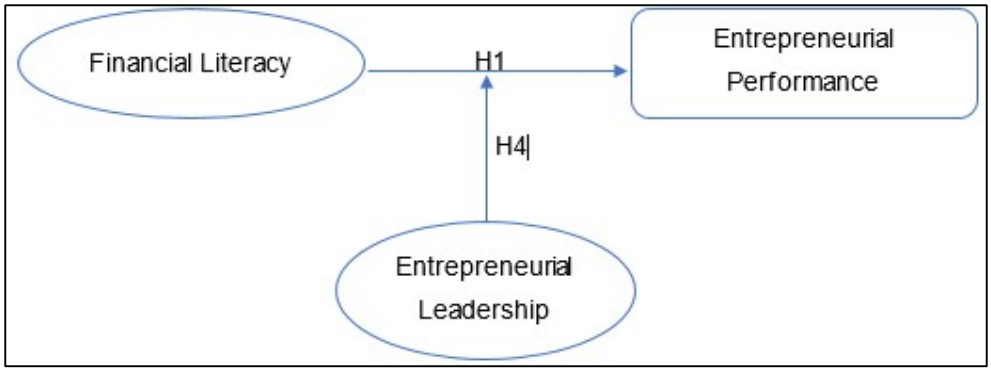


Figure 5 exhibits the moderating effect of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance.

Figure 5: Moderating effect of entrepreneurial leadership in the relationship between financial literacy and entrepreneurial performance



The SEM technique used in the final analysis is a second generation multivariate statistical method which performs measurement of direct and indirect effects of model variables. The method simulates models with multiple dependent variables, and permits simultaneous analysis of all variables in the model instead of analysing them separately. Accordingly, the model performs estimation of several regression equations simultaneously to assess the interrelations among specified variables. SEM therefore provides as a special type of confirmatory analysis that performs path analysis, covariance structure models, and correlation structure models (Kenny, Kaniskan & McCoach, 2015). Financial literacy, entrepreneurial leadership and entrepreneurial performance were statistically measured their interrelationships in the SEM based on the system of equations specified as below.

$$\begin{aligned} EL &= \alpha_0 + \varepsilon_1 \\ FL &= \alpha_1 + \alpha_2 EL + \varepsilon_2 \\ EP &= \beta_0 + \beta_1 FL + \beta_2 EL + \varepsilon_3 \end{aligned} \tag{3}$$

where FL represents financial literacy, EL symbolises entrepreneurial leadership and EP is entrepreneurial performance. Based on the orthodox notation (ignoring the constants), the structural system of the model becomes:

$$\begin{aligned} FL &= \varpi_{13} EL + \varepsilon_2 \\ EP &= \varpi_{23} FL + \varpi_{24} EL + \varepsilon_3 \end{aligned} \tag{4}$$

where ϖ_{13} is the coefficient of the constructs entrepreneurial leadership (EL) on financial literacy (FL), while ϖ_{23} and ϖ_{24} are the coefficients of FL and EL on entrepreneurial performance (EP).

4.17.1. Model goodness of fit tests

The model goodness of fit metrics which include chi-square statistic, likelihood ratio (LR), root mean squared error of approximation (RMSEA), Akaike information criterion (AIC), Bayesian information criterion (BIC), Comparative fit index (CFI) and Tucker-Lewis index (TLI) shall be tested. RMSEA scores less than 5% reveal good fits and “p” of close fits above 5% reveal good fits of models (Browne & Cudeck, 1993). Lastly, comparative fit indexes (CFIs) and Tucker-Lewis indexes (TLIs) above

0.95 are preferred since they show good fits between constructs and their observed data (Steiger, 2007). Table 1 summarises the cut-off thresholds of the TLI and CFI.

Table 3: General acceptable fit thresholds of fit indexes

Indexes	General acceptable fit thresholds
Absolute fits	
Chi-square statistic	Ratio of X^2 to df ≤ 2 or 3; much useful for the nested models
Akaike information criterion (AIC)	Smaller values desirable; good for model comparison
Bayes information criterion (BIC)	Smaller values desirable; good for model comparison
Comparative fits	
Tucker–Lewis index (TLI)	≥ 0.95 for good fit model
Comparative fit index (CFI)	≥ 0.95 for good fit model
Other	
Root mean square error of approximation (RMSEA)	< 0.06 to 0.08 with confidence interval

The CFI is an enriched form of the normed fit index (NFI) whose computed value should range between 0 and 1, where a value close to 1 shows a better fit (Hu & Bentler, 1999). Concomitantly, the TLI (Tucker & Lewis, 1973) functions similar to the NFI, where a value close to 1 indicates a better model fit (Hu & Bentler, 1999).

4.18. Quality controls

Participation in the study by relevant respondents was conducted on a deliberate basis. Ethical procedures were observed throughout the data gathering process. Consent from all participants was obtained prior to beginning the data collection process. Participants were advised to ensure that all question items had to be fully completed. Checks on data quality were performed using SPSS software.

The study was conducted in accordance with the Gordon Institute of Business Sciences (GIBS) research ethics guidelines. The researcher obtained ethical clearance from GIBS and informed consent was used to get permission from the participants. The informed consent contained information relating to the goal of the

analysis, anonymity, voluntarism, and confidentiality. The information assisted the participants in deciding to take part in the study or not. The data used in the study was stored in an electronic format and stored on a USD storage device and an image of the data was backed up onto a Compact Disc (CD).

4.19. Conclusion

This chapter presented the research methodology and design used in this study to address the problem statement formulated and research objectives, choice of methodology, philosophy, research approach employed, research design, strategy and population from which the sample was drawn. In addition, sampling approach, sample size calculated, measurement instrument, and data gathering process were discussed. Construct validity and scale reliability of the research instrument were discussed consistent with the data analysis process, and finally, quality controls. The next chapter presents and interprets statistical results from data analysis conducted.

Chapter 5: Results

5.1. Introduction

This specific chapter presents results obtained from statistical data analysis of the survey data that was conducted in order to address the research objectives and test the research hypotheses of this research study. The results are presented in the following sections: Section 5.2 presents frequencies of demographic profiles of the respondents and their SMMEs, while section 5.3 presents descriptive statistics of responses provided by participants on questions relating to financial literacy, entrepreneurial leadership and entrepreneurial performance. Section 5.4 presents results on construct validity of items and section 5.5 presents results on scale reliability of items under each construct. Section 5.6 and section 5.7 present results on EFA and CFA, respectively. Section 5.8 presents estimates from the SEM, and section 5.9 provides the conclusion to the chapter.

5.2. Frequencies of demographic profiles

Frequencies of respondents' demographic profiles are given in Table 4 below.

Table 4: Frequency statistics of respondents' demographic profiles

	Frequency (n)	Proportion (%)
Gender		
Male	104	51%
Female	101	49%
Marital status		
Single	143	70%
Married	43	21%
Divorced	8	4%
Separated	8	4%
Widow	3	1%
Age category		
18-22 years	42	21%
23-27 years	48	24%
28-32 years	33	16%
33-37 years	27	13%
38-42 years	13	6%

43-47 years	9	4%
48-52 years	13	6%
53-57 years	10	5%
58+ years	10	5%
Population group		
Black African	174	85%
Coloured	17	8%
Indian/Asian	2	1%
White	12	6%
Highest educational qualification		
Diploma	100	49%
Bachelor's degree	20	10%
Honours degree	6	3%
Postgraduate diploma	11	5%
Master's degree	4	2%
PhD/Doctoral degree	5	2%
No response	59	29%
Size of enterprise		
Micro (< 5 employees)	131	62%
Small (< 50 employees)	38	18%
Medium (< 100 to 200 employees)	24	11%
Industry in which enterprise operates		
Agriculture, hunting, forestry and fishing	15	7%
Manufacturing	17	8%
Mining and quarrying	2	1%
Transport, storage and communication	24	11%
Wholesale and retail trade	38	19%
Financial intermediation, insurance, real estate and business services	10	5%
Electricity, gas and water supply	13	6%
Community, social and personal services	38	19%
Construction	20	10%
Other	28	14%

Table 4 demographic profiles frequency statistics results show that from the total two-hundred and five (n = 205) responses that were duly completed, the gender of the respondents were all most equally represented with 51% (n = 104) males and 49% (n = 101) female respondents. In terms of marital status, the largest share of 70% (n = 143) were single, followed by 21% (n = 43) who were married, while 4% (n = 8) were divorced and 4% (n = 8) separated. Age groups 23-27 years and 18-22 years accounted for the largest percentage of respondents equal to 23% (n = 48) and 21% (n = 42) respectively, followed by 16% (n = 33) and 13% (n = 27) who were aged 28-32 years and 33-37 years, respectively. Regarding race, the bulk 85% (n = 174) of respondents were Black African, followed by 8% (n = 17) Coloured, 6% (n = 12) White and 1% (n = 2) Indian/Asian.

The majority 73% (n = 150) of respondents operated micro-enterprises (less than 5 employees), while 21% (n = 43) operated small enterprises (less than 50 employees) and the remaining 6% (n = 12) operated medium enterprises (less than 100 to 200 employees). The distribution of enterprises by industry group in which respondents' enterprises operate revealed that 19% (n = 38) were operating in whole and retail trade, 19% (n = 38) in community, social and personal services, 14% (n = 28) in other industries, 11% (n = 24) in transport, storage and communication, 10% (n = 20) in the construction industry, 8% (n = 17) in the manufacturing industry, and 7% (n = 15) in the agriculture, hunting, forestry and fishing industry. The least proportions of 1% (n = 2) and 5% (n = 10) operate in the mining and quarrying industry, and financial intermediation, insurance, real estate and business services industry, respectively.

5.3. Descriptive statistics

This section provides descriptive statistics of variables under each constructs. The specific descriptive statistics presented include the arithmetic means, standard errors of the means, standard deviations and the mode statistics. The computed arithmetic means show the average responses given by the respondents, while the standard deviations of means show the degrees of reliability of arithmetic means. Furthermore, the standard deviations measure the magnitudes to which individual responses are dispersed from the average (arithmetic mean) responses, the mode shows the most frequent or common responses given by respondents to each question completed. Descriptive statistics results are given in Table 5 to Table 7.

Table 5: Descriptive statistics - financial literacy

	N	Mean		Std. Deviation	Mode
	Statistic	Statistic	Std. Error	Statistic	Statistic
FA1. I am satisfied with my enterprise's status of its finances	205	2.83	.093	1.330	3
FA2. My enterprise constantly prepares monthly income statements	205	3.05	.093	1.339	3
FA3. I am satisfied with my level of general financial awareness	205	3.17	.094	1.351	3
FA4. My enterprise satisfactorily engages in debt management	205	3.07	.097	1.382	3
FB1. I effectively maintain continuity of access to needed finances	205	3.39	.087	1.250	4
FB2. I always ensure sound risk management and diversification	205	3.38	.089	1.276	4
FB3. I maintain good levels of savings in my enterprise's savings account	205	3.05	.096	1.380	3
FB4. I have sound skills for minimising bad debts for my enterprise	205	3.32	.093	1.337	4
FK1. I have competencies in preparing sales records on daily basis	205	3.41	.093	1.335	5
FK2. I am satisfactorily competent in management of working capital	205	3.43	.091	1.307	4
FK3. I have good abilities to make sound financial investment decisions	205	3.62	.087	1.249	4
FK4. I have the ability to analyse financial performance periodically	205	3.31	.089	1.271	4

Table 5 arithmetic mean statistics show that the average responses to each question were centered around being neutral as shown by the arithmetic means approximately equal to a value mean = 3, ranging from a minimum mean = 3.07 to a maximum mean = 3.62. The standard error of mean statistics ranging between 0.87 and 0.97 suggest reliability of arithmetic mean statistics, while computed standard deviations ranging between 1.249 and 1.382 indicate that the individual response did not vary substantially from the arithmetic mean. The mode statistic shows that the majority respondents remained neutral to questions relating to financial attitude on financial literacy. Respondents reported that they generally agreed (mode = 4) with the bulk of all the question items pertaining to the assessment of financial literacy.

Table 6: Descriptive statistics - Entrepreneurial leadership

	N	Mean		Std. Deviation	Mode
	Statistic	Statistic	Std. Error	Statistic	Statistic
AC1. I remain accountable to my employees and partners	205	3.99	.086	1.233	5
AC2. I consider the extent to which my job performance level impacts my employees and partners	205	3.98	.083	1.194	5
AC3. I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners	205	3.87	.078	1.119	5
AC4. I am very aware of the concerns of my employees and partners	205	3.94	.079	1.129	5
AT1. As the enterprise owner, I do things that challenge my thinking	205	3.94	.080	1.145	5
AT2. I have strong preference for complex problems than simple ones	205	3.81	.079	1.135	4
AT3. I derive happiness in deliberating very hard and for long periods	205	3.81	.081	1.162	5
AT4. The practice of thinking abstractly is quite appealing to me	205	3.74	.084	1.199	4
AT5. I prefer tasks that are intellectual, complex and important	205	3.90	.080	1.142	5
AT6. My first impressions about people are usually always right	205	3.61	.082	1.177	4
AT7. I am very good at finding solutions to complex business issues	205	3.86	.078	1.113	4
EI1. When I become faced with hurdles, I recall times I faced similar challenges and overcame them	205	3.89	.073	1.052	4
EI2. I am always aware of my emotions every time I experience them	204	3.91	.078	1.115	5
EI3. I normally prefer to share my emotions with other people I trust	205	3.64	.085	1.223	4
EI4. I can easily recognise the emotions other people may be having merely by watching their facial experiences	205	3.87	.078	1.113	4
RS1. I perform my tasks in the best possible way I can	205	4.15	.080	1.151	5
RS2. I value working in the best interest of the team than for myself	205	4.12	.080	1.149	5
RS3. I stick to the tasks at hand even if other things of interest avail	205	3.79	.088	1.264	5

RS4. I always take full responsibility of all my financial decisions	205	4.01	.083	1.186	5

Mean statistics for observed variables measuring entrepreneurial leadership ranging between 3.61 and 4.15 indicate that the average responses provided by participants were centered around being largely in agreement with the questions asked to them. The standard errors of the means for all question items were approximately equal to 0.1, suggesting reliability of the arithmetic mean statistics. Standard deviations show distinct responses data points varied minimally from the average responses given. Based on the mode statistics, the majority of responses indicated that they strongly agreed with questions pertaining to accountability and responsibility, and generally agreed with questions raised around analytical thinking and emotional intelligence.

Table 7: Descriptive statistics - Entrepreneurial performance

	N	Mean		Std. Deviation	Mode
	Statistic	Statistic	Std. Error	Statistic	Statistic
EP1. My enterprise has a good customer satisfaction reputation	205	3.92	.083	1.186	5
EP2. My enterprise is in a good competitive position in the market	205	3.58	.088	1.260	4
EP3. My enterprise has a good customer retention history until to date	205	3.67	.087	1.239	4
EP4. My enterprise has satisfactory sales growth	205	3.30	.088	1.258	3
EP5. My firm has a satisfactory return on investment	205	3.28	.090	1.286	3
EP6. My enterprise has a rapid response speed to market demand	205	3.46	.082	1.174	4
EP7. My enterprise sends prompt confirmations to customer orders	205	3.60	.085	1.219	4
EP8. My enterprises is progressively becoming successful in reducing product or service delivery cycle time	205	3.57	.083	1.189	4

The arithmetic mean statistics for questions on variables measuring entrepreneurial performance show that the participants' responses ranging between 3.28 and 3.92 were centred around being in agreement with questions raised. The most frequent mode statistic equal to 4 show that respondents agreed with most questions asked.

5.4. Construct validity statistics

This section presents results on statistical validity of constructs and their analogous observed variables computed using the KMO-MSA criterion of the factor analysis procedure. Communalities are presented concurrently with KMO-MSA values to indicate the proportion of each observed variable's variance that was explained or accounted for by the associated corresponding factor. The respective results are presented in Table 8 below.

Table 8: KMO-MSA and communalities estimates of constructs' items

Construct	Observed Items	Communalities – Extraction	KMO-MSA value	No. of items
Financial literacy	FA1. I am satisfied with my enterprise's status of its finances	.423	**0.934**	12
	FA2. My enterprise constantly prepares monthly income statements	.457		
	FA3. I am satisfied with my level of general financial awareness	.564		
	FA4. My enterprise satisfactorily engages in debt management	.502		
	FB1. I effectively maintain continuity of access to needed finances	.513		
	FB2. I always ensure sound risk management and diversification	.526		
	FB3. I maintain good levels of savings in my enterprise's savings account	.604		
	FB4. I have sound skills for minimising bad debts for my enterprise	.498		
	FK1. I have competencies in preparing sales records on daily basis	.466		
	FK2. I am satisfactorily competent in management of working capital	.535		
	FK3. I have good abilities to make sound financial investment decisions	.528		
	FK4. I have the ability to analyse financial performance periodically	.652		

Entrepreneurial leadership	AC1. I remain accountable to my employees and partners	.735	**0.968**	19
	AC2. I consider the extent to which my job performance level impacts my employees and partners	.737		
	AC3. I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners	.765		
	AC4. I am very aware of the concerns of my employees and partners	.687		
	AT1. As the enterprise owner, I do things that challenge my thinking	.707		
	AT2. I have strong preference for complex problems than simple ones	.692		
	AT3. I derive happiness in deliberating very hard and for long periods	.601		
	AT4. The practice of thinking abstractly is quite appealing to me	.642		
	AT5. I prefer tasks that are intellectual, complex and important	.687		
	AT6. My first impressions about people are usually always right	.537		
	AT7. I am very good at finding solutions to complex business issues	.644		
	EI1. When I become faced with hurdles, I recall times I faced similar challenges and overcame them	.699		
	EI2. I am always aware of my emotions every time I experience them	.582		
	EI3. I normally prefer to share my emotions with other people I trust	.362		
	EI4. I can easily recognise the emotions other people may be having merely by watching their facial experiences	.523		

	RS1. I perform my tasks in the best possible way I can	.749		
	RS2. I value working in the best interest of the team than for myself	.695		
	RS3. I stick to the tasks at hand even if other things of interest avail	.634		
	RS4. I always take full responsibility of all my financial decisions	.703		
Entrepreneurial performance	EP1. My enterprise has a good customer satisfaction reputation	.544	**0.913**	8
	EP2. My enterprise is in a good competitive position in the market	.648		
	EP3. My enterprise has a good customer retention history until to date	.649		
	EP4. My enterprise has satisfactory sales growth	.647		
	EP5. My firm has a satisfactory return on investment	.585		
	EP6. My enterprise has a rapid response speed to market demand	.665		
	EP7. My enterprise sends prompt confirmations to customer orders	.646		
	EP8. My enterprises is progressively becoming successful in reducing product or service delivery cycle time	.683		
Total items			**0.957**	**39**

Table 8 KMO-MSA value of all the total thirty-nine variable items upon which data was gathered using the research instrument was equal to 0.957. The respective KMO-MSA exceeded the statistically acceptable minimum threshold of 0.6 (Pallant, 2000; Tabachnick & Fidell, 2007; and Chan & Idris, 2017), showing that the survey's variable items were indeed valid in measuring the dimensions they were designed to measure. Concomitantly, KMO-MSA values of items under each construct exceeded the 0.6 minimum acceptable threshold, suggesting existence of strong evidence of statistical validity of items per construct; financial literacy (= 0.934), entrepreneurial leadership (= 0.968), and entrepreneurial performance (= 0.913).

As part of statistical validity measurement of constructs, the corresponding computed determinants and the Bartlett's test of sphericity estimates of the above-reported KMO-MSA values are given in Table 9 below.

Table 9: Determinants and Bartlett's sphericity

Construct	No. of Items	Measure		
		Determinant	Bartlett's Test of Sphericity	
			Chi-square (df)	Sig.
Financial literacy	12	0.001	$\chi^2 = 1421.4$ (66)	$p < 0.01$
Entrepreneurial leadership	19	0.004	$\chi^2 = 3808.2$ (171)	$p < 0.01$
Entrepreneurial performance	8	0.003	$\chi^2 = 1176.1$ (28)	$p < 0.01$
Total Items	39	0.000	$\chi^2 = 7199.0$ (741)	$p < 0.01$

Table 9 results on the Bartlett's test of sphericity confirm the presence of validity all the computed determinants were far below a unit.

5.5. Scale reliability

Internal consistencies of questionnaire indicators were assessed using Cronbach's alpha norm (Cronbach, 1951). Thus, scale reliability results on the three constructs of the research instrument are presented in Table 10. The respective three constructs on which results are presented are financial literacy (FL), entrepreneurial leadership (EL) and entrepreneurial performance (EP).

Table 10: Cronbach's alpha scale reliability coefficients

Construct	**Observed Items**	**Alpha coefficient if item deleted**	**Alpha coefficient**	**No. of items**
Financial literacy	FA1. I am satisfied with my enterprise's status of its finances	.925	**0.928**	12
	FA2. My enterprise constantly prepares monthly income statements	.924		
	FA3. I am satisfied with my level of general financial awareness	.921		
	FA4. My enterprise satisfactorily engages in debt management	.923		
	FB1. I effectively maintain continuity of access to needed finances	.923		

	FB2. I always ensure sound risk management and diversification	.922		
	FB3. I maintain good levels of savings in my enterprise's savings account	.920		
	FB4. I have sound skills for minimising bad debts for my enterprise	.923		
	FK1. I have competencies in preparing sales records on daily basis	.924		
	FK2. I am satisfactorily competent in management of working capital	.922		
	FK3. I have good abilities to make sound financial investment decisions	.922		
	FK4. I have the ability to analyse financial performance periodically	.919		
Entrepreneurial leadership	AC1. I remain accountable to my employees and partners	.970	**0.972**	19
	AC2. I consider the extent to which my job performance level impacts my employees and partners	.970		
	AC3. I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners	.970		
	AC4. I am very aware of the concerns of my employees and partners	.970		
	AT1. As the enterprise owner, I do things that challenge my thinking	.970		
	AT2. I have strong preference for complex problems than simple ones	.970		
	AT3. I derive happiness in deliberating very hard and for long periods	.971		
	AT4. The practice of thinking abstractly is quite appealing to me	.970		
	AT5. I prefer tasks that are intellectual, complex and important	.970		
	AT6. My first impressions about people are usually always right	.971		
	AT7. I am very good at finding solutions to complex business issues	.970		
	EI1. When I become faced with hurdles, I recall times I faced similar challenges and overcame them	.970		
	EI2. I am always aware of my emotions every time I experience them	.971		

	EI3. I normally prefer to share my emotions with other people I trust	.973		
	EI4. I can easily recognise the emotions other people may be having merely by watching their facial experiences	.971		
	RS1. I perform my tasks in the best possible way I can	.970		
	RS2. I value working in the best interest of the team than for myself	.970		
	RS3. I stick to the tasks at hand even if other things of interest avail	.970		
	RS4. I always take full responsibility of all my financial decisions	.970		
Entrepreneurial performance	EP1. My enterprise has a good customer satisfaction reputation	.927	**0.932**	8
	EP2. My enterprise is in a good competitive position in the market	.923		
	EP3. My enterprise has a good customer retention history until to date	.923		
	EP4. My enterprise has satisfactory sales growth	.922		
	EP5. My firm has a satisfactory return on investment	.925		
	EP6. My enterprise has a rapid response speed to market demand	.922		
	EP7. My enterprise sends prompt confirmations to customer orders	.923		
	EP8. My enterprises is progressively becoming successful in reducing product or service delivery cycle time	.921		
Total items			**0.974**	**39**

The computed Cronbach's alpha coefficient value (α = 0.974) of the total thirty-nine questionnaire items exceeded the minimum acceptable (α = 0.700) threshold for internal consistency of items (Cronbach, 1951). The result shows that survey items under each construct measured a unidimensional latent construct. Items under each construct concurrently had scale reliability coefficients above 0.7 (Cronbach, 1951). showing evidence internal consistency with scale reliability estimates being given as financial literacy (alpha coefficient = 0.928), entrepreneurial leadership (alpha coefficient = 0.972), and entrepreneurial performance (alpha coefficient = 0.932).

5.6. Exploratory factor analysis

Following the assessment of statistical validity of constructs and analogous items, EFA was undertaken to assess the principal factor structure and designs under each construct. Results are thus presented in two subsections. Section 5.6.1 present results of total variances explained per the extracted factors under each construct, and section 5.6.2 concomitantly presents factor loadings of variable items under each construct as presented below.

5.6.1. Total variance explained

This section presents results on total variances explained conducted based on the EFA data reduction method. The latent root norm was applied to examine the amounts of variances that were uniformly distributed across extracted factors based on alpha factoring Varimax rotation procedure. Results for the total variances explained are presented in Table 11 below.

Table 11: Total variances explained

Construct	Factor	Initial eigenvalues			Extraction sums of squared loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Financial literacy	**1**	**6.738**	56.154	56.154	6.268	52.237	**52.237**
	2	.970	8.084	64.238			
	3	.690	5.751	69.989			
	4	.587	4.895	74.884			
	5	.562	4.684	79.568			
	6	.526	4.381	83.949			
	7	.384	3.204	87.153			
	8	.372	3.100	90.253			
	9	.341	2.843	93.096			
	10	.310	2.586	95.681			
	11	.267	2.223	97.905			
	12	.251	2.095	100.000			
Entrepreneurial leadership	**1**	**12.724**	66.968	66.968	12.381	65.162	**65.162**
	2	.960	5.052	72.020			
	3	.797	4.193	76.214			
	4	.524	2.760	78.974			
	5	.471	2.476	81.450			

	6	.435	2.290	83.740			
	7	.414	2.180	85.920			
	8	.363	1.911	87.831			
	9	.300	1.581	89.412			
	10	.273	1.437	90.849			
	11	.261	1.372	92.221			
	12	.251	1.320	93.541			
	13	.234	1.232	94.774			
	14	.206	1.084	95.858			
	15	.203	1.067	96.925			
	16	.175	.922	97.847			
	17	.159	.835	98.682			
	18	.130	.687	99.368			
	19	.120	.632	100.000			
Entrepreneurial performance	**1**	**5.431**	67.889	67.889	5.067	63.341	**63.341**
	2	.669	8.367	76.256			
	3	.472	5.903	82.159			
	4	.382	4.777	86.936			
	5	.329	4.109	91.045			
	6	.279	3.481	94.527			
	7	.246	3.079	97.605			
	8	.192	2.395	100.000			
	Extraction Method: Alpha Factoring.						

Total variances explained results pertaining to the three constructs in this study show that for each construct, final iterations produced only one initial eigenvalue that was greater than one. The results therefore indicate that for each of the three constructs, only one factor was produced or extracted from the complete set of items under each respective construct. The single factor (initial eigenvalue = 6.738) for the construct “financial literacy” accounted for approximately 52.2% of the total variance in the data measuring the respective construct. In the construct “entrepreneurial leadership”, the entire 65.2% of total variance in the dataset measuring that dimension was explained by a single factor (initial eigenvalue = 12.724) produced based on the alpha factoring method of the sums of squared loadings. Similarly, about 63.3% of total variance for the construct “entrepreneurial performance” was explained by a single factor (initial eigenvalue = 5.431). Since only one factor was finally extracted for each construct,

signifying that all variables under each construct loaded on a single factor, iterations of rotations sum of squared loadings could not proceed.

5.6.2. Factor loadings

The results of factor loadings for each observed variable under each construct are presented in Tables 12 to 14 below.

Table 12: Factor loadings - Financial literacy

Factor matrix[a]	
	Factor
	1
FK4. I have the ability to analyse financial performance periodically	.807
FB3. I maintain good levels of savings in my enterprise's savings account	.777
FA3. I am satisfied with my level of general financial awareness	.751
FK2. I am satisfactorily competent in management of working capital	.731
FK3. I have good abilities to make sound financial investment decisions	.727
FB2. I always ensure sound risk management and diversification	.725
FB1. I effectively maintain continuity of access to needed finances	.716
FA4. My enterprise satisfactorily engages in debt management	.709
FB4. I have sound skills for minimising bad debts for my enterprise	.706
FK1. I have competencies in preparing sales records on daily basis	.683
FA2. My enterprise constantly prepares monthly income statements	.676
FA1. I am satisfied with my enterprise's status of its finances	.651
Extraction Method: Alpha Factoring.	
a. 1 factors extracted. 4 iterations required.	

Table 12 factor loadings results show that all the variable measuring financial literacy loaded significantly on the respective construct. The loadings of all variables ranged from the lowest score equal to 0.651 to the highest score equal to 0.807. The areas with highest loadings are those in which the respondents reported that they have abilities to analyse financial performance periodically (loading = 0.807) and that they maintain good levels of savings in their enterprises' savings accounts. Areas around financial literacy that had loaded the least are those where respondents are satisfied with their enterprises' status of finances (loading = 0.651) and constant preparation of monthly income statements by enterprises (loading = 0.651).

Table 13: Factor loadings - Entrepreneurial leadership

Factor matrix[a]	
	Factor
	1
AC3. I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners	.875
RS1. I perform my tasks in the best possible way I can	.865
AC2. I consider the extent to which my job performance level impacts my employees and partners	.859
AC1. I remain accountable to my employees and partners	.857
AT1. As the enterprise owner, I do things that challenge my thinking	.841
RS4. I always take full responsibility of all my financial decisions	.838
EI1. When I become faced with hurdles, I recall times I faced similar challenges and overcame them	.836
RS2. I value working in the best interest of the team than for myself	.834
AT2. I have strong preference for complex problems than simple ones	.832
AT5. I prefer tasks that are intellectual, complex and important	.829
AC4. I am very aware of the concerns of my employees and partners	.829
AT7. I am very good at finding solutions to complex business issues	.803
AT4. The practice of thinking abstractly is quite appealing to me	.801
RS3. I stick to the tasks at hand even if other things of interest avail	.796
AT3. I derive happiness in deliberating very hard and for long periods	.775
EI2. I am always aware of my emotions every time I experience them	.763
AT6. My first impressions about people are usually always right	.733
EI4. I can easily recognise the emotions other people may be having merely by watching their facial experiences	.723
EI3. I normally prefer to share my emotions with other people I trust	.602
Extraction Method: Alpha Factoring.	
a. 1 factors extracted. 4 iterations required.	

Table 13 results on factor loadings of variables measuring entrepreneurial leadership indicate that all variables were extracted in one factor and loaded significantly onto that same factor describing the respective construct. With the exception of a single variable around emotional intelligence that had a loading equal to 0.602, loadings of all observed variables ranged between 0.723 to 0.875. Entrepreneurial leadership

areas where responses had the highest significant loadings are those where the respondents indicate that they consider the magnitude to which the approaches that enterprise owners use to perform their tasks impact their employees and partners (loading = 0.875), performance of tasks by SMMEs' owners in the best possible ways they can (loading = 0.865) and the consideration of the extent to which enterprise owners' job performance levels impact employees and partners (loading = 0.859). In general, results of factor loadings generally indicate that all the variables are indeed significant and good measures of entrepreneurial leadership in SMMEs.

Table 14: Factor loadings - Entrepreneurial performance

Factor matrix[a]	
	Factor
	1
EP8. My enterprises is progressively becoming successful in reducing product or service delivery cycle time	.827
EP6. My enterprise has a rapid response speed to market demand	.815
EP3. My enterprise has a good customer retention history until to date	.806
EP2. My enterprise is in a good competitive position in the market	.805
EP4. My enterprise has satisfactory sales growth	.804
EP7. My enterprise sends prompt confirmations to customer orders	.804
EP5. My firm has a satisfactory return on investment	.765
EP1. My enterprise has a good customer satisfaction reputation	.738
Extraction Method: Alpha Factoring.	
a. 1 factors extracted. 5 iterations required.	

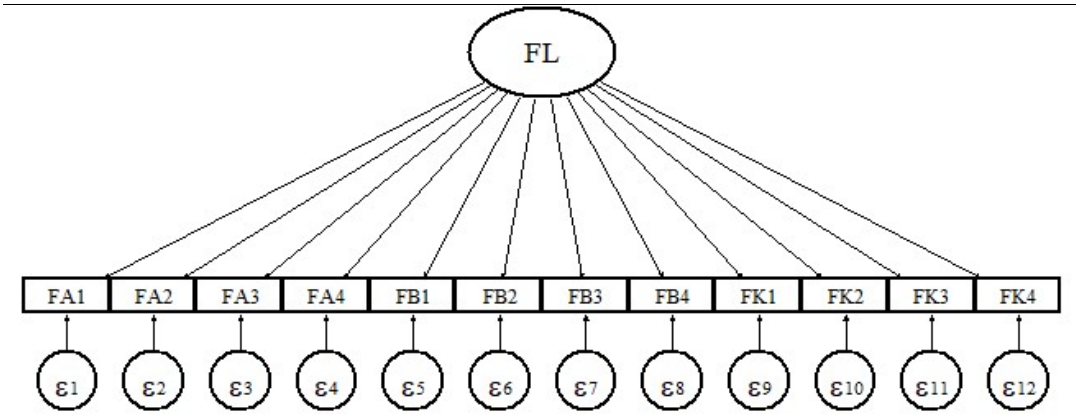
Table 14 factor loadings results show that all variables loaded significantly on the construct entrepreneurial performance, signifying that the respective variables are certainly significant predictors of entrepreneurial leadership. Loadings of variables ranged between 0.738 and 0.827, with the highest loading being attributed to the variable specifying that enterprises are increasingly becoming successful in reducing the product or service delivery cycle times (loading = 0827). In addition, loadings show that enterprises generally have rapid response speeds to market demand (loading = 0.815), good customer retention history until to date (loading = 0.806), good competitive market positions in markets (loading = 0.805), satisfactory sales

growth (loading = 0.804), the sending of prompt confirmations to customer orders (loading = 0.804), and satisfactory returns on investments (loading = 0.765).

5.7. Confirmatory factor analysis

This section presents results on the existences of the hypothesised relationships between such observed variables and their respective latent variables. CFA results for the three constructs assessed in this study are provided in Tables 14 to 16.

Figure 6: Financial literacy hypothesised model



Indicators: FA1.I am satisfied with my enterprise's status of its finances; FA2.My enterprise constantly prepares monthly income statements; FA3.I am satisfied with my level of general financial awareness; FA4.My enterprise satisfactorily engages in debt management; FB1.I effectively maintain continuity of access to needed finances; FB2.I always ensure sound risk management and diversification; FB3.I maintain good levels of savings in my enterprise's savings account; FB4.I have sound skills for minimising bad debts for my enterprise; FK1.I have competencies in preparing sales records on daily basis; FK2.I am satisfactorily competent in management of working capital; FK3.I have good abilities to make sound financial investment decisions; and FK4.I have the ability to analyse financial performance periodically

The financial literacy construct was measured by total twelve observed variables. Table 15 shows CFA results of the respective construct and its observed indicators.

Table 15: Financial literacy – CFA standardised estimates

Estimation method = ML					No of obs = 205	
Log likelihood = - 3462						
	Coefficient	Std Err.	Z-stat	P > | Z |	[95% Conf Interval]	
Measurement						
FA1 ← FL	0.661	0.042	15.50	0.000	0.577	0.744
FA2 ← FL	0.659	0.042	15.52	0.000	0.576	0.743
FA3 ← FL	0.772	0.032	24.05	0.000	0.709	0.835
FA4 ← FL	0.709	0.037	18.75	0.000	0.635	0.783

FB1 ← FL	0.731	0.036	20.01	0.000	0.660	0.803
FB2 ← FL	0.712	0.037	18.88	0.000	0.638	0.786
FB3 ← FL	0.747	0.033	22.19	0.000	0.681	0.813
FB4 ← FL	0.708	0.037	18.66	0.000	0.633	0.782
FK1 ← FL	0.669	0.041	15.99	0.000	0.587	0.751
FK2 ← FL	0.713	0.037	19.04	0.000	0.639	0.786
FK3 ← FL	0.730	0.036	20.27	0.000	0.660	0.801
FK4 ← FL	0.802	0.028	28.27	0.000	0.746	0.857
var (e.FA1)	0.562	0.056			0.462	0.685
var (e.FA2)	0.564	0.056			0.464	0.686
var (e.FA3)	0.402	0.049			0.316	0.512
var (e.FA4)	0.496	0.053			0.402	0.614
var (e.FB1)	0.464	0.053			0.370	0.582
var (e.FB2)	0.492	0.053			0.397	0.609
var (e.FB3)	0.441	0.050			0.352	0.551
var (e.FB4)	0.498	0.053			0.403	0.615
var (e.FK1)	0.552	0.056			0.452	0.673
var (e.FK2)	0.491	0.053			0.396	0.607
var (e.FK3)	0.466	0.052			0.373	0.581
var (e.FK4)	0.356	0.045			0.277	0.457
var (FL)	1	.			.	.
cov(e.FA1, e.FB3)	0.244	0.064	3.81	0.000	0.118	0.3770
cov(e.FA1, e.FK3)	-0.182	0.068	-2.67	0.008	-0.316	-0.048
cov(e.FA2, e.FB3)	0.386	0.060	6.37	0.000	0.267	0.505
cov(e.FA3, e.FB1)	-0.287	0.079	-3.64	0.000	-0.443	-0.132
cov(e.FB2, e.FK3)	0.285	0.070	4.07	0.000	0.147	0.423
cov(e.FK1, e.FK2)	0.354	0.065	5.44	0.000	0.226	0.481
LR test of model vs. saturated: chi2 (48) = 66.43, Prob > chi2 = 0.040						

Computed estimates for each of the indicators are statistically significant at 1 percent level. In relative terms, the variables that contribute more significantly in describing financial literacy are those that measure respondents' ability to analyse financial performance periodically (coefficient = 0.802; z-score = 28.27; $p < 0.01$), satisfaction with levels of general financial awareness (coefficient = 0.772; z-statistic = 24.05; $p < 0.01$), and maintenance of good levels of savings in enterprises' savings accounts (coefficient = 0.747; z-statistic = 22.19; $p < 0.01$). Based on the relative sizes of coefficient estimates, results confirm that the surveyed SMMEs owners have good abilities to make sound financial investment decisions, enterprise owners effectively maintain continuity of access to needed finances, satisfactory competence in the

management of working capital, and satisfactory engagements in debt management. Covariance estimates between indicators are statistically significant at 1 percent level. Estimates of the CFA model goodness of fit tests, namely chi-square statistic, root mean squared error of approximation (RMSEA), and comparative fit index (CFI) and Tucker-Lewis index (TLI), are shown in Table 16 below.

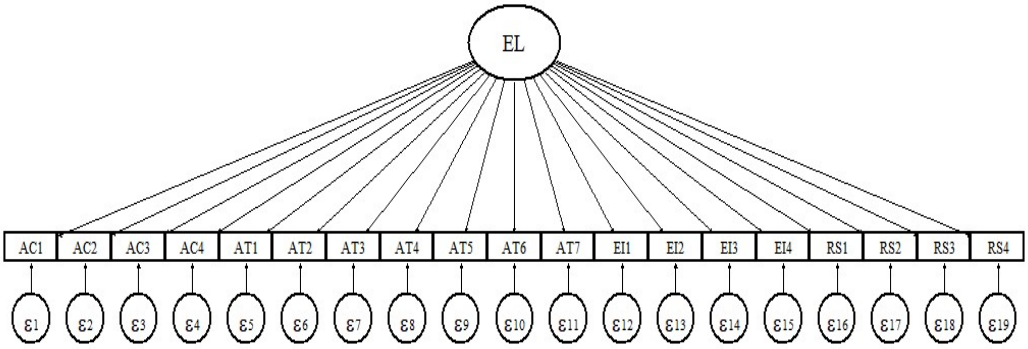
Table 16: Financial literacy – CFA model goodness of fit statistics

Fit statistic	Value
Likelihood ratio	
Model vs. saturated chi2_ms (11)	66.435
p > chi2	0.040
Baseline vs. saturated chi2_bs (21)	1463.070
p > chi2	0.000
Population error	
Root mean squared error of approximation (RMSEA)	0.043
90% CI, lower bound	0.010
upper bound	0.067
Probability RMSEA < = 0.05 (pclose)	0.653
Information criteria	
Akaike's information criterion (AIC)	6985.372
Bayesian information criterion (BIC)	7085.062
Baseline comparison	
Comparative Fit Index (CFI)	0.987
Tucker-Lewis Index (TLI)	0.982
Size of residuals	
Standardised root mean squared residual (SRMR)	0.034
Coefficient of determination (CD)	0.928

Table 16 goodness of fit test statistics indicate that the model indeed fit the data well. The estimated chi-square (66.435; p =0.040) marginally significant at 5 percent level suggests that the model did fit sample data satisfactorily. Consistent with Kenny et al. (2015), the pclose value (= 0.653) larger than 0.05 shows a good model fit. According to Browne and Cudeck (1993), a RMSEA < 0.05 suggests a good fit, whereas a value between 0.05 and 0.08 indicates an adequate fit. A RMSEA value equal to 0.043 found in this analysis marginally below 0.05 suggests that the model

is a good fit. A coefficient of determination value (CD = 0.928) closer to 1 suggests a good fit of the model. Finally, the CFI = 0.987 and TLI = 0.982 confirm a good fit of the financial literacy latent variable and the analogous observed variables (Steiger, 2007).

Figure 7: Entrepreneurial leadership hypothesised model



Indicators: AC1.I remain accountable to my employees and partners; AC2.I consider the extent to which my job performance level impacts my employees and partners; AC3.I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners; AC4.I am very aware of the concerns of my employees and partners; AT1.As the enterprise owner, I do things that challenge my thinking; AT2.I have strong preference for complex problems than simple ones; AT3.I derive happiness in deliberating very hard and for long periods; AT4.The practice of thinking abstractly is quite appealing to me; AT5.I prefer tasks that are intellectual, complex and important; AT6.My first impressions about people are usually always right; AT7.I am very good at finding solutions to complex business issues; EI1.When I become faced with hurdles, I recall times I faced similar challenges and overcame them; EI2.I am always aware of my emotions every time I experience them; EI3.I normally prefer to share my emotions with other people I trust; EI4.I can easily recognise the emotions other people may be having merely by watching their facial experiences; RS1.I perform my tasks in the best possible way I can; RS2. I value working in the best interest of the team than for myself; RS3.I stick to the tasks at hand even if other things of interest avail; and RS4.I always take full responsibility of all my financial decisions

The entrepreneurial leadership construct was measured by total nineteen observed items. Table 17 presents CFA results of the construct and its observed indicators.

Table 17: Entrepreneurial leadership – CFA standardized estimates

Estimation method	= ML				No of obs	= 205
Log likelihood	= - 4221.02					
	Coefficient	Std Err.	Z-statistic	P > | Z |	[95% Conf	Interval]
Measurement						
AC1 ← EL	0.871	0.018	48.03	0.000	0.836	0.907
AC2 ← EL	0.866	0.018	45.97	0.000	0.829	0.903
AC3 ← EL	0.876	0.017	50.02	0.000	0.842	0.911
AC4 ← EL	0.832	0.022	36.49	0.000	0.787	0.877
AT1 ← EL	0.853	0.020	42.09	0.000	0.813	0.893
AT2 ← EL	0.813	0.024	33.11	0.000	0.764	0.861
AT3 ← EL	0.752	0.031	24.24	0.000	0.691	0.813
AT4 ← EL	0.778	0.028	26.98	0.000	0.721	0.834

AT5 ← EL	0.814	0.024	32.84	0.000	0.765	0.863
AT6 ← EL	0.714	0.035	20.18	0.000	0.645	0.784
AT7 ← EL	0.793	0.027	29.15	0.000	0.739	0.846
EI1 ← EL	0.831	0.022	36.41	0.000	0.786	0.876
EI2 ← EL	0.749	0.031	23.55	0.000	0.687	0.812
EI3 ← EL	0.579	0.047	12.17	0.000	0.486	0.673
EI4 ← EL	0.706	0.036	19.44	0.000	0.634	0.777
RS1← EL	0.877	0.017	50.37	0.000	0.843	0.911
RS2 ← EL	0.843	0.021	39.27	0.000	0.801	0.886
RS3 ← EL	0.805	0.025	31.18	0.000	0.754	0.855
RS4 ← EL	0.853	0.020	42.04	0.000	0.813	0.893
var (e.AC1)	0.239	0.031			0.185	0.310
var (e.AC2)	0.249	0.032			0.193	0.322
var (e.AC3)	0.231	0.030			0.178	0.299
var (e.AC4)	0.307	0.037			0.241	0.391
var (e.AT1)	0.271	0.034			0.211	0.348
var (e.AT2)	0.338	0.039			0.269	0.426
var (e.AT3)	0.433	0.046			0.350	0.535
var (e.AT4)	0.394	0.044			0.315	0.492
var (e.AT5)	0.336	0.040			0.265	0.425
var (e.AT6)	0.489	0.051			0.399	0.599
var (e.AT7)	0.370	0.043			0.295	0.465
var (e.EI1)	0.308	0.037			0.242	0.392
var (e.EI2)	0.437	0.047			0.353	0.542
var (e.EI3)	0.663	0.055			0.563	0.781
var (e.EI4)	0.501	0.051			0.410	0.612
var (e.RS1)	0.229	0.030			0.176	0.298
var (e.RS2)	0.287	0.036			0.224	0.368
var (e.RS3)	0.351	0.041			0.278	0.443
var (e.RS4)	0.271	0.034			0.211	0.349
var (EL)	1	.			.	.
cov(e.AC1, e.AC4)	0.312	0.068	4.58	0.000	0.178	0.446
cov(e.AC2, e.AC3)	0.384	0.065	5.92	0.008	0.257	0.512
cov(e.AT2, e.AT3)	0.319	0.063	5.50	0.000	0.195	0.442
cov(e.AT2, e.AT4)	0.316	0.064	4.89	0.000	0.189	0.443
cov(e.AT2, e.AT5)	0.271	0.066	4.11	0.000	0.141	0.401
cov(e.AT3, e.AT4)	0.392	0.060	6.46	0.000	0.273	0.511
cov(e.AT3, e.AT5)	0.263	0.064	4.11	0.000	0.137	0.389
cov(e.EI3, e.EI4)	0.313	0.064	4.87	0.000	0.187	0.439
cov(e.RS1, e.RS2)	0.280	0.070	3.98	0.000	0.142	0.417
LR test of model vs. saturated: chi2 (143) = 289.24, Prob > chi2 = 0.000						

Table 17 CFA results show that all indicators describing entrepreneurial leadership had statistically significant contributions in measuring the respective latent variable. Estimates for all the variables are statistically significant at 1 percent level. Indicators that have comparatively more significant contributions in defining entrepreneurial leadership include those which relate to the respondents' performance of their tasks

in the best possible ways they can (coefficient = 0.877; z-score = 50.37; p < 0.01), considerations of the magnitudes to which the approaches which enterprise owners use to perform their tasks impact their employees and partners (coefficient = 0.876; z-statistic = 50.02; p < 0.01), remaining accountable to employees and partners (coefficient = 0.871; z-statistic = 48.03; p < 0.01), considerations of the degrees to which SMMEs owners' job performance levels impact their employees and partners (coefficient = 0.866; z-statistic = 45.97; p < 0.01), doing things that challenge thinking as enterprise owners (coefficient = 0.853; z-statistic = 42.09; p < 0.01), and always taking full responsibility of all financial decisions in enterprises (coefficient = 0.853; z-statistic = 42.04; p < 0.01).

Consistent with relative sizes of estimated coefficients, results additionally confirm that SMMEs owners value working in best interests of teams than for themselves (coefficient = 0.843; z-statistic = 39.27; p < 0.01), high awareness of the concerns of employees and partners (coefficient = 0.832; z-statistic = 36.49; p < 0.01), recall of times where challenges were faced and overcame when faced with hurdles (coefficient = 0.831; z-statistic = 36.41; p < 0.01), having strong preference for complex problems than simple ones (coefficient = 0.813; z-statistic = 33.11; p < 0.01), preference for tasks that are intellectual, complex and important (coefficient = 0.814; z-statistic = 32.84; p < 0.01) and sticking to tasks at hand even if other things of interest avail (coefficient = 0.805; z-statistic = 31.18; p < 0.01). The estimated covariances between variables are all statistically significant at 1 percent level. The analogous estimates of the CFA model goodness of fit tests are shown in Table 18.

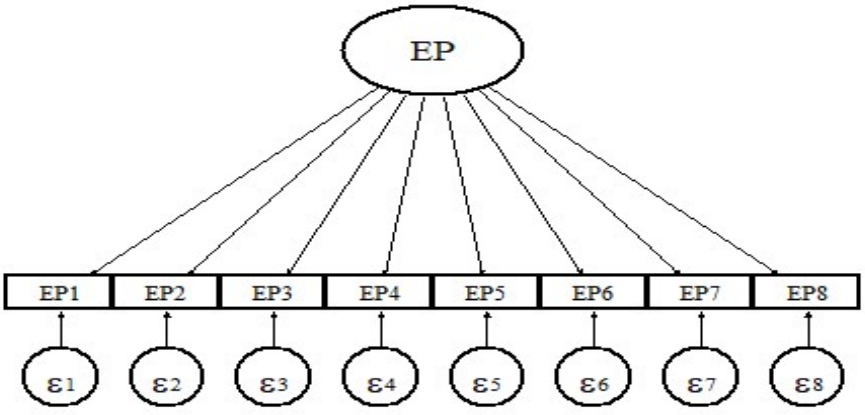
Table 18: Entrepreneurial leadership – CFA model goodness of fit statistics

Fit statistic	Value
Likelihood ratio	
Model vs. saturated chi2_ms (11)	289.241
p > chi2	0.000
Baseline vs. saturated chi2_bs (21)	3967.040
p > chi2	0.000
Population error	
Root mean squared error of approximation RMSEA	0.071
90% CI, lower bound	0.059
upper bound	0.083

Probability RMSEA < = 0.05 (pclose)	0.002
Information criteria	
Akaike's information criterion (AIC)	8536.058
Bayesian information criterion (BIC)	8692.010
Baseline comparison	
Comparative Fit Index (CFI)	0.961
Tucker-Lewis Index (TLI)	0.954
Size of residuals	
Standardised root mean squared residual (SRMR)	0.035
Coefficient of determination (CD)	0.970

Table 18 goodness of fit test statistics indicate that the model actually fit the data well. The estimated RMSEA value equal to 0.071 falling in the range 0.05 and 0.08 (Kenny et al., 2015) and the corresponding pclose (= 0.002) larger than 0.05 show an adequate good model fit (Browne & Cudeck, 1993). The coefficient of determination estimate (CD = 0.970) closer to 1 and CFI = 0.987 and TLI = 0.982 exceeding the 0.95 minimum acceptable threshold (Steiger, 2007) confirm a good model fit to the survey sample data used in the analysis of this research study.

Figure 8: Entrepreneurial performance hypothesised model



Indicators: EP1.My enterprise has a good customer satisfaction reputation; EP2.My enterprise is in a good competitive position in the market; EP3.My enterprise has a good customer retention history until to date; EP4.My enterprise has satisfactory sales growth; EP5.My firm has a satisfactory return on investment; EP6.My enterprise has a rapid response speed to market demand; EP7.My enterprise sends prompt confirmations to customer orders; and EP8.My enterprises is progressively becoming successful in reducing product or service delivery cycle time

The entrepreneurial performance construct was measured by total eight observed variables. Table 19 presents CFA results of the construct and its observed indicators.

Table 19: Entrepreneurial performance – CFA standardized estimates

Estimation method	= ML				No of obs	= 205
Log likelihood	= - 4221.02					
	Coefficient	Std Err.	Z-statistic	P > | Z |	[95% Conf	Interval]
Measurement						
EP1 ← EP	0.740	0.356	20.78	0.000	0.670	0.810
EP2 ← EP	0.802	0.028	28.33	0.000	0.746	0.857
EP3 ← EP	0.775	0.314	24.67	0.000	0.713	0.836
EP4 ← EP	0.810	0.027	29.12	0.000	0.755	0.864
EP5 ← EP	0.749	0.034	21.81	0.000	0.682	0.816
EP6 ← EP	0.817	0.026	30.76	0.000	0.765	0.869
EP7 ← EP	0.819	0.026	31.05	0.000	0.767	0.871
EP8 ← EP	0.826	0.025	32.18	0.000	0.776	0.876
var (e.EP1)	0.451	0.052			0.359	0.568
var (e.EP2)	0.356	0.045			0.277	0.457
var (e.EP3)	0.399	0.048			0.314	0.507
var (e.EP4)	0.343	0.045			0.265	0.444
var (e.EP5)	0.438	0.051			0.348	0.551
var (e.EP6)	0.331	0.043			0.256	0.428
var (e.EP7)	0.328	0.043			0.253	0.424
var (e.EP8)	0.317	0.042			0.243	0.412
var (EP)	1	.			.	.
cov(e.EP1, e.EP3)	0.329	0.069	4.72	0.000	0.192	0.466
cov(e.EP1, e.EP4)	-0.261	0.072	-3.61	0.000	-0.403	-0.119
cov(e.EP4, e.EP5)	0.293	0.074	3.92	0.000	0.146	0.440
LR test of model vs. saturated: chi2 (17) = 44.27, Prob > chi2 = 0.0003						

Table 19 CFA estimates indicate that all the variables describing entrepreneurial performance had statistically significant contributions in measuring the respective construct. Computed estimates attributed to all variables are statistically significant at 1 percent level. Indicators that have relatively more sizeable contributions in measuring entrepreneurial performance are those that pertain to firms progressions towards becoming successful in reducing product or service delivery cycle times (coefficient = 0.826; z-score = 32.18; $p < 0.01$), sending of prompt confirmations to customers' orders (coefficient = 0.819; z-statistic = 31.05; $p < 0.01$), f rapid response speeds to market demand (coefficient = 0.817; z-statistic = 30.76; $p < 0.01$) and satisfactory sales growth (coefficient = 0.810; z-statistic = 29.12; $p < 0.01$).

In addition, results confirm that enterprises are in good competitive positions in their relevant markets (coefficient = 0.802; z-statistic = 28.33; $p < 0.01$), and have good customer retention history until to date (coefficient = 0.775; z-statistic = 24.67; p <

0.01), satisfactory returns on investments (coefficient = 0.749; z-statistic = 21.81; p < 0.01), and good customer satisfaction reputation (coefficient = 0.740; z-statistic = 20.78; p < 0.01). The statistically significant coefficient estimates of all the indicators confirm that all variables upon which data was collected to describe entrepreneurial performance measured what they were indeed intended to measure in this study.

Table 20: Entrepreneurial performance – CFA model goodness of fit statistics

Fit statistic	Value
Likelihood ratio	
Model vs. saturated chi2_ms (11)	44.271
p > chi2	0.000
Baseline vs. saturated chi2_bs (21)	1202.538
p > chi2	0.000
Population error	
Root mean squared error of approximation RMSEA	0.088
90% CI, lower bound	0.057
upper bound	0.121
Probability RMSEA < = 0.05 (pclose)	0.025
Information criteria	
Akaike's information criterion (AIC)	4193.430
Bayesian information criterion (BIC)	4256.567
Baseline comparison	
Comparative Fit Index (CFI)	0.977
Tucker-Lewis Index (TLI)	0.962
Size of residuals	
Standardised root mean squared residual (SRMR)	0.028
Coefficient of determination (CD)	0.930

Table 18 goodness of fit test statistics indicate that the model essentially fit the data well. The estimated RMSEA value equal to 0.088 falling in the range 0.05 and 0.08 (Kenny et al., 2015) and the analogous RMSEA probability value (pclose= 0.025) larger than 0.05 show an adequate good model fit (Browne & Cudeck, 1993). The coefficient of determination estimate (CD = 0.930) closer to 1 and the CFI = 0.977 and TLI = 0.962 all exceeding 0.95 minimum acceptable threshold (Steiger, 2007) confirm a good model fit to the survey sample data used in this study's analysis.

5.8. SEM estimations

Following estimations of CFA models of the three constructs examined in this study research, statistical estimation of the SEM to assess the interrelationships between the respective latent variables anchored on their associated observed variables data was conducted using Stata software. SEM was conducted to assess the nature and degrees of the relationships between financial literacy, entrepreneurial leadership and entrepreneurial performance. Results presented in section 5.8.1 pertain to the aforementioned relationships estimated and assessed in line with the first three research hypotheses specified in chapter three as follows:

- H1: There is a positive relationship between financial literacy and entrepreneurial performance of SMMEs.
- H2: There is a positive relationship between entrepreneurial leadership and entrepreneurial performance of SMMEs.
- H3: There is a positive relationship between entrepreneurial leadership and financial literacy of SMMEs.

The generalised SEM results of the moderated relationship between financial literacy and entrepreneurial performance are presented in section 5.8.3. These results relate to and test the fourth hypothesis specified as follows:

- H4: Entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs.

5.8.1. SEM variables relationships estimates

Figure 9 depicts the SEM developed to conduct statistical estimation, while estimates of the interrelationships between latent variables, and latent variables and analogous observed variables or indicators are presented in Table 21 below.

Figure 9: SEM estimated interrelationships among latent variables and observed indicators

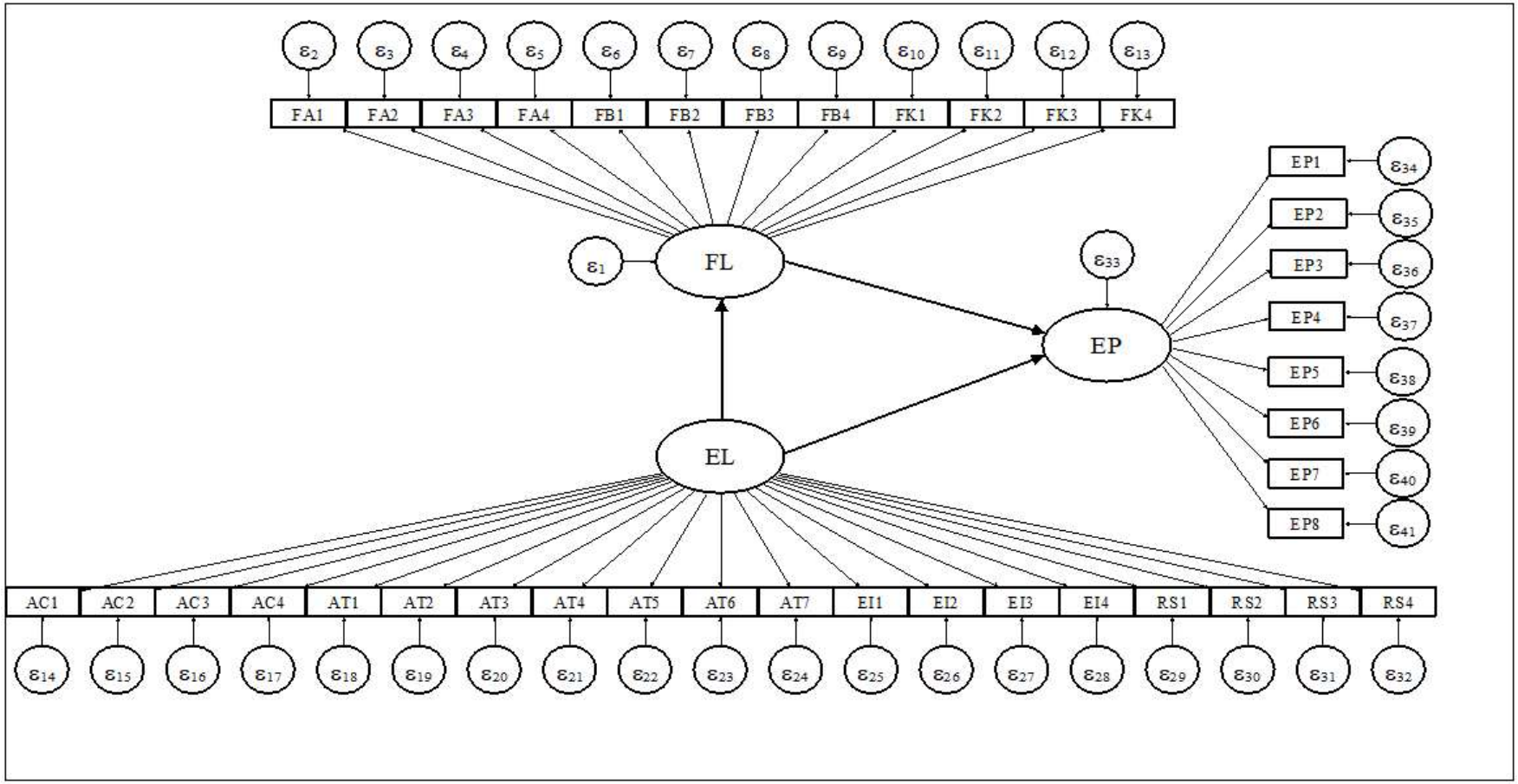


Table 21: Structural equation model estimates

Estimation method	= ML				No of obs = 205	
Log likelihood	= -9433.08					
Standardised	Coefficient	Std. Err.	Z-Statistic	P > | z |	[95% Conf Interval]	
Structural						
FL ←						
EL	**0.667**	0.423	**15.78**	**0.000**	0.584	0.750
EP ←						
FL	**0.541**	0.058	**9.21**	**0.000**	0.426	0.657
EL	**0.374**	0.057	**6.51**	**0.000**	0.261	0.487
Measurement						
FA1 ← FL	0.349	0.085	4.07	0.000	0.180	0.517
FA2 ← FL	0.646	0.043	14.94	0.000	0.561	0.731
FA3 ← FL	0.793	0.028	27.56	0.000	0.736	0.849
FA4 ← FL	0.690	0.039	17.44	0.000	0.612	0.768
FB1 ← FL	0.723	0.036	19.76	0.000	0.651	0.794
FB2 ← FL	0.721	0.036	19.77	0.000	0.649	0.792
FB3 ← FL	0.731	0.035	20.87	0.000	0.662	0.800
FB4 ← FL	0.700	0.037	18.48	0.000	0.626	0.775
FK1 ← FL	0.682	0.039	17.15	0.000	0.604	0.760
FK2 ← FL	0.730	0.035	20.81	0.000	0.661	0.798
FK3 ← FL	0.738	0.034	21.40	0.000	0.670	0.805
FK4 ← FL	0.794	0.028	27.78	0.000	0.738	0.850
AC1 ← EL	0.874	0.017	49.17	0.000	0.839	0.909
AC2 ← EL	0.866	0.018	46.16	0.000	0.829	0.903
AC3 ← EL	0.873	0.017	48.59	0.000	0.838	0.908
AC4 ← EL	0.831	0.022	36.41	0.000	0.787	0.876
AT1 ← EL	0.857	0.019	43.33	0.000	0.818	0.896
AT2 ← EL	0.803	0.026	30.79	0.000	0.751	0.854
AT3 ← EL	0.737	0.033	22.22	0.000	0.672	0.802
AT4 ← EL	0.772	0.029	26.44	0.000	0.715	0.829
AT5 ← EL	0.805	0.025	31.20	0.000	0.754	0.855
AT6 ← EL	0.708	0.036	19.65	0.000	0.637	0.778
AT7 ← EL	0.794	0.027	29.22	0.000	0.741	0.847
EI1 ← EL	0.829	0.023	35.94	0.000	0.784	0.874
EI2 ← EL	0.744	0.032	22.97	0.000	0.680	0.807
EI3 ← EL	0.560	0.048	11.62	0.000	0.465	0.654
EI4 ← EL	0.693	0.037	18.61	0.000	0.620	0.766
RS1 ← EL	0.882	0.016	52.60	0.000	0.849	0.915
RS2 ← EL	0.844	0.021	39.57	0.000	0.802	0.886
RS3 ← EL	0.806	0.025	31.66	0.000	0.756	0.856
RS4 ← EL	0.853	0.020	41.46	0.000	0.812	0.893
EP1 ← EP	0.772	0.030	25.17	0.000	0.712	0.833
EP2 ← EP	0.808	0.026	30.33	0.000	0.756	0.861
EP3 ← EP	0.787	0.029	27.07	0.000	0.730	0.845
EP4 ← EP	0.798	0.028	28.11	0.000	0.742	0.853
EP5 ← EP	0.765	0.031	24.31	0.000	0.703	0.826
EP6 ← EP	0.817	0.025	31.72	0.000	0.766	0.867
EP7 ← EP	0.811	0.026	30.70	0.000	0.759	0.863
EP8 ← EP	0.823	0.025	32.70	0.000	0.773	0.872
cov(e.FA1,e.FB3)	0.179	0.058	3.05	0.002	0.063	0.294
cov(e.FA1,e.EP4)	0.186	0.056	3.31	0.001	0.075	0.296
cov(e.FA1,e.FL)	0.523	0.080	6.50	0.000	0.365	0.680
cov(e.FA2,e.FB3)	0.412	0.058	7.02	0.000	0.297	0.528
cov(e.FA2,e.EP)	0.340	0.072	4.69	0.000	0.198	0.483
cov(e.FA3,e.FB1)	-0.267	0.071	-3.74	0.000	-0.408	-0.127
cov(e.FA3,e.RS4)	-0.200	0.070	-2.83	0.005	-0.339	-0.061

cov(e.FA3,e.EP2)	-0.267	0.072	-3.71	0.000	-0.408	-0.125
cov(e.FA4,e.EI3)	0.217	0.061	3.55	0.000	0.097	0.337
cov(e.FA4,e.EP4)	0.200	0.065	3.05	0.002	0.071	0.328
cov(e.FB1,e.RS3)	0.198	0.070	2.83	0.005	0.061	0.335
cov(e.FB1,e.EP)	0.239	0.073	3.28	0.001	0.096	0.382
cov(e.FB2,e.FK3)	0.245	0.067	3.61	0.000	0.112	0.378
cov(e.FB2,e.EP4)	-0.149	0.064	-2.31	0.021	-0.275	-0.022
cov(e.FB3,e.EP)	0.308	0.073	4.17	0.000	0.163	0.452
cov(e.FB4,e.AC4)	0.205	0.066	3.09	0.002	0.075	0.336
cov(e.FK1,e.FK2)	0.277	0.064	4.27	0.000	0.150	0.404
Cov(e.FK1,e.EP1)	0.293	0.063	4.66	0.000	0.169	0.417
cov(e.FK2,e.EP5)	-0.243	0.063	-3.84	0.000	-0.367	-0.119
cov(e.FK3,e.RS4)	0.200	0.068	2.94	0.003	0.066	0.334
cov(e.FK3,e.EP1)	0.203	0.063	3.22	0.001	0.079	0.327
cov(e.AC1,e.AC4)	0.314	0.066	4.71	0.000	0.183	0.444
cov(e.AC2,e.AC3)	0.399	0.062	6.38	0.000	0.277	0.522
cov(e.AC3,e.EP3)	-0.177	0.062	-2.84	0.005	-0.299	-0.054
cov(e.AT2, e.AT3)	0.363	0.063	5.75	0.000	0.239	0.487
cov(e.AT2,e.AT4)	0.385	0.061	6.36	0.000	0.266	0.504
cov(e.AT2,e.AT5)	0.355	0.064	5.55	0.000	0.023	0.481
cov(e.AT3,e.AT4)	0.441	0.057	7.70	0.000	0.329	0.554
cov(e.AT3,e.AT5)	0.363	0.063	5.75	0.000	0.239	0.487
cov(e.AT4,e.AT5)	0.253	0.067	3.79	0.000	0.122	0.385
cov(e.AT4,e.FL)	0.176	0.057	3.06	0.002	0.063	0.289
cov(e.AT6, e.EI3)	0.181	0.061	2.97	0.003	0.061	0.300
cov(e.AT7,e.EI4)	0.252	0.062	4.01	0.000	0.129	0.375
cov(e.AT7,e.RS4)	-0.192	0.068	-2.81	0.005	-0.326	-0.058
cov(e.AT7,e.EP2)	0.181	0.068	2.65	0.008	0.047	0.316
cov(e.EI1,e.EI3)	0.190	0.064	2.95	0.003	0.064	0.316
cov(e.EI1,e.EI4)	0.207	0.067	3.07	0.002	0.075	0.339
cov(e.EI2,e.EI3)	0.228	0.059	3.85	0.000	0.112	0.345
cov(e.EI3,e.EI4)	0.334	0.056	5.92	0.000	0.224	0.445
cov(e.EI3,e.EP4)	0.213	0.057	3.72	0.000	0.100	0.325
cov(e.RS1,e.RS2)	0.266	0.071	3.76	0.000	0.127	0.405
cov(e.RS4,e.EP6)	-0.224	0.072	-3.09	0.002	-0.367	-0.802
cov(e.EP1,e.EP3)	0.248	0.068	3.62	0.000	0.113	0.383
cov(e.EP1,e.EP4)	-0.193	0.064	-3.01	0.003	-0.319	-0.067
cov(e.EP4,e.EP5)	0.311	0.065	4.76	0.000	0.183	0.440
LR test of model vs. saturated: chi2 (654) = 958.18, Prob > chi2 = 0.0000						

Table 21 presents results of the SEM estimated in line with the hypothetical model of the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of the SMMEs developed in the methodology chapter. Model estimates are organised into two segments, namely *structural* segment and *measurement* segment. Estimates contained in the structural segment of the model provide information relevant to adequately address and answer the research questions, and finally derive conclusions consistent with the research hypotheses. Similarly, estimates contained in the measurement segment of the model show the amounts of variances that are explained by latent variables (financial literacy, entrepreneurial leadership and entrepreneurial performance) on the analogous indicators. The SEM results in the structural segment addressed questions pertaining

to the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance, relationship between financial literacy and entrepreneurial performance, relationship between entrepreneurial leadership and entrepreneurial performance, relationship between entrepreneurial leadership and financial literacy, and if entrepreneurial leadership has a moderating effect on the relationship between financial literacy and entrepreneurial performance of SMMEs.

The model's structural segment estimates show strong evidence of the existence of significant and positive relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of enterprises. The influence of entrepreneurial leadership on financial literacy is positive (coefficient = 0.667) and significant (z-statistic = 15.78; $p < 0.01$) at 1 percent level. Concomitantly, the relative effects of financial literacy (coefficient = 0.541; z-statistic = 9.21; $p < 0.01$) and entrepreneurial leadership (coefficient = 0.374; z-statistic = 6.51; $p < 0.01$) on entrepreneurial performance are positive and statistically significant at 1 percent level. Therefore, the null hypothesis that there is a positive relationship between financial literacy and entrepreneurial performance of SMMEs cannot be rejected.

Results show presence of a positive (coefficient = 0.541) and statistically significant (z-statistic = 921; $p < 0.01$) between financial literacy and entrepreneurial performance, suggesting that about 54.1% variation in entrepreneurial performance is significantly accounted for by financial literacy. This finding implies that the null hypothesis that there is a positive relationship between financial literacy and entrepreneurial performance of the SMMEs cannot be rejected. Similarly, results show evidence of the presence of a positive (coefficient = 0.374) and significant (z-statistic = 6.51; $p < 0.01$) between entrepreneurial leadership and entrepreneurial performance, suggesting that about 37.4% variation in entrepreneurial performance is significantly explained by entrepreneurial leadership. This result implies that the null hypothesis of a positive relationship between entrepreneurial leadership and entrepreneurial performance of the SMMEs cannot be rejected.

Some empirical proof of the positive relationship between financial literacy and entrepreneurial leadership was similarly found. Results reveal that about 66.7% of variation (coefficient = 0.667) in financial literacy was significantly (z-statistic = 15.78; $p < 0.01$) accounted for by entrepreneurial leadership, which implies that the null

hypothesis that there exists a positive relationship between financial literacy and entrepreneurial leadership of SMMEs cannot be rejected. Based on the same result showing a significant positive effect entrepreneurial leadership has on financial literacy, the null hypothesis that entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs cannot be rejected. Overall, empirical results found in the analysis confirm that all the research hypotheses formulated in this research study could not be rejected.

In the measurement segment of the model, the coefficient estimates of observed variables statistically significant at 1 percent level show that the respective indicators are significant predictors of the relevant latent variables; namely financial literacy, entrepreneurial leadership and entrepreneurial performance. Covariances of the paths between particular observed variables (indicators) estimated from modification indices are all statistically significant, which considerably contributed to improvement in the estimated model's goodness of fit, with results presented in Table 22 below.

5.8.2. Model goodness of fit statistics

The magnitude to which hypothesised sample data satisfactorily fits and describes the sample data is crucial and central feature in estimation of a structural equation model. The model fitting process involved several iterations and modifications of covariances between indicators contained in the hypothesised model and data. The orthodox statistics produced to passably assess the model goodness of fit are the RMSEA, CFI and TLI baseline judgement indices and coefficient of determination.

Table 22: Model goodness of fit statistics

Fit statistic	Value
Likelihood ratio	
Model vs. saturated chi2_ms (11)	958.183
p > chi2	0.000
Baseline vs. saturated chi2_bs (21)	7763.542
p > chi2	0.000
Population error	
Root mean squared error of approximation RMSEA	0.048
90% CI, lower bound	0.041

upper bound	0.054
Probability RMSEA < = 0.05 (pclose)	0.712
Information criteria	
Akaike's information criterion (AIC)	19118.179
Bayesian information criterion (BIC)	19536.266
Baseline comparison	
Comparative Fit Index (CFI)	0.957
Tucker-Lewis Index (TLI)	0.951
Size of residuals	
Standardised root mean squared residual (SRMR)	0.057
Coefficient of determination (CD)	0.971

The chi-square statistic was not used to assess model goodness of fit in this research study following Kline (2005) and Hooper, Coughlan and Mullen (2008), who underscore that the respective statistic is an unreliable index against the background that it is highly influenced by several factors which include omitted variables, sample size, deviations from normality and failure in the distribution of data to satisfy the normality condition. In that regard, the absolute and relative fit indices are deemed reliable in evaluating goodness of fit of the estimated model. Following Hooper, et al. (2008), AIC (Akaike, 1974) and BIC statistics are not used in evaluating model fit in absolute terms, but prudently to compare fits of diverse models estimated sequentially, where smaller estimates show a better fit.

Instead, a pclose value larger than 0.05 and coefficient of determination (CD) close to 1 suggest a good model fit (Kenny et al., 2015). The CFI and TLI indices are highly recommended and widely used in absolute terms to assess model goodness of fit, where values equal to at least 0.95 and close to 1 are deemed as acceptable thresholds for a good model fit (Hooper, et al., 2008). Therefore, the RMSEA, pclose and CD values, and CFI and TLI indices were used to assess and conclude on model goodness of fit in this research study.

Table 22 goodness of fit test statistics indicate that the model essentially fit the data quite well. The RMSEA value equal to 0.048 and less than 0.05, and a pclose value (= 0.712) larger than 0.05 indicate a good model fit (Browne & Cudeck, 1993; and Kenny et al., 2015). The coefficient of determination estimate (CD = 0.971) that is

quite much closer to 1 and CFI = 0.957 and TLI = 0.951 all surpassed the 0.95 minimum acceptable threshold (Steiger, 2007), confirming a good fit of the model to the sample data used for statistical estimations in the analysis of this particular research study.

5.8.3. Generalised SEM estimates of the moderated relationship

This section presents results of the moderated relationship between financial literacy and entrepreneurial performance. Figure 10 presents diagrammatic presentation of the hypothesised moderated relationship, while estimates are presented in Table 23.

Figure 10: Generalised SEM estimated moderated relationship between financial literacy and entrepreneurial performance

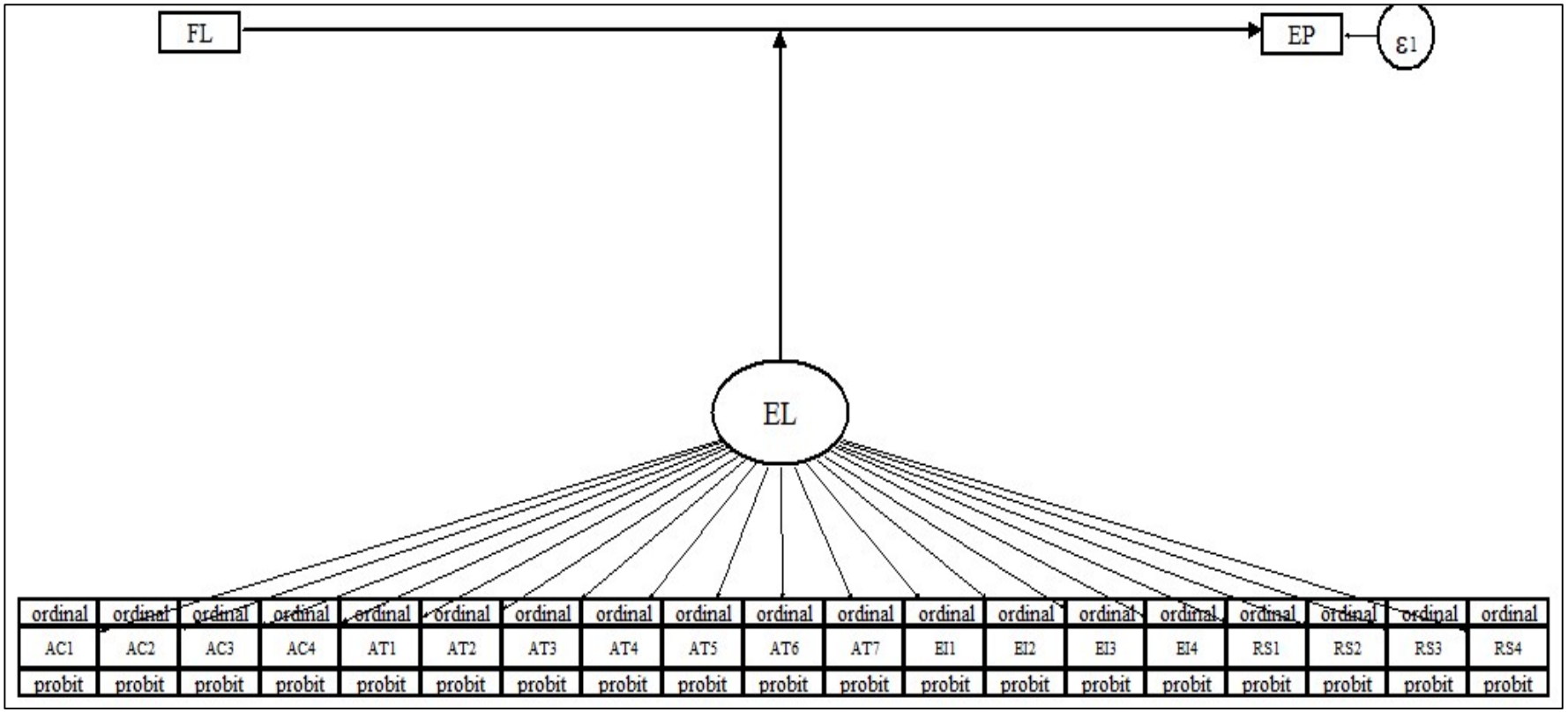


Table 23: Generalised SEM estimates of the moderated relationship

Log likelihood	= -4076.88				No of obs	= 205
	Coefficient	Std. Err.	Z-Statistic	P > | Z |	[95% Conf	Interval]
EP ←						
FL	**0.577**	0.054	**10.58**	**0.000**	0.470	0.684
c.FL#c.EL	1	(constrained)				
_cons	1.595	0.174	9.13	0.000	1.253	1.937
AC1 ← EL	1	(constrained)				
AC2 ← EL	17.813	3.252	5.48	0.000	11.439	24.187
AC3 ← EL	18.164	3.308	5.49	0.000	11.678	24.649
AC4 ← EL	13.988	2.533	5.52	0.000	9.022	18.955
AT1 ← EL	15.699	2.815	5.58	0.000	10.180	21.218
AT2 ← EL	14.454	2.590	5.58	0.000	9.377	19.531
AT3 ← EL	11.818	2.132	5.54	0.000	7.638	15.998
AT4 ← EL	12.905	2.317	5.57	0.000	8.363	17.448
AT5 ← EL	13.746	2.476	5.55	0.000	8.892	18.600
AT6 ← EL	9.353	1.700	5.50	0.000	6.020	12.685
AT7 ← EL	12.172	2.189	5.56	0.000	7.880	16.464
EI1 ← EL	13.146	2.344	5.61	0.000	8.552	17.741
EI2 ← EL	10.454	1.893	5.52	0.000	6.742	14.166
EI3 ← EL	6.766	1.289	5.25	0.000	4.238	9.294
EI4 ← EL	9.022	1.655	5.45	0.000	5.777	12.267
RS1 ← EL	17.224	3.187	5.40	0.000	10.977	23.470
RS2 ← EL	14.564	2.682	5.43	0.000	9.306	19.822
RS3 ← EL	13.063	2.369	5.51	0.000	8.420	17.707
RS4 ← EL	14.682	2.670	5.50	0.000	9.448	19.917
var(EL)	0.015	0.005			0.008	0.029
var(e.EP)	0.394	0.042			0.322	0.481

Table 23 presents results of the generalised SEM estimated based on the hypothesis that entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs. The estimated mode's estimates show strong evidence of a significant moderating role of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance. Results show that financial literacy's moderated influence on entrepreneurial performance was positive (coefficient = 0.057) and significant (z-statistic = 10.58; $p < 0.01$) at 1 percent significance level. This implies that about 58% variation in entrepreneurial performance arising from financial literacy is statistically and significantly moderated by entrepreneurial leadership. The estimated coefficient lies within the 95 percent confidence interval of 0.470 and 0.684. Therefore, the stated null hypothesis that

entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs cannot be rejected.

5.9. Conclusion

This chapter presented results obtained from statistical analysis of survey primary data collected from owners of SMMEs. The results presented include frequencies of the demographic profiles of the respondents, descriptive statistics of the responses provided by respondents on questions they answered pertaining to financial literacy, entrepreneurial leadership and entrepreneurial performance. Statistical validity tests on observed data of the indicators measuring the respective three constructs were conducted using the KMO-MSA criterion, while scale reliability of the same items was tested using the Cronbach's alpha criterion. The total variances explained and factor loadings were analysed through EFA, where after CFA was conducted to assess the associations latent variables had with their relevant indicators. To derive conclusions on research hypotheses, the SEM was estimated to assess the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance, and the generalised SEM was estimated to test the null hypothesis of the moderating role of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance. The subsequent chapter provides a discussion of results found and reported in this study in line with past empirical literature.

Chapter 6: Discussion of Results

6.1. Introduction

This chapter discusses the findings reported in this study in line with past empirical literature on the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. The discussion is organised in four major sections. Section 6.2 discusses results on validity and reliability of the research instrument, and section 6.3 discusses results on the relationship between financial literacy and entrepreneurial performance. Section 6.4 discusses results on relationship between entrepreneurial leadership and entrepreneurial performance. Section 6.5 discusses primary results in line with applicability of the RBV theory, and section 6.6 provides the conclusion to the chapter.

6.2. Validity and reliability of the instrument's items

The construct validity of variables describing the latent variables whose relationships were analysed in this study was conducted using the KMO-MSA method. Computed validity test results on indicators under each construct were satisfied the KMO-MSA = 0.600 minimum threshold condition (Pallant, 2000; Tabachnick & Fidell, 2007; and Chan & Idris, 2017). KMO-MSA values of items under each construct which were financial literacy (= 0.934), entrepreneurial leadership (= 0.968), and entrepreneurial performance (= 0.913) indicate evidence of validity of the research instrument's items describing each relevant construct. In addition, the KMO-MSA value for all the total thirty-nine questionnaire items describing the aforesaid three dimensions was 0.957, signifying strong evidence of construct validity.

Furthermore, the scale reliability of indicators used in this research study as adapted from past studies (Morgan & Strong, 2003; Usama & Yusoff, 2018; Al Mamun, et al., 2018; and Owusu et al., 2019) surpassed the Cronbach's alpha coefficient required minimum threshold of 0.7 (Cronbach, 1951). The research instrument's response options to questions on which data was collected for this study were anchored on a 5-point Likert scale (Likert, 1932). The 5-point Likert scale was used based on the logic that it optimises respondents' responses options by ensuring their objectivity in selecting answers in a symmetric and balanced way in either direction (Joshi, et al., 2015; and Mirahmadizadeh, et al., 2018).

Cronbach's alpha coefficients reported in this study for each construct were financial literacy (0.928), entrepreneurial leadership (0.972), and entrepreneurial performance (0.932), while the overall scale reliability coefficient was 0.974 for all the total thirty-nine questionnaire items. Internal consistency results reported in this study are consistent with scale reliability coefficient estimates reported in past similar studies conducted by Dose and Scott (2002), Morgan and Strong (2003), Usama and Yusoff (2018), Al Mamun, et al. (2018) and Owusu et al. (2019).

6.3. Relationship between financial literacy and entrepreneurial performance

Research findings in this study showing that financial literacy had a relatively more pronounced significant positive influence on entrepreneurial performance conform to Owusu et al. 2019) who state that the capability of an enterprise to mobilise, organise and allocate productive in order to sustain competitive advantages over rivals, and ensure entrepreneurial performance. The finding about the effect of financial literacy in this research study is consistent with Agyapong and Attram (2019) who assessed the impact of owners' financial literacy on entrepreneurial performance of SMMEs and found a significant and positive relationship between financial literacy and entrepreneurial performance.

A research study conducted by Rita and Wahyudi (2019) which assessed the financing antecedents and entrepreneurial performance found a significant and positive influence of financing of enterprises and entrepreneurial performance, measured using return on assets, return on equity and sales growth. In addition, Ishtiaq et al (2020) analysed the influence of financial literacy in resource acquisition and entrepreneurial performance and found that financial literacy had a statistically significant positive influence on both resource acquisition and entrepreneurial performance. These findings are consistent with Chepngetich (2016) who indicate that financial literacy plays a critical role in the enterprise's ability to mobilise, allocate and use resources, which is further consistent with the findings in this research study.

6.4. Relationship between entrepreneurial leadership and entrepreneurial performance

Results reported in this research study show that entrepreneurial leadership has a significant positive influence on entrepreneurial performance. Since entrepreneurial leadership involves the exercise of responsibility, accountability, analytical thinking

and emotional intelligence, the significant positive effect entrepreneurial leadership has on entrepreneurial shows that these identified constructs significantly influence entrepreneurial performance. Based on the RBV, constant practice of responsibility by enterprise owners ensures that enterprise's resources and activities get properly directed towards ensuring improved enterprise performance (Beattie, 2016).

Renko et al. (2015) reported that the degree to which entrepreneurs hold themselves accountable and accept to be held accountable by others enhances performance of enterprises through influencing team members to keep their work processes in right paths. Nuhu and Hussani (2017) underscore that accountability enhances enterprise functioning and positively influences work performances of employees in enterprises. Al-Mamun, et al. (2016) and Al Mamun et al. (2018) also reported that analytical thinking performs diagnoses prevailing conditions in markets and provides insights about right decisions and actions to ensure entrepreneurial performance through analysis of complex issues from unique lenses (Ibdah, 2018). These results are consistent with the empirical findings reported in this research study.

In this study, emotional intelligence indicator elements of entrepreneurial leadership contributed to the positive influence of entrepreneurial leadership on entrepreneurial performance in this study. Findings in this study are consistent with those reported by Anyanwu and Oad (2016), Aslam et al. (2018) and Al Mamun, et al. (2018) who reported that emotional intelligence of enterprise owners ensures entrepreneurial performance through creation of an environment for innovation and creativity. These findings confirm with Nanayakkara et al. (2017) who mentions that that enterprises with leaders who demonstrate a higher degree of emotional intelligence have high chances to improve entrepreneurial performances of their enterprises. This conforms to empirical findings by Anyanwu and Oad (2016) which show significant positive correlation between emotional intelligence and an enterprise's performance.

Empirical findings from a study by Aslam et al. (2018) which indicates that emotional intelligence has a significant positive moderating effect on link between innovation and enterprise performance. Results on the influence of entrepreneurial leadership on entrepreneurial performance in this study conform to Renko, et al. (2015) who found that entrepreneurial leadership was found to be more predominant among leaders who were involved in founding the enterprise than leaders who were not

been involved in founding the organisation. Al Mamun et al. (2018) generally found in an empirical research study that responsibility, analytical thinking, accountability and emotional intelligence, as central elements of entrepreneurial leadership, had significant positive influences on entrepreneurial performance.

6.5. Primary results and applicability of the RBV theory

Overall findings reported in this study relating to the presence of the relationship between to financial literacy, entrepreneurial leadership and entrepreneurial performance confirm the relevance and suitable applicability of the RBV theory which reinforced the analysis of the relationship between the respective constructs. Findings in this study confirming the relevance and applicability of the respective theory are consistent with findings reported in similar past studies conducted by Bylund (2015), Halberg (2015) and Klein (2016), Al Mamun et al. (2018) and Kiyabo and Isaga (2019). The significance in mobilisation and management of resources as confirmed by factor loadings of all indicators that described financial literacy and entrepreneurial leadership endorses the proposition advanced by the RVB theory that sufficient organisational resources as a key input and determinant of the performance of enterprises, if utilised efficiently (Al Mamun et al., 2018).

From the standpoint of entrepreneurial leadership, factor loadings of all indicators ranging between 0.723 to 0.875 are consistent with Klein (2016) who asserts that cognitive abilities of entrepreneurs or enterprise owners are a crucial element of entrepreneurial leadership through which new prospects can be recognised and pursued by using aptly mobilised available resources to produce desired outputs and results. In this study, entrepreneurial leadership indicators with highest loadings are those which enterprise owners reported that they consider the magnitude to which the methods they use to perform tasks impact their employees and partners (loading = 0.875), performance of tasks in the best possible ways possible (loading = 0.865) and consideration of extents to which enterprise owners' job performance levels impact employees and partners (loading = 0.859). These results are consistent with the RBV assertion that entrepreneurial leadership plays a strategic role in managing heterogeneous resources to sustain an enterprise's competitive advantage and entrepreneurial performance of enterprises (Halberg, 2015).

The mobilisation and maintenance of financial and related resources as measured and reflected by factor loadings results of indicators describing financial literacy is consistent with the assertion by Bylund (2015) that heterogeneity of resources remains as a central feature in the pursuit identified entrepreneurial opportunities existing and emerging in markets, and entrepreneurial performance of enterprises. In this study, factor loadings of all indicators describing financial literacy ranged from the lowest score of 0.651 to a highest score of 0.807. Indicators with highest loadings are those which pertain to SMMEs owners' abilities to analyse financial performance periodically and maintenance of good levels of savings in enterprises' savings accounts. These findings are consistent with findings from past studies conducted by Klein (2016) and Kellermanns et al. (2016) which indicate that cognitive abilities of entrepreneurs and financial resources are a complete set of resources required to ensure success in entrepreneurial performance. According to Kellermanns eta al. (2016), such resources include assets (tangible and intangible), human capital, organisational capital, financial capital, physical capital and relationship capital. Overall, all the null hypotheses in this study were supported by findings of this study.

Chapter 7: Conclusions and Recommendations

7.1. Principal findings

The principal findings in this research study are presented in line with the research hypotheses, analogous empirical results derived from analysis, and decision criteria.

Hypothesis 1*: There is a positive relationship between financial literacy and entrepreneurial performance of SMMEs.*

Table 24: Result and decision pertaining to hypothesis 1

Direction of the relationship	Estimated statistics		Decision
	Coefficient	Z-Statistic (p-value)	
Financial literacy positively influences entrepreneurial performance	0.541	9.21 ($p < 0.01$)	Do not reject the null hypothesis ($\mathbf{H_1}$) at 5% level of significance

Main finding: Financial literacy has a statistically significant positive effect on entrepreneurial performance.

Hypothesis 2*: There is a positive relationship between entrepreneurial leadership and entrepreneurial performance of SMMEs.*

Table 25: Result and decision pertaining to hypothesis 2

Direction of the relationship	Estimated statistics		Decision
	Coefficient	Z-Statistic (p-value)	
Entrepreneurial leadership positively influences entrepreneurial performance	0.374	6.51 ($p < 0.01$)	Do not reject the null hypothesis ($\mathbf{H_2}$) at 5% level of significance

Main finding: Entrepreneurial leadership has a statistically significant positive effect on entrepreneurial performance.

Hypothesis 3*: There is a positive relationship between entrepreneurial leadership and financial literacy of SMMEs.*

Table 26: Result and decision pertaining to hypothesis 3

Direction of the relationship	Estimated statistics		Decision
	Coefficient	Z-Statistic (p-value)	
Entrepreneurial leadership positively influences financial literacy	0.667	15.78 ($p < 0.01$)	Do not reject the null hypothesis (H_3) at 5% level of significance

Main finding: Entrepreneurial leadership has a statistically significant positive effect on financial literacy of SMMEs.

Hypothesis 4*: Entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance of SMMEs.*

Table 27: Result and decision pertaining to hypothesis 4

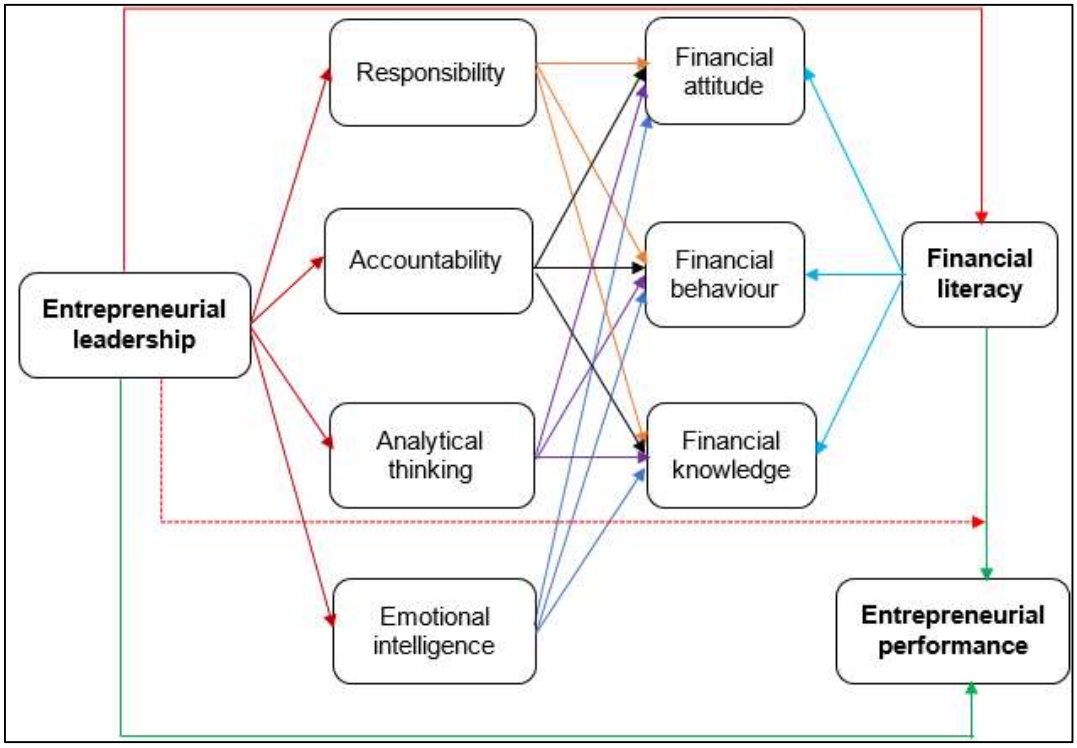
Direction of the relationship	Estimated statistics		Decision
	Coefficient	Z-Statistic (p-value)	
Entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance	0.577	10.58 ($p< 0.01$)	Do not reject the null hypothesis (H_4) at 5% level of significance

Main finding: Entrepreneurial leadership significantly and positively moderates the effect of financial literacy on entrepreneurial performance of SMMEs.

7.2. Updated conceptual model

The conceptual model presented in chapter 2 (Figure 1) was updated based on the findings from this research study. The updated conceptual model is shown in Figure 11 below.

Figure 11: Updated conceptual model

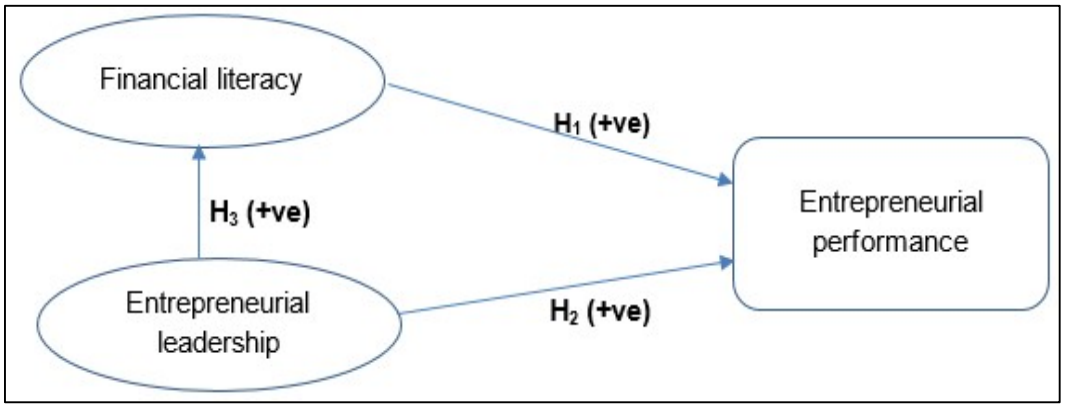


The updated conceptual model above was updated based on findings relating to the relationship between entrepreneurial leadership and entrepreneurial performance, and the moderating role of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial leadership. Findings in this study indicate that entrepreneurial leadership positively and significantly influences financial literacy. In the updated model, the respective significant influence of entrepreneurial leadership on financial literacy has been integrated and shown by the solid red arrow stretching from entrepreneurial leadership to financial literacy. Furthermore, results in this study show that entrepreneurial leadership has a moderating role on the relationship between financial literacy and entrepreneurial performance. This moderating role of entrepreneurial leadership on the aforesaid relationship is shown in the conceptual model by the dotted red arrow stretching from entrepreneurial leadership to path showing the influence of financial literacy on entrepreneurial performance. Following revision of the conceptual model, the hypothesised models are also validated below.

7.3. Validated hypothesised models

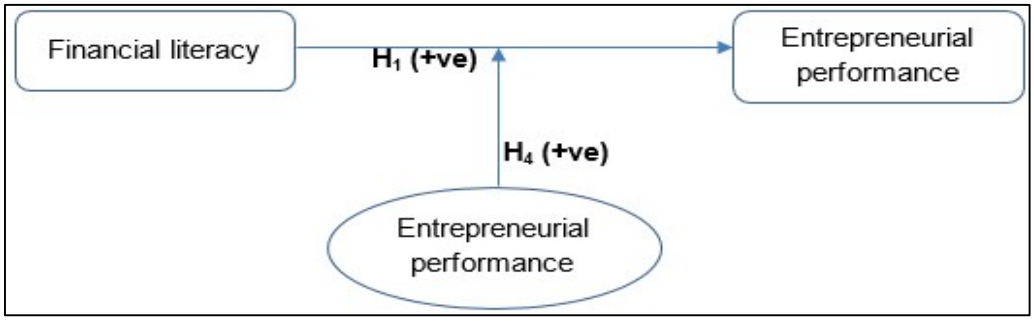
This sections presents validated hypothesised models of the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance, and moderated relationship between financial literacy and entrepreneurial performance.

Figure 12: Validated relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs



SEM results showing a significant positive effect of financial literacy on entrepreneurial performance are in support of the null hypothesis (H_1) that there is a positive relationship between financial literacy and entrepreneurial performance. The null hypothesis (H_2) that there is a positive relationship between entrepreneurial leadership and entrepreneurial performance was also supported by the finding showing a significant positive influence of entrepreneurial leadership on entrepreneurial performance. Furthermore, findings in this study showing a significant positive effect of entrepreneurial leadership on financial literacy supports the null hypothesis (H_3) that there is a positive relationship between entrepreneurial leadership and financial literacy of SMMEs. The validated hypothesised model of the moderating effect of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance is shown in Figure 13 below.

Figure 13: Validated moderating effect of entrepreneurial leadership on the relationship between financial literacy and entrepreneurial performance



The finding from the generalised SEM in this study showing a significant positive moderated influence of financial literacy on entrepreneurial performance supports the null hypothesis that entrepreneurial leadership moderates the relationship between financial literacy and entrepreneurial performance.

7.4. Principal conclusions

Based on findings derived from the data analysed in this research study, there exists a positive relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. While entrepreneurial leadership exhibits a significant positive influence on financial literacy, both financial literacy and entrepreneurial leadership have significant and positive influences on entrepreneurial performance. Results suggest that entrepreneurial leadership plays a significant complementary and moderating role on the role of financial literacy on entrepreneurial performance. This was the major gap which was filled in by the contribution of this research study.

From a theoretical standpoint, the fundamental contribution made by this research study are the strengthening of relationships between entrepreneurial leadership and financial literacy, and entrepreneurial leadership and entrepreneurial performance, and finally the moderating effect of entrepreneurial leadership on the influence of financial literacy and entrepreneurial performance. These theoretical relationships have been proven empirically, suggesting that the practical contribution made by the study. The stakeholders who are expected to be the primary beneficiaries of findings from this study are owners of SMMEs and public sector and private sector SMMEs development agencies, organisations and consultants. SMMEs owners can obtain insights on the key areas needed to improve on financial literacy and entrepreneurial leadership to ensure sound performance of their enterprises. Similarly, public sector

and private sector SMMEs development agencies, organisations and consultants can design suitable training programmes that can contribute to financial literacy levels and entrepreneurial leadership capabilities of the owners of SMMEs in order to sustain performance and survival of such enterprises.

7.5. Recommendations

Sound performance and sustainable survival of SMMEs remain critical to job creation, poverty reduction and economic development in communities where SMMEs operate. Government and policy makers play important roles in making entrepreneurial capabilities more effective to ensure sound entrepreneurial performance. In order to ensure SMMEs entrepreneurial performance, government should provide ongoing strong backing to SMMEs programmes that improve financial literacy and entrepreneurial leadership of enterprise owners. In addition, government should additionally consider ensuring adequate availability of legal assistance to SMMEs at affordable consultation costs, or even provision of free-cost consultancy services at public institutions across all provincial locations in the country.

7.6. Limitations of the research

Initially, this research study was intended to be confined to the City of Tshwane which comprised of about 5 140 owners of SMMEs (Small Enterprise Development Agency, 2020) at the time the ethical clearance for this study was sought. Following lack of success in obtaining a list of registered SMMEs in Tshwane Metropolitan Municipality from the SEDA at potentially no cost, the services of a professional and experienced online data collection firm were sought and utilised. The services of an online data collection company were sought and utilised in light of the backdrop that the researcher could not successfully proceed with physical data collection in the field in personal capacity due to the changes in working norms brought by the advent of the COVID-19 global health pandemic. In order to mitigate the risk of low response rate and collect a reasonably acceptable sample of the respondents, the population was expanded to the national level. Finally, survey data was extended to the national population of SMMEs operating across South Africa.

The sample size used in this study was relatively small to make generalisations of the findings about the entire population of SMMEs in the country. Expansion of the sample size to cover SMMEs operating in all provinces in similar future studies may

provide insights that can provide a more representative picture. Findings from a sample covering all provinces can provide information for comparing and determining whether location and regional profiles may provide unique picture in the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. In this study, merely financial literacy and entrepreneurial leadership are the two constructs analysed their influence on entrepreneurial performance, where entrepreneurial leadership is the only variable that mediates the relationship between financial literacy and entrepreneurial performance. In that regard, future studies should find more variables that affect entrepreneurial performance, and variables that mediate the relationship between financial literacy and entrepreneurial performance should be used.

7.7. Suggestions for future research

This research has some areas which would need to be improved when considering conducting similar studies in future. The study used a cross-sectional research design in which survey data was collected at a particular point in time. This can be enriched by using pooled data particularly on objective business performance indicators such as profit. Future studies should consider conducting the same study at a larger sampling unit level such as at national level to control for heterogeneity in the effect of financial literacy and entrepreneurial leadership on entrepreneurial performance across enterprises in different sectors and industries of the economy. In addition, the sample used in this study is small, thus future studies should consider using a larger sample size to ensure the reliable generalisability of findings.

7.8. Conclusion

This study analysed the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance. The study collected survey primary data from owners of SMMEs and analysed the gathered data using the structural equation model to assess the relationship between the respective constructs. Results of the study are consistent with findings from the bulk of previous similar studies. The major contribution made by this research study was the filling in of the gap in past studies on the influence of entrepreneurial leadership on both financial literacy and entrepreneurial performance.

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Appendices

Appendix 1: Research Instrument

SECTION A: DEMOGRAPHIC PROFILE			
This section aims to obtain data on your demographic profile. Please indicate your answer by putting an **X** on the applicable code matching to your chosen answer.			
Qn. #	**Question**	**Answer**	**Code**
A101	Please indicate your gender	Male	1
		Female	2
A102	Please indicate your marital status	Single	1
		Married	2
		Divorced	3
		Separated	4
		Widow	5
A103	Please indicate your population group or race	Black African	1
		Coloured	2
		Indian/Asian	3
		White	4
A104	In which age category do you fall under?	18-22 years	1
		23-27 years	2
		28-32 years	3
		33-37 years	4
		38-42 years	5
		43-47 years	6
		48-52 years	7
		53-57 years	8
		58+ years	9

A105	Indicate the highest level of qualification you obtained	Diploma	1
		Bachelor's degree	2
		Honours degree	3
		Postgraduate diploma	4
		Master's degree	5
		PhD/Doctoral degree	6
A107	Please indicate the size of your enterprise	Micro (< 5 employees)	1
		Small (< 50 employees)	2
		Medium (< 100 to 200 employees)	3
A108	Please indicate the industry in which your enterprise operates	Agriculture, hunting, forestry and fishing	1
		Manufacturing	2
		Mining and quarrying	3
		Transport, storage and communication	4
		Wholesale and retail trade	5
		Financial intermediation, insurance, real estate and business services	6
		Electricity, gas and water supply	7
		Community, social and personal services	8
		Construction	9
		Other, please indicate_____	10

SECTION B: FINANCIAL LITERACY

Questions in this section aim to obtain insights regarding your financial literacy. Indicate your answer to each question based on the 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree. **Example**: I have poor knowledge of financial analysis. If you **"Strongly Disagree",** then you place an **X** in the box labelled 1 as shown below.

1 X	2	3	4	5

Code	Question	**Response**

		Strongly	Disagree	Neutral	Agree	Strongly Agree
FL1	I have competencies in preparing sales records on daily basis	1	2	3	4	5
FL2	I am satisfactorily competent in management of working capital	1	2	3	4	5
FL3	I have good abilities to make sound financial investment decisions	1	2	3	4	5
FL4	I effectively maintain continuity of access to needed finances	1	2	3	4	5
FL5	I always ensure sound risk management and diversification	1	2	3	4	5
FL6	I am satisfied with my enterprise's status of its finances	1	2	3	4	5
FL7	I have the ability to analyse financial performance periodically	1	2	3	4	5
FL8	My enterprise constantly prepares monthly income statements	1	2	3	4	5
FL9	I maintain good levels of savings in my enterprise's savings account	1	2	3	4	5
FL10	I have sound skills for minimising bad debts for my enterprise	1	2	3	4	5
FL11	I am satisfied with my level of general financial awareness	1	2	3	4	5
FL12	My enterprise satisfactorily engages in debt management	1	2	3	4	5

SECTION C: ENTREPRENEURIAL LEADERSHIP (EL)

Questions in this section aim to obtain insights regarding your knowledge and practice of entrepreneurial leadership. Indicate your answer to each question based on the 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree. **Example**: My general competencies in entrepreneurial leadership are poor. If you **"Strongly Disagree",** then you place an **X** in the box labelled 1 as shown below.

1	2	3	4	5
X				

Code	Question	Response				
		Strongly	Disagree	Neutral	Agree	Strongly Agree
RS1	I perform my tasks in the best possible way I can	1	2	3	4	5
RS2	I value working in the best interest of the team than for myself	1	2	3	4	5
RS3	I stick to the tasks at hand even if other things of interest avail	1	2	3	4	5
RS4	I always take full responsibility of all my financial decisions	1	2	3	4	5
AC1	I remain accountable to my employees and partners	1	2	3	4	5
AC2	I consider the extent to which my job performance level impacts my employees and partners	1	2	3	4	5
AC3	I consider the magnitude to which the approaches that I use to perform my tasks impacts my employees and partners	1	2	3	4	5
AC4	I am very aware of the concerns of my employees and partners	1	2	3	4	5
AT1	As the enterprise owner, I do things that challenge my thinking	1	2	3	4	5
AT2	I have strong preference for complex problems than simple ones	1	2	3	4	5
AT3	I derive happiness in deliberating very hard and for long periods	1	2	3	4	5

AT4	The practice of thinking abstractly is quite appealing to me	1	2	3	4	5
AT5	I prefer tasks that are intellectual, complex and important	1	2	3	4	5
AT6	My first impressions about people are usually always right	1	2	3	4	5
AT7	I am very good at finding solutions to complex business issues	1	2	3	4	5
EI1	When I become faced with hurdles, I recall times I faced similar challenges and overcame them	1	2	3	4	5
EI2	I am always aware of my emotions every time I experience them	1	2	3	4	5
EI3	I normally prefer to share my emotions with other people I trust	1	2	3	4	5
EI4	I can easily recognise the emotions other people may be having merely by watching their facial experiences	1	2	3	4	5

SECTION D: ENTREPRENEURIAL PERFORMANCE (EP)

Questions in this section aim to obtain insights regarding entrepreneurial performance of your enterprise. Indicate your answer to each question based on the 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree. **Example**: My enterprise has good financial standing. If you **"Strongly Disagree",** then you place an **X** in the box labelled 1 as shown below.

1	2	3	4	5
X				

Code	**Question**	**Response**				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
EP1	My enterprise has a good customer satisfaction reputation	1	2	3	4	5

EP2	My enterprise is in a good competitive position in the market	1	2	3	4	5
EP3	My enterprise has a good customer retention history until to date	1	2	3	4	5
EP4	My enterprise has satisfactory sales growth	1	2	3	4	5
EP5	My firm has a satisfactory return on investment	1	2	3	4	5
EP6	My enterprise has a rapid response speed to market demand	1	2	3	4	5
EP7	My enterprise sends prompt confirmations to customer orders	1	2	3	4	5
EP8	My enterprises is progressively becoming successful in reducing product or service delivery cycle time	1	2	3	4	5

Thank you for your time and participation.

Appendix 2: Ethical Clearance