



Risk Perception and SMEs growth in the Southwest Region of Cameroon

Fah Noushi Mono¹, Fah Foh Tella², and Molem Sama Christopher³

¹Phd candidate, Department of Management, University of Buea, Buea Cameroon

²Research Fellow, Department of Accounting, University of Bamenda, Bamenda Cameroon.

³Professor of Economics, University of Buea, Buea Cameroon

Abstract— The study focuses on the relationship between risk perception and the growth of small and medium-sized enterprises (SMEs) in the Southwest Region of Cameroon. Considering the vital function SMEs play in economic development, it is imperative to comprehend the elements influencing their expansion. Despite the high contribution that SMEs make to the growth of the economy, various challenges they face lead to their market exit even before attaining the third anniversary. Data was gathered from 304 SME owners and managers using a structured questionnaire, offering insights into their viewpoints on risk perception. The research employs a quantitative research approach, utilizing multiple regression and structural equation modelling for statistical analysis to investigate the direct correlations between the variables under investigation. The results show that Risk perception particular overconfidence, anchoring and regret aversion positively and significantly influences the growth of SMEs. The study also offers practical implications for business educators and policymakers in designing targeted interventions to enhance the capacity of SMEs for sustainable growth.

Keywords— Risk perception and SMEs, growth.

INTRODUCTION

In an era marked by global economic crises, the constraints on available domestic resources for development have intensified. This situation underscores the crucial role of mobilizing all relevant economic players in the allocation of resources for development processes. Among these players, Small and Medium-sized Enterprises (SMEs) have emerged as essential contributors to national development due to their capacity to support development initiatives.

SMEs are particularly recognized for their ability to promote employment, income stability, and poverty reduction through job creation at lower capital costs compared to larger companies. SMEs growth is integral to their ability to provide employment and support overall economic development. The ambition for growth among SME owners often stems from a desire to create value and generate positive cash flows and earnings that exceed industry averages (Wamae, 2013). Growth, in this context, can be measured by increases in business profit, the number of employees, product innovation, and market entry (Beck et al., 2005). However, SMEs often face challenges that limit their growth potential, including financial constraints, market access issues, and management inefficiencies.

Historically, SMEs in Africa have faced considerable challenges due to colonial legacies, which established economic structures that favored large enterprises over smaller ones. Post-independence policies in many African countries, including Cameroon, initially focused on state-owned enterprises, neglecting the SME sector. However,



since the 1990s, there has been a shift towards recognizing the importance of SMEs in economic development. In Cameroon, the government has implemented various initiatives aimed at supporting SMEs, such as the establishment of the SME Promotion Agency (APME) and the introduction of the National Development Plan, which includes specific measures to enhance SME growth and development.

Despite these efforts, SMEs in Cameroon continue to struggle with high failure rates and limited growth. According to the Ministry of Economy, Planning, and Regional Development (MINEPAT, 2016), less than 27.7% of SMEs in Cameroon survive beyond their first five years. The National Institute of Statistics (NIS, 2015) reported that over 75% of newly created SMEs in Cameroon did not survive beyond three years, indicating a critical need for improved risk management and financial literacy among SME owners.

The ongoing crisis in the North West and South West Regions of Cameroon has exacerbated these challenges, affecting SMEs ability to operate and grow. The socio-political instability has led to market disruptions, increased operational risks, and reduced access to essential resources, making it even more difficult for SMEs to thrive. Market anomalies in crisis-affected areas lead to cognitive biases and subjective financial decisions, hindering rational investment strategies (Ibbotson et al., 2018). In addition, the ability to achieve such growth is heavily influenced by how SME owners perceive and manage risks.

Risk perception involves the subjective assessment of the likelihood and severity of potential risks, significantly impacting decision-making processes (Kahneman & Tversky, 1979). Behavioral finance theories, such as Prospect Theory, suggest that biases like overconfidence, herding, anchoring, loss aversion, and regret aversion shape how entrepreneurs evaluate and respond to risks. Overconfident SME owners may underestimate potential risks, leading to resource overextension (Barber & Odean, 2001), while those affected by loss aversion may avoid beneficial opportunities due to the fear of losses. Slovic (2000) and Gentile et al., (2015) emphasize that risk is inherently subjective context-dependent, and influenced by personal biases and heuristics.

Despite the recognised importance of risk perception in the globe, there is a significant gap in the literature regarding their combined effects on SME growth in Cameroon giving rise to the Contextual (geographical) gap. Furthermore, existing studies have primarily focused on these factors independently and on an individual perspective, without considering their interactive impact on SME development. Understanding the effect of risk perception on SMEs growth is essential for designing effective interventions that can enhance SME resilience and growth. Hence by addressing these knowledge and geographical gaps, this study aims to provide actionable insights for SME owners, policymakers, and stakeholders, helping to foster a more conducive environment for SME development in the Southwest Region of Cameroon. This research is crucial for developing targeted strategies that can mitigate the risks associated with cognitive biases among SME owners, ultimately contributing to the sustainable growth of SMEs in the South West Region of Cameroon.

Operational Definition

The operational model definition of the terms and variables adopted for the study are given in this section.

Risk perception is an individual's subjective judgment about a risk's severity. In the context of SMEs, it involves how business owners and managers evaluate and respond to potential threats and uncertainties in their business environment. Fundamentally, risk perception involves two factors: the heuristics and the prospect factors, comprising overconfidence, anchoring and herding, representativeness, loss aversion, regret aversion, and mental Accounting. Overconfidence is the tendency for individuals to overestimate their knowledge, abilities, or control over events. In the context of SMEs, overconfidence can lead managers to underestimate risks or believe they can handle adverse situations better than they actually can. It measures the difference between an individual's real knowledge and the knowledge they think they know.

Herding is a risk-perceiving behaviour based on ignorance or lack of knowledge in which an individual tends to follow the actions or decisions of a larger group, often disregarding their own analysis or intuition. In the herd effect, ignorant, illiterate, and emotional individuals are mentioned in the same category. In SMEs, this can lead to following market trends or competitor strategies without adequate evaluation. Anchoring is a cognitive bias in which individuals rely heavily on initial information (the "anchor") when making decisions. For SMEs, anchoring can affect risk assessment by causing managers to base their evaluations on initial estimates or past experiences.

Loss aversion refers to individuals' tendency to avoid losses rather than acquire equivalent gains. This can lead to overly conservative strategies in SMEs, avoiding risks that could benefit the business. Regret aversion is the tendency to avoid making decisions that could lead to regret. It often leads to inaction or overly cautious behaviour. For SMEs, this may result in missed opportunities or failure to innovate.

SMEs refer to Small and medium-sized enterprises. According to Law No. 2015/010 of the 16th of July 2015 on the Promotion of Small and Medium Size Enterprises in Cameroon, businesses are classified as SMEs if they employ between 6 and 100 people and have an annual revenue before taxes of between 15 million and 3 billion FCFA. This means that businesses with 6 to 20 employees and an annual revenue before taxes of 15 million to 250 million FCFA are classified as small businesses, while medium-sized businesses with 21 to 100 employees and an annual revenue before taxes of 251 million to 3 billion FCFA are classified as medium-sized businesses. SMEs' Growth refers to various concepts, such as an increase in total sales volume, increase in production capacity, increase in profit, increase in employment, increase in production volume, and increase in the use of raw materials and power.

Independent Variable

Risk Perception

- Overconfidence
- Herding Bias
- Anchoring
- Loss Aversion
- Regret Aversion

Dependent Variable

SMEs Growth

- Increased Business Profit
- Increase employee's size
- Increased business turnover
- Innovation
- New market entry

Figure 1: framework of the Study | **Source:** Authur (s)



With regards to our objective, a nexus is set between Risk perception and the growth of SMES. Studies have shown that the attitude exhibited toward risk in business affects the growth outcome of the business since each business decision is linked with risk (Oláh et al., 2019). Prior studies have extensively assessed the relationship between risk perception and business growth and have mostly found a significant correlation between perception of risk and firm growth. The study by Cucculelli and Ermini (2012) reported a negative association between the growth of a firm and risk aversion. In a working paper by Söderbom and Pattillo (2000), it was found out that, managers of firms in Ghana's manufacturing sector who are risk-averse turn to face very high risk and also end up with low profit margins. Buchdadi et al. (2020) also realized a positive significant link between a company's performance and the risk perception of its leaders while Ye and Kulathunga (2019) found that the right attitude towards risks can assist firms to sustain their business. These results highlight the need for the owner/manager to possess the right perception towards risk to succeed in business. However, the high collapse rate of firms (Addo & Asantey, 2023) confirms the risk behavior of most of these SMEs. A study by Mthiyane et al. (2022), found out that most SMEs in developing economies have poor risk management skills.

METHODOLOGY

Sample and Data Collection Method

Given the population size of 24,481 SMEs in the South West Region of Cameroon, a representative sample is necessary to ensure the generalizability of the study's findings. Nevertheless, given the constraints of not having the exact number of SMEs according to sizes and sectors and limited access to all areas in the South West Region of Cameroon, a combination of purposive and convenience sampling will be used. This approach allows for the inclusion of a diverse range of SMEs while considering practical limitations.

Purposive sampling was used to select key areas and types of SMEs that are critical to the study's objectives. This technique ensured that the sample included SMEs from various important sectors and different sizes. Areas and SMEs were selected based on economic significance, accessibility, and representativeness of the larger population. Major towns and economic hubs within the region were prioritised. Convenience sampling was also employed within the selected areas to gather data from SMEs that are easily accessible to the researcher. This method is practical given the constraints and helps collect a substantial amount of data.

The sample size is determined using a simplified formula for practical purposes, ensuring a balance between accuracy and feasibility. Using a confidence level of 95% and a margin of error of 5%, the sample size was approximated using the following formula by (Suresh and Chandrashekara., 2012)

$$n = \frac{Z^2 p(1 - p)}{e^2}$$

Where,

n = required sample size

p = the fraction of the population (as percentage) that displays the attribute- estimated proportion (0.05 for maximum variability)



Z = z- value @ 1.96 for 95% confidence level extracted from a Z-table

e = margin of error (0.05)

$$n = \frac{1.96^2(.5)(1-.5)}{.05^2} = 384.16 \cong 384.$$

n = 384

Thus, the required sample size is approximately 384 SMEs.

Major towns and economic hubs such as Buea, Limbe, Kumba, and Mamfe were targeted for sampling. These areas are more accessible and have a higher concentration of SMEs in the region. A few accessible rural areas will also be included to capture the diversity of SME activities.

Furthermore, SMEs from various sectors such as agriculture, construction and real estate, health and pharmaceuticals, manufacturing, trade and services were purposively included to ensure sectoral diversity. Within each selected area, SMEs were then chosen based on accessibility and willingness to participate, using convenience sampling. For the sampling frame, a list of SMEs was obtained from the tax centre for medium enterprises CIME in limbe, which incorporated both the small and medium enterprises to identify potential participants.

Given the practical constraints, the combination of purposive and convenience sampling techniques is appropriate. With an estimated sample size of 384 SMEs, the study aims to provide a representative snapshot of the SME landscape in the South West Region of Cameroon. This approach ensures that despite the limitations, the study can achieve its objectives and contribute valuable insights into the growth and challenges of SMEs in the region.

Model Specifications

To Analyse the effect of Risk Perception on the Growth of SMEs in the South West Region of Cameroon.

This model examines the effect of risk perception on the Growth of SMEs in the South West Region of Cameroon as shown below;

$$SMEGR = f(OCB, HB, ANC, LAV, RAV, Duration, No\ of\ employees) \dots \dots \dots (1)$$

$$SMEGR = \lambda_0 + \lambda_1 OCB_i + \lambda_2 HB_i + \lambda_3 ANC_i + \lambda_4 LAV_i + \lambda_5 RAV_i + \lambda_6 Duration_i + \lambda_7 No\ of\ employees_i + \varepsilon_i \dots \dots \dots (2)$$

Equation (2) examines SMES Growth as a function of risk perception which is captured using overconfidence bias (OCB), Herding bias (HB), and Anchoring (ANC), Loss Aversion (LAV), Regret Aversion (RAV)

Where;

CV = control variables which are; Duration of business and Number of employees.

λ_0 = constant term

ε_i = error term

RESULTS

Table 2. Cronbach Alpha

Variable	Observation	Number of items	Cronbach Alpha	Observation
Growth of SME (SMEG)	304	5	0.7317	Acceptable
Overconfidence (OC)	304	5	0.7890	Acceptable
Herding Bias (HB)	304	5	0.7994	Acceptable
Anchoring (AB)	304	4	0.7076	Acceptable
Loss Aversion (LA)	304	3	0.7538	Acceptable
Regret Aversion (RA)	304	3	0.7490	Acceptable
Risk Perception (RP)	304	5	0.8129	Good

Source: Author's computation (2024)

The result in table 2 above shows the internal consistency of the instrument used for this study which is represented by the Cronbach's alpha coefficients. The benchmark for this test holds that a Cronbach alpha coefficient of between 0.5 and 0.7 implies fair reliability of the instrument while a coefficient of above 0.7 is considered adequate for reliability. From the results, it is observed that all the sections have Cronbach's alpha coefficients of above 0.5. Thus, with this result we can conclude that the instrument for this study is reliable.

Verification of Hypothesis

The research hypothesis was stated as follows.

H1: Risk Perception have a positive and significant effect on Growth of SMEs

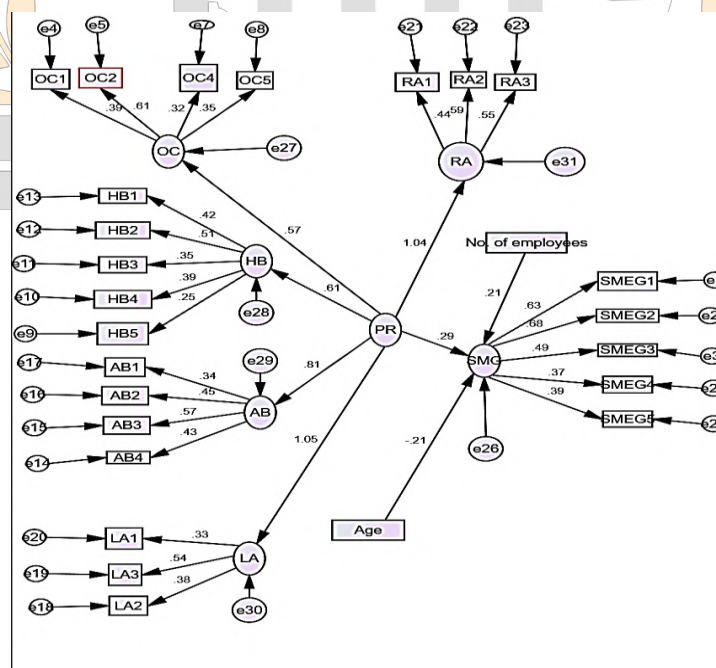


Figure 2: Structural mimetic model of Risk Perception and SMEs Growth

Source: Computed by Author using AMOS version 20

The result presented in Figure 4.2 show the relationship between the inner models constructs as well as the relationships between the observed indicators and constructs. The circle represents the construct while the rectangle represents the observed or manifest variables used in the construction of the model (Thalut, 2016). The model indicates that risk perception (RP) is an exogenous latent construct while small and medium size enterprise growth (SMEG) is an endogenous latent construct.

The exogenous construct risk perception was captured using five formative sub constructs over confidence (OC), herding bias (HB), anchoring (AC), loss aversion (LAV) and regret aversion (RAV). The used of construct can be justified on the bases of the fact that risk perception, and growth of SME have multifaceted dimensions. Therefore, suggesting that the use of a single observed variable on the questionnaire may not be appropriate to proxy for these concepts. The question items used as manifest of the constructs are valid and reliable as indicated on the structural model. The result of the fitted model using maximum likelihood estimation technique is summarized on the table 3 below.

Table 3: RP on SMEs growth using Maximum Likelihood (ML)

Hypothesized Linkage			Estimate	S.E.	C.R.	P
OC	<---	RP	.428	.123	3.475	***
RA	<---	RP	1.069	.228	4.688	***
HB	<---	RP	.327	.119	2.749	.006
AB	<---	RP	.765	.178	4.310	***
LA	<---	RP	1.000			
SMG	<---	RP	.395	.125	3.144	.002
SMG	<---	No. of employees	.182	.058	3.141	.002
SMG	<---	Duration	-.124	.040	-3.123	.002

Source: Computed by Author using AMOS version 20

Note: S.E is the standard errors; C.R. is the critical ratio, which is equivalent to the z-statistics and student test (t) ***P<0.01, **P<0.05, *<0.1

The results in Table 3 revealed that risk perception has a significant positive effect on the on the growth of small and medium size enterprise in the South West Region Cameroon using maximum likelihood estimation technique of structural equation model.

The result equally shows that the control variables longevity and number of employees were found to be a significant predictor of the growth of small and medium size enterprises in the south west region of Cameroon. All the formative sub constructs were all significant and have a positive effect on SMEG in the South West Region of Cameroon.

The significant of relationships between risk perception and SMEG in the South West region of Cameroon, permit us to reject the null hypothesis in the study which state that risk perception has no significant positive effect on the growth of small and medium size enterprise in the South West Region Cameroon.

Table 4: Correlation Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Growth (1)	1							
Overconfidence (2)	0.4791	1						
Herding Bias (3)	0.2469	0.4137	1					
Anchoring (4)	0.3157	0.4139	0.4121	1				
Loss Aversion (5)	-0.0815	-0.1839	-0.1313	-0.2517	1			
Regret Aversion (6)	0.3131	0.4274	0.3801	0.4586	-0.2454	1		
Duration (7)	-0.0737	0.0144	-0.0401	0.0223	0.0293	-0.0464	1	
Number Employees (8)	0.2078	0.1806	0.0308	0.0324	-0.1356	0.0277	0.1356	1

Source: Author's computation (2024)

Table 4 above represents the pairwise correlation matrix which shows the correlation which exists among the variables included in our model. The correlation coefficients of the leading diagonals stand at 1.0000 which indicates that each variable is perfectly collinear to itself. Furthermore, the results show a very weak positive correlation between growth and most of the constructs of risk perception which include over confidence, herding bias, anchoring and risk aversion.

Conversely, a very weak negative correlation is found between growth and loss aversion. We also observe a weak positive correlation between growth and number of employees while it has a very weak negative correlation with duration. Finally, we observe that there are very weak positive and negative correlations amongst the explanatory variables included in our model. The relatively low correlation coefficients are indications of the absence of multicollinearity in the model.

Table 5: Variance Inflation Factor

Variable	VIF	1/VIF
Overconfidence	1.48	0.67796
Herding Bias	1.38	0.722111
Anchoring	1.54	0.649596
Loss Aversion	1.13	0.885708
Regret Aversion	1.49	0.669624
Duration of operation		
5-9	1.38	0.725545
10-14	1.32	0.754897
15-19	1.22	0.822219
20 and other	1.17	0.854333
Number of employees		
6-20	1.25	0.802885
21-100	1.31	0.762431
Mean VIF	1.33	

Source: Author's computation (2024)

The results in table 5 above show the variance inflating factor test for multicollinearity. The results show that the mean VIF stands at 1.33 which is below the bench mark of 2.5 thus indicating the absence of multicollinearity in our model therefore indicating that our results are reliable.

Table 6: Effect of RP on SME Growth - Regression Results

VARIABLES	SMESG
Overconfidence	0.556*** (0.0873)
Herding Bias	0.00456 (0.0846)
Anchoring	0.142* (0.0814)
Loss Aversion	0.0901 (0.0710)
Regret Aversion	0.112* (0.0635)
Duration	
5-9	-0.0955*** (0.0349)
10-14	-0.0698* (0.0401)
15-19	-0.163*** (0.0534)
19 and above	-0.0398 (0.0563)
Number of employees	
6 – 20	0.0483 (0.0308)
21-100	0.151*** (0.0436)
Constant	-0.571*** (0.101)
Observations	304
R-squared	0.306

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's computation (2024)

Table 6 above shows the ordinary least squares regression results of the effect of risk perception on the growth of SMEs. It is observed from the results that the coefficient of the constant term is negative which indicates that if all



other variables in our model are set to zero or held constant, growth of SMEs will be negative to the magnitude of 0.571 caused by other variables which affect growth of SMEs not included in our model. The effect of the constant term is statistically significant at the 1% level of significance. most of the variables showed a positive and significant result except that of Herbing Bias and Loss Aversion

Furthermore, the coefficient of overconfidence is positive indicating a direct relationship between growth of SMEs and overconfidence which is in line with our apriori expectation. Specifically, a unit increase in the over confidence will lead to an increase in growth of SMEs by 0.556. The result further shows that over confidence is statistically significant at the 1% level of significance. Therefore, we reject the null hypothesis and conclude that over confidence has a significant effect on the growth of SMEs in the South West Region of Cameroon.

Furthermore, the coefficient of anchoring is positive indicating a direct relationship between the growth of SMEs and anchoring which is in line with our apriori expectation. Specifically, a unit increase in the anchoring will lead to an increase in the growth of SMEs by 0.142. The result further shows that anchoring is statistically significant at the 10% level of significance. Therefore, we reject the null hypothesis and conclude that anchoring has a significant effect on the growth of SMEs in the South West Region of Cameroon.

Regret aversion was found to have a positive coefficient, thus indicating a direct relationship between the growth of SMEs and risk aversion which is in line with our apriori expectation. Specifically, a unit increase in the risk aversion will lead to an increase in the growth of SMEs by 0.122. The result further shows that risk aversion is statistically significant at the 10% level of significance. Therefore, we reject the null hypothesis and conclude that risk aversion has a significant effect on the growth of SMEs in the South West Region of Cameroon.

Control Variables

The coefficient of the first category of duration which is 5-9years is negative. Specifically, the result shows that the growth of SMEs which have existed for 5-9years is 0.096 lower than the growth of SMEs which have existed for less than 5years. This result is statistically significant at the 1% level of significance.

The coefficient of the second category of duration which is 10-14years is negative. Specifically, the result shows that the growth of SMEs which have existed for 10-14years is 0.070 lower than the growth of SMEs which have existed for less than 5years. This result is statistically significant at the 10% level of significance.

The coefficient of the third category of duration which is 15-19years is negative. Specifically, the result shows that the growth of SMEs which have existed for 15-19years is 0.163 lower than the growth of SMEs which have existed for less than 5years. This result is statistically significant at the 1% level of significance.

The coefficient of the last category of duration which is 19years and above is negative. Specifically, the result shows that the growth of SMEs which have existed for 19years and above is 0.040 lower than the growth of SMEs which have existed for less than 5years. This result is statistically insignificant.



With respect to the number of employees, the results show that the coefficient of the first category which is 6-20 employees is positive. Specifically, the result shows that the growth of SMEs which have 6-20 employees is 0.048 higher than the growth of SMEs which have less than 6 employees.

In the same light, the results show that the coefficient of the second category which is 21-100 employees is positive. Specifically, the result shows that the growth of SMEs which have 21-100 employees is 0.151 higher than the growth of SMEs which have less than 6 employees. This result is statistically significant at the 1% level of significance.

The R squared is coefficient of determination which indicates the variation in the dependent variable due to changes in the independent variables.

The findings in the above table indicate an R squared value of 0.306, showing that there was variation of 30.6% in the growth of SMEs due to changes in the variables included in the model.

Thus, 30.6% changes in the growth of SMEs in the South West Region of Cameroon could be accounted for by risk perception.

Table 7: Heteroskedasticity

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of Growth of SME
H0: Constant variance
chi2(1) = 9.01
Prob > chi2 = 0.276

Source: Author's computation (2024)

Table 7 above shows the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity. The result shows that the coefficient is insignificant thus we conclude that there is the absence of heteroskedasticity in our model hence the presence of homoskedasticity. This further indicates that our results are reliable.

DISCUSSION

To examine the Effect of RP on the Growth of SMES

The regression analysis on Table 6 provided a nuanced view of how risk perception affects SME growth. The model indicated that certain dimensions of risk perception, such as overconfidence, anchoring and regret aversion, significantly predicted SME growth. Notably, overconfidence had a positive beta coefficient, suggesting that entrepreneurs who believe strongly in their business acumen and decision-making capabilities tend to drive their businesses toward growth. This aligns with the studies of Lin 2011, Khan 2016, Barno 2021 and Ahmed et al 2022 which posit that confidence in one's capabilities can lead to greater persistence and risk-taking, which are critical in overcoming the challenges faced by SMEs.

Conversely, herding bias, another facet of risk perception, did not show a significant effect. This finding is intriguing as it suggests that social influence might not be a dominant factor in entrepreneurial decision-making in the South West region of Cameroon, possibly due to cultural, economic, or market structure differences that dilute the impact of collective behavior patterns observed in other regions or industries. Although these findings are in line with the work of Lim (2012), who posits that herding bears no strong consequence on investment decision making and performance several studies (Hirt and Block, 2012; Wamae, 2013; and Kengatharan, 2014) have reported a positive relationship between herding and firms' growth.

Furthermore, the regression model's adjusted R-squared value of 0.264 indicated that while risk perception contributes significantly to explaining variations in SME growth, a substantial portion of the variance remains unexplained. This highlights the complex nature of SME growth, which is likely influenced by a myriad of other factors, including but not limited to market conditions, access to capital, and government policies.

Drawing on behavioral finance theories that suggest decision-makers are often influenced by their perceptions of risk (Kahneman & Tversky, 1979). This study hypothesized that risk perception would significantly impact SME growth. Risk perception, in this context, refers to the extent to which entrepreneurs recognize and react to risks associated with their business operations and external environment. The hypothesis was rooted in the notion that higher risk perception might either inhibit or stimulate SME growth, depending on whether it leads to cautious conservatism or proactive risk management.

CONCLUSION

Going by the first objective, the findings contribute valuable insights into the behavioural underpinnings of SME Growth in Cameroon, highlighting the complex interplay between entrepreneurial risk perception and business success. This lays a foundational step for further exploration and targeted interventions aimed at enhancing SME development in the region.

REFERENCE

- [1] Oláh, J., Kovács, S., Virglerova, Z., Lakner, Z., Kovacova, M., & Popp, J. (2019). Analysis and comparison of economic and financial risk sources in SMEs of the Visegrad group and Serbia. *Sustainability*, 11(7), 1853.
- [2] Pattillo, C., & Söderbom, M. (2000). Managerial risk attitudes and firm performance in Ghanaian manufacturing: An empirical analysis based on experimental data.
- [3] Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability*, 11(10), 2990.
- [4] Mthiyane, Z. Z., van der Poll, H. M., & Tshehla, M. F. (2022). A framework for risk management in small medium enterprises in developing countries. *Risks*, 10(9), 173.
- [5] Buchdadi, A. D., Sholeha, A., & Ahmad, G. N. (2020). The influence of financial literacy on SMEs performance through access to finance and financial risk attitude as mediation variables. *Academy of Accounting and Financial Studies Journal*, 24(5), 1-15. [https://doi.org/10.9770/jssi.2020.9.3\(7\)](https://doi.org/10.9770/jssi.2020.9.3(7))



- [6] Ahmed, Z., Rasool, S., Saleem, Q., Khan, M. A., & Kanwal, S. (2022). Mediating role of risk perception between behavioral biases and investor's investment decisions. *Sage open*, 12(2), 215824402210973. <https://doi.org/10.1177/21582440221097394>
- [7] Addo, S. D., Asante, J., & Mensah, E. (2023). Re-examining the financial literacy – SME growth nexus: fresh evidence from causal mediation analysis. *International journal of business, management and economics*, 4(3), 185–202. <https://doi.org/10.47747/ijbme.v4i3.1225>
- [8] Ahmed, Z., Rasool, S., Saleem, Q., Khan, M. A., & Kanwal, S. (2022). Mediating role of risk perception between behavioral biases and investor's investment decisions. *Sage open*, 12(2), 215824402210973. <https://doi.org/10.1177/21582440221097394>
- [9] Barber, B. M., & Odean, T. (2001). The internet and the investor. *Journal of Economic Perspectives*, 15(1), 41-54.
- [10] Barno, I. J., Cheboi, J., & Muganda, C. (2021). Moderating effect of financial literacy on relationship between anchoring and investment decision among SMEs in Nairobi County. *East African Journal of Business and Economics*, 3(1), 65–81. <https://doi.org/10.37284/eajbe.3.1.305>
- [11] Beck, T., Demirgüç-Kunt, A. S. L. I., & Maksimovic, V. (2005). Financial and legal constraints to growth: does firm size matter?. *The Journal of Finance*, 60(1), 137-177.
- [12] Cucculelli, M., & Ermini, B. (2012). New product introduction and product tenure: What effects on firm growth? *Research Policy*, 41(5), 808-821.
- [13] Gentile, M., Linciano, N., Lucarelli, C., & Soccorso, P. (2015a). Financial disclosure, risk perception and investment choices: evidence from a consumer testing exercise. *Ssrn Electronic Journal*. <https://doi.org/10.2139/ssrn.2616277>
- [14] Ibbotson, R. G., Idzorek, T. M., Kaplan, P. D., & Xiong, J. X. (2018). Popularity: A bridge between classical and behavioral finance. CFA Institute Research Foundation.
- [15] Kengatharan, L., & Kengatharan, N. (2014). The influence of behavioral factors in making investment decisions and performance: Study on investors of Colombo Stock Exchange, Sri Lanka. *Asian Journal of Finance & Accounting*, 6(1), 1.
- [16] Lin, H. W. (2011). Elucidating rational investment decisions and behavioral biases: Evidence from the Taiwanese stock market. *African Journal of Business Management*, 5(5), 1630.
- [17] Lim, L.C., 2012. The Relationship between Psychological Biases and the Decision Making of Investor in Malaysian Share Market. Unpublished Paper International Conference on Management, Economics & Finance (ICMEF 2012) Proceeding.
- [18] Khan, M. T., Qadir, G., Khan, S. R., & Latif, A. (2016). The Impact of Investors Overconfidence on Trading Activities and Stock Returns in Pakistan Stock Exchange. *Journal of Business & Tourism*, 2(2), 15-31.
- [19] Wamae, J. N. (2013). Behavioural factors influencing investment decision in stock market: A survey of investment banks in Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1(6), 68-83.
- [20] Kahneman, T. (1979). D. Kahneman, A. Tversky. Prospect theory: An analysis of decisions under risk, 263-291.
- [21] Slovic, P. (2001). The risk game. *Journal of Hazardous Materials*, 86(1-3), 17-24.