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The Nexus between Financial Literacy, Entrepreneurial Leadership and Entrepreneurial Performance of Small, Medium and Micro-Enterprises

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Abstract:
The 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. Data collected from a sample of two-hundred and five (n = 205) respondents was 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 satisfied construct validity and scale reliability conditions, while factor analysis results indicate that no items exhibited complex structures, and significant amounts of variances in observed indicators were explained by analogous constructs. Structural equation model estimates indicate presence of significant positive relationships between financial literacy, entrepreneurial leadership and entrepreneurial performance, and show that entrepreneurial leadership significantly moderates the relationship between financial literacy and entrepreneurial performance.

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

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1. Introduction

Entrepreneurship provides an effective mechanism for the reduction of poverty 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) state that small, medium and micro enterprises (SMMEs) in South Africa contribute about 42% to the nation's gross national output and 60 percent to employment. In this respect, SMMEs contribute considerably to households' incomes and standards of living and stimulation of local economic development (Jili, Masuku & Selepe, 2017).

Ayandibu and Houghton (2017) state that SMMEs contribute to promotion of competitiveness in the functioning of product markets. Thus, entrepreneurial performance enhances progress towards inclusive growth (Molefe et al., 2018). Gorgievski, et al. (2014), Sebikar, (2014) and Sutanto, Sigiols and Putih (2018) explain that entrepreneurial performance are work habits of employees that influence the extent to which enterprise goals

are achieved, measured either subjectively or objectively. Musie (2015) state that financial literacy is among the factors that influence entrepreneurial performance of SMMEs. Usama and Yusoff (2018) define financial literacy as the ability to analyse, interpret and understand financial data based on the knowledge of financial concepts, financial behavior, and financial attitude.

In recognising the significant influence financial literacy has on entrepreneurial performance of SMMEs, Shao (2016) also accentuates the need to incorporate the influence entrepreneurial leadership has on enterprise performance. Latif and Karim (2018) states that entrepreneurial leadership enables enterprises to effectively react to the ever-changing business environment and develop good business strategies that optimise prospects that prevail in markets. Anyanwu (2016) describe entrepreneurial leadership as a form of leadership that builds prospects which leverage resources and pursue creativity to yield strategic value for firms. Therefore, financial literacy (Musie, 2015) and entrepreneurial leadership (Mkhavele & Ntshakala, 2018) are both crucial in enhancing entrepreneurial performance (Gathungu & Sabana, 2018; and Shao, 2016).

1.2. Problem statement

The persistently high failure rate of SMMEs in South Africa causes serious concerns among entrepreneurs, government, private sector stakeholders and the academia in the country. While several new SMMEs are established at high rates (Rungani & Potgieter, 2018), the startlingly high failure rate by such entrepreneurs remains as a severe problem. Bushe (2019) states that more than 70% 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), which hinders their capabilities to respond properly to the business conditions that may affect the performance of enterprises.

Shao (2016) states that lack of entrepreneurial leadership capabilities among entrepreneurs is one of the major factors leading to high failure of SMMEs in the country. While great attention has been placed on financial literacy, Mgeni (2015) and Zainol et al. (2018) indicate that the role of entrepreneurial leadership has been given little attention, yet it plays a primary role in influencing entrepreneurial performance. SMME owners largely focus(ed) on working towards improving their financial literacy levels, yet their enterprises still face high failure due to lack of entrepreneurial leadership (Shao, 2016), hence the need to integrate sound entrepreneurial leadership to enhance entrepreneurial performance (Mgeni, 2015; and Zainol et al., 2018).

1.1. Research gap

Many past studies ratify a positive effect financial literacy has on entrepreneurial performance (Chepngetich, 2016; Lusimbo & Muturi, 2016; Gathungu & Sabana, 2018; Usama & Yosoff, 2018; Ye & Kulathunga, 2019; Agyapong & Attram, 2019; Mashizha et al., 2019). However, none of these studies analysed the influence entrepreneurial leadership has on financial literacy and entrepreneurial performance, which is the gap this research study addresses and fulfills as the contribution to the field of entrepreneurial performance.

1.2. Research objective

The aim of this study was to assess the relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance of SMMEs, by determining the influence of:

- Financial literacy on entrepreneurial performance of SMMEs,
- Entrepreneurial leadership on entrepreneurial performance of SMMEs, and
- Entrepreneurial leadership and financial literacy of SMMEs.

2. Literature Review

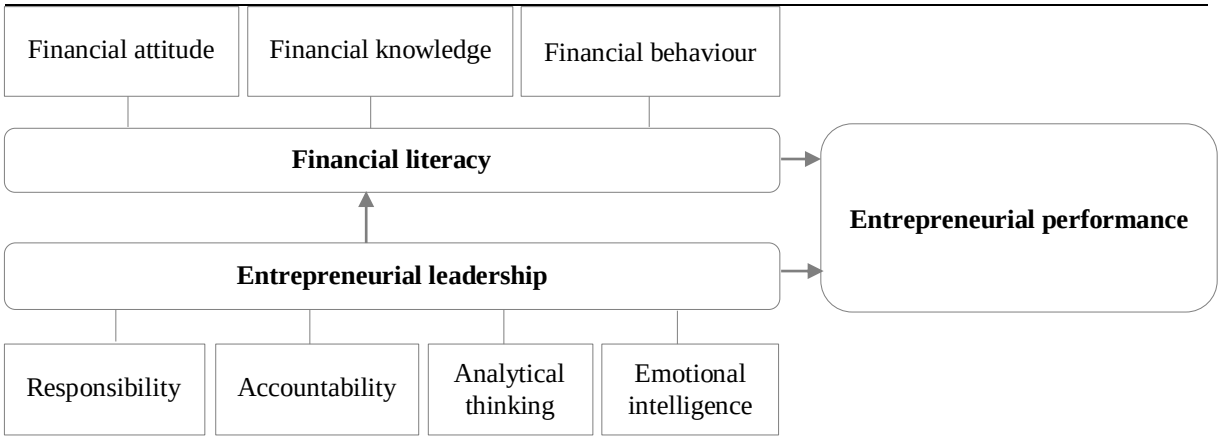
2.1. Theoretical literature

The theories reinforcing the relationship between financial literacy, entrepreneurial leadership and SMME entrepreneurial performance in this study are the resource based view (RBV) and the knowledge base view

(KBV). The RBV describes the relationship between entrepreneurial performance and financial literacy, while the KBV explains the mediating role entrepreneurial leadership has on the relationship between financial literacy and entrepreneurial performance.

Kiyabo and Isaga (2019) indicate that although the RBV recognises knowledge and resources as interdependent catalysts of enterprise competitive advantage, it however fails to elucidate the role of entrepreneurial leadership as a driver of competitive advantage. The KBV holds that competitive advantage and performance of an enterprise is driven by that enterprise's ability to produce competences and competitive advantage that enhance entrepreneurial performance (Kiyabo & Isaga, 2019), as depicted by the conceptual model (Figure 1) below.

Figure 1: Conceptual model - relationship between financial literacy, entrepreneurial leadership and entrepreneurial performance



Source: Author's compilation - adapted from Usama and Yusoff (2018) and Al Mamun et al. (2018).

2.1.1. Financial literacy

Based on the RBV, financial knowledge, understanding of financial concepts, financial skills and access to finance play a key role towards ensuring entrepreneurial performance of SMMEs (Agyapong & Attram (2019). Agyapong and Attram (2019), Lakuma, Marty and Muhumuza (2019) and Ye and Kulathunga (2019) define financial literacy as an entrepreneur's ability to make rational financial decisions around an enterprise's financial needs, cost of financing and financial management. Chepngetich (2016) state that financial literacy ensures an enterprise's ability to mobilise, allocate and use resources; while Owusu, Ismail, Osman and Kuan (2019) indicate that sound financial literacy stimulate the performance of enterprises.

2.1.2. Entrepreneurial leadership

Latif and Karim (2018) state that enterprises need a new type of leaders called "entrepreneurial leaders", consistent with Harrison et al. (2015) who state that entrepreneurial leadership derives from integration of concepts of entrepreneurship and leadership (Leitch & Volery, 2017). The magnitude to which entrepreneurs take *accountability* and *responsibility* of their own actions reinforces capabilities and skills needed to manage financial and other resources to improve performance of enterprises (Beattie, 2016). Al-Mamun, Nawi and Zainol (2018) indicate that *analytical thinking* is an intellectual capability that diagnoses prevailing conditions in markets and provides insights about suitable decisions and actions to promote enterprise performance.

Aslam, Shahid, Qureshi and Qureshi (2018), and Al Mamun, et al. (2018) state that *emotional intelligence* is a blend of cognitive abilities and self-efficacy which allows one to monitor their own feelings, and understanding different ways emotions can affect others and the performance of enterprises. The ability to deal with individual emotions and those of team members is a key feature of leadership, decision making, problem solving (Aslam

et al., 2018), managing team members and creating an environment conducive for innovation (Anyanwu & Oad, 2016).

2.1.3. Entrepreneurial performance

Gorgievski, et al. (2014), Sebikar (2014) and Sutanto, Sigiols and Putih (2018) generally define entrepreneurial performance as the analysis of work habits of employees conducted at specific points to assess the magnitude to which the enterprise goals have been achieved. In terms of measurement, Al Mamun et al. (2018) state that there are no universally agreed indicators of entrepreneurial performance, and state that measurement can be performed either objectively or subjectively; while objective metrics include sales, revenue, turnover, number of employees, return on investment (ROI), return on assets (ROA), market share and return on equity (ROE).

2.2. Empirical literature

2.2.1. Financial literacy and entrepreneurial performance

Based on the RBV, Owusu, Ismail, Osman and Kuan (2019) mention that the capability of an enterprise to mobilise, organise and allocate productive resources is a necessary condition firms should satisfy in order to gain and sustain competitive advantages over their rivals. Agyapong and Attram (2019) assessed the effect of SMME owners' financial literacy on entrepreneurial performance in Ghana. The study applied a cross-sectional design on a sample of one hundred and thirty-two entrepreneurs using the simple random sampling method. Structural equation model results indicate the presence of a significant and positive relationship between financial literacy and entrepreneurial performance, and recommended the need to complement financial knowledge with sound entrepreneurial leadership (Agyapong & Attram, 2019).

Rita and Wahyudi (2019) assessed financing antecedents and entrepreneurial performance in Indonesia. The study used primary data from a sample of one hundred and ninety entrepreneurs, and analysed the effects of entrepreneurs' cognitive bias. Findings indicate that entrepreneurs' cognitive bias had significant and positive effects on enterprise financing and entrepreneurial performance, measured using ROA, ROE and sales growth. Ishtiaq et al (2020) analysed the influence of financial literacy on resource acquisition and entrepreneurial performance using primary data collected from entrepreneurs operating SMMEs using a structured questionnaire Findings from structural equation model reveal that financial literacy had a significant positive influence on resource acquisition and entrepreneurial performance.

2.2.2. Entrepreneurial leadership and entrepreneurial performance

According to Renko et al. (2015), entrepreneurial leadership is a distinct leadership style that ensures entrepreneurial performance through positively influencing performance of enterprise staff members towards attaining organisational goals and pursuing entrepreneurial prospects. In an effort to measure and understand the effectiveness of entrepreneurial leadership style towards 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 scale stood at 0.89, indicating a high magnitude of internal consistency. Main results indicate that entrepreneurial leadership was predominant among leaders who were involved in founding the enterprise than leaders who were not involved in founding the enterprises.

The study by Al Mamun et al. (2018) establishes that entrepreneurial leadership competencies enhance networking, sound decision making, management of human and material resources, implementation of strategies, marketing and improving entrepreneurial performance. The study identified responsibility, analytical thinking, accountability and emotional intelligence as some of the key dimensions of entrepreneurial leadership construct which influence entrepreneurial performance. Findings indicate that accountability, emotional intelligence, responsibility and analytical thinking had significant positive influences on entrepreneurial performance.

Li, Makhdoom and Asim (2020) tested the effect of entrepreneurial leadership on employees' innovative work behaviour, where 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 SMMEs in Jiangsu province of China 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.

3. Methods and Materials

3.1. Research design

The cross-sectional survey design was used to collect primary data from relevant 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.

3.2. Population

The population used in this study consists of owners of SMMEs that were operating in Tshwane Metropolitan Municipality at the time the study survey was conducted, and this population was about 428 owners of SMMEs (Small Enterprise Development Agency, 2020).

3.3. Sampling approach and sample size

Simple random sampling method was applied to draw elements from the sampling frame, given its strength of ensuring representativeness of the study population, and thus attaining minimum sampling error (Collis & Hussey, 2014). The sample size was determined using the formula:

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

where :

n = required sample size

N = the given population

$\hat{p}$ = population proportion; assumed to be 0.5

d = the degree of ccuracyset at 0.05

χ^2 = table value of chi - square (= 3.841 for 0.95 confidence interval)

Out of the population of 428 SMMEs owners (respondents), a minimum sample of 203 cases was required at 95% confidence interval, 50% response distribution and 5% margin of error.

3.4. Measurement instrument

The questionnaire was developed using items adapted from validated research instruments used in prior studies. Items measuring each construct were based on a 5-point Likert scale and had Cronbach's alpha coefficients equal to at least 0.7 (Likert, 1932). The prior studies from which validated scales were adapted 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 questionnaire was structured and self-administered and had four sections, namely demographic profiles, financial literacy, entrepreneurial leadership, and entrepreneurial performance.

3.5. Validity

The questionnaire's construct validity was tested using Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) in the Statistical Package for Social Sciences (SPSS) software.

3.6. Scale reliability

The research instrument was tested for internal consistency of items under each dimension and for all items based on Cronbach's alpha coefficient (Likert, 1932, and Saunders, et al., 2012). These alpha coefficients were used to assess the magnitudes to which questionnaire items under each construct positively correlated among themselves.

3.7. Statistical data analysis

Statistical data processing and analysis were conducted using SPSS and Stata softwares. Factor analysis and structural equation modelling were conducted (Leedy & Ormrod, 2010), where factor analysis was conducted to assess the dimensionality of observed indicators under each latent factor, and if indicators measured what they intended to measure (Welman, et al., 2005). Through factor analysis, determinants, communalities, total and relative variances explained, and factor structures were computed after running the KMO-MSA tests based on the formula.

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

where Φ_{ij} denotes the KMO value, correlation matrix R = $[r_{ij}]$ and partial covariance matrix Z = $[z_{ij}]$. KMO values range between 0 and 1, where a value close to 0 indicates that the total of fractional correlations is larger than the sum of correlations, correlations are widely dispersed and not clustering among few variables, which presents a challenge to conduct factor analysis; while a value close to 1 supports a good basis to conduct factor analysis.

Following analysis of the variance in each indicator accounted for by the analogous construct, a structural equation model (SEM) was conducted to assess the relationship between financial literacy and entrepreneurial leadership on entrepreneurial performance of SMMEs based on the conceptual framework (Figure 1), where entrepreneurial leadership demonstrates a moderating effect on the influence of financial literacy on entrepreneurial performance. The relationships between financial literacy, entrepreneurial leadership and entrepreneurial performance were measured using the SEM based on the system of equations specified below.

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

where FL denotes financial literacy, EL is entrepreneurial leadership, and EP is entrepreneurial performance. With no constant terms, the structural system of the model was estimated as:

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

where ϖ_{13} is the coefficient of EL on FL; ϖ_{23} and ϖ_{24} are coefficients of FL and EL on EP.

The model goodness of fit metrics, namely chi-square, 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) were evaluated. RMSEA 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). 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 in a way similar to the NFI, where a value close to 1 indicates a better model fit (Hu & Bentler, 1999).

4. Results and Analysis

The main results reported in this section include frequencies of SMME's profiles in terms of size and industry or sector, construct validity, scale reliability, factor analysis (total variances explained and numbers of factors extracted in each construct), and SEM estimates.

4.1. Frequencies of enterprises' profiles

The frequencies of SMMEs' profiles are reported in Table 1 provided below.

Table 1: Frequencies of SMMEs' profiles

	Frequency (n)	Share (%)
Size of enterprise		
Micro (< 5 employees)	150	73%
Small (< 50 employees)	43	21%
Medium (< 100 to 200 employees)	12	6%
Industry in which the 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 results indicate that out of a sample of total two-hundred and five (n = 205) respondents, the majority 73% (n = 150) operated micro-enterprises, 21% (n = 43) operated small enterprises and 6% (n = 12) operated medium enterprises. The distribution of enterprises by industry shows that 19% (n = 38) were in whole and retail trade, 19% (n = 38) in community, social and personal services, 11% (n = 24) in transport, storage and communication, 10% (n = 20) in construction, 8% (n = 17) in manufacturing, and 7% (n = 15) in agriculture, forestry and fishing.

4.2. Construct validity

The computed KMO-MSA values of items under each construct are reported in Table 2 below.

Table 2: KMO-MSA statistics of constructs' items

Main construct	Sub-constructs		Total items	KMO-MSA value
	Description	No. of items		
Financial literacy	Financial attitude	4	12	0.934
	Financial behaviour	4		
	Financial knowledge	4		
Entrepreneurial leadership	Responsibility	4	19	0.968
	Accountability	4		
	Analytical thinking	7		
	Emotional intelligence	4		
Entrepreneurial performance	-	-	8	0.913
Total			**39**	**0.957**

The KMO-MSA value of the total thirty-nine indicators equal to 0.957 exceeded the acceptable minimum threshold of 0.6 (Pallant, 2000; Tabachnick & Fidell, 2007; and Chan & Idris, 2017), indicating that items were valid in measuring the constructs they were designed to measure. Concomitantly, the KMO-MSA values of observed indicators under each construct exceeded the 0.6 minimum acceptable threshold, suggesting existence of statistical evidence of validity of items under each construct; namely financial literacy (= 0.934), entrepreneurial leadership (= 0.968), and entrepreneurial performance (= 0.913).

The corresponding computed determinants and the Bartlett's test of sphericity estimates of the KMO-MSA values presented above are reported in Table 3 below.

Table 3: 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	1421.4 (66)	$p < 0.01$
Entrepreneurial leadership	19	0.004	3808.2 (171)	$p < 0.01$
Entrepreneurial performance	8	0.003	1176.1 (28)	$p < 0.01$
Total	39	0.000	7199.0 (741)	$p < 0.01$

Table 3 results on Bartlett's test of sphericity confirm the presence of validity all the computed determinants were far below a unit.

4.3. Scale reliability

Internal consistencies of questionnaire indicators were assessed using Cronbach's alpha norm (Cronbach, 1951). Therefore, scale reliability results on the three constructs (financial literacy, entrepreneurial leadership, and entrepreneurial performance) are reported in Table 4 below.

Table 4: Scale reliability statistics

Main construct	Sub-constructs		Total items	Cronbach alpha
	Description	No. of items		
Financial literacy	Financial attitude	4	12	0.928
	Financial behaviour	4		
	Financial knowledge	4		
Entrepreneurial leadership	Responsibility	4	19	0.972
	Accountability	4		
	Analytical thinking	7		

	Emotional intelligence	4		
Entrepreneurial performance	-	-	8	0.932
Total			**39**	**0.974**

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

4.4. Total variance explained

The results on total variances explained conducted based on the factor analytic data reduction approach were assessed. The latent root norm was applied to examine the amounts of variances that were uniformly distributed across extracted factors based on the alpha factoring Varimax rotation procedure. Results for the total variances explained are presented in Table 5 below.

Table 5: 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
Entrepreneurial leadership	1	12.724	66.968	66.968	12.381	65.162	65.162
Entrepreneurial performance	1	5.431	67.889	67.889	5.067	63.341	63.341
Extraction method: Alpha factoring.							

Total variances explained results pertaining to the three constructs show that for each construct, final iterations produced only one initial eigenvalue 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 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, 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 rotation sum of squared loadings could not be performed.

4.5. SEM estimates

The results of the estimated SEM were used to assess the nature and degrees of the relationships between financial literacy, entrepreneurial leadership and entrepreneurial performance. The key generalised SEM results of the moderated relationship (Figure 2) between financial literacy and entrepreneurial performance are reported in Table 6 below.

Figure 2: SEM interrelationships among latent variables and observed indicators

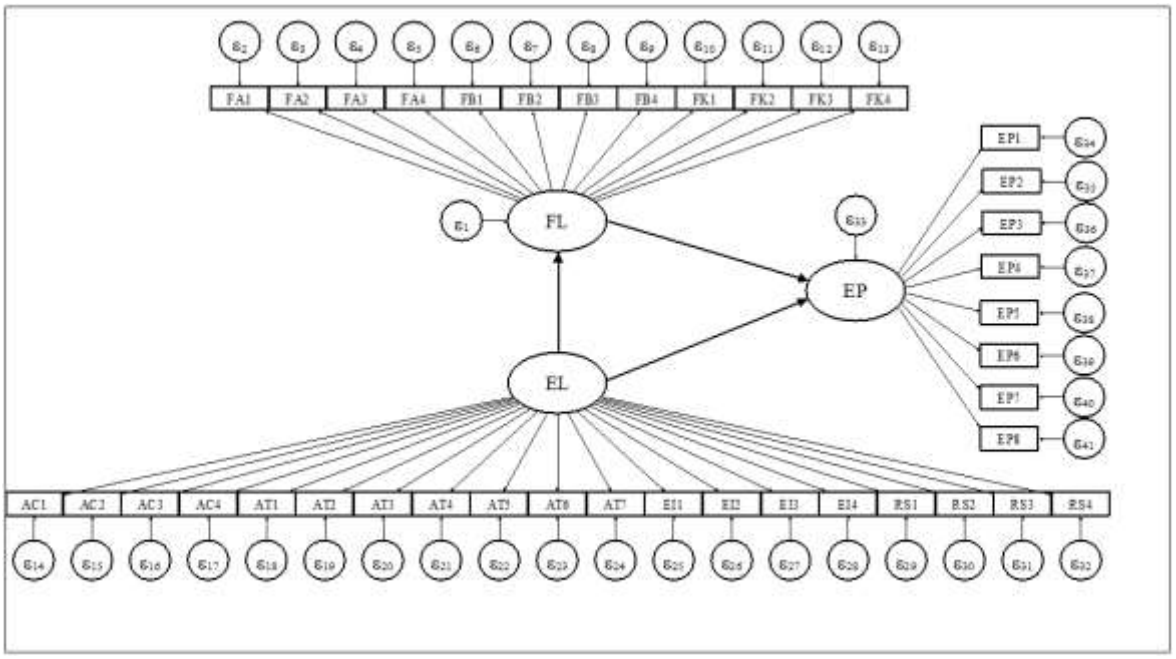


Table 6: Structural equation model estimates

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
LR test of model vs. saturated: chi2 (654) = 958.18, Prob > chi2 = 0.0000						

The model's structural segment estimates reveal strong evidence of existence of significant and positive relationships 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.

Results indicate presence of a positive (coefficient = 0.541) and significant (z-statistic = 921; $p < 0.01$) between financial literacy and entrepreneurial performance, suggesting that about 54.1% of variation in entrepreneurial performance is significantly accounted for by financial literacy. 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 approximately 37.4% variation in entrepreneurial performance is significantly explained by entrepreneurial leadership. Some empirical proof of the positive relationship between financial literacy and entrepreneurial leadership was found. Furthermore, about 66.7% variation (coefficient = 0.667) in financial literacy was significantly (z-statistic = 15.78; $p < 0.01$) accounted for by entrepreneurial leadership, which confirms that there exists a positive relationship between financial literacy and entrepreneurial leadership of SMMEs.

4.5.1. 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 orthodox statistics computed to assess model goodness of fit are the CFI and TLI statistics (Table 7).

Table 7: 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 absolute and relative fit indices are deemed reliable in evaluating the goodness of fit of the estimated model (Hooper, et al., 2008). Table 7 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) much closer to 1 and CFI = 0.957 and TLI = 0.951 surpassed the 0.95 minimum acceptable threshold (Steiger, 2007), confirming a good fit of the model to the sample data used for estimations.

5. Conclusion and Recommendations

5.1. Conclusion

Findings of this study confirm the existence positive relationships between financial literacy, entrepreneurial leadership and entrepreneurial performance, while entrepreneurial leadership has a significant positive influence on financial literacy. Thus, entrepreneurial leadership plays a crucial moderating role on the influence of financial literacy on entrepreneurial performance. This was the major gap this study filled, thereby making a key contribution on this subject. The stakeholders who are expected to be the key beneficiaries of findings from this study are owners of SMMEs, and the public and private sector SMME development agencies, organisations and consultants. SMME owners can obtain insights on the key areas needed to improve on financial literacy and entrepreneurial leadership to ensure sound performance of enterprises. Similarly, public sector and private sector SMME development agencies, organisations and consultants can design suitable training programmes that contribute to improving financial literacy levels and entrepreneurial leadership capabilities of SMME owners to sustain survival of enterprises.

5.2. 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. To ensure SMMEs entrepreneurial performance, government should provide continuing strong backing to SMMEs programmes that improve financial literacy and entrepreneurial leadership of enterprise owners. In addition, government should consider ensuring adequate availability of support to SMMEs at affordable consultation costs, or provision of free-cost consultancy services at public institutions in the country.

6. References

1. Agyapong, D., & Attram, A.B. (2019). Effect of owner-manager's financial literacy on the performance of SMEs in the Cape Coast Metropolis in Ghana. *Journal of Global Entrepreneurship Research,* 9(1), 1-13.
2. Akaike, H. (1974). A new look at the statistical model identification. *IEE Transactions on Automatic Contro*l, 19(6), 716-23.
3. Al Mamun, A., Ibrahim, M.D., Yusoff, M.N.H.B., & Fazal, S. A. (2018). Entrepreneurial leadership, performance, and sustainability of micro-enterprises in Malaysia. *Sustainability*, 10, 1-23. https://doi/org/10.3390/su10051591
4. Al-Mamun, A., Nawi, N.B.C., Zainol, N.R.B. (2016). Entrepreneurial competencies and performance of informal micro-enterprises in Malaysia. *Mediterranean Journal of Social Sciences*, 7(3), 273-281. https://doi/org/10.5901/mjss.2016.v7n3p273.
5. Anyanwu, C. (2016). Dynamic entrepreneurial and managerial role in the front end loading (FEL) phase for sensing and seizing emerging technologies. *Management*, 6(5), 146 157.
6. Anyanwu, C., & Oad, S. (2016). Entrepreneurial leadership and organisational creativity in the collectivist context: the moderating role of emotional intelligence. *International Journal of Management and Administrative Sciences*, 4(2), 1-12.
7. Aslam, S., Shahid, M.N., Qureshi, M.H., & Qureshi, A.M. (2018). Investigating innovativeness and emotional intelligence as mediator to explore entrepreneurial marketing strategy focused on firm performance: a case in Pakistan. *Journal of Applied Environmental and Biological Sciences*, 8(1), 48-60.
8. Ayandibu, A.O., & Houghton, J. (2017). The role of small and medium enterprises in local economic development (LED). *Journal of Business and Retail Management Research*, 11(2), 133-139.
9. Ayankoya, K. (2016). Entrepreneurship in South Africa – A solution. Nelson Mandela Metropolitan University Business School, South Africa..
10. Beattie, S. (2016). Which entrepreneurial traits are the most critical in determining success? *Otago Management Graduate Review*, 14, 13-20.
11. Berkowitz, L., & Daniels, L. R. (1964). Affecting the salience of the social responsibility norm: effects of past help on the response to dependency relationships. *Journal of Abnormal and Social Psychology*, 68(3), 275-281. https://doi.org/10.1037/h0040164
12. Bhorat, H., Asmal, Z., Lilenstein, K., & van der Zee, K. (2018). SMMEs in South Africa: Understanding the constraints on growth and performance. Development Policy Research Unit, Working paper 201802. DPRU, University of Cape Town.
13. Browne, M. W., & R. Cudeck. (1993). Alternative ways of assessing model fit. In: K.A. Bollen & J. S. Long (eds). *Testing structural equation models,* 136-162.
14. Bushe, B. (2019). The causes and impact of business failure among small to micro and medium enterprises in South Africa. *Africa's Public Service Delivery and Performance Review*, 7(1), 1-26. https://doi.org/10.4102/apsdpr.v7i1.210.
15. Chan, L. L., & Idris, N. (2017). Validity and Reliability of the Instrument Using Exploratory Factor Analysis and Cronbach's alpha. *International Journal of Academic Research in Business and Social Sciences*, 7(10): 400-410.

16. Chepngetich, P. (2016). Effect of financial literacy and performance SMEs. Evidence from Kenya. *American Based Research Journal,* 5(11), 26-35.
17. Cronbach's, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3): 297-334.
18. Collis, J., & Hussey, R. (2013). Business Research: A Practical Guide for Undergraduate and Postgraduate Students. London: Palgrave Macmillan.
19. Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive-experiential and analytical rational thinking styles. *Journal of Personality and Social Psychology*, 71(2), 390-405. https://doi.org/10.1037/0022-3514.71.2.390.
20. Gathungu, J.M., & Sabana, B.M. (2018). Entrepreneur financial literacy, financial access, transaction costs and performance of microenterprises in Nairobi city county in Kenya. Global *Journal of Management and Business Research: Administration and Management*, 18(6), 1-12.
21. Gorgievski, M.J., Moriano, J.A., & Bakker, A.B. (2014). Relating work engagement and workaholism to entrepreneurial performance. *Journal of Managerial Psychology*, 29, 106-121.
22. Harrison, R.T., Leitch, C.M., & McAdam, M. (2015). Breaking glass: towards a gendered analysis of entrepreneurial leadership. *Journal of Small Business Management*, 53(3), 693-713.
23. Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indices in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
24. Ishtiaq, M., Songling, Y. Hassan, A., & Hayat, A. (2020). The role of financial literacy in resource acquisition and financial performance; moderating role of government support. *International Journal of Business and Economics Research*, 9(1), 29-39.
25. Jili, N.N., Masuku, M.M., & Selepe, B.M. (2017). SMMEs promoting local economic development (LED) in UMlalazi Local Municipality, KwaZulu-Natal. *African Journal of Hospitality, Tourism and Leisure*, 6(1), 1-10.
26. Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35(4), 401-415.
27. Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.
28. Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research*, 44, 86-507.
29. Kiyabo, K., & Isaga, N. (2019). Strategic entrepreneurship, competitive advantage, and SMEs' performance in welding industry in Tanzania. *Journal of Global Entrepreneurship Research*, 9(62), 1-23. https://doi.org/10.1186/s40497-019-0188-9.
30. Lakuma, C.P., Marty, R., & Fred, Muhumuza. (2019). Financial inclusion and micro, small, and medium enterprises (MSMEs) growth in Uganda. *Journal of Innovation and Entrepreneurship*, 8(15),1-20. https://doi.org/10.1186/s13731-019-0110-2.
31. Latif, W.B., & Karim, M.D.M. (2018). The art of developing entrepreneurial leadership. *International Journal of Research in Management*, 1(1), 18-21.
32. Leedy, P.D., & Ormrod, J.E. (2010). Practical research: planning and design (9th ed.). Upper Saddle River, NJ: Merrill.
33. Leitch, C.M., & Volery, T. (2017). Entrepreneurial leadership: insights and directions. *International Small Business Journal*, 35(2), 147-156. https://doi.org/10.1177/0266242616681397.
34. Li, C., Makhdoom, H.U.R., & Asim, S. (2020). Impact of entrepreneurial leadership on innovative work behaviour: examining mediation and moderation mechanisms. *Psychology Research and Behaviour Management*, 13, 105-118.
35. Likert, R. (1932). A technique for the measurement of attitude. *Archives of Psychology*, 140, 1-55.
36. Lusimbo, E. N., & Muturi, W. (2016). Financial literacy and the growth of small enterprises in Kenya: a case of Kakamega central sub- county, Kenya. *International Journal of Economics, Commerce and Management*, 4(6), 828-45.
37. Mashizha, M., Sibanda, M. & Maumbe, B., (2019). Financial literacy among small and medium enterprises in Zimbabwe. *Southern African Journal of Entrepreneurship and Small Business Management*, 11(1), 1-10.

38. Mgeni, T.O. (2015). Impact of entrepreneurial leadership style on business performance of SMEs in Tanzania. *Journal of Entrepreneurship & Organization Management*, 4(2), 1-9. https://doi.org/10.4172/2169-026X.1000142.
39. Mirahmadizadeh, A., Delam, H., Seif, M, & Bahrami, R. (2018). Designing, constructing, and analyzing Likert scale data. *Journal of Education and Community Health*, 5(3), 63-72. https://doi.org/10.21859/jech.5.3.63
40. Mkhavele, V. A., & Ntshakala, T. (2018). Entrepreneurship in the rural context: Practical reflection on success and innovation. *African Journal of Business Management*, 12(21), 640-651.
41. Molefe, K., Meyer, N., & de Jongh, J. (2018). A comparative analysis of the socio-economic challenges faced by SMMEs: The case of the Emfuleni and Midvaal local municipality areas. *Journal of Economics and Behavioural Studies*, 7-21.
42. Musie, L. (2015). The use of financial literacy concepts by entrepreneurs in small and medium enterprise sector in Mpumalanga Province, South Africa. Gordon Institute of Business Science, University of Pretoria.
43. Owusu, J., Ismail, M.B., Osman, M.H.B.M., & Kuan, G. (2019). Financial literacy as a moderator linking financial resource availability and SME growth in Ghana. *Investment Management and Financial Innovations*, 16(1), 154-166.
44. Pallant, J. F. (2000). Development and validation of a scale to measure perceived control of internal states. *Journal of Personality Assessment*, 75(2): 308-337.
45. Renko, M, El Tarabishy A, Carsrud, AL, & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style. *Journal of Small Business Management*, 53(1),54-74. https://doi/org/10.1111/jsbm.12086.
46. Rita, M.R. & Wahyudi, S. (2019). Entrepreneurial finance: financing antecedents and SMEs performance. *Journal of Economics, Business, & Accountancy Ventura*, 21(3), 303-313.
47. Rungani, E.C., & Potgieter, M., (2018). The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape province. *Acta Commercii*, 18(1), 1-12. https://doi.org/10.4102/ac.v18i1.591
48. Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students (6th ed.). Pearson Education Ltd.
49. Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167-177. https://doi.org/10.1016/S0191-8869(98)00001-4.
50. Sebikar, K. V. (2014). Entrepreneurial performance and small business enterprises in Uganda. *International Journal of Small Business and Entrepreneurship Research*, 2(4):1-12.
51. Shao, P. M. (2016). Entrepreneurial leadership as a determinant of business performance: A study of small and medium enterprises (SMEs) in Johannesburg. University of the Witwatersrand.
52. Sharmilee, S., & Hoque, M. (2016). Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and Perspectives in Management*, 14 (2-2).
53. Small Enterprise Development Agency (2020). SMME Quarterly Update 3rd Quarter 2019.
54. Steiger, J.H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, 42(5), 893-898.
55. Sutanto, E.M., Sigiols, P.J. & Putih, I. (2018). University students' entrepreneurial performance. *Journal of Economics, Business, and Accountancy Ventura*, 21(2), 251-258.
56. Tavakol, M. and Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2:53-55.
57. Thoms, P., Dose, J. J., & Scott, K. S. (2002). Relationships between accountability, job satisfaction, and trust. *Human Resource Development Quarterly*, 13(3), 307-323. https://doi.org/10.1002/hrdq.1033
58. Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38(1), 1-10.

59. Usama, K.M., & Yusoff, W.F.W. (2018). The relationship between entrepreneurs' financial literacy and business performance among entrepreneurs of Bauchi State Nigeria. *International Journal of Entrepreneurship and Business Innovation*, 1(1):15-26.
60. Welman, C., Kruger, F., & Mitchell, B. (2005). Research methodology. 3rd ed. Cape Town; Oxford University Press.
61. Ye, J., & Kulathunga, K.M.M.C.B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability*, 11, 1-21.
62. Zainol, F. A., Daud, W. N. W., Abubakar, L. S., Shaari, H., & Halim, H. A. (2018). A linkage between entrepreneurial leadership and SMEs performance: An integrated review. *International Journal of Academic Research in Business and Social Sciences*, 8(4),104-118.

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