

The Impact of Enterprise Risk Management on Financial Performance: Exploring the Mediating Role of Business Strategies

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Received: November 28, 2023; Accepted: December 20, 2023

Abstract: This study investigates how implementing enterprise risk management (ERM) affects the financial performance of non-financial firms listed on the Pakistan Stock Exchange (PSX). The analysis was based on the COSO ERM framework and utilised a multiple mediation mechanism. Additionally, the study explored whether business strategies such as cost leadership (CLS) and differentiation strategy (DS) mediate the relationship between ERM and financial performance. The research employed a questionnaire survey as the preferred methodology. 340 surveys were gathered via mail questionnaires, targeting top-level management and executives of non-financial firms. The collected data underwent analysis using the PLS-SEM technique. The results revealed that the implementation of ERM components exerted a substantial influence on business strategies. Moreover, these strategies exhibited a significant impact on the financial performance of the firms. Furthermore, the study uncovered that both the CLS and DS significantly mediate the relationship between ERM and financial performance. The outcomes of this research offer valuable insights to non-financial enterprises, enabling them to better comprehend their ERM implementation. Additionally, the findings serve as a guide for identifying areas of enhancement for organisational culture, processes, structure, and infrastructure within each ERM component. Additionally, this research adds to the body of knowledge concerning the significance of effective governance on risk within the context of risk management in non-financial firms. Future studies could be extended to sectors like the public sector, manufacturing, textile, and SMEs. These studies could aim to assess how ERM influences financial performance.

Keywords: Enterprise Risk Management (ERM) Components, Cost Leadership Strategy, Differentiation Strategy, Financial Performance, Non-financial Sector

JEL Classification Codes:

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1. Introduction

The financial performance of the companies is the key indicator to enhance the economic development of any nation that preserves investors' confidence in an economy (Olayinka, Emoarehi, Jonah, & Ame, 2017). The stakeholders and investors demand a positive and attractive returns from their investment in the business and the businesses which are well-organized could only generate the value maximisation of the stakeholders (Laisasikorn & Rompho, 2019; Ricardianto et al., 2023). To enhance the financial performance of the company, the management have to use better friendly environment which also brings its customers with better quality products and services which resulting in greater profitability (Odero & Nixon, 2021; Simanjaya, Chandra, & Soesetyo, 2022). In developing countries like Pakistan, the business environment is considered to be very unfavourable due to political instability, cyber security issues, demographic structure, natural disasters like earthquakes and thunderstorms, the economic situation, currency rate fluctuations, falling oil prices, increase in electricity cost and geopolitical conflicts (Alam & Tariq, 2022; Muhammad, 2022; Shah, 2021).

Non-financial firms in Pakistan hold a vital role in driving the country's economic progress. Nevertheless, there has been a deficiency in addressing crucial intermediate concerns within the current ERM system (Ricardianto et al., 2023).. This deficiency has the potential to result in heightened occurrences of fraud and improper allocation of resources (S. Khan & Kamal, 2022). Additionally, it exposes the firms to various other hazards such as intricate business dynamics, an unstable business environment, the emergence of new risks, and the global expansion of trading operations (Ricardianto et al., 2023). Although senior executives and board members are believed to possess an understanding of the existing risks, their level of preparedness in effectively managing these risks remains inadequate (COSO, 2004). The fragility of the risk management framework may ultimately cast a shadow over Pakistan's competitiveness as a business destination, as pointed out by (Munir, 2018). The escalating, ever-changing, and emerging risks that impact Pakistani firms have the potential to foster an environment of unpredictability (W. Khan, Asif, & Shah, 2020).

This study diverges from previous research which has focused on the implementation and execution of ERM, and instead aims to examine the impact of ERM components on the financial performance of non-financial firms listed on the PSX. By conducting an analysis of ERM components culture, process, structure and infrastructure and their effect on financial performance, the study aims to provide valuable insights that can be used by firms in Pakistan to improve their financial performance. This type of analysis is not widely available in Pakistan and the study's findings could bridge the existing knowledge gap and serve as a basis for firms to leverage in their own enterprise risk management efforts. The business strategies consist of cost-leadership and differentiation strategies as discussed in previous literature (Simanjaya et al., 2022; Y. Wang, Ali, Mehreen, & Hussain, 2023; Yang, Ishtiaq, & Anwar, 2018). Further, Syrová and Špička (2023) highlighted the fact that the implementation of ERM determinants in an enterprise does not by itself create the expected impact without the existence of strong strategies to generate the enhanced financial performance. The previous literature which was also supported by the Resource Based View (RBV) theory which support our study and guide us to take them as mediating variables literature (Mishra, Rolland, Satpathy, & Moore, 2019; S. Yang et al., 2018). So, these variables are considered for our research to examine the mediating role in the relationship of ERM & financial performance.

Based on the detailed literature review, the problem statement explored that financial performance of the company is the key to understand its worth in the economy that how this organization is performing in the market. The investors and stakeholders' decisions are also depended on the financial performance of the company. So, financial performance is the vital concern for the management to keep an eye on the factors affecting it in the non-financial companies listed in Pakistan stock exchange. Further, from the prior researches Bailey (2022), Chong, Lee, Saw, Toh, and Yip (2019) and Lechner and Gatzert (2018) literature explored the direct relationship between ERM and firm performance but there is a gap revealed that what are the strategies which can be helpful for the ERM components to enhance the financial performance. Our research aims to explore the indirect impact of ERM components on financial performance by examining the mediating role of business strategies of cost-leadership and differentiation in Pakistani enterprises. This complete mechanism will provide a more comprehensive understanding of the relationship between ERM components and financial performance, which is currently lacking in the literature. By examining the mediating role of business

strategies, the study will contribute to the existing knowledge by providing insights on how these factors can influence the relationship between ERM components and the financial performance.

2. Literature Review

2.1.1. Enterprise Risk Management and Business Strategies

Risk is explained as the possibility of suffering loss as a consequence of a combination of uncertainty and vulnerability from decisions or commitments (Ricardianto et al., 2023). Risk is a mixture of uncertainty, possibility, and chance that may have positive or negative consequences in the future (Mahmood & Ahmed, 2022). Therefore, risk is present in various aspects of life, not just limited to businesses, as individuals face uncertainty regarding future events that could lead to unexpected or adverse outcomes. (Ching, Rahim, & Chuing, 2021) presents a distinct definition of risk management, which takes into account its historical roots and practical applications. The concept of managing risk has been present since ancient times, where humans used their innate survival instincts and past experiences to navigate uncertain situations in their daily lives (Spanò, Zagaria, Spanò, & Zagaria, 2022). Risk management is currently divided into two major categories. The first is referred to as "Traditional Risk Management (TRM)" and is consist of a silo-based approach. This type of technique focuses on managing risks in their old definition, which is now considered inadequate to manage risk (Lundqvist, 2015). The primary limitation of conventional practices is their incapacity to discern relationships among risks, resulting in inefficiencies (Lacković, Kurnoga, & Miloš Sprčić, 2022). The second category is called "enterprise risk management" (ERM), which was created to address the shortcomings of traditional practices (Ogutu, Bennett, & Olawoyin, 2018). ERM offers a more comprehensive approach to managing risk by integrating it at a corporate level (Bailey, 2022). Unlike traditional risk management, which primarily focuses on financial risks, ERM takes into account strategic and operational risks as well (Brown, Duane, & Schuermann, 2019).

Ricardianto et al. (2023) Highlighted is the notable cause of business failures: a lack of consideration for the interplay of operational, financial, strategic risks, and unforeseen circumstances. Consequently, stakeholders and regulators are urging boards of directors to adopt more rigorous and consistent risk management procedures (Syrová & Špička, 2023). The enterprise risk management approach has recently attracted more attention from academics and practitioners alike. ERM is promoted as a remedy for the drawbacks of traditional risk management, which offers a strategic and comprehensive approach to get beyond TRM's silo-based methodology (Lundqvist, 2015). In 2004, Committee of Sponsoring Organizations (COSO, 2004) has developed a framework in place of TRM in order to manage the risks in an efficient, goal-oriented and flexible way. Previously researches conducted in developed countries where ERM model were implemented and firm performance were increased (Bailey, 2022; Ching et al., 2021; González, Santomil, & Herrera, 2020; Hameed, Waseem, Sabir, & Dahri, 2020; Kanu, 2020; Utami, Sulastri, Adam, & Yuliani, 2021). Laisaikorn and Rompho (2014) described that ERM is divided into four dimensions, designed from the eight components of ERM process (internal environment, events identification, objectives setting, risk assessment, control activities, risk response, information and communication, and monitoring): culture, process, structure, and infrastructure. In this section, we will summarize the previous research findings that highlight the essential components of ERM. Our study focuses on four components, namely culture, process, structure, and infrastructure, based on the concepts and features of various enterprise-wide risk management frameworks. These components can be used to form a comprehensive best practice in ERM framework that can lead to improved financial performance.

Business strategies have an important role in cutting exposure to risk and operational costs, allowing for an improvement in overall performance. A company's best designed strategies serves as a strategic resource for gaining a competitive edge (Aliabadi, Dorestani, & Rezaee, 2013). In a competitive market, a firm's operation, particularly in a growing market, requires a competitive edge to maintain outstanding performance (Anwar, 2018). According to Porter, a business may develop a differentiation-based competitive advantage by differentiating its goods or services from those of rivals (S. Yang et al., 2018). In conclusion, based on the perspectives of these experts, business strategy serves as a roadmap for a company's long-term direction and resource allocation to enhance its competitive position of products or services in the market segment it serves,

while delivering value to customers. Zou and Hassan (2017) investigated the impact of ERM on the organizational decision-making capabilities. The study focused on the robust ERM approach to explore its impact in the Chinese industry. The results revealed that the effective risk management will enhance the risk detection ability of the managers give the ability to coordinate the response to the risk conditions. The results also explore that ERM has also a significant source to gain competitive advantage in the industry. Furthermore, a survey of 207 firms revealed that ERM can help with supply chains (Arnold, Benford, Hampton, & Sutton, 2012).

The resource-based view asserts that the company's foundational resources, an unmatched combination were responsible for maintaining the competitive advantages (Conner & Prahalad, 1996). In general, a firm's resources are considered to include anything that could be viewed as a strength or weakness. Dynamic capabilities can identify where a firm's competitive advantage lies. Due to its conceptual framework, governance, regulations, and procedures that may be utilized to encourage considerable intra-firm, and inter-firm organizational learning, ERM has the ability to play an important part in a resource-based viewpoint. The COSO (2004) has established standards for the ERM, and senior management involvement is necessary for effective implementation of ERM strategy because they are responsible for creating and increasing shareholder value. Based on the findings stated above, the following hypotheses is proposed in this study.

H1a,b: The ERM-Culture has significant influence on Cost Leadership Strategy(a) and Differentiation Strategy(b).

H2a,b: The ERM-Process has significant influence on Cost Leadership Strategy(a) and Differentiation Strategy(b).

H3a,b: The ERM-Structure has significant influence on Cost Leadership Strategy(a) and Differentiation Strategy(b).

H4a,b: The ERM-Infrastructure has significant influence on Cost Leadership Strategy(a) and Differentiation Strategy(b).

2.1.2. Business Strategies and Financial Performance

S. Yang et al. (2018) explained that a company's competitive edge is also highly important in determining its eventual financial performance. The competitive advantage is comprised of risk management methods such as the implementation of new technologies, the introduction of new goods in response to client trends and desires, or the modification and upgrading of current products in response to customer requirements (Y. Yang et al., 2018). Soltanizadeh, Rasid, Golshan, and Ismail (2016) discovered a substantial relationship between cost leadership strategy (CLS), differentiation strategy (DS) and firm performance of Malaysian listed enterprises. Furthermore, another study also discovered a favourable relationship between organizational performance and CLS in Malaysia's hotel business (Hilman & Kaliappen, 2014). Wamalwa (2018) also discovered a favourable relationship between the CLS, DS and the profitability of Kenyan manufacturing enterprises.

Furthermore, firms implementing cost leadership strategy in competitive environments exhibit higher financial performance than other firms since they do not focus on acquiring new markets and customers (Atikiya, 2015). It is also observed that, the reduced cost benefits are attributable to decreased production and labour costs (Aulakh, Kotabe, & Teegen, 2000). Another argument contends that organizations that simply focus on cost-cutting measures are no longer capable of meeting the diverse requirements and aspirations of customers in the age of globalization (Ilyas, Khan, & Nisar, 2018; Simanjaya et al., 2022). The differentiation strategy entails the inclusion of a substantial feature from a product or service that is superior, difficult to replicate, distinctive, and of higher quality than rivals, so that the resulting added value can be perceived by customers and generates a competitive advantage (Banker & Byzalov, 2014; Porter, 2008; S. Yang et al., 2018). Furthermore, the differentiation approach has the advantage of allowing consumers to modify the product, which is dependent on the company's relationship with its consumers (Simanjaya et al., 2022). Gorondutse

and Hilman (2019) claimed that there is a favourable and strong relationship between the differentiation strategy and the success of the Nigerian hotel sector. Furthermore, they discovered that environmental benevolence played a moderating impact in the relationship between differentiation strategy and company performance. Another study found a relationship among differentiation strategy and hotel performance in Kenya (Bukirwa & Kising'u, 2017). In contrast, (Aliqah, 2012) discovered that DS has little effect on the performance of Jordanian firms. Based on the findings stated above, the following hypothesis are proposed in this study.

H5: The Cost Leadership Strategy has a substantial impact on financial performance.

H6: The Differentiation Strategy has significant influence on financial performance.

2.1.3. Mediating Role of Business Strategies between ERM Components and Financial Performance

A business strategy is devised with the objective of gaining an upper hand in the relevant market (Abdulwase et al., 2020). According to Heizer and Rettig (2020), a strategy refers to a set of actions implemented by the management to outcompete rivals. It is also a tool for coordinating efforts and actions with the purpose of leveraging major competencies to achieve a competitive edge (Abdulwase et al., 2020). According to Choi and Lee (2002), a well-thought-out strategy is essential for success and upholding service quality. According to Porter, a business may develop a differentiation-based competitive advantage by differentiating its goods or services from those of rivals (Birjandi, Jahromi, Darabi, & Birjandi, 2014; S. Yang et al., 2018). Non-financial companies employ either passive or active strategies for enterprise risk management (ERM) to influence their outcomes (Rehman & Anwar, 2019). Notably, the various components of ERM play a crucial role in shaping strategic decisions that can ultimately impact a company's overall success (Brustbauer, 2016; Laisaikorn & Rompho, 2014). According to Chang, Yu, and Hung (2015), ERM components don't always have a direct effect on company financial performance, however some business strategies like, cost-leadership, and differentiation strategies can influence the connection. However, inadequate ERM components can lead to systemically negative performance for gaining competitive advantages and consequently financial performance, that can have long-term consequences for business financial performance (Saeidi et al., 2019).

ERM components, according to Brustbauer (2016), have a substantial impact on strategic decisions, which contribute to organizational success. Diversely, ERM components do not have a direct impact on the value of the organization, but certain internal elements do (Chang et al., 2015). The study discovered a favourable relationship between ERM components and cost leadership strategy and differentiation (Ilyas et al., 2018). Soltanizadeh et al. (2016) discovered a significant relationship between cost leadership strategy (CLS) and firm performance of Malaysian listed enterprises. Furthermore, the study discovered a favourable relationship between organizational performance and CLS in Malaysia's hotel business (Hilman & Kaliappen, 2014). Furthermore, the study discovered a favourable relationship between risk management components and the financial performance of the enterprises (Ali et al., 2022; Culp, 2002; Soltanizadeh et al., 2016). Business strategies, on the other hand, are not only focused on cost reduction but are also linked with various strategic postures of companies, that can directly or indirectly impact the results of the organization (Abdulwase et al., 2020). Consequently, these business strategies can enhance the ERM system's ability to gather information on numerous external and internal factors, including the rise of new competitors, emerging technologies, shifts in consumer preferences, changes in economic conditions, as well as political and regulatory alterations (Abdullah, Syah, Janor, Hamid, & Yatim, 2017; Ibrahim & Esa, 2017; Nasir, 2018). Therefore, it is stated that business strategies play an important role in mediating the relationship between ERM components and company financial performance (Bukirwa & Kising'u, 2017). Based on the findings stated above, the following hypothesis is proposed in this study.

H7a,b,c,d: The Cost Leadership Strategy positively mediates the relationship between ERM-Culture(a), Process(b), Structure(c), Infrastructure(d) and financial performance.

H7a,b,c,d: The Differentiation Strategy positively mediates the relationship ERM-Culture(a), Process(b), Structure(c), Infrastructure(d) and financial performance.

2.2. Theoretical Framework and Hypothesis Development

This study hypothesizes that in order to improve financial performance, firms must have a strong risk management framework in place as well as good connections with key stakeholders. This study supports the resource-based view (RBV) theory by emphasizing management's responsibilities in selecting resources that are efficient and contribute to a sustained competitive advantage as well as enhanced company financial and non-financial performance (Abdulwase et al., 2020; Saeidi et al., 2019). The concept of RBV theory was utilized by Mishra et al. (2019) to investigate the variables affecting ERM and create a framework for identifying and defining ERM components. The RBV proposes that ERM systems offer sustainable competitive advantage by assisting in the creation of expertise that are specific to the firm, that develop relationships that are complex, which set in the culture, process, structure and infrastructure of the firm, and which create organizational tactic information (Barney, 1991; Laisasikorn & Rompho, 2014).

The firms are given the benefit of independence to devise their own risk management mechanism. According to Mishra et al. (2019), the implementation of RBV can be beneficial for the firms, as this is effectively demanded to improve financial performance of the firms and allow them to be more competitive. According to RBV theory, it is suggested that the ERM would be a competitive edge source through positively impacting outcomes of cost-leadership strategy and differentiation strategy and firm outcome of enhanced financial performance of a firm. The graphical impact of ERM components on financial performance is shown in Figure 2.1.

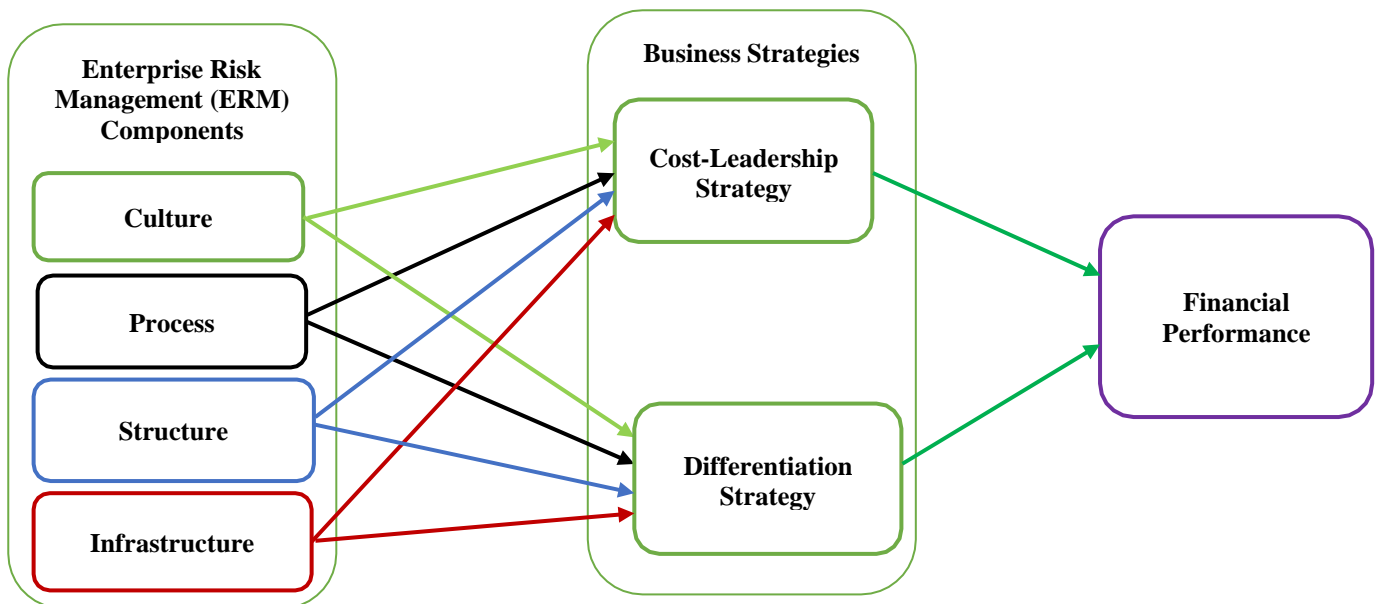


Figure 2.1: Framework of ERM Components, Business Strategies and the Financial Performance

3. Research Methodology

A questionnaire survey was utilized to gather data from both the members of board of directors and upper-level management of non-financial firms listed on the Pakistan Stock Exchange (PSX). The distribution of the questionnaire surveys conducted via a google document link sent to the email addresses of these non-financial firms, accompanied by a request to complete the survey form. All the variables' measurements were chosen and adapted from existing literature. This study takes the form of a cross-sectional design, with questionnaires dispatched to non-financial firms listed on the PSX at a single time point. The target population for this study encompasses a total of 422 non-financial firms listed on the PSX. Ultimately, a sum of 457 questionnaires was successfully collected for analysis. However, out of 457 questionnaires 117 having the response no and 340 respondents with response yes and further complete the questionnaire. Considering 340 credible responses for the analysis, the average response rate was 68.00%. A study conducted by (J. Hair, Hollingsworth, Randolph, & Chong, 2017) suggested that a 50% response rate is adequate. The current research had a response rate of 68.00%, which makes it adequate for the start of analysis.

In this study, the assessment of the ERM framework involved four main factors: culture, process, structure, and infrastructure. Additionally, two mediating variables, namely cost leadership strategy and differentiation strategy, were introduced to the framework. These mediating variables were incorporated to analyse their role in influencing the relationship between the ERM components and the financial performance of companies. The measurement of firm financial performance was based on the last three year financial viewpoints of these companies. To gather data, a survey instrument was employed, constructed using established concepts from prior research (Laisasikorn & Rompho, 2014; Z. Wang, Wang, & Liang, 2014; S. Yang et al., 2018). This survey was validated and standardized to match the specific context of this study. The key independent variables comprised the four components of the ERM Framework: Culture (consisting of 5 items), Process (comprising 9 items), Structure (with 5 items), and Infrastructure (encompassing 5 items). These items have been derived from Laisasikorn and Rompho (2014) drawing upon components outlined by (COSO, 2004). The study integrates Cost Leadership Strategy (consisting of 4 items) and differentiation strategy (also comprising 4 items) from (S. Yang et al., 2018) as the mediating variables. Firm financial performance is assessed through financial indicators, comprising 6 items, which were adapted from (Z. Wang et al., 2014). The 7-point Likert scale, ranging from "1=strongly disagree" to "7=strongly agree," was employed to gauge all variables. By minimizing the respondent's inconvenience level, a 7-point Likert scale increases originality and dependability (Cummins & Gullone, 2000). As suggested by (J. Hair et al., 2017), PLS SEM technique will be used in this research study. So, in first step it is important to calculate a path model to determine the observed variables. There are two ways to calculate path model: the measurement model and structural model (Hair Jr et al., 2021).

4. Data Analysis and Results

4.1. Respondents Profile

The survey's participant demographic analysis reveals that 76.40% of the respondents are male, while 23.60% are female. A significant portion of the respondents, accounting for 41.80%, falls within the 46-55 age range. This demographic suggests that the respondents likely possess substantial professional experience and a comprehensive knowledge of the present issues and problems. When examining the organizational hierarchy, it becomes evident that 37.90% of the participants have accumulated over 15 years of work experience, and 30.20% have 11-15 years of experience, primarily within the executive and upper-level management of the company. This distribution underscores the appropriateness and qualification of the respondents in addressing the survey's responses. Furthermore, it is noteworthy that over 74% of the respondents are well-versed about ERM concept and have diligently completed the questionnaire. Conversely, 36% of participants acknowledge lacking knowledge about ERM. This implies that the respondents possess a profound understanding of the company's risk structure and strategies for risk mitigation. Consequently, this strengthens the reliability of the data furnished by the respondents.

The survey is aimed at non-financial companies that are listed on the PSX. According to the data analysis of firms' profiles presented in Table 3.1, most of the participating companies belong to the textile spinning (17.10%) and textile composite (13.10%) industries, followed by chemical (8.50%), sugar & allied industries (7.90%), cement (7.40%), food & personal care products (6.30%), power generation & distribution (5.50%) and other 18 sectors firms with (34.10%).

4.2. Measurement Model Assessment

The relationship between unobservable variables and the directly observed variables within the questionnaire is shown through the employment of measurement models. To assess the measurement model employed in this study, various aspects such as factor loadings, composite reliability, convergent validity, and discriminant validity were analysed. (J. Hair et al., 2017). Table 3.1 shows the factor loading, reliability and convergent validity of constructs. Convergent validity is established when a measure displays strong correlations with various measures of analogous constructs. This validity is affirmed when the average extracted variance (AVE) for each construct reaches 0.50 or more, and each item demonstrates outer loadings exceeding 0.70 (J. F. Hair, Ringle, & Sarstedt, 2013). In our initial examination, we found that the factor loadings of four items (CUL5,

PRC1, PRC2, and PRC6) were below the threshold of adequacy (0.7). As a result, these particular items were excluded from the study. The remaining items exhibited factor loadings ranging from 0.66 to 0.82. This indicates that, subsequent to the removal of the four items, all remaining items demonstrated satisfactory factor loadings. Consequently, the first prerequisite for establishing convergent validity has been met. The analysis outcome revealed that all loadings surpass the recommended threshold of 0.7, as indicated by (J. Hair et al., 2017), which suggests that all the questions effectively represent a specific variable.

To assess the reliability of the measure, the researcher employed Cronbach's alpha to calculate inter-item consistency reliability. The recorded values spanned from 0.712 to 0.831, surpassing the designated threshold of 0.7, as proposed by (Bougie & Sekaran, 2019). Composite reliability (CR) values, indicating the extent to which the indicators of the construct reflect the latent variable, ranged from 0.821 to 0.876. These values align with the recommended standard of 0.7 (Bougie & Sekaran, 2019; J. Hair et al., 2017). The Average Variance Extracted (AVE), which gauges the proportion of variance in the indicators accounted for by the underlying construct, ranged between 0.515 and 0.615. This range exceeds the recommended threshold of 0.5, as suggested by (J. Hair et al., 2017). Consequently, based on the aforementioned discussions, the measurement model exhibits satisfactory convergent validity. All criteria related to the measurement model, including instrument and construct reliability, as well as validity, have been substantiated as shown in Fig 3.1.

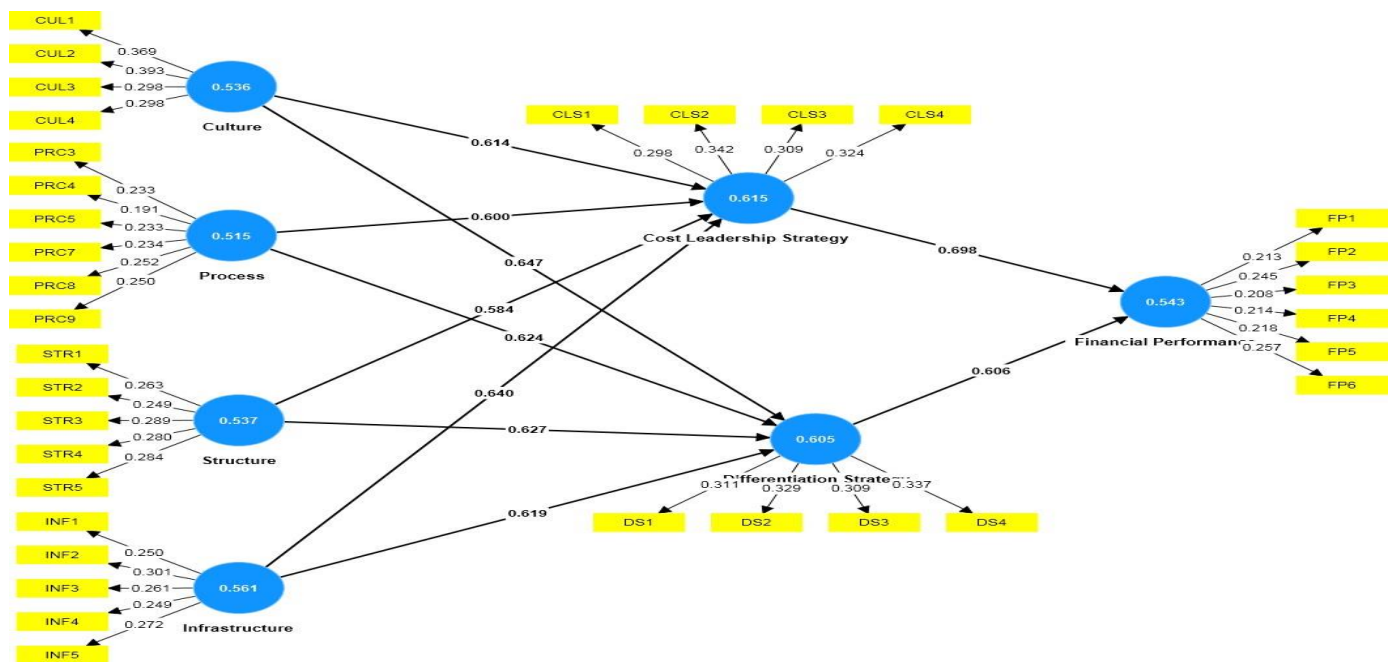


Fig.3.1 The measurement model

Table 3.1: Factor Loading, Reliability and Convergent Validity

Constructs	Items	Loading	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Culture	CUL1	0.742	0.712	0.822	0.536
	CUL2	0.801			
	CUL3	0.717			
	CUL4	0.662			
Process	PRC3	0.692	0.812	0.864	0.515
	PRC4	0.699			

	PRC5	0.728			
	PRC7	0.727			
	PRC8	0.729			
	PRC9	0.730			
Structure	STR1	0.716	0.784	0.853	0.537
	STR2	0.694			
	STR3	0.770			
	STR4	0.771			
	STR5	0.709			
Infrastructure	INF1	0.673	0.803	0.864	0.561
	INF2	0.788			
	INF3	0.799			
	INF4	0.718			
	INF5	0.760			
Cost Leadership Strategy	CLS1	0.763	0.791	0.865	0.615
	CLS2	0.824			
	CLS3	0.753			
	CLS4	0.795			
Differentiation Strategy	DS1	0.737	0.782	0.859	0.605
	DS2	0.798			
	DS3	0.792			
	DS4	0.783			
Financial Performance	FP1	0.676	0.831	0.877	0.543
	FP2	0.762			
	FP3	0.729			
	FP4	0.717			
	FP5	0.755			
	FP6	0.777			

Discriminant validity is established when the AVE for each variable surpasses the shared variance between any pair of variables, represented by the squared intercorrelations (Fornell & Larcker, 1981). No correlation between any two latent constructs was equal to or greater than the square root of the AVE for those constructs, as indicated in table 3.1. Additionally, the assessment of discriminant validity involved an examination of cross-loadings. This involved analysing the loading values of items to determine if they exhibited the highest values within their respective latent constructs. The analysis demonstrated that all indicator variables displayed strong loadings on their associated latent variables. Hence, this criterion was also satisfied. Consequently, discriminant validity was confirmed, affirming that all constructs within the research model faithfully represented distinct concepts and latent variables (Fornell & Larcker, 1981; J. Hair et al., 2017). Both the HTMT ratio and Fornell & Larcker criterion were utilized to gauge discriminant validity (Fornell & Larcker, 1981; Henseler, Ringle, & Sinkovics, 2009). The outcomes of the HTMT ratio are presented in table 3.2, revealing a satisfactory level of discriminant validity. The discriminant validity is further summarized by the evidence that correlations between constructs are smaller than their corresponding AVE in the diagonals (Fornell & Larcker, 1981) check table 3.2. As a result, the suggested theoretical framework is empirically fit, and SEM may be used for hypothesis testing.

Table 3.2: Fornell and Larcker Criterion and Heterotrait-monotrait ratio (HTMT) of Correlations

Constructs	Leadership Strategy	Culture	Differentiation Strategy	Financial Performance	Infra-structure	Process	Structur
Cost Leadership Strategy	0.784	0.801	0.806	0.855	0.801	0.740	0.741
Culture	0.614	0.732	0.866	0.865	0.847	0.863	0.877
Differentiation Strategy	0.635	0.647	0.778	0.748	0.778	0.778	0.798
Financial Performance	0.698	0.683	0.606	0.737	0.826	0.775	0.753
Infrastructure	0.640	0.644	0.619	0.675	0.749	0.781	0.782
Process	0.600	0.669	0.624	0.639	0.634	0.718	0.746
Structure	0.584	0.652	0.627	0.612	0.624	0.600	0.733

4.3. Assessment of the Structural Model Significance (Direct Effect)

PLS-SEM bootstrapping was implemented on 340 valid responses to explore the significance of evaluating the structural model and testing the hypotheses proposed in this study. The threshold level for accepting or rejecting hypotheses is set at a t-value of 1.96 (J. F. Hair et al., 2013). This t-value serves to determine the presence of a direct relationship. The diagram in Figure 3.2 illustrates the impact of independent variables including culture, process, structure, and infrastructure components of ERM, as well as mediators like CLS and DS, on financial performance. The results of the direct associations tested are presented in table 3.3. These t-values are generated through bootstrapping using a sample of 340 responses, enabling the assessment of the statistical significance of the path coefficients. In the model, the purpose of path coefficients (β) and t-statistics is to assess the connection between independent variables and the dependent variable.

As stated by Hypothesis H1ab: ERM-culture component has a positive impact on CLS ($\beta = 0.195$, $t = 3.282$, $p < 0.05$) and DS ($\beta = 0.235$, $t = 4.142$, $p < 0.05$). H2ab: ERM-process component has a positive effect on CLS ($\beta = 0.184$, $t = 2.724$, $p < 0.05$) and DS ($\beta = 0.206$, $t = 3.785$, $p < 0.05$). H3ab: ERM-structure component has a positive effect on CLS ($\beta = 0.160$, $t = 2.738$, $p < 0.05$) and DS ($\beta = 0.229$, $t = 3.965$, $p < 0.05$). H4ab: ERM-infrastructure component has a positive effect on CLS ($\beta = 0.298$, $t = 4.444$, $p < 0.05$) and DS ($\beta = 0.194$, $t = 3.092$, $p < 0.05$). Hence the outcomes supported the hypothesis H1ab, H2ab, H3ab and H4ab.

Similarly, as stated by Hypothesis H5: CLS has a significant positive association with financial performance ($\beta=0.526$, $t=10.237$, $p < 0.05$) and H6: DS has a significant positive association with financial performance ($\beta=0.272$, $t=4.938$, $p < 0.05$). Hence the outcomes supported the hypothesis. All values acquired a significant level in this case. Thus, CLS and DS have a significant association with financial performance and we accept hypothesis H5 and H6.

The R2 for firm financial performance is indicating the change in the variance due to the independent variables. Chin (1998) recommends that when examining the R2 value, 0.60 is regarded as significant, 0.33 is considered moderate, and 0.19 is considered weak. The R2 value in the present study is 0.578, which is considered as significant. It means that the collection of external latent variables should explain 57.8% of the variation in the endogenous latent variable. As a result, the suggested model explains a large amount of variation. Table 3.4 illustrates this.

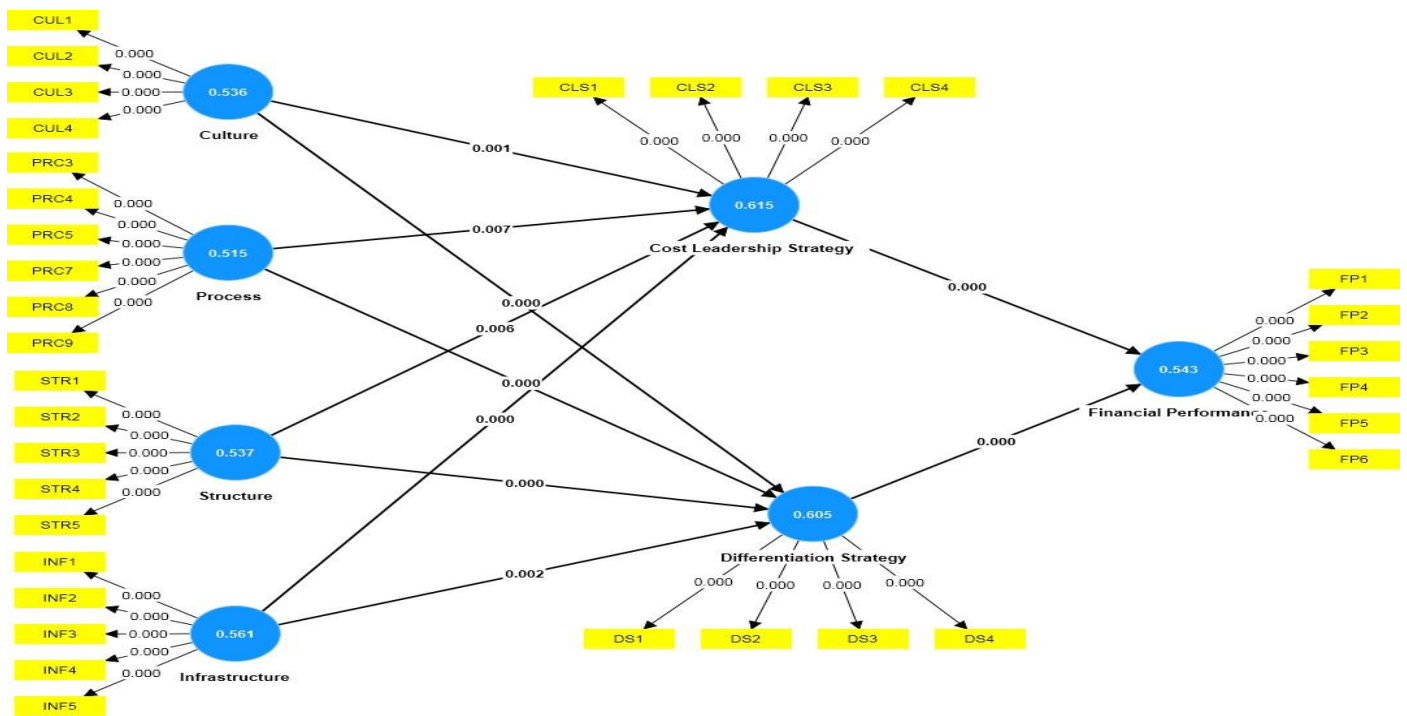


Fig 3.2. Summary of the structural model

Table 3.3: Testing Direct Relationships by bootstrapping for path model

Hypothesis	Hypothesis	β Beta Coefficient	Standard deviation	T statistics	P values
H1a	Culture -> Cost Leadership Strategy	0.195	0.059	3.282	0.001
H1b	Culture -> Differentiation Strategy	0.235	0.057	4.142	0.000
H2a	Process -> Cost Leadership Strategy	0.184	0.068	2.724	0.007
H2b	Process -> Differentiation Strategy	0.206	0.054	3.785	0.000
H3a	Structure -> Cost Leadership Strategy	0.160	0.059	2.738	0.006
H3b	Structure -> Differentiation Strategy	0.229	0.058	3.965	0.000
H4a	Infrastructure -> Cost Leadership Strategy	0.298	0.067	4.444	0.000
H4b	Infrastructure -> Differentiation Strategy	0.194	0.063	3.092	0.002
H5	Cost Leadership Strategy -> Financial Performance	0.526	0.051	10.237	0.000
H6	Differentiation Strategy -> Financial Performance	0.272	0.055	4.938	0.000
R2	Cost Leadership Strategy	0.515			
R2	Differentiation Strategy	0.545			
R2	Financial Performance	0.532			

5. Significance of the Structural Model Assessment (Mediation Effect)

Table 3.4 shows the indirect effects of business strategies on the relationship between ERM components and the financial performance of the non-financial sector firms by applying bootstrapping proposed by (Zhao, Lynch Jr, & Chen, 2010). According to the findings, the indirect effects of ERM components culture, process, structure and infrastructure on firm financial performance through business strategies, cost leadership strategy and differentiation strategy were significant.

Hypothesis H7abcd: explored the mediation effect of CLS on the relationship of ERM components (culture, process, structure and infrastructure) and financial performance. The results showed that the CLS positively

mediates the relationship between the ERM- components and financial performance ($\beta=0.102$, $t=2.957$, $p < 0.05$), ($\beta=0.097$, $t=2.672$, $p < 0.05$), ($\beta=0.084$, $t=2.670$, $p < 0.05$) and ($\beta=0.157$, $t=4.089$, $p < 0.05$). Similarly, after analysing H8abcd, the results showed that the DS positively mediates the relationship between the ERM-components and financial performance ($\beta=0.064$, $t=3.027$, $p < 0.05$), ($\beta=0.056$, $t=2.854$, $p < 0.05$), ($\beta=0.062$, $t=3.046$, $p < 0.05$) and ($\beta=0.053$, $t=2.498$, $p < 0.05$). As the beta value is positive that presents the positive mediation among ERM components and financial performance that is same to the hypothesis proposed. Hence the mediation of CLS and DS is supported by hypothesis H7abcd and H8abcd.

Table 3.4: Mediation Analysis of indirect effects using bootstrapping

Hypothesis	Hypothesis	β Beta Coefficient	Standard deviation	T statistics	p values
H7a	Culture -> Cost Leadership Strategy -> Financial Performance	0.102	0.035	2.957	0.003
H7b	Process -> Cost Leadership Strategy -> Financial Performance	0.097	0.036	2.672	0.008
H7c	Structure -> Cost Leadership Strategy -> Financial Performance	0.084	0.032	2.670	0.008
H7d	Infrastructure -> Cost Leadership Strategy -> Financial Performance	0.157	0.038	4.089	0.000
H8a	Culture -> Differentiation Strategy -> Financial Performance	0.064	0.021	3.027	0.003
H8b	Process -> Differentiation Strategy -> Financial Performance	0.056	0.020	2.854	0.004
H8c	Structure -> Differentiation Strategy -> Financial Performance	0.062	0.020	3.046	0.002
H8d	Infrastructure -> Differentiation Strategy -> Financial Performance	0.053	0.021	2.498	0.013

6. Discussion

The primary aim of this attractive area of interest was to explore the correlation between components of ERM and the financial performance of non-financial firms in Pakistan. In Pakistan, ERM implementation is believed to be in its early stages (Nasir, 2018). This study examines the significance and prevalence of ERM components across Pakistani non-financial enterprises listed on the PSX. This study's contribution aims to fill current knowledge gaps in risk management and finance. An effort was made to discover methods for improving risk management by concentrating on crucial elements having financial implications for organizations. PSX listed firms must pay close attention to the utilization of business strategies and resources like CLS and DS in order to gain a competitive advantage and achieve their desired financial performance by utilizing the RBV theory as a critical theory in this study (Mishra et al., 2019).

H1ab proposed ERM culture has a significant relationship with business strategies CLS and DS. The analysis of the results shows that H1a has a β -value of 0.195, $t=3.282$ and $p < 0.05$ and H1b has a β -value of 0.235, $t=4.142$ and $p < 0.05$. Therefore, H1ab is supported by the outcomes and shows a significant association between ERM culture and business strategies. The results of the study are supported by the previous researches by (Atikiya, Mukulu, Kihoro, & Waiganjo, 2015; Banker, Mashruwala, & Tripathy, 2014; Dafikpaku, Eng, & Mcmi, 2011; Juliana, Gani, & Jermias, 2021; Kucuk Yilmaz, Flouris, Yilmaz, & Flouris, 2017) explained that ERM culture has positively contributed in the business strategies.

H2ab proposed ERM process has a significant influence on the relationship of the extent of ERM component impact on business strategies, CLS and DS. The analysis of the results shows that H2a has a β -value of 0.184, $t=2.724$ and $p < 0.05$ and H2b has a β -value of 0.206, $t=3.785$ and $p < 0.05$. Therefore, H2ab is supported by the outcomes and shows a significant association between ERM process and business strategies. The results of the study are supported by the previous researches by (Cormican, 2014; Dafikpaku et al., 2011; Gates, Nicolas, & Walker, 2012; Hilman & Kaliappen, 2014; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Simanjaya et al., 2022) explained that ERM process has positively contributed in business strategies.

H3ab proposed ERM structure has a significant influence on the relationship of the extent of ERM component impact on business strategies, CLS and DS. The analysis of the results shows that H3a has a β -value of 0.160, $t=2.738$ and $p < 0.05$ and H3b has a β -value of 0.229, $t=3.965$ and $p < 0.05$. Therefore, H3ab is supported by the outcomes and shows a significant association between ERM structure and business strategies. The results of the study are supported by the previous researches by (Dafikpaku et al., 2011; Fitria, Mukhtar, & Akbar, 2017; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Shao, Feng, & Liu, 2012) explained that ERM structure has positively contributed in the business strategies.

H4ab proposed ERM infrastructure has a significant influence on the relationship of the extent of ERM component impact on business strategies, CLS and DS performance. The analysis of the results shows that H4a has a β -value of 0.298, $t=4.444$ and $p < 0.05$ and H4b has a β -value of 0.194, $t=3.092$ and $p < 0.05$. Therefore, H4ab is supported by the outcomes and shows a significant association between ERM infrastructure and business strategies. The results of the study are supported by the previous researches by (Dafikpaku et al., 2011; Juliana et al., 2021; Kucuk Yilmaz et al., 2017) explained that ERM infrastructure has positively contributed in the business strategies.

H5 proposed CLS has a significant influence on the relationship of the extent of business strategies on financial performance of the firms. The analysis of the results shows that H5 has a β -value of 0.526, $t=10.237$ and $p < 0.05$. Therefore, H5 is supported by the outcomes and shows a significant association between CLS and financial performance. The results of the study are supported by the previous researches by (Banker et al., 2014; Dafikpaku et al., 2011; Ilyas et al., 2018; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Simanjaya et al., 2022) claimed that CLS has positively contributed in the financial performance.

H6 proposed DS has a significant influence on the relationship of the extent of business strategies on financial performance of the firms. The analysis of the results shows that H6 has a β -value of 0.272, $t=4.938$ and $p < 0.05$. Therefore, H6 is supported by the outcomes and shows a significant association between DS and financial performance. The results of the study are supported by the previous researches by (Banker et al., 2014; Dafikpaku et al., 2011; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Porter, 1980; Simanjaya et al., 2022) claimed that DS has positively contributed in the financial performance.

H7abcd proposed that CLS significantly mediates the relationship between ERM components and financial performance. The analysis of the results shows that H7a has a β -value of 0.102, $t=2.957$ and $p < 0.05$, H7b has a β -value of 0.097, $t=2.672$ and $p < 0.05$, H7c has a β -value of 0.084, $t=2.670$ and $p < 0.05$ and H7d has a β -value of 0.157, $t=4.089$ and $p < 0.05$. Therefore, H7abcd is accepted and it shows significant mediating impact of CLS on the relationship between extent of ERM components and financial performance. The results of the study are supported by the previous researches by (Birjandi et al., 2014; Dafikpaku et al., 2011; Hilman & Kaliappen, 2014; Ilyas et al., 2018; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Simanjaya et al., 2022) explained that ERM component has positively contributed in the financial performance with the help of business strategies.

H8abcd proposed that DS significantly mediates the relationship between ERM components and financial performance. The analysis of the results shows that H8a has a β -value of 0.064, $t=3.027$ and $p < 0.05$, H8b has a β -value of 0.056, $t=2.854$ and $p < 0.05$, H8c has a β -value of 0.062, $t=3.046$ and $p < 0.05$ and H8d has a β -value of 0.053, $t=2.498$ and $p < 0.05$. Therefore, H8abcd is accepted and it shows significant mediating impact of DS on the relationship between extent of ERM components and financial performance. The results of the study are supported by the previous researches by (Banker et al., 2014; Dafikpaku et al., 2011; Juliana et al., 2021; Kucuk Yilmaz et al., 2017; Simanjaya et al., 2022; Valipour, Birjandi, & Honarbakhsh, 2012) explained that ERM component has positively contributes in the financial performance with the help of business strategies.

7. Implication of Findings

Based on the empirical literature, this study addresses a gap in the knowledge of the impact of ERM components, the mediating variables CLS, DS, and the financial performance in Pakistani non-financial

enterprises. This research aimed to experimentally validate the inclusion of ERM components defined in COSO's ERM integrative framework (COSO, 2004) and their implications on financial performance. According to the conclusions of this study, all four components of COSO's ERM framework i.e culture, process, structure, and infrastructure have a considerable significant effect on financial performance. Companies should consequently focus greater attention to all of these components and ensure that they are aligned with their ultimate objectives and goals. They should also assess the risks related to the company's strategic decisions. Surprisingly, earlier empirical research demonstrated that ERM components have a beneficial influence on performance, however not in context of Pakistani business organizations. According to empirical evidence, this study demonstrates that the incorporation of ERM components positively impacts the financial performance of the enterprises. The findings of this study align with previous relevant research, including conclusions drawn by Agustina and Baroroh (2016), Ahmed and Manab (2016), Altanashat, Al Dubai, and Alhety (2019), Desender (2011), Pagach and Warr (2010) and Shahzad, Qaisar, and Ahmed (2021), which also highlight the favourable influence of adopting ERM on firm financial performance.

This study made a methodological contribution to comparing ERM with financial performance by using mediating elements such as corporate reputation, cost leadership, and differentiation strategies. In practice, board of directors and top management must change their principles and views in order to demonstrate the organization's reaction to stakeholder issues. As a result, it is claimed that in a globally competitive market, business strategies such as CLS and DS are intangible resources and means of competitive advantage for firms. These findings also point to an improvement in ERM operations that increase organizational financial performance by focusing on previously mentioned intangible resources and business strategies indirectly. This study aimed to develop a model to explore how CLS, and DS act as mediators in the relationship between ERM components and financial performance.

To the best of the researcher's knowledge, this is one of the few non-financial sector studies that has examined key ERM components which can be beneficial for the sustainable implementation of ERM in Pakistan. This study's findings have various implications. Although the majority of previous researches were undertaken in advanced countries, current research was conducted in an under developed country, Pakistan, and so provides a complete broad overview of ERM inside Pakistani non-financial firms. This inquiry will be one of Pakistan's latest ERM component studies. According to this report, almost 74.40% of non-financial enterprises in Pakistan understand the concept of ERM and use it as its risk management strategy. However, the outcome might not be limited to Pakistan. Our findings served as a springboard for further study on ERM components in Asian developing markets. Due to differences in non-financial organizations and legislation in emerging nations, ERM components will have varied effects in the emerging and advanced nations.

8. Conclusions and Recommendations

This study established a significant association between ERM components and financial performance of non-financial sector listed on the PSX. This research also found that CLS and DS have a substantial impact in mediating the link between the ERM components and company's financial performance. In Pakistan, the implementation of ERM components is believed to be in its early stages. According to the findings of this study, non-financial firms in Pakistan are well aware of ERM components. Non-financial firms and regulatory authorities recognized the significance of ERM in managing business risks holistically, allowing the firm to identify events at an early stage, reducing unnecessarily negative surprises, and responding to changes, whether internal or external, that could threaten the firm's financial performance and reduce shareholder value.

The research revealed a variety of findings, which are described in this section. The firms which are listed can use ERM components as a benchmarking tool to improve their risk management implementation, and it can also serve as a key performance indicator for the company's overall financial performance. Investors and analysts can use ERM information as part of their credit analysis process, similar to how credit rating agencies. This information can help them make informed about the investment decisions in listed companies. Regulatory agencies like SECP can use the ERM practices and key components of listed companies to develop proper guidelines or policies for them. Considering these constraints, there exist prospects for subsequent research through the expansion of this study in various directions.

Future studies should be focused on corporate reputation since it is a strategic type of risk that businesses must control. In addition, extending mediating and moderating variables and evaluating the impact of other aspects of business strategies including strategic agility, innovativeness, corporate governance, diversity on the board, audit quality, internal audit function, and business ethics, on ERM components framework and its impact on firm financial and non-financial performance represents a critical research opportunity in the risk management field. Researchers can use this ERM components framework as a reference in the future to further explore the study of knowledge. As a result, the research might build on this work by exploring ERM components in a variety of industries employing qualitative as well as quantitative techniques. Further studies can also be conducted in different sectors like public sector, manufacturing, textile and SMEs to check the impact of enterprise risk management (ERM) components on the financial performance.

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