International Journal of Business and Economics
Vol. 8, No. 1, 2023, pp. 175-201

http://ijbe.ielas.org/index.php/ijbe/index
ISSN (online) 2545-4137

A PLS-SEM APPROACH TO ENTERPRISE RISK MANAGEMENT AND PERFORMANCE OF SMEs IN GHANA

Deodat Emilson Adenutsi[1], Agnes Whajah[2]
[1] Department of Accounting & Finance. HTU Business School Ho Technical University, PO Box HP 217, Ho, Ghana.
[2] Department of Accounting & Finance, Ho Technical University, Ho, Ghana.

Received: 2023-02-15 Accepted: 2023-03-28 Published online: 2023-04-11

Abstract

The purpose of this study is three-fold. First, examine the effect of ERM on the operational and financial performances; second, the effect of competitive advantage on operational and financial performances; and third, explore the mediating roles of competitive advantage and financial literacy on the relationship between ERM and the operational and financial performances of SMEs in Ghana. Sampling 8,384 SMEs purposively, the analytical framework was based on SMART PLS-SEM. The empirical results reveal that ERM just as competitive advantage are positive determinants of financial and operational performances of SMEs. Financial literacy does not mediate the relationship between ERM and financial performance, although it partially mediates the relationship between ERM and operational performance just as competitive advantage partially mediates ERM and financial performance. Competitive advantage mediates between ERM and operational performance of SMEs in Ghana. Therefore, effective ERM practices and competitive advantage strategies are necessary conditions for the long-run sustainability of Ghanaian SMEs by way of improved financial and operational performances, given that the key officers are financial literate.

Keywords: Firm Performance, Competitive Advantage, Financial Literacy, PLS-SEM, ERM, SMEs.

INTRODUCTION

Risk management has been a heavily discussed issue from the early days of finance research when it was thought to be unimportant under ideal market circumstances (Anton & Elena, 2020), as it has always been segregated and uncoordinated within the operational activities of organisations. Corporate risk managers used to focus on pure hazards, while the treasury department employed derivatives to mitigate financial risks such as interest rate, credit, market, and foreign currency risks. However, ERM makes an effort to address extra risks which have operational or strategic concerns (McShane et al., 2011). Quon et al. (2012) argue that, in order to build an effective risk management plan, enterprise risk management should impact business value and employ an enterprise-wide approach to manage such risks. The fundamental purpose of risk management is to enhance shareholder value. However, vulnerability has recently become all-encompassing phenomena (Krause & Tse, 2016; Tagoe et al., 2005). Managing each risk class in its own vacuum might lead

[1] Corresponding Author: dadenutsi@htu.edu.gh

to inefficiencies due to lack of coordination among the different risk management divisions. Enterprise risk management (ERM) brings about a significant change in how businesses approach risk (Alawattegama, 2020). ERM is a comprehensive approach that helps in identifying and measuring varied risk variables, as well as coordinating risk management operations across all operational units of an organisation, as opposed the old method of each business unit assessing its own risks and deciding how to mitigate them (Lin et al., 2012).

Risk and its management are key concerns for all businesses, particularly small and medium-sized organisations, which are more vulnerable to business and competition risks(Yolande, 2012). In SMEs, risk management is often handled by the owner's appraisal of the enterprise's hazards and opportunities(Shad & Lai, 2019). Although risk management concepts apply to all sorts of businesses, the owner manager's risk assessment and risk management attitude determine the effectiveness of the enterprise's risk management measures. Risk management is the key premise that entrepreneurial or managerial attention should be focused on in identifying future uncertainties, hazards, probable manifestations and impacts, in order to aid in making strategies to handle these risks and limit or eliminate their impacts or exposures on the firm. One of the competencies needed by entrepreneurs is the capacity to detect and analyse risks in order to take benefit of calculated risks (Yolande, 2012).

There are a wide range of challenges which impedes the growth of small business. This includes internal and external organisational issues such as lack of managerial skills, education and training; industry-related issues such as lack of market access; and economy-based issues such as loan rate swings (Anton & Elena, 2020; Brustbauer, 2016; Tagoe et al., 2005; Tazilah & Hussain, 2015). Owner-managers of small and medium-sized businesses (SMEs) are generally in charge of overseeing the operations of their businesses. Studies have shown that small-business owners and managers do not have the full knowledge about the internal and external dangers their companies face thus risk avoidance and, to a lesser degree, risk transfer through insurance are the primary methods of risk management tools used (Crespo et al., 2017). As a result, the availability of corporate resources in dealing with these risks is adversely affected. Small and medium-sized businesses may reap the advantages of using structured approach to enterprise risk management, such as lower costs, less risk management struggles and a better alignment of the organization’s risk exposure with its purpose and goals (Tazilah & Hussain, 2015).

Small and medium-sized businesses (SMEs) have the capacity to employ unskilled labor and to foster and advance entrepreneurial talents and their intrinsic qualities (Offiong et al., 2019). However, due to their high failure rate, these advantages are not present in the Ghanaian economy. There are several barriers that prevent SME success. Studies have shown that SME owner-managers are unaware of the risks exposed to their organisations due to the reactive and poor use of risk

management approaches (Quaye et al., 2014). Potential advantages including lower risk management cost as well as organisational alignment with the SME's goal may be realized by implementing a structured approach to enterprise risk management within SMEs (Songling et al., 2018; Tazilah & Hussain, 2015).

Despite uncertainties and conflicts, a consensus is emerging concerning ERM's essential principles. ERM believes that portfolio risk management is more efficient than subsidiary risk management. In a stock market comparison, mitigating risk associated with individual stock is expensive and pointless. One part of a company may suffer if exchange and interest rate increases and another if it falls. These two risks may balance out at the business level, rendering corporate performance immune to these fluctuations. ERM includes conventional risks like product liability, accidents as well as strategic risks such as product obsolescence and competitor activities which entails risk management. ERM stipulates that, businesses shouldn't only minimize risk but firms with risk-management skills, should seek competitive advantage. A business which lack competency in anticipating and controlling energy costs, for example, may earn by investing in energy or offering advice services. The developing agreement and acceptance of ERM fundamental features allows academics to study its adoption and efficacy.

This study therefore sought to examine enterprise risk management practices and operational and financial performance in Ghana. The role of competitive advantage and financial literacy. This study sought to specifically, examine the effect of enterprise risk management on operational and financial performance; examine the effect of competitive advantage on operational and financial performance; examine the effect of financial literacy on operational and financial performance; examine the mediating role of competitive advantage on the relationship between enterprise risk management practice operational and financial performance; examine the mediating role of financial literacy on the relationship between enterprise risk management practice, operational and financial performance.

MATERIALS AND METHODS

Theoretical Review

Agency Theory (AT)

The agency theory discusses how to structure interactions when one party, the shareholder or principle, specifies the job and another party, the manager or agent, does it (Cărăușu, 2015). The principal hires an agent to do tasks he or she is unwilling or unable to accomplish. In corporations, the principals are the stockholders, who delegate work to the board of directors. This means that agency theory assumes human preferences and motivations (Volonté & Gantenbein, 2016). The agency theory

postulates that both the agent and the principal are self-interested and may not behave in each other's benefit (Jensen & Meckling, 1976). The separation of ownership and control might lead to knowledge asymmetry between the agent and the principal. One party to a transaction has greater information than the other. Agents are usually more versed than proprietors regarding day-to-day business management. Due to information asymmetry and agent self-interest, principals have no incentive to trust agents to behave in their best interest(Panda & Leepsa, 2017). Arwinge (2013) believes that internal controls reduce agency costs and improve performance, but he emphasizes that designing or installing internal control systems does not reduce agency costs. Similarly, the agency theory's assumptions have been experimentally tested.

Critics have questioned certain of the agency theory's assumptions about internal control and business performance. The self-interest of actors is an erroneous assumption. Self-interest assumption renders principal-agent goal congruence unfeasible. Critics of the agency theory say it ignores a firm's involvement in competitive realities, changing environments, and relocating resources to develop (Driver et al., 2020). The agency theory does not explain real-world company problems. Real-world corporations grow beyond shareholders' interests to stakeholders' concepts and how they affect the firm (Dépelteau, 2008). This theory is important to this study as its assumptions, objections, and how it affects corporate performance via internal control systems. The following part starts with the contingency theory, which transcends the agency theory to describe how organisations may arrange their internal control systems to fit contingency conditions to increase effectiveness and performance.

Contingency Theory (CT)

The ideal manner to organize a corporation depends on its surroundings. Contingency theory supporters say the theory has two assumptions (Sahoo, 2020). First, it implies there is no universally better strategy or optimal method to manage a corporation. The second assumption is that the choice of technique, structure, or control system relies on environmental, risk, strategy, size, organisational structure, and optimal activities. For an organization to function successfully and fulfill its corporate objectives, its structure and context must match or suit each other. Various internal control systems based on their situational characteristics (Hwang & Min, 2015). This concept is similar to the contingency theory, which says each organization must pick the best control system by considering contingency characteristics. Two organisations should not have comparable internal control systems unless they're identical. Thus, internal control needs and details differ each company. This argument is similar to contingency theory. Some contingency theory features are connected to internal control systems. This means there's a relationship between internal control system structure and contingency characteristics. Modifications in contingency factors suggest changes to internal control system structure to improve effectiveness and

organisational performance (Sila, 2007). Contingency theory states that corporations are not closed systems that can be constructed without addressing environmental factors. To enhance and sustain performance, enterprises should regularly analyze environmental risk, monitoring methods, and organisational commitment to such eventualities. Internal control is not a static aspect of organisational structure or design. Equally, the implications of fit and mismatch between structure and contingency factors on company performance help managers understand why organisational design should be changed as circumstances change (Magaji et al., 2018).Contingency theory relates internal control system with performance, although detractors say an organisation need not react to its external environment. It is not always advisable for enterprises to match their contingencies since, when the company adjusts its structure to meet the contingencies, the circumstances also change, and the change in structure would not produce the intended fit.

Enterprise Risk Management (ERM)

ERM is a systematic and holistic approach to the management of the total risks that confronts a firm within a coordinated and strategic framework. Thus, unlike the conventional atomized approach to risk management which involves firms seeking to manage one risk at a time on a largely departmental, compartmentalized and decentralized basis, ERM essentially involves using a *common risk management framework* to manage risk across the entire organization. Practically, firms may have differentiated risk management frameworks. However, there are three permanent features (people, rules, and tools) of every ERM framework. The "people" are the individuals with defined responsibilities who by default employ repeatable processes (rules) and technology (tools) to mitigate risk, thereby creating value for firms both at the "macro" or company-wide level and "micro" or business-unit level.

At the macro level, ERM creates value by giving senior management the space and capacity to identify, quantify and manage the risk-return trade-off that confronts an entire firm. By quantifying identified risks, management is in a better position to determine or establish an optimal risk-return trade-off, thereby guaranteeing a steady access to financial (capital) markets and other resources the enterprise needs to implement its strategy and business plan. Furthermore, ERM lends itself to application at the project level using the risk-return trade-off. A firm must evaluate the risk of every prospective project and how such risks affect its overall risk. In this respect, firms are inclined to taking on only projects that increase their total risk only if the project provides an adequate return on capital after compensating for the costs associated with the increase in risk. This way, the risk-return trade-off becomes a component of every management decision of the organization be it at the operational, tactical or strategic level.

This paper adopts the ERM approach because it encompasses risk governance which is a set of mechanisms that deals with the agency problem of risk management and risk aggregation, which is a set of mechanisms that deals with the information problem of risk management while at the same time following a comprehensive multi-stakeholder involvement in managing the overall enterprise risk.

Empirical Literature

McShane et al. (2011) found evidence of a positive relationship between increasing levels of TRM capability and firm value but no additional increase in value for firms achieving a higher ERM rating. Further, it has been found that insurers with larger reinsurance buy and geographic diversification are more likely to use ERM. The market reacts badly to ERM implementation (Lin et al., 2012). Likewise, Paape & Speklé (2012) posits that the extent of ERM implementation is influenced by the regulatory environment, internal factors, ownership structure, and firm and industry-related characteristics. They argue that perceived risk management effectiveness is associated with the frequency of risk assessment and reporting, and with the use of quantitative risk assessment techniques. A study by Sigalas et al. (2013) resulted in the discovery of a conceptually strong stipulate definition, the compilation of a thorough operational definition, and the production of a qualified variable, allowing for the development of a valid and reliable measure of competitive advantage Bromiley et al. (2015) argue that ERM offers an important new research domain for management scholars. A critical review of ERM research allows us to identify limitations and gaps that management scholars are best equipped to address.

Brustbauer (2016) indicate that SMEs choose an active or passive ERM approach, which influences their strategic orientation; a passive approach results in a defensive strategy, whilst an active one results in an attacking strategy. The application of ERM is influenced by firm size, sector affiliation, and ownership structure. The use of ERM concepts may assist SMEs in adapting to a changing environment in order to obtain a strategic advantage, hence enhancing competitiveness and commercial success. Also, Prisca (2016) suggest that borrowing financial literacy and budgeting financial literacy have a substantial impact on SME success. It is advised that SME owners improve their training on interest rate computation and have budget knowledge since they determine whether the budget will be executed as planned or not. Finally, staff must have the appropriate reporting and analytical abilities. Likewise, Eniola & Entebang (2017) demonstrate the whole impact of a company owner-financial manager's knowledge, financial awareness, and financial attitude in converting financial literacy to improved firm performance. Furthermore, they reveal that financial education and awareness of SME company owners-managers are clearly not a precondition for SMEs' success, but entrepreneur qualities in decision-making and link to financial attitude are comparable to financial literacy. Further, Florio & Leoni (2017) analyzed the link between the

degree to which enterprise risk management (ERM) systems are used and the performance of Italian listed organisations The findings suggest that enterprises with advanced degrees of ERM implementation outperform in terms of both financial performance and market appraisal. Additional experiments confirm that successful ERM systems improve performance by lowering risk exposure, and that reverse causation between ERM and performance does not exist in the near term.

Equally, Khan & Ali (2017) examine the impact of ERM on firm performance via the moderating function of intellectual capital in the link between ERM and company performance. As a result, companies with more intellectual capital are able to resist the consequences of unexpected shifts in economies and markets. More so, Ripain et al. (2017) assessed the level of financial literacy among participants in an entrepreneur development program organised by a Malaysian state via a special program entrusted to an implementing agency. According to the report, the level of financial literacy among SMEs' participants, especially those chosen to be groomed as new entrepreneurs remains troubling. Similarly, Agyei (2018) indicates that there is a cultural-context dependent association between financial literacy and SME growth. The report advises that religious entities include financial education into their teachings; that financial literacy training programs for SME-Owners be adjusted to their specific requirements; and that cultural views of SME-owners be taken into account when building financial literacy programmes.

Also, Mabula & Ping (2018) examining the perceived influence of technology use by micro, small, and medium-sized firms (SMEs) on managers' financial literacy in a developing economy environment The findings show a substantial beneficial association between the usage of technology and the financial understanding and attitude of business management. However, we discovered that the usage of technology had no effect on the financial conduct of business management. The investigation also provides insight into how financial knowledge and attitude influence corporate managers' financial conduct. The results show how a variety of technological applications and enhanced financial literacy may improve financial management choices in corporate operations. Correspondingly, Hussain et al. (2018) investigate the link between financial literacy, access to credit, and development of small and medium-sized firms (SMEs) in the UK's Midlands area Because financial literacy is an interconnected resource that reduces information asymmetry and collateral deficiency when analyzing loan applications, it should be included in the school curriculum. The data reveals that improved financial literacy decreases monitoring costs and helps to optimize enterprises' capital structures, all of which benefit SMEs' development. Financial management expertise is acknowledged as a critical resource that assists SMEs' owners in making good decisions.

Besides, Mabula & Ping (2018)v analyze its influence on access to and actual usage of financial services, as well as its final consequences on the performance of SMEs in emerging countries. The research found that financial literacy has a strong favorable influence on financial access and company success. It was also revealed that there is a strong beneficial direct influence of access to financial services on real financial service usage, as well as a significant favorable effect of financial service use on business performance. Firm usage of financial services has a substantial mediating role in the link between company access to financial services and firm performance. Likewise, Songling et al. (2018) investigated the role of competitive advantage in mediating the relationship between enterprise risk management practices and SME performance, as well as the function of financial literacy in moderating the relationship between enterprise risk management practices and competitive advantage. The findings show that enterprise risk management techniques have a substantial impact on competitive advantage and SME success. The relationship between corporate risk management strategies and SME performance is somewhat mediated by competitive advantage. Furthermore, financial literacy moderates the association between corporate risk management techniques and competitive advantage substantially.

Rehman & Anwar (2019) emphasize the relevance of business strategy in SME success, with enterprise risk management acting as a buffer. According to the findings, business strategy has a substantial impact on SME performance and enterprise risk management. Furthermore, enterprise risk management mediates the link between company strategy and SME performance to some extent. According to the findings of this research, organizations with a distinct business strategy support formal risk management method, which in turn promote higher market performance. Further, Ye & Kulathunga (2019) investigated the effect of financial literacy, access to funding, and financial risk mentality on the sustainability of SMEs The research found that financial literacy, access to money, and financial risk mentality all had a direct beneficial impact on sustainability. Financial literacy was also shown to be a predictor of financial access and risk attitude. Furthermore, access to capital and financial risk attitude were shown to be partial mediators of the association between financial literacy and the long-term viability of SMEs. Saeidi et al. (2019) examined the impact of Enterprise Risk Management (ERM) on Competitive Advantage (CA) by moderating the effect of information technology factors such as IT strategy and IT structure. The study's results revealed that ERM had a favorable link with enterprises' competitive advantage. The findings also revealed that IT strategy and IT structure had a direct impact on competitive advantage as well as a moderating influence on the ERM-competitive advantage link.

Additionally, Anton & Elena (2020) found that the influence of ERM on firm performance is the most commonly studied. Little attention has been paid to the success of ERM by its components, as well as the institutional, human, and

organisational variables that influence ERM adoption. Also, Kulathunga et al. (2020) underlines the importance of techno-finance literacy in determining two endogenous entities, namely SME performance and ERM practices Furthermore, SMEs' ERM procedures had a favorable impact on their performance. Furthermore, ERM procedures were shown to somewhat mediate the association between financial literacy and SME performance. Again, Alharbi et al. (2021) investigated the role of financial literacy in moderating the link between Islamic religion, branding, and the performance of SMEs.

According to this research, Islamic branding (on customer, compliance, and provenance) has a substantial impact on financial attitude, but Islamic religiosity has an impact on financial awareness among SMEs. The findings show that financial awareness plays a mediating role in the link between Islamic branding and Islamic religiosity and the performance of SMEs. There was no evidence of a mediation effect for financial attitude or financial knowledge. Further analysis suggests that the most important factors of SMEs' success in Saudi Arabia are financial attitude, financial knowledge, Islamic branding, and Islamic religiosity.

Definition of SME

Ghana Statistical Service (GSS) in its Industrial Statistics categorizes firms with less than 10 employees as Small-Scale Enterprises so that firms with more than 10 employees are by definition, Medium and Large-Sized Enterprises. Paradoxically, the same GSS in its national accounts classifies companies with up to nine employees as Small and Medium Enterprises. Meanwhile, the National Board of Small Scale Industries (NBSSI) now called the Ghana Enterprises Agency defines a Small Scale Enterprise as one with not more than nine workers and has plant and machinery (excluding land, buildings and vehicles) not exceeding 10 million cedis[1] or US$ 9506.The Ghana Enterprise Development Commission (GEDC) on its part uses a 10 million cedi upper limit definition for plant and machinery as the threshold for SME. The problem with the asset-based definition is that due to variations in depreciation methods, rates, and fluctuating exchange rate of the local currency, valuation of fixed assets across firms and time poses a great challenge and controversy when classifying the firms. This study, therefore, followed, Steel and Webster (1990) to classify enterprises with number of employees between one and 29 as SMEs in Ghana.

Conceptual Framework

Paape & Speklé (2012) posits that the extent of ERM implementation is influenced by the regulatory environment, internal factors, ownership structure, firm and industry-related characteristics. They argue that perceived risk management

[2] This definition was in 1994 prior to the redenomination of the Ghanaian cedi in 2007. The quoted US$ equivalent of 9,506 is based on the exchange rate at the time of the definition.

effectiveness is associated with the frequency of risk assessment and reporting, and with the use of quantitative risk assessment techniques. A study by Sigalas et al. (2013) resulted in the discovery of a conceptually strong stipulate definition, the compilation of a thorough operational definition, and the production of a qualified variable, allowing for the development of a valid and reliable measure of competitive advantage Bromiley et al. (2015) argue that ERM offers an important new research domain for management scholars. Brustbauer (2016) indicate that SMEs choose an active or passive ERM approach, which influences their strategic orientation. Likewise, Eniola & Entebang (2017) demonstrate the whole impact of a company owner-financial manager's knowledge, financial awareness, and financial attitude in converting financial literacy to improved firm performance. Furthermore, they reveal that financial education and awareness of SME company owners-managers are clearly not a precondition for SMEs' success, but entrepreneur qualities in decision-making and link to financial attitude are comparable to financial literacy. Further, Florio & Leoni (2017) suggest that enterprises with advanced degrees of ERM implementation outperform in terms of both financial performance and market appraisal. Additionally, Anton & Elena (2020) found that the influence of ERM on firm performance is the most commonly studied. Also, Kulathunga et al. (2020) showed a favorable impact on their performance. Furthermore, ERM procedures were shown to somewhat mediate the association between financial literacy and SME performance. Again, Alharbi et al. (2021) show that financial awareness plays a mediating role in the link between Islamic branding and Islamic religiosity and the performance of SMEs. There was no evidence of a mediation effect for financial attitude or financial knowledge. Further analysis suggests that the most important factors of SMEs' success in Saudi Arabia are financial attitude, financial knowledge, Islamic branding, and Islamic religiosity. With empirical reference to Ghanaian SMEs, therefore, this study is guided by the underlisted hypotheses:

$H1_1$: No significant relationship exists between ERM practices on financial performance

$H1_2$: No significant relationship exists between ERM practices on operational performance

$H2_1$: No significant relationship exists competitive advantage on financial performance

$H2_2$: No significant relationship exists competitive advantage on operational performance

$H3_1$: Financial literacy does not affect financial performance

$H3_2$: Financial literacy does not affect operational performance

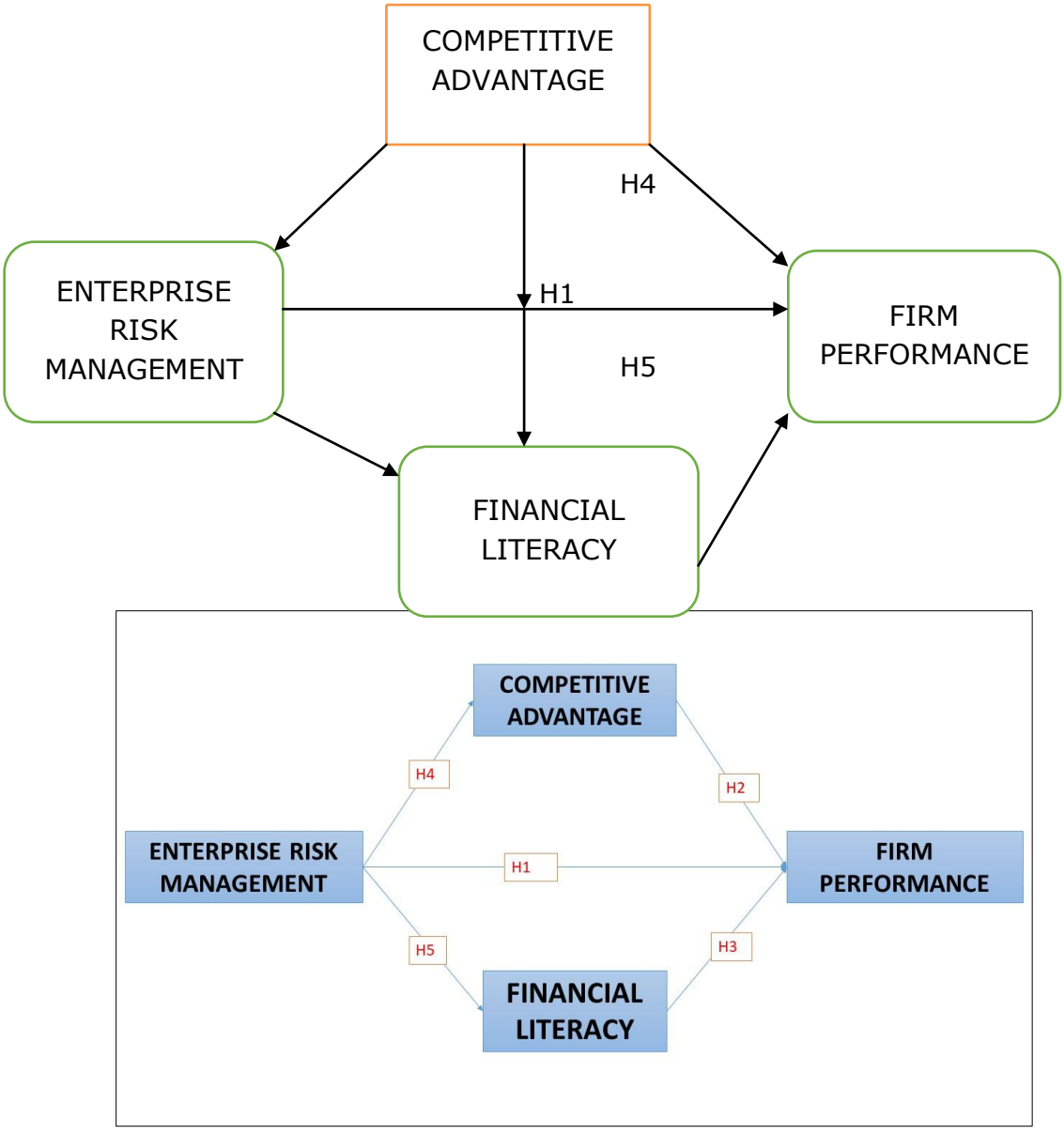
$H4_1$: Competitive advantage of a firm does not mediate the relationship between ERM practices and financial performance

$H4_2$: Competitive advantage of a firm does not mediate the relationship between ERM practices and operational performance

$H5_1$: Financial literacy mediates the relationship between ERM practices and financial performance.

$H5_2$: Financial literacy mediates the relationship between ERM practices and operational performance.

FIGURE 1
CONCEPTUAL FRAMEWORK OF THE STUDY VARIABLES



Source: Authors' construct (November 2022)

Research Design and Methodological Approach

The comprehensive strategy set forth to find answers to the research problem identified and test the hypotheses specified in this study includes the succinct outline of data collection instrument and procedure, identification of the relevant study unit, the data analytical technique and presentation of the empirical findings. This research was designed to collect primary data by survey through self-administered questionnaire. Recognizing SMEs as the unit of study, to avoid duplication or repetition of the information on the same firm, only one top official was chosen as a respondent from each firm. More specifically, the domain officials from which a sample was taken embodied a Board member, the chief executive, and the head of accounting and finance. In other words, the study was designed to target the risk holder or the closest approximate official by standard definition of job portfolio as a qualified respondent during the survey.

Furthermore, the research was designed for mixed methodologies approach, a blend of qualitive and quantitative methods. For the purpose of testing the hypotheses, however, this study followed Alawattegama (2020); Rehman & Anwar, (2019) in adopting a quantitative research design. It is common knowledge that mixed approach yields more in-depth insights into thoroughly addressing a research problem rather than upholding onto a purely strict quantitative or qualitative study.

For easy coding, appropriateness of using dummy variables for the qualitative data collected, this research was designed to gather the relevant information through close-ended questions although some secondary and tertiary questions were tactically designed to be open-ended. The open-ended follow-up questions were meant to gather information on some crucial close-ended questions and at the same time validate the responses to the open-ended questions. Either way, some of the questions required quantitative responses and while others required qualitative.

Population, Sample Size and Sampling Techniques

The target population comprised registered SMEs in the cities of Ghana with special focus on the capital cities of each of the 16 regions of Ghana. The size of the target population is unknown due to absence of reported data on registered SMEs in good standing with the Registrar of Companies. The respondent from each sampled SME is the overall enterprise risk holder being the Board, the chief executive, proprietor, or the head of accounts and finance which then comprised the study population. Each of these top officials is part of Management of the sampled SME directly involved in the risk management of the firm. Beyond purpose, specific choice or sample was determined by the convenience based on who is willing and available to respond to the questions at the time of survey. The target population is considered

homogeneous since SMEs and the study respondents are considered to have comprised a population with a set of common binding characteristics regarding exposure to risk.

Ghana's informal sector is large and with the population of SMEs unknown to the researchers at the time of this study and impossible to collect data on the entire target population, a sample of the target population was determined to create room for generalization of the results following Cochran (1977). Using a reliability level of 95 percent which matches a significance of level of 0.05 with an acceptable sampling error of 0.05 for a population that is unknown but with a known population proportion of 0.1, a sample size of at least 240 is adequate based on Cochran (1977). In the case of an unknown size of the target population with unknown proportion of the population as in our circumstance, the minimum sample size determination is 385 under the preceding context of Cochran (1977). Therefore, our sample size of 8,384 is, in fact, significantly adequate representation of the target population.

A combination of purposive, convenient sampling methods was used based on whether the firm has ever been registered and licensed by the government to commence business. A sample size of respondents was conveniently chosen based on the research questions and objectives thus questionnaires were given to participants who are easy to access at the time of administering. This sample size selection is consistent with the technique prescribed by Welch & Patton (1992); as there is no clear rule for the selection of suitable sample size for non-probability sampling technique because the population is unknown but the researcher ought to consider the research questions and objectives (Saunders et al, 2009). The authors sampled 8,384 respondents to achieve the study objectives.

Data Type and Sources

The source of for this study is primary by survey through the administration of structured questionnaires to top officials with enterprise management responsibility and directly involved in the risk management of a typical sampled SME in the 16 regional capital cities of Ghana. To lessen the complications and burden of data analysis, most of the questions were close-ended with majority being either a five-point or a seven-point Likert scale. Data collection was concurrently carried out in all the 16 regions of Ghana between September 14 and November 14, 2022.

Data Analytical Approach

Descriptive statistics were used to analyze data and inferences made based on the results of the tables and graphs. The completed questionnaires were edited for completeness and consistency before processing. The data were coded to enable the responses to be grouped into various categories for easier analysis. The study employed SMART PLS SEM to estimate the mediating variables. Partial least square

structural equation modeling (PLS-SEM) was utilized, which has been generally accepted Hair et al., (2019) in place of the conventionally used co-variance-based structural equation modeling (CB-SEM). PLS-adaptability SEMs in multiple disciplines such as information system research (Kwong-Kay Wong, 2013). When compared to the CB-SEM, the PLS-SEM has some advantages (Hair et al., 2011). The multivariate normality criterion is not necessary prior to using this technique, making it suited for theory exploration rather than confirmation.

This study is quantitative and adopts both descriptive and inferential statistics using exploratory study design. Consistent with Hair et al. (2019), we selected PLS-SEM analytical framework essentially because, among other things, the analysis is concerned with testing a theoretical framework from a prediction perspective; the structural model is complex and includes many constructs, indicators and/or model relationships; the research objective is to better understand increasing complexity by exploring theoretical extensions of established theories (exploratory research for theory development);the path model includes one or more formatively measured constructs; distribution issues are a concern, such as lack of normality; and the research requires latent variable scores for follow-up analyses.

RESULTS AND DISCUSSIONS

The results of the biographical data are presented in Table 1. This study employed 8384 responses across the country to achieve the research objectives. The male respondents constituted about 52.7% while the female was 47.3%. The age group between 18-25 years were 12.2%. The age group between 26-35 years were 35.5%. The ages between 36-45 years made up 29.8%. Those between 46-55 years constituted 17.4% while those above 55 years was 5.1%. On the educational background, 34.6% of the respondents had primary education and those with junior high education 30.3%. Those with Senior high were 10.8%. While those with tertiary education were 24.3%. On the legal form of the firms, 9.9% of SMEs were sole proprietors, 33.6% cooperatives; the partnership was made up of 44.3%. While the limited liability is 12.1%. On the stage of development of the SMEs, those in their early start-up that is those less than 1 year were 9.8%. Those in the young that those between 1-5 years constituted 43.9%. The established ones more than 5 years was 46.4%. On the number of employees in the firm. The results showed that the firms with 1-9 employees were 30.5%, those with 10-49 employees were 26.1%, the firms with 50-249 employees constituted 28.0% and those with more than 250 employees were 15.4%. In the area the business operates, the retail business constituted 16.7%, the manufacturing firms were 26.8%, those in the transport sector were 23.5%, the construction firms were 18.7%, those in the hospitality sector were 9.2%, the agriculture businesses were 1.4% while those in the telecommunication/ICT constituted 3.7%.

TABLE 1
BIOGRAPHICAL PROFILE OF THE RESPONDENTS

		Frequency N=8384	Percent
Gender	Male	4415	52.7
	Female	3969	47.3
Age Group	18-25 years	1026	12.2
	26-35 years	2973	35.5
	36-45 years	2498	29.8
	46-55 years	1456	17.4
	Over 55 years	431	5.1
Educational Qualification	Primary	2898	34.6
	Junior high	2544	30.3
	Senior high	903	10.8
	Tertiary	2039	24.3
Ownership of Your Firm	Sole proprietorship	826	9.9
	Partnership	3721	44.4
	Cooperative	2820	33.6
	Limited liability	1017	12.1
Stage of Development	Early start-up (less than 1 year)	825	9.8
	Young (1-5 years)	3680	43.9
	Established (more than 5 years)	3879	46.3
Number of Employees	1-9 employees	2561	30.5
	10-49 employees	2187	26.1
	50-249 employees	2345	28.0
	More than 250	1291	15.4
Sector of Business	Retail	1404	16.7
	Manufacturing	2245	26.8
	Transport	1968	23.5
	Construction	1569	18.7
	Hospitality	771	9.2
	Agriculture	114	1.4
	Telecommunication/ICT	313	3.7

Source: Authors' estimation based on field output (November 2022)

Results of the Structural Equation Modelling

Evaluation of Outer Measurement Model

The measurement model was analyzed based on PLS-SEM with the help of Smart PLS 3.0 as suggested by (see, Kwong-Kay Wong, 2013; Ringle et al., 2020). For the assessment of the measurement model, factor loading, composite reliability, Cronbach's alpha, average extracted variance (AVE), and discriminant validity were examined. The outer measurement model is aimed to calculate the reliability, internal consistency, and validity of the observed variables together with unobserved variables. The results in Table 2 showed that, all the observed variables had an outer loading greater 0.7 and acceptable (see, Hair et al., 2021; Hair et al., 2011, Hair et al., 2019). The Cronbach's alpha (CA) and Composite Reliability (CR) were used for internal consistency evaluation

in the construct reliability. Table 2 shows that all constructs' Cronbach's alpha and CR were greater than 0.80. Thus, the Cronbach's alpha and CR showed that the scales were reasonably reliable and indicated that all the latent construct values exceeded the minimum threshold level of 0.70 (Purwanto et al., 2021). Table 2 indicates that all of the average variance extracted (AVE) values were more than 0.5, so convergent validity was confirmed for this study model. These results confirmed the convergent validity and good internal consistency of the measurement model.

TABLE 2
EVALUATION OF OUTER MEASUREMENT MODEL

Construct	ITEM	Loading	CA	CR	AVE
Competitive advantage	COS1	0.899	0.899	0.930	0.767
	COS2	0.874			
	COS3	0.874			
	COS4	0.857			
Enterprise Risk Management	EM1	0.709	0.942	0.950	0.615
	EM2	0.801			
	EM3	0.778			
	EM4	0.761			
	EM5	0.788			
	EM6	0.741			
	EM7	0.798			
	EM8	0.713			
	EM9	0.824			
	EM10	0.787			
	EM11	0.825			
	EM12	0.858			
Financial Literacy	FINL1	0.821	0.923	0.937	0.650
	FINL2	0.786			
	FINL3	0.823			
	FINL4	0.792			
	FINL5	0.860			
	FINL6	0.753			
	FINL7	0.820			
	FINL8	0.789			
Financial Performance	Fp1	0.905	0.965	0.970	0.824
	Fp2	0.914			
	Fp3	0.912			
	Fp4	0.916			
	Fp5	0.920			
	Fp6	0.909			
	Fp7	0.878			

TABLE 2 *(concluded)*

Operational Performance	**Op1**	**0.616**	**0.898**	**0.915**	**0.534**
	Op10	0.836			
	Op2	0.577			
	Op3	0.209			
	Op4	0.790			
	Op5	0.784			
	Op6	0.817			
	Op7	0.825			
	Op8	0.823			
	Op9	0.786			

Source: Authors' estimation based on survey data (2022)

Due to the shortfall of the Fornell and Larcker criterion and cross-loadings (See, Ahmed et al., 2019; Hussain et al., 2018).The Heterotrait-Monotrait Ratio (HTMT) approach was used to assess the discriminant validity of the constructs as suggested by (Kwong-Kay Wong, 2013).Table 3shows that, all the constructs have achieved acceptable levels of HTMT below 0.85.

TABLE 3
HETEROTRAIT-MONOTRAIT RATIO (HTMT)

	COST	ERM	FINP	LITERACY
Enterprise Risk	0.664			
Financial Performance	**0.366**	**0.453**		
Literacy	**0.765**	0.822	**0.340**	
Operational Performance	**0.530**	**0.592**	**0.684**	**0.525**

Source: Authors' estimation based on survey data (2022)

Collinearity Assessment

From the Table 4, it is clear that all the predictors show variance inflation factors (VIF) values ranges between 5.883 and the lowest being 2.390 recorded against the exogenous construct. These meet the acceptable levels suggested by Kim (2019).

TABLE 4
COLLINEARITY ASSESSMENT

	VIF
Competitive advantage	2.584
Enterprise Risk Management	2.505
Financial Literacy	2.390
Financial Performance	5.883
Operational Performance	5.270

Evaluation of the Inner Structural Model

The coefficient of determination (R^2), path coefficient (β value) and t-statistic value, effect size (f^2), the predictive relevance of the model (Q^2), and goodness-of-fit index were employed to evaluate the inner structural model as suggested (Afthanorhan, 2017).

Measuring the Value of R^2

The coefficient of determination measures the overall effect size and variance explained in the endogenous construct for the structural model and is thus a measure of the model's predictive accuracy (Hussain et al., 2018). In this study, the inner path model was 0.682 for the competitive advantage. This indicates that the competitive advantage. Constructs substantially explain 64.1% of the variance in the operational and financial performance. Also, the financial literacy constructs substantially explain 68.5% of the variance in the firm's performance. According to Hair et al., (2014), an R^2 value of 0.568 is considered substantial, an R^2 value of 50 is regarded as moderate, and an R^2value of 0.26 is considered as weak (Hair et al., 2021). Hence, the R^2 value for competitive advantage and financial literacy were substantial.

TABLE 5: ASSESSMENT OF COEFFICIENT OF DETERMINATION (R^2)

	R^2	Adj R^2
COST	0.642	0.642
FINP	0.201	0.201
LITERACY	0.685	0.685
OPF	0.474	0.474

Source: Authors' estimation

Measuring the Effect Size ($f2$)

The f^2 was used to measure the degree of the impact of each exogenous latent construct on the endogenous latent construct. According to Hair et al. (2021) when the f^2 values is 0.35 (strong effect), 0.15 (moderate effect), and 0.02 (weak effect). As shown in Table 6 Competitive advantage shows a weak effect on both financial performance and operational performance. Also, financial literacy indicated a weak effect on financial performance and operational performance. However, enterprise risk management showed a moderate effect on financial performance and operational performance.

TABLE 6
EFFECT SIZE ASSESSMENT (f^2)

	FINP	OPF
Competitive advantage	**0.003**	**0.005**
Enterprise risk management	0.089	0.114
Financial literacy	**0.007**	**0.009**

Source: Authors' estimation based on field data (November 2022)

Predictive Relevance of the Model (Q^2)

Q^2 statistics measured the quality of the PLS path model (Hair et al., 2019). The rule of thumb for the Q^2 values measured must be greater than zero. The Q^2 values for this study model was equal were 0.596, 0.529 and 0.541 for competitive advantage, ERM and financial literacy respectively.

TABLE 7
PREDICTIVE RELEVANCE (Q2)

	SSO	SSE	Q^2
Competitive advantage	856.000	345.584	0.596
Enterprise risk management	2568.000	1208.486	0.529
Financial literacy	1712.000	785.927	0.541

Source: Authors' estimation based on field data (November 2022)

Goodness-of-fit

The results of CFA proved that the fit indices for this structural model were quite acceptable as shown in Table 8.

TABLE 8
GOODNESS-OF-FIT

	Saturated Model	Estimated Model
SRMR	0.143	0.194
d_ULS	17.608	32.248
d_G	2.902	3.662
Chi-Square	112313.456	128585.714
NFI	0.716	0.675

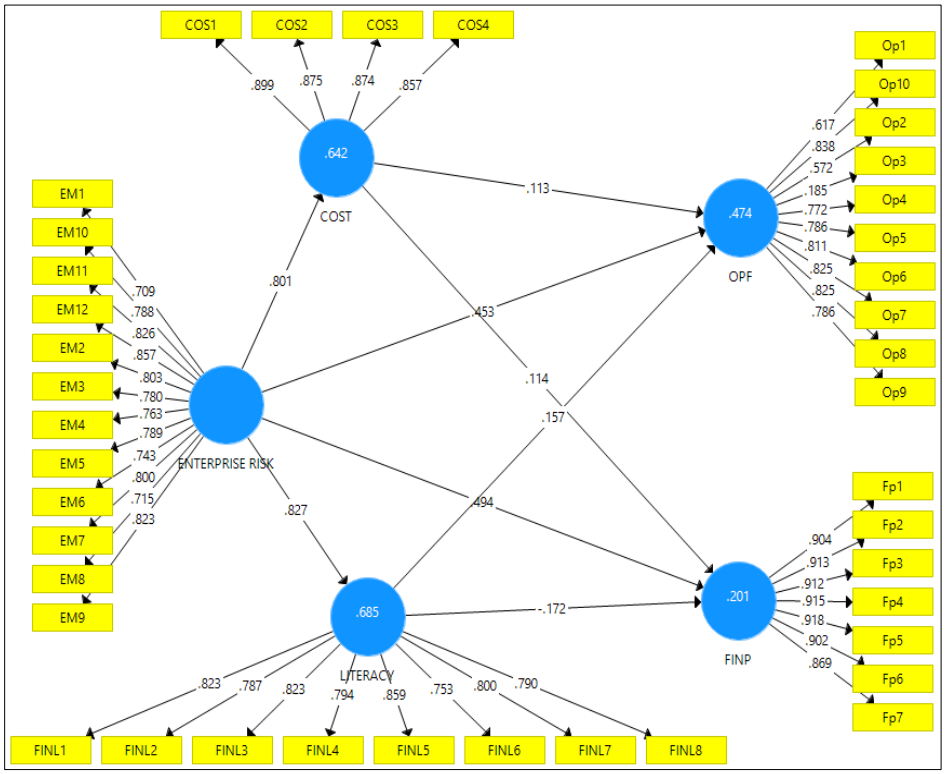
Source: Authors' estimation based on field data (November 2022)

International Journal of Business and Economics
Vol. 8, No. 1, 2023, pp. 175-201
http://ijbe.ielas.org/index.php/ijbe/index
ISSN (online) 2545-4137

Structural model

Figure 2 depicts the results of the SEM analysis, as well as the features of the causal routes, such as standardized path coefficients (b), t-values, and explained variances (R^2).

FIGURE 2
MODEL DEPICTING RESULTS OF THE RELATIONSHIPS



Source: Authors' estimation based on survey data (November 2022)

This study used the bootstrapping procedure using 15,000 sub-samples to evaluate the significance of the hypothesis. The results in table 9 showed that the Competitive advantage (β=0.115, P-value=0.000) indicates a positive and significant effect on financial performance. The Competitive advantage (β=0.113, P-value=0.000) suggests a positive and significant effect on the operational performance of the firm's understudy.

Similarly, enterprise risk management recorded (β=0.594, P-value=0.000) against firm financial performance, implies that enterprise risk management has a positive and significant effect on firms' financial performance. Also, the relationship between enterprise risk management and operational performance (β=0.453, P-

value=0.000) indicates that enterprise risk management had a positive and significant effect on firms' operational performance.

Likewise, financial literacy (β=-0.172, P-value=0.000) against firm financial performance, denotes that financial literacy has a negative and significant effect on firms' financial performance. Also, the relationship between financial literacy and operational performance (β=0.157, P-value=0.000) indicates that financial literacy had a positive and significant effect on firms' operational performance,

TABLE 9
THE EFFECT OF ENTERPRISE RISK MANAGEMENT, AND COMPETITIVE ADVANTAGE ON OPERATIONAL AND FINANCIAL PERFORMANCE

Hypothesis	Coefficient	t-statistic	P-value	Decision
Competitive advantage → financial performance	0.114	6.047	0.000	Supported
Competitive advantage → operational performance	0.113	6.933	0.000	Supported
ERM → financial performance	0.494	30.068	0.000	Supported
ERM → operational performance	0.453	28.365	0.000	Supported
Literacy → financial performance	-0.172	7.872	0.000	Supported
Literacy → operational performance	0.157	7.394	0.000	Supported

Source: Authors' estimation based on field data (November 2022)

The mediation analysis was performed to assess the mediating effect of financial literacy and competitive advantage on the relationship between enterprise risk management and firms' performance. The mediating role of financial literacy on the relationship between enterprise risk management and financial performance (β=-0.142, P-value=0.00) indicating, financial literacy partially mediates that relationship. Also, the mediating role of financial literacy on the operation performance was (β=0.130, P-value=0.000) suggesting partial mediation. On the mediating role of competitive advantage on the relationship between enterprise risk management on financial performance. The results indicate (β=0.091, P-value=0.000). This showed that, competitive advantage partially mediates the relationship between enterprise risk and financial performance. Likewise, on the mediating role of competitive advantage on operational performance. The results indicate (β=0.091, P-value=0.000) implying that, competitive advantage partially mediate the relationship between competitive advantage on firm's operational performance.

TABLE 10
MEDIATION ROLE OF FINANCIAL LITERACY AND COMPETITIVE ADVANTAGE ON FIRM PERFORMANCE

Hypothesis	Coefficient	t-statistic	P-value	Decision
ERM -> Literacy -> financial performance	-0.142	7.908	0.000	Partial mediation
ERM-> Literacy -> operational performance	0.130	7.351	0.000	Partial mediation
ERM -> Cost -> financial performance	0.091	6.073	0.000	Partial mediation
ERM -> Cost -> operational performance	0.091	6.972	0.000	Partial mediation

The study showed that the competitive advantage has a positive and significant effect on financial performance. The competitive advantage has a positive and significant effect on the operational performance of the firm's understudy. These findings support that of Saeidi et al. (2019) revealed that ERM had a significant impact on competitive advantage. Likewise, Songling et al. (2018) findings show that enterprise risk management techniques have a substantial impact on competitive advantage and SME success. Likewise, it was revealed that financial literacy has a positive and significant effect on firms' financial performance and operational performance. These findings buttress the findings of McShane et al. (2011), Prisca (2016) and Ripain et al. (2017) finding evidence of a positive relationship between increasing levels of enterprise management capability and firm value. Likewise, Eniola & Entebang (2017) demonstrate that financial literacy improved operational and financial performance. Similarly, Agyei (2018) agreed that there is a cultural-context dependent association between financial literacy and SME growth. Correspondingly, Hussain et al. (2018) it was established that improved financial literacy decreases monitoring costs and helps to optimize enterprises' capital structures.

Similarly, enterprise risk management revealed a positive and significant effect on firms' financial performance. Also, enterprise risk management had a positive and significant effect on firms' operational performance. This finding confirms the findings of Paape & Speklé (2012) posit that the extent of enterprise risk management implementation influences firm performance. Also, Brustbauer (2016) indicate that the use of enterprise risk management concepts may assist SMEs in adapting to a changing environment in order to obtain a strategic advantage, hence enhancing competitiveness and commercial success. Further, Florio & Leoni (2017) findings suggest that successful enterprise risk management systems improve performance by lowering risk exposure, and that reverse causation between enterprise risk management and performance does not exist in the near term. Equally, Ye & Kulathunga (2019) found that financial literacy, access to money, and financial risk mentality all had a direct beneficial impact on sustainability.

The mediating role of financial literacy on the relationship. It was found that, financial literacy partially mediates the relationship between enterprise risk management and financial performance. Also, financial literacy partially mediates the relationship between operation performances. Equally, the results indicate competitive advantage also; mediate the relationship between enterprise risk and financial performance. Likewise, the competitive advantage partially mediates the relationship between competitive advantages on firms' operational performance. This finding is however, averse with that of Alharbi et al. (2021) indicating there was no evidence of a mediation effect on financial attitude or financial knowledge and SMEs performance. Additionally, ERM procedures were shown to somewhat mediate the association between financial literacy and SMEs performance. Correspondingly, Rehman & Anwar (2019) argue that enterprise risk management is mediated by company strategy on SMEs performance.

CONCLUSION

Following the findings, this study concludes that management of the SMEs should adopt and implement robust enterprise risk management to enhance their performance. Also, policymakers should encourage and train managers of these SMEs on the need for enterprise risk management to enhance its implementation by these SMEs. Also, SMEs should develop comprehensive competitive strategies to enhance their ability to compete in the market and increase their market share. This will go to reduce the risk associated with running SMEs. Again, the managers of these SMEs should develop their financial literacy levels to help them understand the financial market. This will help them get access to cheap funds and know the alternatives to the traditional financing mechanism available to them. The management of these SMEs should take into consideration other factors that may mediate this relationship and adopt strategies to mitigate them.

Despite the robustness of this study, there are a few limitations. First, the study concentrated on SMEs within the city centers which might have characteristics unique to them. The results might therefore not be applicable to SMEs that might be located elsewhere in the country. Therefore, future studies should investigate whether firm characteristics influence firm performance.

ACKNOWLEDGEMENTS

The authors would like to express their deepest appreciation to Sally Ama-Dapaah Adenutsi, Mary Y. Agabvor, Benedicta Agbeti, Rita S. Akpah, Ann-Marie Amanfu, Lawrence K. Ansah, Cyril Yohannes Ansa-Sasraku, Nicola C. Asase, Nana Kofi Asiedu, Charles Bentil, Ernest K. Dra, Pearl N. Dometi, Comfort Dikro, Dovenam Aku Gati, Lamisi Hamza, Emmanuel Horla, Ibrahim Issah, Christian Laweh, Zinabu Moro, Kwame Ofori, Dorothy Ohenewaa, Esther Afua Oseabea, Philip Otabil, Maame Esi Pinnaman, Wisdom Sackitey, Alhassan Tanko, Stephen Tetteh, Manuel Tufour, Esther Yambor, and Yusif Issaka Zakari who helped in supervising the various data collection teams nationwide.

REFERENCES

Afthanorhan, A. (2017). *REVIEW ON PARTIAL LEAST SQUARE STRUCTURAL EQUATION MODELING (PLS-SEM) USING SMARTPLS 2 . 0*.

Agyei, S.K. (2018). Culture, financial literacy, and SME performance in Ghana. *Cogent Economics and Finance*, *6*(1). https://doi.org/10.1080/23322039.2018.1463813

Ahmed, W., Najmi, A., Arif, M., & Younus, M. (2019). Exploring firm performance by institutional pressures driven green supply chain management practices. *Smart and Sustainable Built Environment*, *8*(5), 415–437. https://doi.org/10.1108/SASBE-04-2018-0022.

Alawattegama, K.K. (2020). Enterprise Risk Management Practices and Its Impact on Firm Performance: Evidence from Sri Lankan Insurance Industry. *International Journal of Engineering Technologies and Management Research*. https://doi.org/10.29121/ijetmr.v6.i12.2019.469

Alharbi, R.K., Yahya, S. Bin, & Kassim, S. (2021). Impact of religiosity and branding on SMEs performance: does financial literacy play a role? *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-08-2019-0162

Anton, S.G., & Elena, A.N.A. (2020). Enterprise Risk Management: A Literature Review and Agenda for Future Research. *Journal of Risk and Financial Management*, *13*(281), 1–22. https://www.mdpi.com/1911-8074/13/11/281/pdf

Bromiley, P., McShane, M., Nair, A., & Rustambekov, E. (2015). Enterprise Risk Management: Review, Critique, and Research Directions. *Long Range Planning*, *48*(4), 265–276. https://doi.org/10.1016/j.lrp.2014.07.005

Brustbauer, J. (2016). Enterprise risk management in SMEs: Towards a structural model. *International Small Business Journal: Researching Entrepreneurship*, *34*(1), 70–85. https://doi.org/10.1177/0266242614542853

Cărăușu, D.-N. (2015). Monitor and Control in Companies: an Agency Theory Approach. *Journal of Public Administration, Finance and Law*, *4*(Special Issue 2), 46–60.

Crespo, I., Kumar, P., & Noteboom, P. (2017). The evolution of model risk management. *McKinsy Global Institute*.

Dépelteau, F. (2008). Relational thinking: A critique of co-deterministic theories of structure and agency. *Sociological Theory*. https://doi.org/10.1111/j.1467-9558.2008.00318.x

Driver, C., Grosman, A., & Scaramozzino, P. (2020). Dividend policy and investor pressure. *Economic Modelling*. https://doi.org/10.1016/j.econmod.2019.11.016

Eniola, A.A., & Entebang, H. (2017). SME Managers and Financial Literacy. *Global Business Review*, *18*(3), 559–576. https://doi.org/10.1177/0972150917692063

Florio, C., & Leoni, G. (2017). Enterprise risk management and firm performance: The Italian case. *British Accounting Review*, *49*(1), 56–74. https://doi.org/10.1016/j.bar.2016.08.003

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. In

Springer.

Hair, J.F., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

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

Hussain, J., Salia, S., & Karim, A. (2018). Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK. *Journal of Small Business and Enterprise Development*, *25*(6), 985–1003. https://doi.org/10.1108/JSBED-01-2018-0021

Hwang, D., & Min, H. (2015). Identifying the drivers of enterprise resource planning and assessing its impacts on supply chain performances. *Industrial Management and Data Systems*, *115*(3), 541–569. https://doi.org/10.1108/IMDS-10-2014-0284

Khan, S.N., & Ali, E.I.E. (2017). The Moderating Role of Intellectual Capital Between Enterprise Risk Management and Firm Performance: A Conceptual Review. *American Journal of Social Sciences and Humanities*, *2*(1), 9–15. https://doi.org/10.20448/801.21.9.15

Kim, J.H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*. https://doi.org/10.4097/kja.19087

Krause, T.A., & Tse, Y. (2016). Risk management and firm value: Recent theory and evidence. *International Journal of Accounting and Information Management*. https://doi.org/10.1108/IJAIM-05-2015-0027

Kulathunga, K., Ye, J., Sharma, S., & Weerathunga, P. (2020). How Does technological and financial literacy influence SME performance. *Mdpi*, *12020*.

Kwong-Kay Wong, K. (2013). Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS. *Marketing Bulletin*, *24*(1), 1–32.

Lin, Y., Wen, M.M., & Yu, J. (2012). Enterprise Risk Management: Strategic Antecedents, Risk Integration, and Performance. *North American Actuarial Journal*, *16*(1), 1–28. https://doi.org/10.1080/10920277.2012.10590630

Mabula, J.B., & Ping, H.D. (2018). Financial literacy of SME managers' on access to finance and performance: The mediating role of financial service utilization. *International Journal of Advanced Computer Science and Applications*, *9*(9), 32–41. https://doi.org/10.14569/ijacsa.2018.090905

Magaji, A., Suleiman, N., & Yahaya, L. (2018). Explored and Critique of Contingency Theory for Management Accounting Research. *Plored and Critique of Contingency Theory for Management Accounting Research*.

McShane, M.K., Nair, A., & Rustambekov, E. (2011). Does enterprise risk management increase firm value? *Journal of Accounting, Auditing and Finance*, *26*(4), 641–658. https://doi.org/10.1177/0148558X11409160

Offiong, A.I., Udoka, C.O., & Bassey, J.G. (2019). Financial risk and performance of

small and medium enterprises in Nigeria. *Investment Management and Financial Innovations*, *16*(4), 110–122. https://doi.org/10.21511/imfi.16(4).2019.10

Paape, L., & Speklé, R.F. (2012). The Adoption and Design of Enterprise Risk Management Practices: An Empirical Study. *European Accounting Review*, *21*(3), 533–564. https://doi.org/10.1080/09638180.2012.661937

Panda, B., & Leepsa, N.M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*. https://doi.org/10.1177/0974686217701467

Prisca, C. (2016). Effect of Financial Literacy and Performance SMEs. Evidence from Kenya. *American Based Research Journal*, *5*(11), 26–35.

Purwanto, A., Asbari, M., & Santoso, T.I. (2021). Education Management Research Data Analysis: Comparison of Results between Lisrel, Tetrad, GSCA, Amos, Smartpls, Warppls, And SPSS for Small Samples. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, *6*(2), 382–399. https://e-journal.ikhac.ac.id/index.php/nidhomulhaq/article/view/1575%0Ahttps://doi.org/10.31538/ndh.v6i2.1575

Quaye, I., Abrokwah, E., Sarbah, A., & Osei, J.Y. (2014). Bridging the SME Financing Gap in Ghana: The Role of Microfinance Institutions. *Open Journal of Business and Management*, *02*(04), 339–353. https://doi.org/10.4236/ojbm.2014.24040

Quon, T.K., Zeghal, D., & Maingot, M. (2012). Enterprise Risk Management and Firm Performance. *Procedia - Social and Behavioral Sciences*, *62*, 263–267. https://doi.org/10.1016/j.sbspro.2012.09.042

Rehman, A.U., & Anwar, M. (2019). Mediating role of enterprise risk management practices between business strategy and SME performance. *Small Enterprise Research*, *26*(2), 207–227. https://doi.org/10.1080/13215906.2019.1624385

Ringle, C.M., Sarstedt, M., Mitchell, R., & Gudergan, S.P. (2020). Partial least squares structural equation modeling in HRM research. *International Journal of Human Resource Management*. https://doi.org/10.1080/09585192.2017.1416655

Ripain, N., Amirul, S.M., & Mail, R. (2017). Financial literacy and SMEs' potential entrepreneurs: The case of Malaysia. *Journal of Administrative and Business Studies*, *3*(2), 60–68. https://doi.org/10.20474/jabs-3.2.1

Saeidi, P., Saeidi, S.P., Sofian, S., Saeidi, S.P., Nilashi, M., & Mardani, A. (2019). The impact of enterprise risk management on competitive advantage by moderating role of information technology. *Computer Standards and Interfaces*, *63*(November), 67–82. https://doi.org/10.1016/j.csi.2018.11.009

Sahoo, S. (2020). Aligning operational practices to competitive strategies to enhance the performance of Indian manufacturing firms. *Benchmarking*, *28*(1), 131–165. https://doi.org/10.1108/BIJ-03-2020-0128

Saunders, M., Lewis, P., & Thornhill, A. (2016). Research methods for business students (Vol. Seventh). *Harlow: Pearson Education*.

Sigalas, C., Economou, V.P., & Georgopoulos, N.B. (2013). Developing a measure of competitive advantage. *Journal of Strategy and Management*, *6*(4), 320–342.

https://doi.org/10.1108/JSMA-03-2013-0015

Sila, I. (2007). Examining the effects of contextual factors on TQM and performance through the lens of organisational theories: An empirical study. *Journal of Operations Management*. https://doi.org/10.1016/j.jom.2006.02.003

Songling, Y., Ishtiaq, M., & Anwar, M. (2018). Enterprise Risk Management Practices and Firm Performance, the Mediating Role of Competitive Advantage and the Moderating Role of Financial Literacy. *Journal of Risk and Financial Management*, *11*(3), 35. https://doi.org/10.3390/jrfm11030035

Steel, W.F., & Webster, L. (1990), 'Ghana's Small Enterprise Sector: 'Survey of Adjustment Response & Constraints', Industry Series Paper 41, World Bank, Industry and Energy Dept, Washington D.C

Tagoe, N., Nyarko, E., & Anuwa-Amarh, E. (2005). Financial challenges facing urban SMEs under financial sector liberalization in Ghana. *Journal of Small Business Management*, *43*(3), 331–343. https://doi.org/10.1111/j.1540-627X.2005.00140.x

Tazilah, M.D.A.B.K., & Hussain, N.B.C. (2015). The Importance of Internal Control in SMEs : Fraud Prevention & Detection. *International Conference on Business, Accounting, Finance, and Economics*, *November*.

Volonté, C., & Gantenbein, P. (2016). Directors' human capital, firm strategy, and firm performance. *Journal of Management and Governance*, *20*(1), 115–145. https://doi.org/10.1007/s10997-014-9304-y

Welch, J.K., & Patton, M.Q. (1992). Qualitative Evaluation and Research Methods. *The Modern Language Journal*. https://doi.org/10.2307/330063

Ye, J., & Kulathunga, K.M.M.C.B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability (Switzerland)*, *11*(10), 1–21. https://doi.org/10.3390/su11102990

Yolande, S. (2012). A literature review of small and medium enterprises (SME) risk management practices in South Africa. *African Journal of Business Management*, *6*(21), 6324–6330. https://doi.org/10.5897/ajbm11.2709