Interdisciplinary Finance and Development Journal

https://infinancejournal.com/

Revue Interdisciplinaire de Finance et de Développement

Article Type: Research Article

Received: 05/06/2026 **Volume/Issue: 3(2)**
Accepted: 03/07/2026 **Pub Date Season: Summer**
Published: 12/07/2026 **Pages: 270-287**

Cite as: Kasoma, G. Chabala, M. Mwanza. F. & Simasiku, P. (2026). The Effects of Entrepreneurial Orientation on SMEs' Performance and The Moderating Role of Debt Finance: Evidence from Kitwe, Zambia. *Interdisciplinary Finance and Development Journal, 3(2),* 270-287.

The Effects of Entrepreneurial Orientation on SMEs' Performance and the Moderating Role of Debt Finance: Evidence from Kitwe, Zambia

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DOI : 10.5281/zenodo.21324174

ABSTRACT

This research aimed at examining the effects of entrepreneurial orientation on the performance of SMEs and the moderating role of debt finance in the Zambian context. Drawing on insights from the trade-off and Resource-based view (RBV) theories, the study sought to evaluate the relationship between entrepreneurial orientation, conceptualised as levels of Innovativeness, competitive aggressiveness, and risk-taking, and firm performance, and the moderating effects of debt finance on this relationship.Design/ Methodology - The study adopted a cross-sectional quantitative research design, using primary data collected from 216 entrepreneurs in the Zambian construction industry via an online survey questionnaire. Data was analysed in SPSS using correlation and regression analysis. Findings - The results of the study show that, of the three dimensions of entrepreneurial orientation, only innovation had a significant positive effect on firm performance. Access to debt finance also had a positive effect, moderating the relationship between innovativeness and firm performance. Implication for stakeholders, when innovation and debt finance increase, performance is likely to improve. Both start-ups and established businesses can use debt financing to expand and overcome difficult economic situations. Originality - A valuable contribution has been made to the under-researched context of Zambia in EO and Debt finance studies.

Keywords *: Entrepreneurial orientation; Innovation; Competitive aggressiveness; Risk-Taking, Debt finance, Moderating and Performance*

Les effets de l'orientation entrepreneuriale sur la performance des PME et le rôle modérateur du financement par emprunt : preuves empiriques de Kitwe, en Zambie

RÉSUMÉ

Cette recherche vise à examiner les effets de l'orientation entrepreneuriale sur la performance des petites et moyennes entreprises (PME), ainsi que le rôle modérateur du financement par emprunt dans le contexte zambien. En s'appuyant sur les apports de la théorie du compromis (Trade-off Theory) et de la théorie fondée sur les ressources (Resource-Based View – RBV), l'étude évalue la relation entre l'orientation entrepreneuriale, appréhendée à travers trois dimensions, l'innovation, l'agressivité concurrentielle et la prise de risque, et la performance des entreprises, tout en analysant l'effet modérateur du financement par emprunt sur cette relation. L'étude adopte une approche quantitative de type transversal, fondée sur des données primaires recueillies auprès de 216 entrepreneurs du secteur de la construction en Zambie au moyen d'un questionnaire administré en ligne. Les données ont été analysées à l'aide du logiciel SPSS en recourant à des analyses de corrélation et de régression. Les résultats révèlent que, parmi les trois dimensions de l'orientation entrepreneuriale, seule l'innovation exerce un effet positif et statistiquement significatif sur la performance des entreprises. En outre, l'accès au financement par emprunt influence positivement cette performance en renforçant la relation entre l'innovation et les résultats de l'entreprise. Ces conclusions suggèrent que l'amélioration des capacités d'innovation, conjuguée à un meilleur accès au financement par emprunt, est susceptible d'accroître la performance des PME. Ainsi, aussi bien les jeunes entreprises que les entreprises déjà établies peuvent mobiliser le financement par emprunt afin de soutenir leur croissance, développer leurs activités et faire face à des contextes économiques difficiles. Cette étude apporte une contribution originale à la littérature en enrichissant les connaissances sur un contexte encore peu exploré, celui de la Zambie, notamment en ce qui concerne les interactions entre l'orientation entrepreneuriale, le financement par emprunt et la performance des PME.

Mots-clés : *Orientation entrepreneuriale ; innovation ; agressivité concurrentielle ; prise de risque ; financement par emprunt ; effet modérateur ; performance*

INTRODUCTION AND BACKGROUND

Small and Medium-Sized Enterprises (SMEs) contribute significantly to a country's economic growth. They are regarded as economic drivers because they create employment opportunities and widen the tax base (Mason *et al.*, 2015). According to research, small and medium businesses account for more than 70% of all businesses worldwide (Hoque, 2018). The literature indicates that the failure rate of SMEs in developing countries is higher than in the Western world (Taylor, 2013; Musa and Aifuna, 2020; Mason et al*.,* 2015; Chikalipah, 2019). This is due to the various challenges SMEs face, including a lack of information, limited access to finance, and low entrepreneurial and business management skills (Machirori and Fatoki, 2013; Mason et al., 2015; Bustani, 2019; Simuchimba and Mulenga, 2019).

Musanzikwa (2014), defines entrepreneurial orientation as a strategic approach which captures a company's strategy-making processes, management philosophies and firm behaviors that are entrepreneurial in nature. Scholars suggest that the dimensions of Entrepreneurial Orientation, conceptualised as innovativeness, risk-taking, competitive aggressiveness, proactiveness, and autonomy, enable businesses to face obstacles encountered in dynamic environments (Tuan *et al*., 2016; Taylor, 2013). Moreover, some scholars argue that SMEs inability to fund their investments could potentially limit their ability to expand and achieve a competitive edge (Chikalipah, 2019; Mason *et.al,* 2015; Bustani, 2019; Fairoz, Hirobumi and Tanaka, 2010). There are five dimensions of EO but this study focused on Competitive aggressiveness, risk-taking and innovation. Prior studies (Mason *et.al* 2015; Machirori and Fatoki, 2013; Chikalipah, 2019) have shown these as the primary dimensions of EO.

Existing literature indicates that studies on entrepreneurial orientation and debt finance are conducted mostly in developed countries resulting in a knowledge gap on how such factors affect SME performance in Zambia (Presutti and Angelo, 2019; Mason et.al 2015; Taylor, 2013; Machirori and Fatoki 2013; Zampetakis *et.al* 2011; Chikalipah, 2019; Dube, 2014). However, while scholars suggest the role of Entrepreneurial Orientation and Debt finance as important to enhancing SME performance, the findings for their effect are inconclusive with some studies indicating positive effects, while others show negative effect (Chikalipah, 2019; Presutti and Angelo, 2019; Mason et.al 2015; Taylor, 2013; Machirori and Fatoki 2013; Musanzikwa, 2014).

Consequently, this study aimed to explore the relationship between Entrepreneurial Orientation and SME performance and to examine whether debt finance moderates this relationship. Drawing on insights from trade-off theory and the Resource-based view, the conceptual model was developed to postulate that debt finance moderates the relationship between Entrepreneurial Orientation and SMEs' performance. Data was collected from SMEs in Zambia, a sub-Saharan African developing country. Correlation and Regression analysis were used to analyse the Data.

This study contributes to the literature in three ways; first, we establish the effect of Entrepreneurial Orientation on the performance of SMEs. Second, we highlight the effect of Debt finance on the performance of SMEs. Third, we examine the moderating role of debt finance in the relationship between Entrepreneurial Orientation and SME performance.

Several scholars (Bustani, 2019; Mwika *et al., 2018; Gebremeskel, Simuchimba and Mulenga, 2019; Mwaanga and Chewe, 2016; Mason et al., 2015) have conducted studies on factors influencing* the performance of SMEs. However, Zambia remains a largely under-researched context, and little research has examined the factors that influence SMEs' performance. Therefore, this study contributes significantly to the under-researched context of Zambia in Entrepreneurial Orientation and Debt Finance studies. This paper is arranged as follows. The literature review and hypotheses are presented in Section 2. The methodology is explained in Section 3. Section 4 presents the findings, which are then discussed in Section 5. Section 6 discusses the study's implications, while Section 7 addresses its limitations and areas for future research.

LITERATURE REVIEW AND HYPOTHESES

Capital structure theories explain how the overall cost of capital and the firm's value change as the proportions of funds that finance the firm vary (Frank and Goyal 2007; Fatoki and Machirori 2013). The theories help to explain the relationship between debt finance and firm performance. The resource-based view theory, on the other hand, identifies the factors that influence a firm's competitive advantage and performance. The theory focuses on internal capabilities (skills and competence) and resources (Zulu-Chisanga, Chabala and Mandawa-Bray, 2021). It explains how resource and capability-related antecedents to firm performance affect firm performance. It has become one of the pillars for justifying that certain aspects of entrepreneurial Orientation can be learnt/taught (Mason *et al. al*, 2015). Therefore, Managers must possess the necessary skills and competence to enhance the performance of SMEs.

Scholars suggest that entrepreneurial orientation, as a driving force behind the organisational pursuit of entrepreneurial activities, has become a central focus in the field of entrepreneurship (Mason et al., 2015; Alvarez, 2019). Understanding which of the five dimensions are most valuable to securing improved performance at their potentially vulnerable stage of development is an important priority for emerging young firms with limited resource endowments (Soininen, 2013). It is possible that all five dimensions improve the performance of SMEs, but it is also possible that only a subset of dimensions will be beneficial (Kraus *et al*., 2012). Scholars argue that a business's level of EO can be seen by the extent to which the enterprise innovates, takes risks and acts proactively and aggressively to enhance the performance of SMEs (Mason et.al 2015; Machirori and Fatoki, 2013).

Mason *et.al* (2015) argues that the provision of debt finance has a long history which continues to change as technology advances, making it a viable and popular alternative for business owners. Debt finance has established itself as an important source of capital and sustenance funds for both existing and future ventures. Other Scholars suggest that many businesses do not have enough funds to get started, let alone sustain their operations (Mason *et.al* 2015; Machirori and Fatoki, 2013). As a result, they decide to borrow, either from sources such as family and friends or from banks and other financial institutions, to enhance firm performance (Omoshagba and Zubairu, 2018).

Entrepreneurial Orientation and Performance of SMEs

Machirori and Fatoki, (2013) indicated that EO has been widely acclaimed by researchers as a means of enhancing firm financial performance. An organisation's performance is determined by the outcomes of different strategies implemented by the firm (Duru, Ehidiamhen and Chijioke, 2018). The main goals of EO (the roles of EO) are to assist firms in finding and exploring profitable goods and market prospects (Fatoki, 2011). EO lays the groundwork for achieving superior competitive position and businesses have resulted in diversified products and markets (Mason *et al.*, 2015). A company's ability to remain competitive is directly proportional to its willingness to take calculated risk (Mwai, 2015). Innovation of new technologies, processes and services developed by a company can contribute to a long-term competitive advantage and better performance of SMEs (Fairoz, Hirobumi and Tanaka, 2010).

Empirical literature on the impact of EO on firm performance has yielded contradictory findings. Mason *et.al.* (2015) discovered that EO significantly enhances performance. Farrington and Matchaba-Hove (2015) argue that not all the dimensions of EO positively affect performance. On the other hand, Morgan and Hughes (2011) are of the view that studies have paid less attention to the analysis of the EO dimensions and as such there is little knowledge of whether each dimension is equally important or even necessary to secure improved performance in emerging young firms. They conclude that not all EO dimensions may be present or valuable, as it depends on the firm context. From these issues, to advance the Lumpkin and Dess (1996) framework, it is clear that research is needed to examine how each individual dimension of EO might influence business performance, and, though, research on the effect of EO on firm performance is inconclusive, the argument of this paper is that the dimensions of EO such as competitive aggressiveness, risk-taking and innovation should be able to provide an SME with a competitive advantage. Anchored on the above concepts on individual dimensions of EO, it is postulated that:

H1: Entrepreneurial Orientation has a positive effect on the performance of SMEs

H1a: Innovation has a positive effect on the performance of SMEs

H1b: Risk-taking has a positive effect on the performance of SMEs

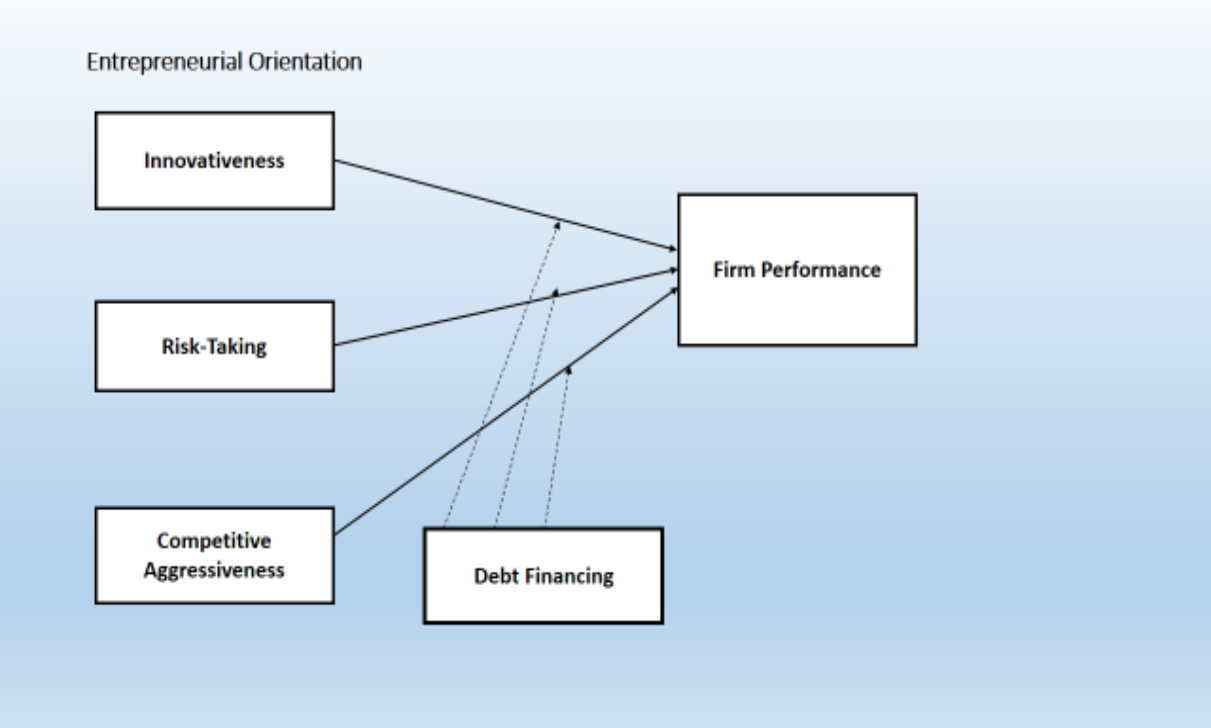
H1c: Competitive Aggressiveness has a positive effect on the performance of SMEs.

Debt Finance and Performance

Over the past years many scholars have explored the role of debt on a firm's non-financial and financial performance (Mwai, 2015). However, this role remains uncertain which attracts the attention of many researchers. Researchers analyze the debt ratio and try to determine whether an optimal debt ratio exists or not (Machirori and Fatoki, 2013). Optimal debt ratio is generally defined as the one which minimises the cost of capital for the company, while maximising the value of the company. In other words, the optimal debt ratio is the one which maximises the profitability of a company (Tinarwo, 2016; Lemmon and Zender, 2010; Dube, 2013). Debt in this study was measured using the subjective measure. Most researchers recommend using subjective measure of debt because businesses regard objective information relating to debt as highly confidential (Mason *et.al* 2015). Research on debt finance and the performance of businesses has produced mixed and contradictory conclusions. Jepkorir and Ginchure

(2019) discovered that debt finance had a positive effect on the performance of SMEs in Kapsabet town. While Tavaris and Forte (2019) discovered that using debt has a detrimental effect on a company's profitability which leads to poor performance.

Figure 1. Conceptual Model



Moreover, past research with regard to debt finance has focused on conducting research in developed countries. In line with the above perspectives, it is hypothesised that;

H2: Debt Finance has a positive effect on the performance of SMEs

The Moderating Role of Debt Finance

Many scholars assert that access to debt finance can lead to improved performance and development of SMEs (Githaiga, 2015; Machirori and Fatoki, 2012; Mohs Shariff *et.al* 2017). Other studies indicate that financing is essential for success of a business. Mohd Shariff *et.al.,* (2017) claim that easy access to finance is one of the key elements in determining growth and survival of SMEs since it allows them to undertake productive investments to compete. Dividends on equity are not tax deductible but interest on debt is (Mason *et al.*, 2015). As a result, businesses may use debt to reduce their capital costs and increase profits.

Given that high levels of EO reinforce capabilities in strategic planning, identifying customer needs, and identifying new opportunities, and that the use of debt finance might impact performance, debt finance can serve as a moderating variable (Mason et al., 2015). A moderator is a variable that can either strengthen or weaken the relationship between the independent variable and the dependent variable (Mason *et.al* 2015). The research aimed to determine whether debt finance strengthens or weakens the relationship between EO and performance of SMEs. For a business to be innovative, competitive and proactive they need to be financially sound (Machirori and Fatoki 2013). However, financial constraints faced by SMEs could restrict their capacity for expansion and, in turn, affect their ability to compete (Mwika, Banda, Chembe, *et al.*, 2018). Therefore, we can assume that access to debt finance moderates the relationship between EO and SME performance. Research on the effect of debt on firm performance is contradictory. Mason *et al. al* (2015) discovered that the interaction between debt finance and innovation has a negative effect. Other scholars have found that the moderating role of debt finance

positively affects the relationship between EO and SMEs' performance (Skopljak and Luo 2012; Harelimana 2017). Based on the above perspectives, the following hypotheses are proposed:

H3: The relationship between EO and the performance of SMEs is moderated by debt finance such that higher financing can make the relationship stronger or weaker

H3a: The relationship between innovation and SMEs' performance is moderated by debt finance

H3b: The relationship between Competitive Aggressiveness and SMEs' performance is moderated by debt finance

H3c: The relationship between Risk-Taking and SMEs' performance is moderated by debt finance

METHODS AND MEASUREMENTS

Population Sample and Data Collection

The purpose of this study was to investigate the effect of entrepreneurial orientation and debt finance on SMEs performance in Kitwe. The study was based on Small and medium-sized enterprises which include activities such as services, trading, Manufacturing and mining businesses. This study focused on the service industry specifically construction companies. Despite the complexity in locating a single database on SMEs in Zambia, the study attempted to construct a sampling frame using data from different sources, including the National Council for Construction (NCC) and the Patents and Companies Registration Agency (PACRA). Although these government sources provided the names, addresses, and phone numbers of SMEs, some records were out of date because several firms had changed locations and/or phone numbers. Therefore, Convenience sampling was used within the study's parameters. Despite its bias, several scholars recommend convenience sampling as a more appropriate sampling process in situations were constructing a useful sampling frame to create a satisfactory level of response is challenging (Zulu-Chisanga, Chabala and Mandawa-Bray, 2021).

The research took a quantitative approach where cross-sectional primary data was collected from a convenience sample of 216 participants using a questionnaire. Cross-sectional surveys are popular in small business strategy studies due to their ability to efficiently collect data on a wide range of variables, despite their limited degree of causal inference and susceptibility to common method bias (Zulu-Chisanga, Chabala and Mandawa-Bray, 2021)The data collected was analysed using the Statistical Package for the Social Sciences (SPSS). The analysis was done using correlation and regression. Correlation was used to measure the relationship between the independent and dependant variables, whereas regression analysis was used to determine the extent to which there is a linear relationship or effect between a dependent variable and independent variables.

Research Design

The Research design was determined based on the nature of the research issue. A conclusive design was chosen for this study in order to reach meaningful conclusions and to examine relationships. Both the causal and descriptive research design were used. The descriptive research design systematically explains a population or phenomenon, while Causal analysis is suitable for evaluating the effect between variables (Mwiya et al. al 2017; Creswell 2014; Gravetter and Farzano, 2012).

Measurement Model and Assessment

Table 3.1. Measurement Model

Variable	Item	Source
Entrepreneurial Orientation		
Innovation	We actively introduce improvements and innovations in our business.	(Covin and Wales, 2012)
	Our business is creative in its methods of operation	(Hughes and Morgan, 2007)

	Our business seeks out new ways to do things.	Fatoki 2013
	In the past five years, our firm has introduced many new lines of products and services	
Competitive aggressiveness	Our business is intensely competitive.	(Covin and Wales, 2012) (Hughes and Morgan, 2007)
	In general, our business takes a bold or aggressive approach when competing	
	We try to undo and out-maneuver the competition as best as we can	
	When dealing with our business rivals, our firm typically reacts to actions taken by them	
Risk-Taking	The term "risk taker" is considered a positive attribute for people in our business.	(Covin and Wales, 2012) (Machirori and Fatoki, 2013) (Hughes and Morgan, 2007)
	Our business emphasizes both exploration and experimentation for opportunities.	
	People in our business are encouraged to take calculated risks concerning new ideas.	
	Our company has a high-risk level of courage when entering new markets	
Debt Financing	Bank loans are easily accessible to us	-(Machirori and Fatoki, 2013) -(Zampetakis, Vekini and Moustakis, 2011) -Jepkorir 2019
	Suppliers credit is easily accessible to us	
	Our business is financed through bank loans when other types of finances are not sufficiently available	
	Our business sometimes receives short term loans for using as working capital	
	Our business relies on debt financing to promote growth	
Performance	Relative to our competitors, the value of assets has increased over the last 3 years	(Dafel, 2012) (Jepkorir and Gichure, 2019) (Hughes and Morgan, 2007)
	Relative to our competitors our sales have increased over the past 3 years	
	Relative to our competitors the number of employees has increased over the past 3 years	
	Relative to our competitors our company's profit has increased over the past 3 years	

The measures where based on a five-point Likert-type scale for all the constructs to provide respondents with a broader range of options to choose from (Zulu-Chisanga, Chabala and Mandawa-Bray, 2021). The Items that comprised the study's constructs were assumed to have content validity for two reasons. Firstly, construct items were adopted or adapted from prior studies such as (Covin and Wales, 2012; Hughes and Morgan, 2007; Machirori and Fatoki, 2013; Dafel 2012).

Secondly, following survey data collection, the constructs were further analysed for validity through principal component analyses using SPSS (Saunders *et al.,* 2009). Adopting measures from previous studies has two major advantages. First and foremost, the questions have been thoroughly tested for reliability and validity. Second, findings from subsequent studies using the same constructs can be compared with those of previous studies (Mwiya, 2014). All inter-item correlation matrix values (as shown in the SPSS output in the appendices section) are positive across all constructs, indicating that the items measure the same underlying characteristic. All Cronbach's Alpha values are above the minimum threshold of 0.70, meaning there is a high degree of internal consistency (Pallant, 2011).

The 21 items on the EO, debt finance and performance scale were further subjected to principal component analysis. The suitability of the data for factor analysis was evaluated. An examination of the correlation matrix, as shown in the appendices, confirmed the presence of many coefficients with values of 0.3 or higher. The Kaiser-Meyer-Olkin (KMO) values for EO, debt finance, and performance were 0.873, 0.754, and 0.819, respectively. These values were higher than the recommended value of 0.6

(Pallant, 2013). The factorability of the correlation matrix was supported by Bartlett's Test of Sphericity, which was statistically significant, implying that factor analysis is appropriate.

RESULTS

Correlation

The results in Table 2 show the correlations among the variables in the study. All independent variables, namely, entrepreneurial orientation, competitive aggressiveness, risk-taking, and debt finance, were positively correlated with performance, ranging from 0.352 to 0.621. The result further shows statistically significant relationships between the independent variables and the dependent variable. These findings are consistent with previous literature. For example, Rezaei and Ortt (2018), Herlinawati *et al. al* (2019) and Mamun and Fazal (2018) found a significant relationship between innovation, risk-taking and performance.

Multiple Regression Analysis

The study employed a regression analysis technique to test the conceptual model. The conceptual model posits that Debt finance moderates the relationship between EO and SMEs' performance. The results show a positive linear relationship between Innovation, Competitive aggressiveness, risk-taking, and overall performance. Model 4, besides the control variables, innovation, Competitive aggressiveness, risk-taking and debt finance further introduce the moderators, yielding combined R = 76.5% and R-squared of 58.5%, which are statistically significant as indicated by the sig F change value for this line (.000).

Table 1: Reliability Analysis Results

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Entrepreneurial Orientation (α=0.900)		
Entrepreneurial Orientation Innovation		
We actively introduce improvements and innovations in our business.	.730	.886
Our business is creative in its methods of operation	.745	.886
Our business seeks out new ways to do things.	.725	.887
In the past five years, our firm has introduced many new lines of products and services	.656	.891
Entrepreneurial Orientation Competitive Aggressiveness		
Our business is intensely competitive.	.587	.894
In general, our business takes a bold or aggressive approach when competing	.768	.885
We try to undo and out-manoeuvre the competition as best as we can	.558	.895
When dealing with our business rivals, our firm typically reacts to actions taken by them	.353	.909
Entrepreneurial Orientation Risk-Taking		
The term "risk taker" is considered a positive attribute for people in our business.	.610	.893
Our business emphasizes both exploration and experimentation for opportunities.	.588	.894
People in our business are encouraged to take calculated risks concerning new ideas.	.690	.889
Our company has a high-risk level of courage when entering new markets	.534	.896
Debt Financing (α=0.822)		
Bank loans are easily accessible to us	.453	.828
Suppliers credit is easily accessible to us	.591	.794

Our business is financed through bank loans when other types of finances are not sufficiently available	.666	.771
Our business sometimes receives short term loans for using as working capital	.715	.758
Our business relies on debt financing to promote growth	.661	.772
Performance of SMEs (α=0.923)		
Relative to our competitors, the value of assets has increased over the last 3 years	.833	.896
Relative to our competitors our sales have increased over the past 3 years	.836	.899
Relative to our competitors, the number of employees has increased over the past 3 years	.763	.921
Relative to our competitors our company's profit has increased over the past 3 years	.876	.881

The results indicate a fairly good fit for model 4 and the adjusted R squared is significantly different from zero. The implication is that 58.5% of the variation in the performance of SMEs is explained by the combined effect of the control variables, Innovation, Competitive aggressiveness, Risk-taking, debt finance and the moderators. The total variance explained by the model was 58.5% ($F(11, 204) = 26.107$, $P < 0.001$).

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	R Square Change	F Change	Df 1	Df 2	Sig. F Change
1	.536[a]	.287	.273	.287	21.216	4	211	.000
2	.661[b]	.436	.417	.149	18.379	3	208	.000
3	.734[c]	.539	.521	.103	46.084	1	207	.000
4	.765[d]	.585	.562	.046	7.491	3	204	.000

The moderators explained an additional 4.6% of the variance in the performance of SMEs, R-squared change = 0.046, F change (3, 204) = 7.49. The model summary above shows that the 4.6% increase is statistically significant (Sig F change = 0.000). Therefore, we conclude that debt finance moderates the relationship between EO and performance; however, the moderation occurs through innovation.

Table 3: Factor Analysis Results

		EO	Debt Financing	Performance
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.873	0.754	0.819
Bartlett's Test of Sphericity	Chi-square	1651.812	433.514	701.325
	Sig	0.000	0.000	0.000

Table 4 Correlation Analysis Results

Variables	N	1	2	3	4	5
Performance	216	-				
Innovation	216	0.563**	-			
Competitive aggressiveness	216	0.436**	0.617**	-		
Risk-taking	216	0.352**	0.543**	0.579**	-	
Debt Financing	216	0.621**	0.415**	0.375**	0.186**	-

**. Correlation is significant at 0.01 level (2-tailed).

In the final model (Table 4), the antecedents of SMEs' performance, namely, innovation, debt finance, and moderator_inno_DF, are statistically significant in the regression results presented. These results support part of the postulated hypothesis. In terms of their relative contribution to predicting SME performance, only 3 variables were statistically significant. The largest contribution is from Debt finance (beta = 0.417) and Innovation (Beta = 0.162), followed by Moderator_DF_Innovation (Beta = -0.266), which had the least contribution, as shown in the table above.

Table 4: Multiple Regression Results

Variable	Model 4		
	Beta 4	**Sig Model 4**	**VIF Model 4**
Annual sales	-0.062	0.258	1.453
Age of owner	-0.092	0.055	1.119
Legal status	0.018	0.720	1.183
No of employees	0.219	0.001	1.951
Innovation	0.162	0.021	2.365
Competitive aggressiveness	-0.105	0.259	4.255
Risk taking	-0.016	0.864	4.082
Debt finance	0.417	0.000	1.736
M_DF_Innovation	-0.266	0.000	2.236
M_DF_Competitive aggressiveness	-0.088	0.297	3.499
M_DF_Risktaking	-0.043	0.642	4.218

DISCUSSION

The study had 3 main research objectives; To determine the effect of Entrepreneurial Orientation (Innovation, competitive aggressiveness and risk-taking) on the performance of SMEs; (ii) to determine the effect of Debt finance on SMEs' performance; (iii) to determine the moderating effect of Debt finance on the relationship between EO (Innovation, Competitive aggressiveness and risk-taking) and the performance of SMEs. The findings of each objective are discussed below;

The effect of Innovation on Firm performance of SMEs

Prior to conducting the regression analysis, Pearson correlation was performed to determine whether there is a relationship between the independent variables and the dependent variable. The correlation coefficient between performance and innovation is (r = 0.563, with a large size effect). The significant positive correlation implies that the higher the level of innovation employed by the manager, the more likely SMEs' performance is to improve. This is corroborated further by the regression analysis indicating a significant effect of innovation on the performance of SMEs with Beta (0.162) and the sig value of (0.021). The results show a positive effect: for each 1-unit increase in Innovation, performance increases by 0.162, holding other factors constant. These results support the findings of Mason et al. al

(2015), which indicate that the greater the Innovation, the greater the performance. This result is expected because Literature (Zhai *et.al* 2018; Machirori and Fatoki 2013; Mason et.al 2015) shows that innovative activities add value and competitive advantage to successful organisations. Therefore, understanding an organisation's overall innovation is the most important step in determining the success of SMEs. The results indicate that firms require innovation to succeed; i.e., introducing many new product and service lines, improvements, and creativity lead to better performance among SMEs.

The effect of Competitive aggressiveness on the performance of SMEs

Before determining the effect of competitive aggressiveness on the performance of SMEs, the researcher sought to establish whether there is a relationship between competitive aggressiveness and performance. Table 5.8 shows the correlations among the variables. The correlation coefficient between competitive aggressiveness and performance is (r = 0.436, with a medium-sized effect). The results show a significant positive correlation between competitive aggressiveness and SME performance, implying that the higher the level of competitive aggressiveness adopted by the manager, the more likely SME performance is to improve. This result supports the findings of Alyoade (2016), which show that competitive aggressiveness is strongly positively related to performance. However, with reference to Table 5.9, the results of the hierarchical multiple regression analysis in Model 4 show a negative effect of competitive aggressiveness on the performance of SMEs, with Beta (-0.105) and Sig Value (0.259), but the result is not statistically significant. The results imply that for each 1-unit increase in competitive aggressiveness, performance decreases by 0.105. Research on the effect of entrepreneurial Orientation on business performance has produced mixed and contradictory conclusions; Farrington and Hove (2011) found that not all elements of EO positively affect a firm's success. On the other hand, Mamun and Fazal (2018) discovered a positive effect of Competitive aggressiveness on performance. However, the findings show that whether SMEs are competitively aggressive or not has no bearing on their performance.

The effect of Risk-Taking on the performance of SMEs

Prior to performing the regression analysis, Pearson correlation was conducted to ascertain if there is a relationship between risk-taking and performance. The correlation coefficient between risk-taking and performance is (r = 0.352, with a medium-sized effect). The significant positive correlation indicates that the higher the level of risk-taking employed, the more likely SMEs' performance is to improve. However, the regression analysis indicates a negative effect of risk-taking on the performance of SMEs with Beta (-0.016) and the sig value of (0.864). The negative effect indicates that for each 1-unit increase in risk-taking, performance decreases by 0.016, holding other factors constant. However, the result is not statistically significant. The findings suggest that whether SMEs engage in risky ventures or not has no effect on their performance.

The effect of debt finance on the performance of SMEs

Prior to conducting the regression analysis, Pearson correlation was performed to determine if there is a relationship between debt finance and performance. The correlation coefficient between debt finance and performance is (r = 0.621, with a large size effect). The significant positive correlation implies that the higher the level of debt financing employed, the more likely SMEs' performance will improve. This is supported further by the regression analysis indicating a significant positive effect of debt finance on the performance of SMEs with Beta (0.417) and the sig value of (sig=0.000). The implication of the result is that when debt finance increases by 1, performance increases by 0.417, holding other factors constant. These results are in line with the findings of Jepkorir and Gichure (2019) and Machirori and Fatoki (2013), which indicate that the greater the debt finance, the greater the performance. This result is expected because literature indicates that debt finance has established itself as an important source of capital and sustenance funds for both existing and future ventures. Compared with equity financing, debt financing reduces the risk of leaking value-creating intellectual property to competitors and does

not compromise ownership. Literature on debt finance further demonstrates that any firm requires finances to succeed and gain a sustainable competitive advantage (Fatoki, 2011; Harelimana 2018; Machirori and Fatoki 2013; Jepkorir and Ginchure 2019). The findings suggest that debt finance plays an important role in the success of SMEs and leads to better performance.

The moderating effect of debt finance on the relationship between Innovation and performance of SMEs

The researcher further wanted to determine whether debt finance moderates the relationship between Innovation and performance. With the aid of regression analysis, model 4 shows the interaction between debt finance and Innovation to be statistically significant with Beta (beta= -0.266) and a sig value of (0.000). This implies that the interaction between debt finance and innovation negatively affects SME performance. When the interaction between debt finance and Innovation increases by 1, performance decreases by 0.266, holding other factors constant. Therefore, debt finance moderates the relationship between innovation and SMEs' performance; however, it weakens that relationship. The results are corroborated by the findings of Mason et al. (2015), who found that the interaction between debt finance and innovation has a negative effect.

The moderating effect of debt finance on the relationship between Competitive aggressiveness and the performance of SMEs

To determine whether debt finance moderates the relationship between Competitive aggressiveness and performance, a regression analysis was conducted. The results in model 4 indicate that the interaction between debt finance and competitive aggressiveness has a negative effect with Beta (beta= -0.088) and a sig value of (0.297). The implication is that when the interaction between debt finance and competitive aggressiveness increases by 1, performance will reduce by 0.088. However, these results are not statistically significant. The results are confirmed by Mason et al. al (2015), who discovered that the interaction between debt finance and competitive aggressiveness has a negative effect. As the interaction between debt finance and competitive aggressiveness increases, SME performance declines.

The moderating effect of debt finance on the relationship between Risk-taking and performance of SMEs

The findings indicated that there is a negative effect between the interaction of debt finance and risk-taking with Beta (-0.043) and sig value (sig=0.642). The results suggest that as the interaction between debt finance and risk-taking increases by 1, performance reduces by 0.043. Results generally support propositions in the literature suggesting that firms should not engage in high-risk projects, as such projects can lead to slow growth rates (Peng, 2015). The results indicate that as the interaction between debt finance and risk-taking increases, SME performance declines. A proclivity for taking risks denotes a willingness to invest in projects with uncertain outcomes (Eijdenberg, 2016). However, the results are not statistically significant. This implies that whether managers use debt to pursue highly risky ventures has no bearing on the performance of SMEs.

Table 5: Hypotheses and Results

	Hypothesis	Statistics	Test	Sig	Result
H1a	*Innovation has a positive effect on performance*	Regression	0.162	0.021	supported
H1b	*Competitive Aggressiveness has a positive effect on performance*	Regression	-0.105	0.259	Not supported
H1c	*Risk-taking has a positive effect on performance*	Regression	-0.016	0.864	Not supported
H2	*Debt finance has a positive effect on performance*	Regression	0.417	0.000	Supported
H3a	*The relationship between innovation and SMEs' performance is moderated by debt finance*	Regression	-0.266	0.000	Supported
H3b	*The relationship between Competitive Aggressiveness and SMEs' performance is moderated by debt finance*	Regression	-0.088	0.297	Not supported
H3c	*The relationship between Risk-Taking and SMEs' performance is moderated by debt finance*	Regression	-0.043	0.642	Not supported

H1a

Since the P=sig=0.021<alpha=0.05, we reject H0 and conclude that Innovation has a positive effect on the performance of SMEs (Beta=0.162, P<0.05)

H1b

Since the P=sig=0.259>alpha=0.05, we fail to reject H0 and conclude that competitive aggressiveness has no positive effect on the performance of SMEs (Beta=-0.105, P<0.05)

H1c

Since the P=sig=0.864>alpha=0.05, we fail to reject H0 and conclude that risk-taking has no positive effect on the performance of SMEs (Beta=-0.016, P<0.05)

H2

Since the P=sig=0.000<alpha=0.05, we reject H0 and conclude that debt finance has a positive effect on the performance of SMEs (Beta=0.417, P<0.05)

H3a

Since the P=sig=0.000<alpha=0.05, we reject H0 and conclude that the relationship between Innovation and performance is moderated by debt finance (Beta=-0.266, P<0.05)

H3b

Since the P=sig=0.297>alpha=0.05, we fail to reject HO and conclude that the relationship between competitive aggressiveness and performance is not moderated by debt finance (Beta=-0.088, P>0.05)

H3c

Since P=sig=0.642 > alpha=0.05, we fail to reject H0 and conclude that the relationship between risk-taking and performance is not moderated by debt finance (Beta=-0.043, P>0.05).

CONTRIBUTION TO KNOWLEDGE

This research examines the contextual applicability of Entrepreneurial Orientation and debt finance to the performance of SMEs in Zambia. Some scholars indicate that generally most studies on EO and Debt Finance are mainly conducted in developed nations and some African countries as well, but not much research has been done in Zambia, and that limits the generalisability of findings (Mason et al. *al* 2015; Machirori and Fatoki 2013). The implication of scant research is that researchers, policymakers, managers, business owners, and other stakeholders lack sufficient information that considers local contexts for research, practice, and policy direction. Therefore, conducting this research in Zambia confirms the contextual applicability of EO and Debt finance in Zambia.

IMPLICATIONS FOR POLICYMAKERS AND PRACTITIONERS

The findings of the research have implications for policymakers and practice. Research findings reveal that debt finance positively affects SME performance. This implies that when debt finance increases, performance is likely to increase. The goal of debt financing is to improve a company's earnings so that it can recoup its costs, benefit the owners, and keep the surplus. Both start-ups and established businesses can use debt financing to expand and emerge from difficult economic situations. Debt financing is important to businesses because it can improve performance. However, management should understand and be aware of the benefits and costs of employing debt financing. On the other hand, results show that not all EO dimensions positively affect performance. In this case, Innovation had a positive statistically significant effect on the performance of SMEs. This entails that when innovation increases, performance is likely to increase. The implication is that innovative activities provide value and a competitive edge

so as to increase the performance of SMEs. Therefore, evaluating an organisation's overall innovation is the most important stage in determining its success. From a policy perspective, to address and improve lending and innovative incentives, there is a need for coordinated policies, strategies and programmes. The strategies and policies should be monitored and evaluated periodically to promote best practices.

LIMITATIONS AND AREAS OF FUTURE RESEARCH

Conducting such research cannot be undertaken without encountering some challenges. The study faced some limitations, which provide directions for future research. First, the choice to conduct research with SMEs, particularly in the Construction sector, while ignoring large organisations, may not provide a true reflection of the entire problem. Therefore, covering the entire country by increasing the sample base would improve the generalisability of conclusions. Therefore, further research on the effect of EO on SME performance and the moderating role of debt finance must be conducted across various parts of Zambia to generalise the conclusions to the Zambian context. Second, this was a cross-sectional study, in which the researcher measures variables in a population of interest at a specific point in time; therefore, the findings may be time-specific and lack generalisability over time. Lastly, another limitation arises from relying on a single method for data collection. The researcher used only questionnaires to collect data, which increases bias in the research. Reliance on a single methodology limits the ability to fully investigate the study. In light of the study's findings and limitations, directions for future research are suggested. First, future studies may consider including large organisations as well, and research must be conducted across various parts of Zambia to improve the generalisability of conclusions. Second, future studies may consider employing a longitudinal research design, where data is collected over time with the same individuals observed over the study period. Third, future studies could further incorporate methodological triangulation. This involves using multiple methods to gather data, such as interviews, observations, secondary documents, and questionnaires. This reduces bias in research and makes the findings more valid, reliable and generalisable.

CONCLUSION

The overall aim of the current research was to examine the effect of Entrepreneurial orientation on SME performance and the moderating role of debt financing in this relationship. Anchored on the literature review, a conceptual framework was developed. The study used Pearson correlation analysis to assess the direction and strength of relationships among all variables. Regression analysis was employed to test the conceptual model. The conceptual model posits that debt finance moderates the relationship between EO and SME performance. This study makes a valuable contribution to the under-researched context of EO and debt financing studies in Zambia. The study found that debt finance has a significant positive effect on SME performance. This implies that the higher the level of debt financing employed by the manager, the more likely it is that SME performance will increase. The results further show that Innovation has a significant positive effect on SMEs' performance. This implies that when firms engage in innovative activities, SME performance increases. Furthermore, the study reveals that Competitive aggressiveness and risk-taking have a negative effect on the performance of SMEs, but the findings are not statistically significant. The results further indicate that debt finance moderates the relationship between EO and performance, but the moderating effect is only through innovation, not competitive aggressiveness or risk-taking. The recommendations were made to policymakers and business owners as highlighted in section 6.2. The study faced some limitations, which formed the basis for directions for future research, as outlined in sections 6.3 and 6.4, respectively.

DECLARATION OF CONFLICTING INTERESTS

The author declared no potential conflicts of interest concerning the research, authorship, and publication of this article.

FUNDING

The authors received no financial support for the research, authorship, and/or publication of this article.

CONFLICT OF INTEREST

There is no personal or financial conflict of interest between the authors of the article within the scope of the study.

AUTHOR CONTRIBUTIONS

Kasoma, G. Chabala, M. and Simasiku. P. initiated all the Research design

Kasoma G. Did all the Data collection with the collaboration with Chabala

Kasoma G. She was responsible for the Statistical analysis

Mwanza F. was responsible for the Preparation of the Article

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