

A Special Case for SME Sustainability: The Role of Government Financial Support, Regulatory Reforms, and Market Access in Ghana

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This study examines the impact of government financial support, regulatory reforms, market access, and skills development on SME sustainability and export performance in Ghana. Data from 4,764 SME owners/managers were analysed using confirmatory factor analysis and structural equation modelling. The empirical results show government support, regulatory reforms, and access to finance positively influence SME sustainability, while market access and skills development enhance export performance. However, access to finance does not mediate the relationship between government support and sustainability. These findings offer insights for policymakers, agencies, and SME stakeholders to improve sustainability strategies.

Keywords: SMEs, sustainability, government financial support, regulatory reforms, market access

INTRODUCTION

The roles of entrepreneurship, and small and medium-scale businesses in promoting economic growth through job creation, income empowerment, and poverty reduction cannot be underestimated (Adenutsi, 2023). Small and medium-scale enterprises (SMEs) constitute a vital component of the economy, accounting for a significant portion of employment and boosting economic activity (Adenutsi, 2023; Bartolacci et al., 2020). In recognition of this, over the years, the government of Ghana designed and implemented various policies and regulatory reforms to enhance the business environment to facilitate the growth and sustainability of SMEs. State-led support systems and programs through well-crafted policies and regulations can greatly influence the growth and sustainability of SMEs, especially, policies that promote easy access to finance are vital for their sustainability (Adenutsi, 2023). Initiatives such as low-interest loans, grants, and venture capital funding can help SMEs overcome financial barriers and improve their growth and expansion capabilities. Moreover, bureaucratic procedures involved in obtaining loans have become a barrier for most SMEs to access private-sector financial support. Globally, various empirical studies focused on assessing the impact of government policies, regulatory reforms, and other multifaceted factors on sustainability, performance and innovation capabilities of SMEs (see, for example, Ntiamoah et al., 2016; Kasiri et al., 2020; Alkahtani et al., 2020; Kanayo et al. 2021; Najib et al 2021).

As in many other developing countries, the government of Ghana having recognised the significance of SMEs in driving economic growth and development implemented a series of policies and regulatory

reforms in areas of taxation, access to finance, and supply of machinery and equipment. Nonetheless, since Ghanaian SMEs continue to face several challenges, including limited access to credit, inadequate managerial skills, regulatory constraints, and collapse, the effectiveness of these initiatives remains a subject of debate which warrants a comprehensive empirical analysis to ascertain their impacts.

The motivation for this research stems from the urgent need to offer evidence-based insights to policymakers, SME owners, and stakeholders in Ghana. Empirical literature underscores the pivotal role of government interventions in SME development and sustainability (Alabi et al., 2019; Okolo et al., 2023). However, the diverse Ghanaian SME landscape requires a deeper understanding of how policies can be optimised to address specific challenges and promote long-term sustainability (Gebremichael, 2014; Kanayo et al., 2021). Additionally, the sustainability discourse necessitates a deeper examination of eco-friendly practices within SMEs (Bakar et al., 2020).

This research aims at investigating the dynamics between government policies and the sustainability of SMEs in Ghana through six key objectives. The study seeks to evaluate the influence of government financial support programs on SME sustainability, analyse the impact of regulatory reforms on SME ease of doing business, explore the connection between market access facilitation and Ghanaian SME export performance, investigate how skills development enhances SME innovation, understand the mediating role of access to finance in the relationship between government policies and SME sustainability, and examine the direct impact of market access facilitation on overall SME sustainability. These objectives collectively strive to provide a holistic understanding of how government interventions can be optimised to foster the long-term sustainability and growth of SMEs within the Ghanaian context.

The rest of the paper follows with a literature review, model and hypotheses specifications, the results and discussion. The paper concludes with policy implications and recommendations.

LITERATURE REVIEW

Theoretical Literature

Resource-Based View (RBV) theory asserts that a firm's competitive advantage and sustainability are derived from its unique resources and capabilities (Mweru et al., 2015). In the context of this study, government policies and regulations can be seen as external factors that impact SMEs' access to critical resources and capabilities. For instance, financial support and skills development initiatives represent valuable resources that SMEs can use to enhance their sustainability. Analysing the RBV theory helps in understanding how government policies shape SMEs' resource acquisition, which, in turn, influences their competitive position and long-term sustainability. The RBV theory is relevant to this study as it provides a framework for assessing how government interventions affect the resource base of SMEs, ultimately impacting their sustainability. It helps in identifying the specific resources and capabilities that are influenced by government policies and regulations.

Institutional Theory focuses on how external institutions, including government regulations, norms, and practices, influence organisational behaviour and decision making (Luiz et al., 2020). In the context of this study, government policies and regulations represent the institutional environment within which SMEs operate. Institutional pressures and constraints imposed by these policies can significantly affect SMEs' strategic choices and actions. By applying institutional theory, the study can elucidate how SMEs respond to government regulations and policies, whether they conform to institutional norms or engage in innovative practices, and how these responses, in turn, impact their sustainability. Institutional theory provides a valuable perspective for understanding how SMEs adapt to and navigate the regulatory environment created by government policies. It helps shed light on the mechanisms through which policy-related institutional pressures influence SME sustainability. By incorporating these two theories, the study gains a robust theoretical foundation for investigating the complex interplay between government policies, SME resources and capabilities, institutional pressures, and ultimately, the sustainability of SMEs in Ghana. These theories offer a structured framework for analysing the multifaceted relationships and dynamics at play within the SME ecosystem and the broader institutional context.

Empirical Literature

Kanayo et al. (2021) emphasize the role of financial resources and government support in promoting SME success in South Africa, while Najib et al. (2021) point out the importance of government support during crises in Indonesia. Mishrif & Khan (2023) and Zhang & Ayele, (2022) provide evidence of the mediating role of government support in SME networking structures and performance in Pakistan and Ethiopia, respectively. Peng & Walid (2022) discuss the mediating role of government support in addressing perceived risks and barriers to sustainable entrepreneurship. Additionally, recent studies have explored the role of Enterprise Risk Management (ERM) in SME sustainability. Adenutsi & Whajah (2023) found that ERM significantly enhances SME operational and financial performance in Ghana, demonstrating the need for proactive risk management in improving long-term sustainability.

Chinwe (2022) underscores the positive impact of government policies on SME growth, specifically in credit, tax, and licensing policies. Aslam et al. (2023) report that government support significantly contributes to SME sustainability by enhancing financial literacy, access to finance, and green value co-creation in developing economies.

Many studies highlight the impact of government support on SME growth, but there is limited focus on sustainability dimensions, and long-term resilience (Songling et al., 2018). Nguyen & Wongsurawat (2012) highlight the moderate effectiveness of government support policies in Vietnam, indicating that a well-designed policy framework can positively impact SME performance. Moreover, beyond direct financial support, SME sustainability is also influenced by financial literacy and risk attitudes. Whajah & Adenutsi (2024) found that financial literacy plays a crucial role in SME financial performance by enhancing access to finance and improving risk-taking behaviour.

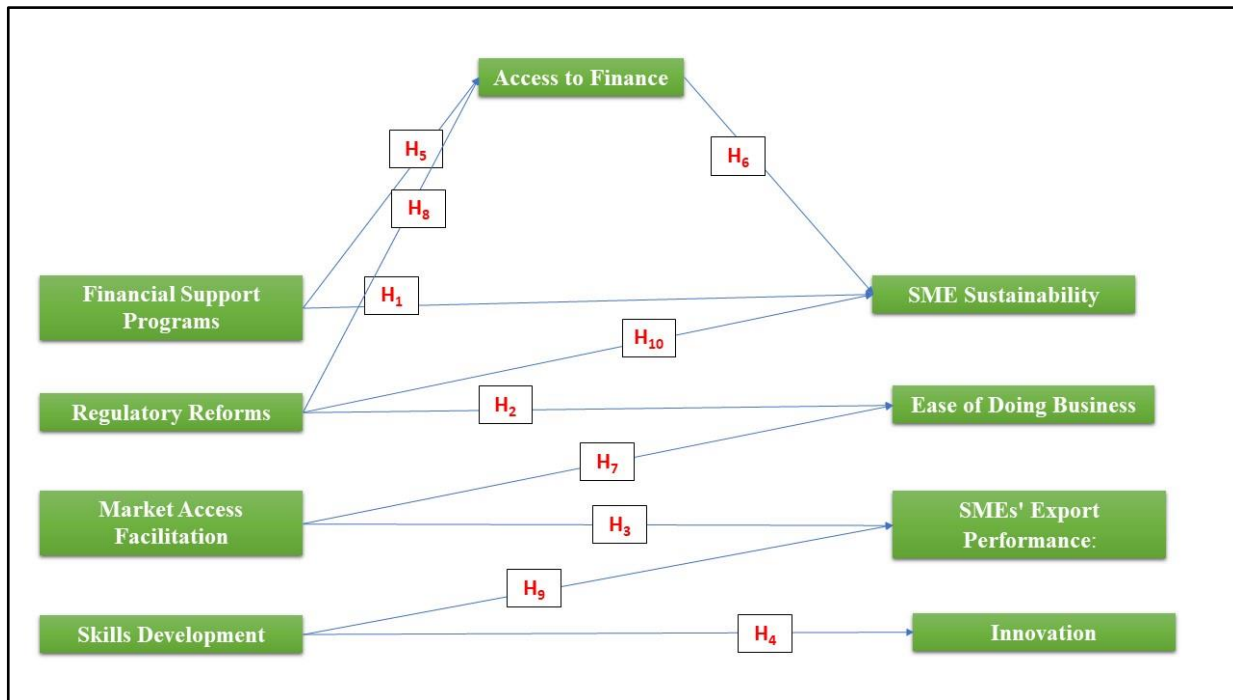
The literature touches on various government support policies but lacks a comprehensive assessment of how these policies interact and influence SME sustainability holistically (Ntiamoah et al., 2016; Alkahtani et al., 2020). Building on the insights and arguments presented in the literature, this study seeks to provide a nuanced understanding of how government interventions can be tailored to enhance SME sustainability in a developing economy.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

The conceptual framework for this study is based on the research objectives, which focus on assessing the impact of government policies and regulations on SME sustainability in Ghana. This conceptual framework is a foundation for exploring the multifaceted relationships between government policies, mediating variables (access to finance and skills development), and SME sustainability in Ghana. It allows for a comprehensive investigation into the role of government interventions in fostering SME growth, competitiveness, and long-term viability. The findings can inform policymakers, business owners, and stakeholders on effective strategies to support and promote SME sustainability in Ghana's dynamic economic landscape.

Government financial support programs represent various financial support initiatives the government provides to SMEs in Ghana, including grants, loans, subsidies, and tax incentives. Regulatory reforms encapsulate changes in government regulations and policies that affect the business environment for SMEs, such as ease of business registration, compliance requirements, and licensing procedures. Market access facilitation signifies government efforts to enhance SMEs' access to domestic and international markets through trade agreements, logistical support, and export promotion initiatives. Skills development reflects government-led programs aimed at improving the skills and capabilities of SME owners and employees, including training and education.

FIGURE 1
CONCEPTUAL FRAMEWORK: GOVERNMENT POLICIES AND
SME SUSTAINABILITY IN GHANA



Source: Authors' construct

Access to finance represents the availability and accessibility of financial resources to SMEs, influenced by government policies and support mechanisms. However, as Whajah & Adenutsi (2024) argue, financial literacy is a critical factor in determining how effectively SMEs leverage available financial resources. Access to finance acts as a mediator in the relationship between government policies and SME sustainability. It reflects how government interventions impact SMEs' ability to access financial resources, which, in turn, influences their sustainability. Similarly, skills development serves as a mediator, illustrating how government initiatives in this regard affect SME innovation and, consequently, their sustainability. SME Sustainability, performance, and innovation are the primary outcome variables, representing the overall health and long-term viability of SMEs in Ghana. It encompasses financial stability, growth prospects, competitiveness, and resilience among others.

Based on Figure 1, this study is guided by the following working hypotheses:

H1: Government financial support programs have a significant impact on SME sustainability.

H2: Regulatory reforms significantly affect SMEs' ease of doing business.

H3: There is a relationship between market access facilitation and SMEs' export performance.

H4: Skills development initiatives affect SME innovation.

H5: Access to finance mediates the relationship between government policy interventions and SME sustainability.

H6: Access to finance impacts on SME sustainability.

H7: Market access facilitation efforts by the government impact the ease of doing business.

H8: Government financial support programs have a significant impact on access to finance.

H9: Skills development initiatives influence SME export performance.

H10: Regulatory reforms significantly impact on SMEs sustainability.

With the exception of H5 which tests a mediating effect, all others test the direct relationship.

METHODOLOGY

Research Design

This study employed a cross-sectional and quantitative design to investigate the impact of government policies and regulations on SMEs in Ghana. Structured questionnaires were self-administered to a diverse sample of SMEs, drawn from 16 geopolitical regions in Ghana using a stratified random sampling technique to ensure representation across industry sectors, sizes, and regions and to ensure generalisation of findings to the broader SME population in Ghana. Quantitative data was analysed using descriptive statistics, correlation analysis, regression analysis, and structural equation modelling (SEM), to access relationships between the factors under consideration. Standardised measurement instruments were used to assess data reliability and validity.

Sample and Data Collection

Stratified random sampling (Setia, 2016) was used to ensure representation from diverse sectors and regions of SMEs in Ghana. A list of registered SMEs was obtained, and a proportionate sample was selected from each stratum. The study began by selecting a representative sample of SMEs operating in various regions of Ghana. The sample size and selection criteria were determined to ensure a diverse representation of SMEs in terms of industry sectors, size, and geographical location (Rahman, 2023; Ranatunga et al., 2020). Structured questionnaires were self-administered to SME owners and managers, seeking information on government policies and regulations, access to financial support (Aslam et al., 2023), market access facilitation (Buchdadi et al., 2020), skills development programs, and other relevant variables.

Measurement Description

The study employed a range of measurement instruments to capture the key variables of interest. For instance, government policies and regulations were assessed through a structured questionnaire that included items related to specific policy areas, such as financial support programs and regulatory reforms. Market access facilitation was measured through indicators like trade agreements and logistical support. Skills development was evaluated through self-reported data on training and skill enhancement initiatives. Access to finance was measured using financial data, including loan applications and credit histories. Each measurement instrument was designed to align with the respective research objectives and theoretical frameworks underpinning the study.

Common Method and Non-Response Bias

To mitigate common method bias, data collection methods were diversified. This helped ensure that responses were not solely reliant on a single method, thereby reducing the risk of common method bias affecting the findings. Additionally, data collection protocols were designed to minimise non-response bias. Efforts were made to engage with SMEs across diverse sectors and regions to reduce the likelihood of non-response bias, and follow-up procedures were implemented to encourage participation and completeness of responses.

Evaluation of Measurement Model

The measurement model was evaluated using established statistical techniques such as factor analysis and reliability testing. Factor analysis helped identify underlying constructs and assess the validity of measurement items. Reliability testing assessed the internal consistency of the measurement instruments to ensure that they were measuring the intended concepts consistently and accurately. This step helped refine the measurement model and ensure that the data collected accurately represented the variables under investigation.

Evaluation of Structural Model

The structural model was evaluated through advanced statistical analyses such as regression analysis and SEM. These analyses allowed for the examination of the relationships between the independent variables (e.g., government policies, and regulatory reforms); and the dependent variables (e.g., SME sustainability). The structural model was assessed to determine the strength and significance of these relationships, shedding light on the impact of government interventions on SME sustainability in Ghana. This methodological approach ensured a comprehensive and rigorous investigation of the research objectives, providing robust insights into the role of government policies and regulations in shaping the sustainability of SMEs in Ghana.

Data Analysis

Descriptive statistics was used to summarise and describe the data. Confirmatory Factor Analysis (CFA). CFA was performed to validate the measurement model and assess the reliability and validity of the constructs. SEM was employed to hypothesize relationships between the independent and dependent variables and was tested using SEM in SMART-PLS. Bootstrapping was applied to assess the significance of the paths. Participants were provided with information about the research purpose and their rights, and their voluntary consent was obtained before data collection. Measures were taken to ensure the confidentiality and anonymity of the participants and their responses. The results of the SEM analysis were interpreted in light of the research objectives and hypotheses. The findings were discussed, and their implications for SMEs, policymakers, and other stakeholders were presented in a comprehensive research report.

Visualisations such as charts and graphs were used to enhance clarity and understanding. By adopting a quantitative approach and using SEM in SMART-PLS (Hair et al., 2021), this research design aims to provide valuable insights into the intricate relationships between government policies, regulations, and SME sustainability in Ghana. The findings can guide policymakers and stakeholders in formulating targeted interventions to foster the growth and resilience of SMEs, contributing to sustainable economic development in the country.

The main analysis involved using SEM with SMART-PLS software (Hair et al., 2019). SEM tests the hypothesized relationships between the independent variables (government policies, access to finance, regulatory compliance, market access, skills development, technology adoption, tax policies, infrastructure development, and environmental regulations) and the dependent variable (SME sustainability). SEM estimates the strength and direction of the relationships between variables by analysing path coefficients, indicating the direct and indirect effects of the independent variables on the dependent variable. Bootstrapping was applied to assess the significance of the path coefficients and to generate robust estimates. This resampling technique helps validate the results and provides more accurate standard errors. Various fit indices, such as the goodness-of-fit index (GoF), standardized root mean square residual (SRMR), and others (Hair et al., 2014), were evaluated to assess the overall goodness of fit of the SEM model. The model was assessed to determine if it adequately represents the relationships between variables and fits the data well.

RESULTS AND DISCUSSION

Biographical Data of Respondents

The biographical data of the respondents are presented in Table 1. A diverse sample of 4,764 respondents who are owners or managers of SMEs were surveyed. The gender distribution reveals that the respondents were almost evenly split, with 37.8% males and 62.2% females. This balanced representation is crucial for achieving a comprehensive understanding of the perspectives and experiences of both genders within the SME sector. Regarding the age distribution of the respondents, the majority fell within the 25 to 34 years old category, accounting for 68.5% of the sample. This concentration of respondents in the mid-range of the age spectrum suggests that the SME sector in Ghana is predominantly composed of individuals in their prime working years.

Furthermore, the educational background of the respondents reflects a highly educated group, with 47.1% holding Bachelor's degrees and 37.3% possessing Master's degrees. This highlights the importance of educational qualifications in the SME sector, potentially contributing to innovation and competitiveness. Years of experience in their current roles further characterize the sample. The fact that 38.0% of respondents reported having one to two years of experience in their current roles suggests a relatively high turnover or entry of new talents within the SME sector. It also implies that SMEs in Ghana may have a dynamic workforce with a mix of experienced professionals and newcomers. In terms of the industry sector, the majority of the SMEs in the sample were from the manufacturing sector (70.3%), indicating the significance of manufacturing activities in the Ghanaian SME landscape.

The SME size distribution shows a diverse range, with 34.9% falling in the 10-50 employees categories, reflecting the heterogeneous nature of SMEs in Ghana. Geographically, the distribution of respondents across different regions of Ghana is fairly even, highlighting the nationwide representation of the study. This diversity allows for a comprehensive analysis of SMEs across various geographic locations, each with its unique economic and socio-cultural characteristics. The duration of SME operation indicates that a substantial portion (26.9%) has been in operation for more than 10 years, underscoring the resilience and sustainability of many SMEs in Ghana. Lastly, the fact that all respondents indicated participation in government support programs or initiatives (100.0%) underscores the importance of government interventions in the SME sector, which forms a central aspect of the study's investigation.

TABLE 1
BIOGRAPHICAL DATA OF RESPONDENTS

		N	%
Gender	Male	1800	37.8%
	Female	2964	62.2%
Age (years)	Under 25	1140	23.9%
	25-34	3264	68.5%
	35-44	228	4.8%
	45-54	132	2.8%
	55-64	60	1.2%
Educational background	High School or equivalent	288	6.0%
	Bachelor's Degree	2244	47.1%
	Master's Degree	1776	37.3%
	Other	456	9.6%
Years of experience in your current role	Less than 1	1236	25.9%
	1-2	1812	38.0%
	3-5	852	17.9%
	6-10	240	5.0%
	More than 10	624	13.1%
	Not specified	0	0.0%
Industry sector	Manufacturing	3348	70.3%
	Services	612	12.8%

SME size (number of employees)	Retail	804	16.9%
	Less than 10	1176	24.7%
	10 - 50	1665	34.9%
	51 - 100	225	4.7%
	More than 100	1698	35.6%
Geographic location (regions)	Ahafo	273	5.7%
	Ashanti	282	5.9%
	Bono	303	6.4%
	Bono East	327	6.9%
	Central	288	6.0%
	Eastern	303	6.4%
	Greater Accra	273	5.7%
	North-East	276	5.8%
	Northern	294	6.2%
	Oti	315	6.6%
	Savannah	318	6.7%
	Upper East	345	7.2%
	Upper West	288	6.0%
	Volta	252	5.3%
	Western	333	7.0%
	Western North	294	6.2%
Awareness of the regulatory framework governing SMEs	Yes	4185	87.8%
	No	579	12.2%
How long (years) has your SME been in operation?	1-2	16	0.3%
	3-5	360	7.6%
	6-10	3896	81.8%
	More than 10	492	10.3%

Source: Authors' compilation based on field data

Evaluation of Measurement Models

TABLE 2
EVALUATION OF MEASUREMENT MODELS

CONSTRUCT	ITEMS	FL	CA	CR	AVE	KMO	BARTLETS
Access to Finance	ACCF2	0.878	0.835	0.897	0.668	0.827	0.000
	ACCF3	0.864					
	ACCF4	0.870					
	ACCF5	0.631					
	EODB2	0.749					
Ease of Doing Business	EODB3	0.827	0.840	0.884	0.666	0.805	0.000
	EODB4	0.857					
	EODB5	0.828					
	EPP1	0.845					
Export Performance	EPP2	0.810	0.899	0.903	0.713	0.869	0.000
	EPP3	0.842					
	EPP4	0.909					
	EPP5	0.811					
	GFS2	0.891					
Financial Support	GFS3	0.912	0.921	0.922	0.809	0.871	0.000
	GFS4	0.910					

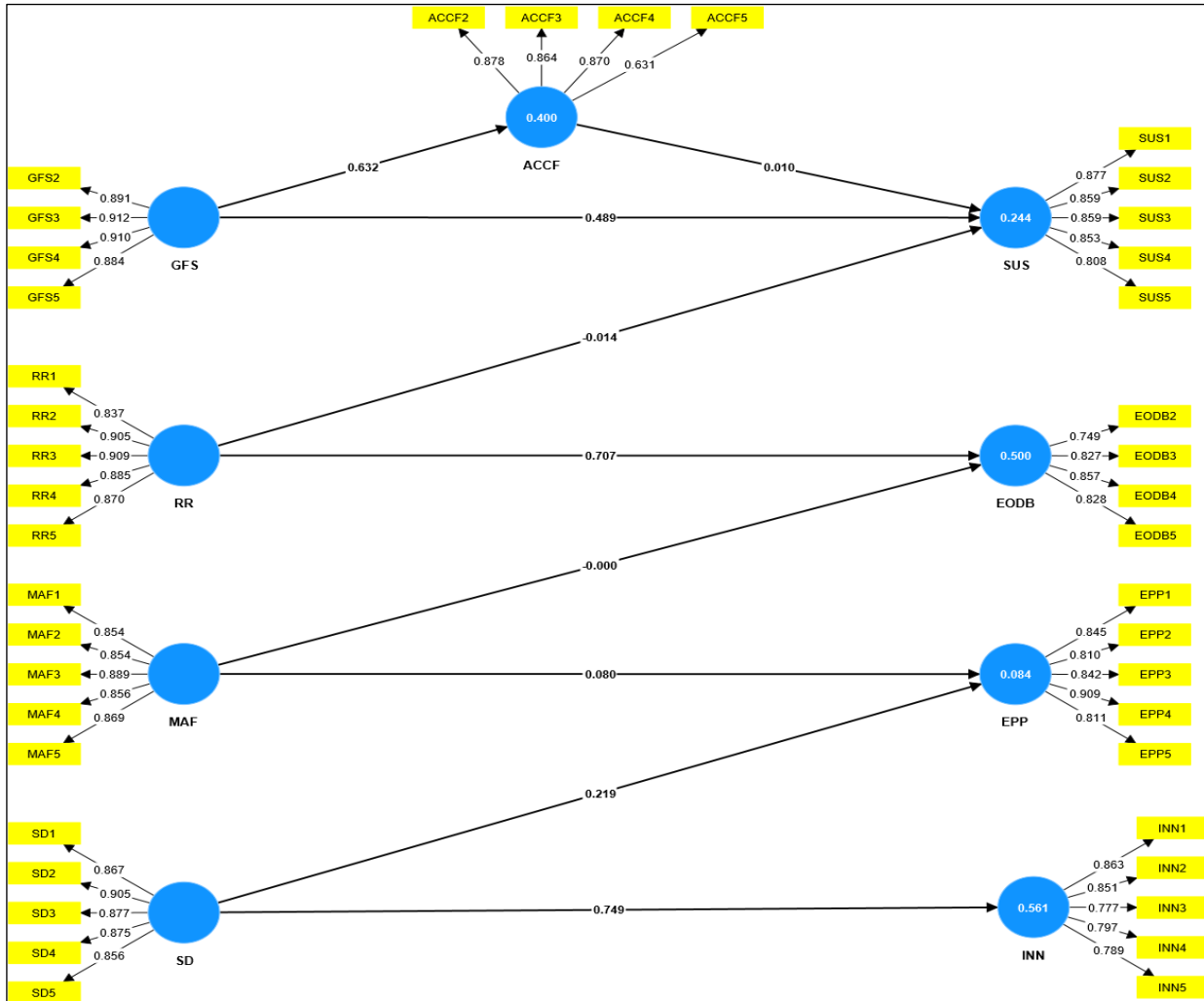
Innovation	GFS5	0.884					
	INN1	0.863	0.878	0.905	0.666	0.759	0.000
	INN2	0.851					
	INN3	0.777					
	INN4	0.797					
Market Access Facilitation	INN5	0.789					
	MAF1	0.854	0.917	0.938	0.748	0.880	0.000
	MAF2	0.854					
	MAF3	0.889					
	MAF4	0.856					
Regulatory Reforms	MAF5	0.869					
	RR1	0.837	0.928	0.932	0.777	0.863	0.000
	RR2	0.905					
	RR3	0.909					
	RR4	0.885					
Skills Development	RR5	0.870					
	SD1	0.867	0.924	0.929	0.767	0.893	0.000
	SD2	0.905					
	SD3	0.877					
	SD4	0.875					
Sustainability	SD5	0.856					
	SUS1	0.877	0.906	0.915	0.725	0.841	0.000
	SUS2	0.859					
	SUS3	0.859					
	SUS4	0.853					
	SUS5	0.808					

Source: Authors' estimation

Table 2 provides an evaluation of the measurement models for various constructs in the study. These constructs are essential for assessing the relationships and variables relevant to the research. To assess the reliability and validity of these constructs, several statistical indicators such as Composite Reliability (CR), Average Variance Extracted (AVE), Kaiser-Meyer-Olkin (KMO), and Bartlett's Test of Sphericity have been calculated. The Access to Finance construct (ACCF) exhibits strong reliability and validity. The Composite Reliability (CR) value of 0.897 and the Average Variance Extracted (AVE) of 0.668 indicate high internal consistency and convergent validity. Additionally, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity both surpass acceptable thresholds, confirming the suitability of the construct for further analysis. The Ease of Doing Business construct (EODB) demonstrates good reliability and validity with a CR value of 0.884 and an AVE of 0.666. The KMO and Bartlett's Test values are also indicative of the construct's appropriateness for analysis, reflecting high internal consistency and convergent validity. Export Performance (EPP) exhibits excellent reliability and validity with a CR value of 0.903 and an AVE of 0.713. The KMO and Bartlett's Test values further confirm the construct's suitability for analysis, indicating strong internal consistency and convergent validity.

Government Financial Support construct (GFS) displays robust reliability and validity, with a CR value of 0.922 and an AVE of 0.809. The KMO and Bartlett's Test results underscore the construct's appropriateness for analysis, affirming its high internal consistency and convergent validity. The Innovation construct (INN) demonstrates acceptable reliability and validity, with a CR value of 0.905 and an AVE of 0.666. The KMO and Bartlett's Test values indicate that the construct possesses satisfactory internal consistency and convergent validity. Market Access Facilitation (MAF) exhibits excellent reliability and validity, boasting a CR value of 0.938 and an AVE of 0.748. The KMO and Bartlett's Test results validate the construct's suitability for analysis, indicating strong internal consistency and convergent validity.

FIGURE 2
EMPIRICAL RESULTS



Source: Authors' estimation

The Regulatory Reforms construct (RR) demonstrates solid reliability and validity, with a CR value of 0.932 and an AVE of 0.777. The KMO and Bartlett's Test outcomes affirm the construct's appropriateness for analysis, confirming high internal consistency and convergent validity. The Skills Development construct (SD) displays outstanding reliability and validity, boasting a CR value of 0.929 and an AVE of 0.767. The KMO and Bartlett's Test results emphasize the construct's suitability for analysis, attesting to its high internal consistency and convergent validity. The Sustainability construct (SUS) demonstrates solid reliability and validity, with a CR value of 0.915 and an AVE of 0.725. The KMO and Bartlett's Test outcomes validate the construct's appropriateness for analysis, confirming acceptable internal consistency and convergent validity.

Heterotrait-Monotrait Ratio (HTMT) – Matrix

Table 3 presents the Heterotrait-Monotrait Ratio (HTMT) matrix which further substantiates the discriminant validity of this study by examining the relationships between different constructs. All HTMT values fall below the threshold of 1, signifying acceptable discriminant validity. While some constructs exhibit stronger relationships with others, such as Market Access Facilitation (MAF) and Innovation (INN), these associations remain within acceptable bounds, affirming that the constructs are distinct from each other. These findings collectively emphasize the robustness of the measurement models and underscore the credibility of the framework for comprehensively examining the dynamics within Ghanaian SMEs.

TABLE 3
HETEROTRAIT-MONOTRAIT RATIO (HTMT) – MATRIX

	ACCF	EODB	EPP	GFS	INN	MAF	RR	SD
EODB	0.640							
EPP	0.017	0.012						
GFS	0.685	0.303	0.012					
INN	0.032	0.036	0.466	0.015				
MAF	0.065	0.158	0.285	0.025	0.728			
RR	0.316	0.746	0.009	0.157	0.075	0.229		
SD	0.040	0.060	0.311	0.020	0.789	0.926	0.085	
SUS	0.321	0.093	0.014	0.528	0.021	0.022	0.074	0.041

Source: Authors' estimation

Evaluation of Structural Model

The evaluation of the structural model in this study provides insights into the explanatory power and effect sizes of the examined constructs. Access to Finance (ACCF) and Ease of Doing Business (EODB) demonstrate moderate explanatory power, with ACCF explaining 40% of its variance and EODB explaining 50%. However, EODB does not have a significant effect on the dependent variable. Export Performance (EPP) exhibits limited explanatory power, explaining only 8.4% of its variance and having a very small effect size. Innovation (INN) stands out with substantial explanatory power, explaining 56.1% of its variance and having a large effect size, indicating its strong predictive capability. Sustainability (SUS) has moderate explanatory power but does not significantly affect the dependent variable. These findings emphasize the varying degrees of influence and predictive ability of the examined constructs within the context of Ghanaian SMEs. While some constructs, like INN, play a significant role in explaining the dependent variable, others, such as EPP and EODB, have less impact.

TABLE 4
EVALUATION OF STRUCTURAL MODEL

Construct	R-square	R-square adjusted	F ²
ACCF	0.400	0.400	0.666
EODB	0.500	0.500	0.000
EPP	0.084	0.084	0.002
INN	0.561	0.561	1.276
SUS	0.244	0.244	0.000

Source: Authors' estimation

Model Fitness

The model fit indexes in this study provide an assessment of how well the estimated structural model aligns with the saturated model, which represents the ideal fit. These indexes aid in determining the adequacy of the structural model in explaining the observed data. The SRMR measures the discrepancy between the estimated model and the saturated model. In this case, the SRMR for the saturated model is 0.056, while the estimated model yields an SRMR of 0.078. A lower SRMR value indicates a better fit. While the SRMR for the estimated model is slightly higher than that of the saturated model, it still falls within an acceptable range, suggesting that the estimated model reasonably approximates the saturated model.

The d_ULS and d_G values assess the discrepancy between the estimated and saturated models using different statistical approaches. The saturated model has d_ULS and d_G values of 2.861 and 1.127, respectively, while the estimated model shows values of 5.440 and 1.205. Both d_ULS and d_G values are indicators of model fit, with smaller values indicating better fit. The higher values for the estimated model in both d_ULS and d_G suggest that it deviates more from the saturated model compared to the ideal fit. However, these values should be considered in conjunction with other fit indices for a comprehensive assessment. The Chi-square statistic evaluates the difference between the observed data and the predicted model. The saturated model has a Chi-square value of 30,216.433, while the estimated model results in a Chi-square value of 31,782.556. A smaller Chi-square value indicates a better fit. The NFI assesses the relative fit of the estimated model compared to the saturated model. The saturated model has an NFI of 0.817, while the estimated model yields an NFI of 0.807. The NFI values range from 0 to 1, with higher values indicating better fit. The slightly lower NFI for the estimated model suggests that it fits the data slightly less well than the saturated model but is still considered an acceptable fit.

TABLE 5
MODEL-FIT INDEXES

	Saturated model	Estimated model
SRMR	0.056	0.078
d_ULS	2.861	5.440
d_G	1.127	1.205
Chi-square	30216.433	31782.556
NFI	0.817	0.807

Source: Author' estimation

Direct Effects

Table 6 presents hypothesis testing results that offer insights into the relationships between various constructs within the structural model, as indicated by the beta coefficients, t-statistics, and corresponding p-values. The beta coefficient of 0.489 with a t-statistic of 29.694 and a p-value of 0.000 indicates a significant and positive relationship between Government Financial Support (GFS) and Sustainability (SUS). Hypothesis 1 is accepted, suggesting that GFS positively influences SME sustainability. The beta coefficient of 0.707 with a t-statistic of 95.559 and a p-value of 0.000 demonstrates a highly significant and positive relationship between Regulatory Reforms (RR) and Ease of Doing Business (EODB). Therefore, hypothesis 2 is accepted, indicating that regulatory reforms have a substantial positive impact on the ease of conducting business. The beta coefficient of 0.080 with a t-statistic of 3.188 and a p-value of 0.001 indicates a significant and positive relationship between Market Access Facilitation (MAF) and Export Performance (EPP). This hypothesis is accepted, implying that MAF positively influences the export performance of SMEs.

With a beta coefficient of 0.749, a t-statistic of 111.446, and a p-value of 0.000, Hypothesis 4 (SD -- INN) is strongly supported. It suggests a highly significant and positive relationship between Skills Development (SD) and Innovation (INN), highlighting that skills development significantly enhances SME

innovation capabilities. Hypothesis 6 posits a relationship between Access to Finance (ACCF) and Sustainability (SUS), but the beta coefficient of 0.010, the t-statistic of 0.570, and the p-value of 0.569 indicate non-significance. Therefore, Hypothesis 6 is rejected, suggesting that there is no significant relationship between ACCF and SUS. Similarly, Hypothesis 7 proposes a link between Market Access Facilitation (MAF) and Ease of Doing Business (EODB). However, the beta coefficient of 0.000, the t-statistic of 0.044, and the p-value of 0.965 indicate a non-significant relationship. Thus, Hypothesis 7 is rejected, implying that MAF does not significantly affect EODB.

The beta coefficient of 0.632, the t-statistic of 60.050, and the p-value of 0.000 strongly support Hypothesis 8, indicating a highly significant and positive relationship between Government Financial Support (GFS) and Access to Finance (ACCF). This implies that government financial support positively influences SMEs' access to finance. Hypothesis 9 suggests a relationship between Skills Development (SD) and Export Performance (EPP). The beta coefficient of 0.219, the t-statistic of 8.598, and the p-value of 0.000 indicate a significant and positive relationship, supporting the hypothesis. This suggests that skills development significantly contributes to improved export performance among SMEs. Lastly, Hypothesis 10 proposes a relationship between Regulatory Reforms (RR) and Sustainability (SUS). However, the beta coefficient of -0.014, the t-statistic of 1.022, and the p-value of 0.307 indicate a non-significant relationship. Therefore, Hypothesis 10 is rejected, suggesting that there is no significant relationship between regulatory reforms and sustainability. The findings are averse to that of Gebremichael (2014) indicating that, Government subsidies in Ethiopia's evolving economy diminish as SMEs grow, leading to dependency and operational inefficiency within the sector. Again, Edmore (2017) indicated that policy and regulatory reforms in Zimbabwe have often hindered SME growth despite government emphasis on their contributions to the economy. However, the findings support that of Harini (2016) showing that government attention to SMEs through legislation and the crucial role of stakeholders in training, funding, and mentoring for MSME improvement positively impacts SME performance. Also, Ntiamoah et al. (2016) revealed that government support directly impacts other institutional support and SME performance in Ghana's agribusiness sector. Further, Joo & Suh (2017) established that government support systems positively impact export SMEs' performance in eco-innovation in Korea and China, with Chinese support appearing more effective. Songling et al. (2018) indicate that financial and nonfinancial government support significantly influence the sustainable competitive position and firm performance of Pakistani SMEs. Further, Alabi et al. (2019) point that government policies significantly relate to SME business growth in Nigeria's Southwest geopolitical zone, emphasizing the importance of tailored policies and infrastructural development.

TABLE 6
PATH ANALYSIS OF DIRECT EFFECTS

Hypothesis	Path	Beta coefficients	t-statistics	p-values	Decision
H ₁	GFS → SUS	0.489	29.694	0.000	Accepted
H ₂	RR → EODB	0.707	95.559	0.000	Accepted
H ₃	MAF → EPP	0.080	3.188	0.001	Accepted
H ₄	SD → INN	0.749	111.446	0.000	Accepted
H ₆	ACCF → SUS	0.010	0.570	0.569	Rejected
H ₇	MAF → EODB	0.000	0.044	0.965	Rejected
H ₈	GFS → ACCF	0.632	60.050	0.000	Accepted
H ₉	SD → EPP	0.219	8.598	0.000	Accepted
H ₁₀	RR → SUS	-0.014	1.022	0.307	Rejected

Source: Authors' estimation

Mediation Effect

Table 7 present Hypothesis 5 which explores a mediating effect involving Government Financial Support (GFS), Access to Finance (ACCF), and Sustainability (SUS). The path analysis yields a beta coefficient of 0.006, a t-statistic of 0.570, and a p-value of 0.569. These results indicate that the mediation effect proposed in H5 is not statistically significant meaning, Access to Finance (ACCF) does not mediate the relationship between Government Financial Support (GFS) and Sustainability (SUS). This finding implies that the direct influence of Government Financial Support (GFS) on Sustainability (SUS) is not influenced or mediated by access to finance. Therefore, government financial support has a direct impact on the sustainability of SMEs without the need for mediation through access to finance. These findings do not support that of, Najib et al. (2021) who found that government support positively influences business survival among SME restaurants in Indonesia through marketing and process innovation. Again, Khan et al. (2021) showed that government financial support mediates the relationship between networking structure (density) and sustainable competitive performance (SCP) in SMEs. Nonetheless, Peng & Walid (2022) posit that government support mediates the relationship between perceived risks/barriers and sustainable entrepreneurship in SMEs. Likewise, Zhang & Ayele (2022) revealed that government support mediates the relationship between various factors, including entrepreneur competence, microfinance, infrastructure, training, and SME performance in Ethiopia's Amhara Region.

TABLE 7
PATH ANALYSIS OF MEDIATING EFFECTS

Hypothesis	Path	Beta Coefficient	t-statistic	p-value	Decision
H ₅	GFS → ACCF → SUS	0.006	0.570	0.569	No mediation

Source: Authors' estimation

CONCLUSION

Conclusions, Policy Implications and Recommendations

This study involved a substantial sample size of 4,764 SME respondents from the 16 regions in Ghana, we sought to investigate the intricate relationships among government support programs, regulatory reforms, market access facilitation, skills development, access to finance, innovation, and sustainability. The research design involved rigorous data collection and analysis techniques, including the use of SPSS and SMART PLS.v4. Through meticulous analysis, we have drawn significant conclusions that shed light on the dynamics within the Ghanaian SME landscape.

Our findings have highlighted the pivotal role of government financial support (GFS) in bolstering the sustainability of SMEs in Ghana. The positive and statistically significant relationship between GFS and sustainability underscores the significance of government intervention in nurturing the growth and stability of these enterprises. Furthermore, regulatory reforms were found to exert a profoundly positive influence on the ease of doing business (EODB), emphasizing the importance of a conducive regulatory environment for SMEs to thrive.

Market access facilitation (MAF) emerged as a critical factor positively affecting export performance (EPP) among Ghanaian SMEs. This underscores the importance of efforts aimed at enhancing market access for these enterprises to expand their reach and contribute to economic growth. Additionally, skills development (SD) was revealed to play a substantial role in fostering innovation (INN) within SMEs, providing valuable insights into the significance of investing in human capital and skills enhancement.

While government financial support was found to directly influence access to finance (ACCF), it was not mediated by access to finance in impacting sustainability (SUS). This suggests that government support programs have a direct impact on SME sustainability, irrespective of their influence on access to finance. On the other hand, the relationship between market access facilitation (MAF) and ease of doing business

(EODB) was not statistically significant, indicating that market access facilitation does not significantly affect the ease of conducting business.

The findings of this study hold significant theoretical and managerial implications that can inform both academic research and practical decision making in the context of SME sustainability in Ghana. First, this study provides empirical evidence that supports and validates several theoretical frameworks. For instance, it reinforces the importance of government support in enhancing SME sustainability, aligning with RBV theory and institutional theory in the context of SMEs. The examination of mediation effects in this study contributes to the understanding of the mediating role of access to finance in government policy and SME sustainability. These findings can contribute to the advancement of mediation theories in the field of SME research. By surveying SMEs across different industry sectors, this research offers insights into the commonalities and variations in factors affecting sustainability. It broadens our understanding of how various industries can benefit from government policies and support.

Government authorities in Ghana can use the insights from this study to refine existing policies and design new support programs tailored to SME needs. Ensuring accessible financial support and fostering a favorable regulatory environment can be instrumental in promoting SME sustainability. SME owners and managers can leverage the findings to prioritise skills development and innovation within their organisations. Furthermore, they can actively seek out government support to enhance their access to finance and improve sustainability. Stakeholders, including financial institutions, can collaborate with government bodies to facilitate better access to finance for SMEs. This can involve the development of specialised financial products and services tailored to the needs of SMEs. Educational institutions can play a role in fostering skills development among SME owners and employees by offering relevant training programs and courses. This can help bridge the skills gap identified in this study.

The study advances the following action-oriented stakeholder-specific recommendations:

Role of Government

- Based on the result that government financial support (GFS) significantly impacts SME sustainability, policymakers should enhance funding initiatives, such as low-interest loans, grants, and subsidies. Efforts should focus on reducing bureaucratic barriers to ensure timely and equitable access to financial support, as delays and complexities undermine sustainability.
- The study highlights the positive influence of regulatory reforms on the ease of doing business (EODB). The government should simplify business registration, compliance, and licensing processes to encourage SME growth. Periodic reviews of these reforms should ensure they remain relevant and effective.
- With market access facilitation (MAF) identified as a driver of export performance, government trade policies should prioritise access to international markets. This can include export incentives, logistical support, and participation in regional trade agreements to bolster SME competitiveness globally.
- Skills development was found to significantly enhance innovation within SMEs. Governments should expand training programs tailored to sector-specific needs, focusing on digital skills, sustainable practices, and innovation to build resilience and adaptability among SMEs.

Role of NGOs

- The study underscores the importance of skills development for innovation. NGOs can complement government efforts by offering targeted training in areas such as financial literacy, green practices, and export readiness.
- NGOs should use the study's findings to advocate for inclusive policies that address barriers to SME sustainability, such as limited access to finance and market entry challenges.
- Partnering with SMEs to provide logistical and marketing assistance can help them leverage the benefits of government market access facilitation initiatives, enhancing their export performance.

Role of Entrepreneurs

- Entrepreneurs must actively participate in government and NGO-led programs, such as training and financial assistance initiatives. The empirical results on the direct impact of government support on sustainability suggest that leveraging these programs can significantly improve business outcomes.
- The positive relationship between skills development and innovation calls for entrepreneurs to prioritise continuous learning and adoption of innovative practices to remain competitive.
- Entrepreneurs should incorporate eco-friendly and sustainable practices to align with global trends and meet emerging market demands, ensuring long-term viability.

Role of Financial Institutions

- The findings reveal that government financial support significantly improves access to finance. Financial institutions should collaborate with government agencies to streamline SME lending processes and reduce risks associated with SME financing.
- Develop products tailored to SMEs' unique needs, such as flexible repayment loans and export financing, to support their growth and sustainability.

Role of Educational Institutions

- Aligning with the findings on skills development and innovation, educational institutions should design curricula that address SME needs, such as innovation management, export readiness, and financial planning.
- Institutions should leverage the insights to conduct further research on SME sustainability and disseminate best practices through workshops and publications.

Role of the Community

- Communities should support SMEs by prioritising local goods and services, reinforcing their market base and sustainability.

Limitations and Future Research Directions

While this study provides valuable insights into the factors affecting SME sustainability and performance in Ghana, it is essential to acknowledge its limitations and identify potential avenues for future research. Survey data was used for this study offering a snapshot of the relationships among variables at a specific point in time. Therefore, future research could adopt a longitudinal approach to track the relationships among government support, regulatory reforms, market access, skills development, and access to finance, innovation, and sustainability over time. This would provide insights into the dynamic nature of these factors. Also, complementing quantitative data with qualitative research methods, such as interviews and case studies, can offer a deeper understanding of the experiences and perspectives of SME owners and managers in Ghana. Investigating the influence of external factors such as economic conditions, global market trends, and technological advancements on SME sustainability can provide a holistic view of the challenges and opportunities facing these enterprises. Delving deeper into the specific innovation strategies and practices that SMEs adopt to enhance sustainability can offer practical guidance for SME owners and managers. Also, the study relied on self-reported data from SME owners and managers, which may be subject to bias and social desirability.

REFERENCES

- Adenutsi, D.E. (2023). Entrepreneurship, job creation, income empowerment and poverty reduction in low-income economies, *Theoretical Economics Letters*, 13(6), 1579–1598. DOI:10.4236/tel.2023.136089
- Adenutsi, D.E., & Whajah, A. (2023). A PLS-SEM approach to enterprise risk management and performance of SMEs in Ghana. *International Journal of Business & Economics (IJBE)*, 8(1), 175–201. <https://ijbe.ielas.org/index.php/ijbe/article/view/47>
- Alabi, F.A., David, J.O., & Aderinto, O.C. (2019). The impact of government policies on business growth of SMEs in South Western Nigeria. *International Journal of Management Studies and Social Science Research*, 1(2), 1–14.
- Alkahtani, A., Nordin, N., & Khan, R.U. (2020). Does government support enhance the relation between networking structure and sustainable competitive performance among SMEs? *Journal of Innovation and Entrepreneurship*, 9(1), 1–16. <https://doi.org/10.1186/s13731-020-00127-3>
- Aslam, R., Rehman, S., & Nasir, A. (2023, January). Investigating the relationship between government support and SMEs' sustainability through financial and green lenses. *Journal of Business and Industrial Marketing*. <https://doi.org/10.1108/JBIM-05-2022-0191>
- Bakar, M.F.A., Talukder, M., Quazi, A., & Khan, I. (2020). Adoption of sustainable technology in the Malaysian SMEs sector: Does the role of government matter? *Information (Switzerland)*, 11(4), 1–17. <https://doi.org/10.3390/INFO11040215>
- Bartolacci, F., Caputo, A., & Soverchia, M. (2020). Sustainability and financial performance of small and medium sized enterprises: A bibliometric and systematic literature review. *Business Strategy and the Environment*, 29(3), 1297–1309. <https://doi.org/10.1002/bse.2434>
- Buchdadi, A.D., Sholeha, A., Ahmad, G.N., & Mukson. (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), 1–16.
- Chinwe, G.O. (2022). Government policies and the growth of small and medium enterprises (SMEs) in Anambra State. *International Journal of Multidisciplinary Research and Analysis*, 5(2), 458–465. <https://doi.org/10.47191/ijmra/v5-i2-32>
- Gebremichael, B.A. (2014). The impact of subsidy on the growth of small and medium enterprises (SMEs). *Journal of Economics and Sustainable Development*, 5(3), 178–188.
- Hair, J.F., Hult, G.T.M., Ringle, C., Sarstedt, M., Danks, N., & Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A Workbook. Cham: Springer Nature Switzerland. <https://doi.org/10.1007/978-3-030-80519-7>
- Hair, J.F., Risher, J.J., Sarstedt, M., & Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J.F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V.G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Harini, S. (2016). Analysis of effects of government policy and the involvement of stakeholders on the performance of MSME. *Journal of Management and Business*, 15(1), 15–24. <https://doi.org/10.24123/jmb.v15i1.4>
- Joo, H.Y., & Suh, H. (2017). The effects of government support on corporate performance hedging against international environmental regulation. *Sustainability (Switzerland)*, 9(11). <https://doi.org/10.3390/su9111980>
- Kanayo, O., Agholor, I., & Olamide, E. (2021). Impact of sustainable entrepreneurship indicators on SMEs business success in South Africa. *Academy of Entrepreneurship Journal*, 27(4), 1–17.
- Kasiri, N., Movassaghi, H., & Lamoureux, S. (2020). Sustainability engagement or not? U.S. SMEs approach. *Journal of Small Business Strategy*, 30(3), 16–32.

- Luiz, A., Soares, V., Mendes-filho, L., & Gretzel, U. (2020). *Technology adoption in hotels: Applying institutional theory to tourism Technology adoption in hotels: Applying institutional theory to tourism*. April. <https://doi.org/10.1108/TR-05-2019-0153>
- Mishrif, A., & Khan, A. (2023). Technology adoption as survival strategy for small and medium enterprises during COVID-19. *Journal of Innovation and Entrepreneurship*, 12(1). <https://doi.org/10.1186/s13731-023-00317-9>
- Mweru, C.M., Maina, T.M., Mweru, M.C., & Tirus Muya, M. (2015). Features of Resource-Based View Theory: An effective strategy in outsourcing. *International Journal of Management and Commerce Innovations*, 3(2), 215–218.
- Najib, M., Rahman, A.A.A., & Fahma, F. (2021). Business survival of small and medium-sized restaurants through a crisis: The role of government support and innovation. *Sustainability (Switzerland)*, 13(19). <https://doi.org/10.3390/su131910535>
- Nguyen, T., & Wongsurawat, W. (2012). The impact of government policies on the development of small- and medium-sized enterprises: The case of Vietnam. *Journal for International Business and Entrepreneurship Development*, 6(2), 188. <https://doi.org/10.1504/jibed.2012.048567>
- Ntiamoah, E.B., Dongmei, L., & Kwamega, M. (2016). Impact of government and other institutions' support on performance of small and medium enterprises in the agribusiness sector in Ghana. *American Journal of Industrial and Business Management*, 6(5), 558–567. <https://doi.org/10.4236/ajibm.2016.65052>
- Okolo, V.O., Ohanagorom, M.I., Okocha, E.R., Muoneke, O.B., & Okere, K.I. (2023). Does financing SMEs guarantee inclusive growth and environmental sustainability in the European union? *Heliyon*, 9(4), e15095. <https://doi.org/10.1016/j.heliyon.2023.e15095>
- Peng, H., & Walid, L. (2022). The effects of entrepreneurs' perceived risks and perceived barriers on sustainable entrepreneurship in Algeria's SMEs: The mediating role of government support. *Sustainability*, 14(17). <https://doi.org/10.3390/su141711067>
- Rahman, M. (2023). Sample size determination for survey research and non-probability sampling techniques: A review and set of recommendations. *Journal of Entrepreneurship, Business and Economics*, 11(1), 42–62.
- Ranatunga, R.V.S.P.K., Priyanath, H.M.S., & Megama, R.G.N. (2020). Methods and rule-of-thumbs in the determination of minimum sample size when applying structural equation. *Journal of Social Science Research*, 15, 102–109.
- Setia, M. (2016). Methodology Series Module 5: Sampling strategies. *Indian Journal of Dermatology*. <https://doi.org/10.4103/0019-5154.190118>
- Songling, Y., Ishtiaq, M., Anwar, M., & Ahmed, H. (2018). The role of government support in sustainable competitive position and firm performance. *Sustainability (Switzerland)*, 10(10), 1–17. <https://doi.org/10.3390/su10103495>
- Whajah, A., & Adenutsi, D.E. (2024). Financial literacy and performance of small and medium-scale enterprises in Ghana: Exploring the interplay of financial risk attitude and access to finance. *African Journal of Business and Economic Research*, 19(1), 439–461. <https://doi.org/10.31920/1750-4562/2024/v19n1a20>
- Xiang, D., & Worthington, A.C. (2017). The impact of government financial assistance on the performance and financing of Australian SMEs. *Accounting Research Journal*, 30(4), 447–464. <https://doi.org/10.1108/ARJ-04-2014-0034>
- Zhang, Y., & Ayele, E.Y. (2022). Factors affecting small and micro-enterprise performance with the mediating effect of government support: evidence from the Amhara Region Ethiopia. *Sustainability*, 14(11). <https://doi.org/10.3390/su14116846>