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# The Moderating Role of Organizational Culture on the Relationship between Enterprise Risk Management Dimensions and Financial Performance in Manufacturing Companies: A Theoretical Framework

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## Abstract

Enterprise Risk Management (ERM) has heterogeneously practiced between financial and non-financial sectors across the world, although it is a more holistic approach to risk assessment and administration at all enterprise levels. Academics have studied the dimensions of ERM implementation, but there is no complete picture of the determinants and implications of such ERM dimensions yet, especially in developing countries. In this regard, through an extensive literature view, this study has found a theoretical link that exists between internal factors, external factors, structure, and process as main dimensions of ERM implementation and financial performance in developing countries' manufacturing firms. The conceptual model also examines the moderation role of the Organizational Culture (OC) in the relationship between the dimensions of ERM implementation and manufacturing financial performance, where this study has also theoretically proven the importance of OC as a major determinant in influencing the implementation of ERM dimensions and enhancing financial performance in developing countries' manufacturing firms. However, these theoretical results need to conduct a survey of a sample of executive directors in manufacturing companies in a developing country such as Saudi Arabia to examine correlations in the proposed model. Based on this study's theoretical results, this study contributes to promoting awareness among manufacturing firm managers in developing nations about the importance of ERM dimensions and OC in improving the financial performance and competitiveness of their companies.

## Introduction

Nowadays, the international market is akin to a global village thanks to globalization's proliferation and the many changes it has ushered in. As a result of the interplay between technological advancements, legal and regulatory frameworks, shifting consumer preferences, and intense competition, the global economy is vulnerable to a wide range of threats (Ali et al., 2020; Anton & Nucu, 2020). Therefore, both medium- and large-scale manufacturing firms face a number of risks that threaten their ability to achieve their goals and maintain their competitive edge (Berry-Stölzle et al., 2018; Al-Nimer et al., 2021). As a result, manufacturing firms are under pressure to devise measures to lessen the impact of risks and uncertainty on their financial performance (Naseem et al., 2020; Ehiedu & Toria, 2022). Risk management has become a common strategic practice for businesses as a means to respond swiftly and decisively to the different risks they confront, such as economic, political, and market risks (Anton & Nucu, 2020; Saeidi et al., 2021; Adam et al., 2021; Poon et al., 2022). Those companies that invest in risk management are better able to prepare for and respond to any potential threats to their assets (Blanco-Mesa et al., 2019; Adam et al., 2021). As a result, businesses nowadays employ a strategic practice called ERM to take a more holistic approach to risk assessment and administration (ERM) to take a more holistic approach to risk assessment and administration (Blanco-Mesa et al., 2019; Anton & Nucu, 2020; Poon et al., 2022). Moreover, the risk of financial hardship and its associated expenses, weak firm performance, chances for expansion, the board's autonomy, removing barriers to new entrants, and opening up local markets for global products are all said to encourage companies to implement ERM based on Silva et al. (2019) Kuo et al. (2020), and Anton and Nucu (2020). Furthermore, competitive advantage and high performance can be gained by firms through ERM practice (Blanco-Mesa et al. 2019; Poon et al., 2022).

ERM is a method that controls and coordinates compensation risks for the entire company via managing all risks in an integrated and holistic manner (Berry-Stölzle et al., 2018). As a result, ERM has developed into a crucial model for the management of all kinds of companies because it raises awareness of potential threats, effectively manages uncertainty, and identifies and manages the associated risks and opportunities in order to help the company achieve its strategic objectives and enhance performance (Chen et al., 2019; Blanco-Mesa et al., 2019; Anton & Nucu, 2020). However, most of the previous studies focused on examining the practice of ERM in the financial sector (Saeidi et al., 2021). Several studies have documented the crucial role of the manufacturing sector in the economic development of countries (Haraguchi et al., 2017; Xu & Liu, 2020; Ehiedu & Toria, 2022). Where manufacturing has been globally recognized as a significant driver of competition, job creation, and economic growth (Ndemezo & Kayitana, 2018; Ehiedu & Toria, 2022; Sani, 2022; Purbawangsa & Rahyuda, 2022). However, manufacturing companies are faced with much more uncertainty, risks, and challenges that influence their performance in developing countries compared to developed countries. Therefore, the practice of ERM in the manufacturing sector is important, especially in developing countries (Nurunnabi et al., 2020; Al-ahdal et al., 2020; Almaqtari et al., 2021; Saeidi et al., 2021). As well as, manufacturing companies in developing countries often need a more robust risk management system for enhancing their performance (Naseem et al., 2020; Yakob et al., 2020; Kuo et al., 2020).

Despite the growing relevance of applying ERM in many firms, there is no researchers agree on the dimensions of ERM, which affects the end results of implementing ERM (Lundqvist, 2014; Setapa et al., 2020; Kanu, 2021; Saeidi et al., 2021). Thus, there are still lots of opportunities in the research community to enhance the literature addressing the dimensions

of ERM and its direct relationship to the financial performance of organisations, both conceptually and experimentally. Furthermore, a group of researchers contends that the implementation of ERM is influenced by a variety of internal factors (Yilmaz & Flouris 2017; Saeidi et al., 2021). In this context, past research has demonstrated the significance of corporate organisational culture (OC) in effectively strengthening its strategy execution and performance (Ali et al., 2017; Chen et al., 2019). According to some studies, one of the most crucial problems confronting ERM implementers is organisational culture (Selamat & Ibrahim, 2018; Syahwani, 2019; Chen et al., 2019; Saeidi et al., 2021). Despite the importance of OC in the success of ERM implementation and improving company financial performance, there is a severe scarcity of studies that have investigated the relationship between OC and ERM dimensions with financial performance, particularly in developing countries (Chen et al., 2019; Anton & Nucu, 2020; Saeidi et al., 2021; Adam et al., 2021). As a result, the specific goal of this article is to provide the research community with a conceptual framework that will link ERM dimensions, OC, and financial performances in the manufacturing sector, as well as contribute to the body of knowledge and facilitate link among developed and developing countries such as Saudi Arabia. Based on the study's purpose, part two of this research is a literature review on ERM dimensions, OC, and the financial performances of manufacturing companies. The study's theoretical underpinnings are presented in the following section of the article. The model illustrates the moderating effect of OC on the link between ERM dimensions and the financial performance of manufacturing firms. The final part includes the study's conclusion and recommendations for further study.

## **Literature Review and Hypothesis**

### **Enterprise Risk Management (ERM)**

In contrast to the traditional "silo-based" method of risk management, the adoption of ERM is considered a paradigm shift toward a more comprehensive and strategic approach (Gordon et al., 2009; Adam et al., 2021). COSO (2004) defines ERM as "a process effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of the entity objectives". ERM system was developed as a method for enhancing corporate governance practises, particularly in the area of risk management (Maruhun et al. 2018). According to Bainbridge (2008), ERM is the procedure through which a company's upper management explains the company's aims and strategies in order to "create an ideal balance between growth and return targets and related risks". When properly implemented, ERM should help businesses better manage risks within an acceptable range, so boosting their productivity and financial performance (Hameed et al., 2020; Rimin et al., 2021; Kanu, 2021; Saeidi et al., 2021; Adam et al., 2021; Al-Nimer et al., 2021).

Various empirical studies into the influence of ERM on company performance have been conducted on the back of the theoretical expectation that doing so will assist organisations in improving their performance. These studies have produced a wide range of results and conclusions, but they also reached conflicting results. Although some research has established no correlation between ERM and company performance, others have found a correlation between ERM implementation and firms' performance. Studies that have not revealed an effect of ERM on firms' financial performance include (Tahir and Razali, 2011; Agustina and Baroroh, 2016; Aniza, 2018; Alawattegama, 2018; González et al., 2020). While Silva et al (2019); Khan et al (2019); Shad et al (2019); Rimin et al (2021); Kanu (2021); Saeidi

et al (2021); Al-Nimer et al (2021); Poon et al (2022) are only some examples of empirical studies that indicate a favourable association between ERM implementation or adoption and companies' financial performance. The main obstacle faced by academics has been the difficulty in generating a valid and accurate measure of the ERM construct, despite the increased interest in ERM research (Lundqvist, 2014; Adam et al., 2021; Al-Nimer et al., 2021). This helps to explain the occasionally conflicting results found in empirical investigations. Moreover, previous studies did not reach an agreement on defining and defining the dimensions of ERM implementation (Lundqvist, 2014; Adam et al., 2021). Researchers have responded to this difficulty through the proposed model in the current study, which contains four basic dimensions to quantify ERM implementation based on the previous studies as shown in Table.1 at appendices, these dimensions namely: internal factors, external factors, structure, and process.

### **ERM Dimensions and Financial Performance**

According to Table 1, there is support from previous studies for the ERM components proposed in the current study as dimensions to measure ERM implementation. Furthermore, it is clear that there is greater agreement on the ERM process, followed by internal factors, structure, and finally external factors as basic determinants to measure ERM implementation. Furthermore, the previous studies shown in Table 1, yielded mixed results, which the researchers attribute to the fact that most of the previous studies measured ERM implementation as a group, so the researchers believe that ERM implementation should be examined individually across the four dimensions. These dimensions namely: internal factors, external factors, structure, and process.

### **Internal Factors and Financial Performance**

The internal environment in which the ERM function is carried out influences the overall effectiveness of the ERM system (Alawattagama, 2018; Shad et al., 2019; Khan et al., 2019). As a result, it is a prerequisite for the proper implementation of an ERM methodology. According to COSO's ERM standards, the internal environment reflects the "tone of top management," which includes management attitudes and knowledge of the necessity and relevance of the ERM in growing and maintaining the firm's value (2004, p.16). According to Setapa and Zakwan (2019); Shad et al (2019); Setapa et al (2020), internal factors are one of the characteristics of the internal environment that influence whether or not ERM is applied successfully, particularly in developing countries. They also discover a link between internal characteristics that act as drivers of ERM practice and the influence of ERM on firms' performance in Malaysia. On the other hand, Al-Nimer et al (2021) revealed that internal factors have an indirect effect on financial performance. This study focuses on three major internal factors: chief top management, risk officer (CRO), and education and training. CRO appointment, according to Pagach and Warr (2010); Setapa et al (2020), is linked to the choice to adopt an ERM programme. Many businesses employ a member of the senior executive team to oversee ERM processes, known as the chief risk officer (CRO) (Saeidi et al., 2021; Al-Nimer et al., 2021). Furthermore, Saeidi et al (2021); Al-Nimer et al (2021) argue also that the appointment of a CRO signals the beginning of ERM because CROs are often employed to develop and oversee ERM efforts. Saeidi et al (2020), on the other hand, suggested that a successful ERM required ongoing top-level support, external expertise, and a more advanced stage in larger organisations. Furthermore, Setapa et al (2020); Saeidi et al (2021); Yudianto et al (2021) indicated that high-level management bodies such as boards of directors (BODs)

could have a significant impact on ERM adoption and implementation. Furthermore, Setapa et al (2020) discovered that a continuous education and training programme in an enterprise's risk management for employees would provide a constant upgrade for the expansion of competence throughout the entire organisation. By adopting and growing ERM, management hopes to further educate everyone throughout the organisation about the nature and relevance of ERM and reap even more benefits as a result (Kanu, 2021). According to Saeidi et al (2021), teaching the organisation about the strategic benefits of ERM leads to a better understanding of the risk environment and how to manage it. Employee education and communication, according to Setapa et al (2020), are crucial for acquiring a corporate understanding of risk potential, management, and mitigation. One of the issues that organisations face when implementing ERM is the extent to which employees are aware and understand the importance of ERM (Setapa et al., 2020). Shad et al (2019) discovered that implementing an effective ERM through internal factors has a considerable positive impact on a company's overall performance. Furthermore, Omar and Javaria (2019) assessed the impact of ERM implementation on the worldwide Takaful Industry's financial performance using a sample of thirty Takaful Companies from 2012 to 2015 in (Saudi Arabia, the UAE, Bahrain, Bangladesh, Kuwait, Qatar, Malaysia, Pakistan, Sri Lanka, and Oman). They evaluated the ERM implementation based on internal and external factors, structure, and governance, and discovered that the ERM implementation had a positive impact on the Takaful Industry's financial performance. Furthermore, certain empirical research has demonstrated that internal factors like ERM practise drivers have a favourable and considerable influence on firms' financial performance (e.g., Shad et al., 2019; Omar & Javaria, 2019; Malik et al., 2020; Saeidi et al., 2021; Yudianto et al., 2021; Jean-Jules & Vicente, 2021). According to the Agency Theory, putting in place a robust risk management system with elements like ERM dimensions ("internal factors, external factors, structure, and process") could boost overall business performance and shareholder value (Omar & Javaria, 2019; Setapa et al., 2020; Saeidi et al., 2021; Yudianto et al., 2021; Jean-Jules & Vicente, 2021). ERM experts contend that ERM lowers earning and stock price volatility, lowers external capital expenses, and increasing capital efficiency, improves enterprises, and boost shareholder value (Saeidi et al., 2021). ERM is thought to lower an organization's overall risk of failure and improve financial performance by selecting a CRO, assisting top management, and teaching and training staff in risk management (Yudianto et al., 2021; Faisal et al., 2021; HOA et al., 2021; Poon et al., 2022). Moreover, based on the resource-dependence theory (RDT) which notes that internal factors as one of the dimensions of ERM have become an important source and a robust risk management approach in all financial and non-financial industries (Shad et al., 2019; Omar & Javaria, 2019; Malik et al., 2020; Setapa et al., 2020; Saeidi et al., 2021). Therefore, the following hypothesise is suggested in this study:

*H1: Internal factors as a dimension of ERM positively affect manufacturing firms' financial performance.*

### **External Factors and Financial Performance**

External risks to companies include technical advances, changing economic and market conditions, and local and international regulations, laws, and legislations (Anton & Nucu, 2020; Adam et al., 2021). To mitigate these risks, organisations' ERM decisions rely on external variables such as compliance with law and legislation, as well as external auditors (Setapa & Zakwan, 2019; Malik et al., 2020; Yudianto et al., 2021; HOA et al., 2021). In this study, these two dimensions will be focused on and addressed as external impacts. Regulators

play a vital part in ERM activities, since they must decide whether or not solid business practises are in place, as well as whether or not corporate operations conform to regulatory criteria (Florio & Leoni 2017; Setapa et al., 2020; Yudianto et al., 2021). Furthermore, regulators pay special attention to all stages of risk during investigations and emphasise the relevance of top management's engagement in ERM (Setapa et al., 2020; Rimin et al., 2021). Lawyers and compliance officers are also essential in the development, implementation, and upkeep of an ERM programme (Setapa et al., 2020; Rimin et al., 2021). The cautious corporation conducts ERM evaluations and follows the Committee of Sponsoring Organizations (COSO) requirements of the Treadway Commission (Shad et al., 2019). According to Setapa et al. (2020), external auditors have a positive significant link with ERM adoption because high-quality audit committees tend to appoint high-quality auditors to construct effective risk management. Furthermore, Hameed et al. (2020) state that the source of risk management by external auditors would aid the audit committee in opposing the management's completeness in risk identification. As well as, external factors such as rating agencies, analysts, and external auditors also have a role in moving the organisation toward formalising ERM (Setapa et al., 2020). According to the Agency Theory, compliance with law and legislation and external auditors as external factors of ERM practice enhances the control capabilities of the company and raises the level of its performance (Setapa & Zakwan, 2019; Yudianto et al., 2021; HOA et al., 2021). Moreover, based on the resource-dependence theory (RDT) which notes that external factors as one of the dimensions of ERM have become an important source and a robust risk management approach in all financial and non-financial industries for enhancing firms' financial performance (Malik et al., 2020; Saeidi et al., 2021; Yudianto et al., 2021; Jean-Jules & Vicente, 2021). Therefore, the following hypothesis is suggested in this study

*H2: External factors as a dimension of ERM positively affect manufacturing firms' financial performance.*

### **ERM Structure and Financial Performance**

ERM structure provides a hierarchical framework for distributing ERM duties and responsibilities among persons and groups (Lai & Shad, 2017; Shad et al., 2019; Kakiya, 2021). It also discusses the organisational structure, reporting linkages, and ERM authorities (Shad et al., 2019). Finally, it includes ERM-related policies and procedures documents (Shad et al., 2019). The risk structure of an organisation has been seen as a crucial component in the implementation of ERM since it outlines how risk management is organised in the institution (Lai & Shad, 2017; Shad et al., 2019; Kakiya, 2021; Al-Nimer et al., 2021). As a result, it is believed that the availability of a strong operating risk structure will improve organisations' financial performance. According to the findings of Omar and Javaria (2019), the ERM framework has a significant impact on the financial performance of thirty Takaful companies (Saudi Arabia, the UAE, Bahrain, Bangladesh, Kuwait, Qatar, Malaysia, Pakistan, Sri Lanka, and Oman). Al-Nimer et al (2021) evaluated the impact of ERM (internal variables, structure, process, and general control activities, as well as information and communication) on firm performance in Jordanian financial enterprises, using business model innovation as a mediating factor (BMI). They discovered that ERM processes have a considerable impact on BMI and non-financial performance, and that BMI significantly contributed to both financial and non-financial performance but had no effect on environmental performance. The BMI completely mediated the relationship between ERM practises and financial performance, with a modest mediating effect for the path between ERM practises and nonfinancial

performance and no mediating effect for the path between ERM practises and environmental performance. Furthermore, Candy (2021) discovered that ERM structure has a considerable and favourable impact on both financial and non-financial performance of Riau Island provinces' rural banks. Additionally, Girangwa et al (2020) discovered that ERM structure has a considerable and favourable impact on the performance of Kenyan government enterprises. Shad et al (2019) discovered that ERM structure had a considerable favourable impact on the overall performance of Malaysian oil and gas corporations based on secondary data (from 2013 to 2017). According to the Agency Theory, ERM structuring implementation give that considers how ERM duties and responsibilities are distributed among individuals and groups could boost overall business performance (Lai & Shad, 2017; Shad et al., 2019; Kakiya, 2021). ERM experts argue that an ERM structure that describes the organisational structure, reporting links, and ERM authorities, as well as incorporates ERM-related policies and procedures papers, increases the efficacy of investment decisions and the financial performance of organisations (Lai & Shad, 2017; Shad et al., 2019; Omar & Javaria, 2019; Girangwa et al., 2020; Candy, 2021). Moreover, based on the resource-dependence theory (RDT) which notes that ERM structure as one of the dimensions of ERM has become an important source and a robust risk management approach in all financial and non-financial industries (Lai & Shad, 2017; Shad et al., 2019; Omar & Javaria, 2019; Girangwa et al., 2020; Candy, 2021). Therefore, the following hypothesis is suggested in this study:

*H3: ERM structure positively affects manufacturing firms' financial performance.*

#### **ERM Process and Financial Performance**

ERM process consists of a series of sequential processes that ensure "risk identification, risk assessment, risk analysis, risk treatment, and risk monitoring and review" are in line with the organization's strategic goals (Malik et al., 2020; Girangwa et al., 2020; Saeidi et al., 2021; Al-Nimer et al., 2021). Furthermore, it assists the board of directors in making informed choices by ensuring that management is actively identifying and evaluating risks through standard methods (Malik et al., 2020; Yudianto et al., 2021; Faisal et al., 2021; Al-Nimer et al., 2021). Effective ERM processes, as discussed by Malik et al (2020); Faisal et al (2021), result in fewer surprises, assist management in identifying and capitalising on opportunities, improve information processing and communication, enhance the firm's reputation, improve the organization's accountability, assurance, and governance status, and contribute to overall planning and firm performance. Lai and Shad (2017) investigated the impact of the ERM process on company performance as measured by an Economic Value Added (EVA) analysis, developing four regression models to test the impact on company performance via "Net Operating Profit After Tax (NOPAT), Weighted Average Cost of Capital (WACC), and Return on Invested Capital (ROIC)." They discovered that the ERM procedure had a significant positive impact on lowering the WACC and increasing the NOPAT and ROICs of companies listed on the Bursa Malaysia. Furthermore, Yang et al (2018) discovered that ERM Process practises have a significant impact on competitive advantage and SME performance. While Poon et al (2022) discovered that only three ERM processes, "event detection, risk assessment, and risk response," have a substantial impact on SME performance in Malaysia. According to the Agency Theory, implementing a systematic and consistent ERM procedure in dealing with all of a firm's risks reduces its overall risk of failure, therefore boosting its performance and value (Shad et al., 2019; Malik et al., 2020; Girangwa et al., 2020; Saeidi et al., 2021; Candy, 2021). According to ERM experts, the ERM process, which includes "risk identification, risk appraisal,



risk analysis, risk treatment, and risk monitoring and review," reduces earnings management and stock price volatility, lowers external capital expenses, increases capital efficiency, and enhances financial performance (Lai & Shad, 2017; Faisal et al., 2021; HOA et al., 2021; Poon et al., 2022). Furthermore, according to the resource-dependence theory (RDT), the ERM process has become an important source and a robust risk management approach in all financial and non-financial industries for improving firms' financial performance and reputation (Girangwa et al., 2020; Saeidi et al., 2021; Candy, 2021; Yudianto et al., 2021; Faisal et al., 2021; Poon et al., 2022). Thus, manufacturing firms with the ability to employ the ERM process outperform those without these resources in terms of financial performance (Yudianto et al., 2021; Faisal et al., 2021; HOA et al., 2021; Poon et al., 2022). As a result, the following hypothesis is proposed in this study:

*H4: ERM process positively affects manufacturing firms' financial performance.*

### **Organisational Culture (OC) and Financial Performance**

Despite the fact that the idea of organisational culture has been utilised as a phenomenon in organisations since the early twentieth century, scholars have focused on it in recent decades (Alofan et al., 2020; Anton & Nucu, 2020; Gebril Taha & Espino-Rodríguez, 2020; Hardcopf et al., 2021). Organizational culture, according to Chen et al (2019); Alofan et al (2020), is becoming an important topic in academic and management practise since it has a stronger impact on the implementation of the company's directions and strategies, as well as the company's success or failure. Academic researchers typically use the broad phrase "organisational culture" to refer to an organization's pre-existing cultural beliefs and assumptions (Abedelrahim, 2018; Alofan et al., 2020; Gebril Taha & Espino-Rodríguez, 2020; Hardcopf et al., 2021). From a cultural standpoint, management strategies incorporate cultural values and behaviours (Detert et al., 2000; Anton & Nucu, 2020). When implementing a new managerial practise, it is necessary to first understand the existing organisational culture, which includes its distinct daily activities as well as its values and beliefs system (Babatunde & Pheng, 2015; Chen et al., 2019; Alofan et al., 2020). Finally, an organization's organisational culture may encourage or constrain the interpretation of management practise in the implementation of strategics, leading in changes to the applied practise to align with members' cultural standards (Alofan et al., 2020).

Given that ERM is a sizable undertaking with the stated goal of making businesses more resilient in the face of unpredictability, it stands to reason that the preexisting culture of the organisation will play a major role in ERM implementation (Zhang & Liu, 2016; Chen et al., 2019; Anton & Nucu, 2020). Cultural issues are a real problem for ERM adopters. About half of the respondents in one poll mentioned "organisational culture" and "organisational turf" as the biggest challenges they faced when trying to adopt enterprise risk management (Miccolis, 2003). According to John et al (2016); Sheedy and Griffin (2018) the OC is a core component of all major risk management frameworks. As well as there is a pilot work of Liu (2019) who analyzed the impact of cultural factors on ERM adoption in a cross-cultural context of China and the US, acknowledging the importance of cultural factors. However, this stream of research is new, and more research is welcomed, for example, on the impact of OC on different components of ERM (Liu, 2019; Chen et al., 2019; Anton & Nucu, 2020; Saeidi et al., 2021; Adam et al., 2021). As a result, in response to prior research' suggestions, the current study proposes a model that demonstrates the moderate role of OC in the

relationship between ERM dimensions and financial performance in developing nations' manufacturing sectors.

In addition, many researchers have studied the link between OC and financial performance based on the history of financial knowledge (Tarba et al., 2019; Mahfouz & Muhumed, 2020; Gebril Taha & Espino-Rodríguez, 2020; Hardcopf et al., 2021). Generally, because culture governs all of the links between the individuals in the organisation and the organisation as a system, organisational culture has a significant impact on the company's staff, structure, functioning, and strategy (Chen et al., 2019; Alofan et al., 2020; Gebril Taha & Espino-Rodríguez, 2020; Anton & Nucu, 2020; Saeidi et al., 2021; Adam et al., 2021). Thus, OC has become an important source of success or failure in all financial and non-financial industries throughout the globe (Abdelrahim, 2018; Alofan et al., 2020; Anton & Nucu, 2020; Saeidi et al., 2021). The literature review of OC showed that OC had a significant positive impact on financial performance (e.g., Jacobs et al., 2013; González-Rodríguez et al., 2019; Tarba et al., 2019; Mahfouz & Muhumed, 2020; Hardcopf et al., 2021). Previous research, on the other hand, yielded contradictory conclusions about the impact of ERM on the financial performance of manufacturing firms. Where Some studies found that ERM had a significant positive impact on financial performance (e.g., Silva et al., 2019; Khan et al., 2019; Shatnawi et al., 2019; Shad et al., 2019; Hameed et al., 2020; Rimin et al., 2021; Kanu, 2021; Saeidi et al., 2021; Al-Nimer et al., 2021), while others found that it had a negative impact (e.g., Pagach & Warr, 2010; Agustina & Baroroh, 2016). As a result, the current study addresses these research gaps by predicting that the dimensions of OC (Hierarchical culture, group culture, rational culture, developmental culture) will have a moderating impact on the relationship between ERM dimensions (Internal Factors, External Factors, Structure, and Process) and financial performance of manufacturing companies in developing countries.

According to the resource-dependence theory (RDT), OC has become a key source of success or failure in all financial and non-financial enterprises worldwide (Abdelrahim, 2018; Alofan et al., 2020; Gebril Taha & Espino-Rodríguez, 2020; Hardcopf et al., 2021). OC is critical in deciding an organization's efficiency, effectiveness, and success, according to Hardcopf et al. (2021). González-Rodríguez et al (2019) state that a company with a strong OC and the ability to develop management and organisational competencies are more likely to succeed in organisational transformation. Culture governs all of the links between the individuals in the organisation and the company as a system, and OC has a significant impact on the company's staff, structure, functioning, and strategy (Chen et al., 2019; Alofan et al., 2020; Gebril Taha & Espino-Rodríguez, 2020; Anton & Nucu, 2020; Saeidi et al., 2021; Adam et al., 2021) As a result, manufacturing companies that have an OC that encourages the successful application of ERM will improve their financial performance. As a result, the following hypotheses are proposed in this study

*H5: Organizational culture moderates the relationship between internal factors as a dimension of ERM and manufacturing firms' financial performance.*

*H6: Organizational culture moderates the relationship between external factors as a dimension of ERM and manufacturing firms' financial performance.*

*H7: Organizational culture moderates the relationship between ERM structure and manufacturing firms' financial performance.*

*H8: Organizational culture moderates the relationship between ERM process and manufacturing firms' financial performance.*

### Financial Performance

Financial performance is the method of examining the precise monetary effects of a firm's policies and operations (Yakob et al., 2020; Ali et al., 2020). It is a method of calculating the monetary value of the outcomes of a company's policies and operations. It can be used to calculate a company's total financial health over a specific time period, as well as to compare similar enterprises in the same industry or to compare industries or aggregate sectors, which indicates the investment return and residual income (Al-Mamary et al., 2020; Ali et al., 2020). The financial viewpoint on manufacturing firm success is employed through measurements such as lower overall business costs, higher revenue growth, and increased net profit margins (Al-Mamary et al., 2020; Ali et al., 2020). Previous empirical studies have portrayed the relationship between ERM and business financial performance using various measures, including Return on Asset (ROA), Return on Equity (ROE), and Tobin's Q. (Badriyah et al., 2015; Kakanda & Salim, 2017; Callahan & Soileau, 2017; Yang et al., 2018; Naseem et al., 2020; Ramin et al., 2021; Saeidi et al., 2021; Al-Nimer et al., 2021). However, there is still debate regarding how to quantify a company's success and the factors that influence financial performance (Muturi & Omondi, 2013). According to Ali et al (2020); Al-Nimer et al (2021), a single component cannot accurately reflect all aspects of a company's financial performance; hence, integrating numerous factors allows for a more accurate assessment of a firm's financial performance. This study suggested five financial performance measures drawn from prior studies (Return on Sales, Return on Investment, Sales Growth Rate, Return on Asset, and Return on Equity). Furthermore, many studies that have evaluated the influence of ERM on company performance have measured financial performance based on published secondary data, which some scholars say are not accurate, not fully available, inaccurate, and incomplete, particularly in developing nations (Semrau et al., 2016; Yang et al., 2018; Yakob et al., 2020). As a result, this is the first study to propose measuring the moderating influence of OC on the relationship between ERM dimensions practise and financial performance (Return on Sales, Return on Investment, Sales growth rate, Return on Asset, and Return on Equity) of manufacturing firms in developing countries.

### Conceptual Model

Based on the reviewed literature and the consequent hypotheses. The following conceptual model was created to explain the link between the study's variables.

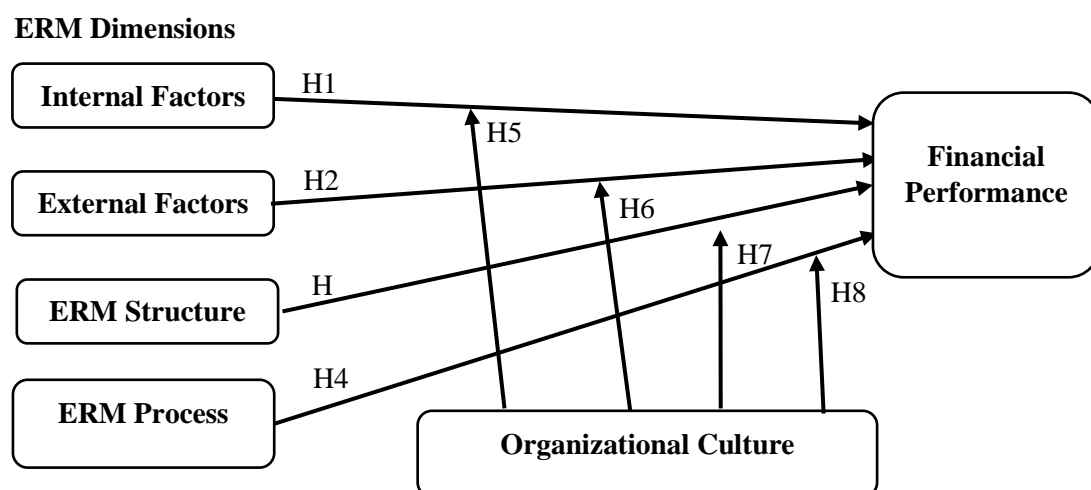


Figure 1. Conceptual Model

The purpose of this research is to develop a framework for the linkages between Enterprise Risk Management (ERM) dimensions, Organizational Culture (OC), and Financial Performance in manufacturing firms. The relationships are supported by Agency Theory and Resource Dependence Theory (RDT), which show that implementing a systematic and consistent ERM procedure such as ("internal factors, external factors, structure, and process") in dealing with all of a firm's risks reduces its overall risk of failure, thereby increasing its performance and value (Shad et al., 2019; Malik et al., 2020; Girangwa et al., 2020; Saeidi et al., 2021; Candy, 2021). Furthermore, the RDT implies that a firm's performance is influenced by its internal resources such as ERM and OC, where a company performs better than its competitors when it makes effective use of its resources (Hameed et al., 2020; Rimin et al., 2021; Kanu, 2021; Saeidi et al., 2021; Al-Nimer et al., 2021). The framework is based on past research, with ERM dimensions taken from COSO (2004); Lai and Shad (2017); Setapa and Zakwan (2019); Kakiya (2021) that include "internal factors, external factors, structure, and process." Furthermore, OC is a moderating variable that includes (Hierarchical Culture, Group Culture, Rational Culture, and Developmental Culture) obtained from (Denison and Spreitzer, 1991; Zu et al., 2010; Taha and Espino-Rodríguez, 2020; Alofan et al., 2020). Additionally, financial performance (Return on Sales, Return on Investment, Sales Growth Rate, Return on Asset, and Return on Equity) was derived from (Kaplan and Norton, 1996; Ali et al., 2020). Furthermore, the relationships between the variables in the current model, which is based on agency theory and the Resource-Dependence Theory (RDT), allow manufacturing firms to benefit from their valuable resources of ERM and OC in order to gain a competitive advantage and thus improve their financial performance. Further, supportive of OC affects the successful implementation of ERM. As a result, this work is unique in the sense that, for the first time, it has logically provided a model within the context of literature that will enable manufacturing firms to have higher performance as led by past research and theories.

### **Research Methodology**

To examine the relationships in the proposed model, a survey should be conducted on a sample of executives of manufacturing companies in a developing country such as Saudi Arabia. In this regard, future studies should be used a cross-sectional research design (questionnaire) that involves data collection to examine the correlation in the proposed model (Sekaran & Bougie, 2010; Ly et al., 2016). This design is preferred because it is ideal for solving the problem statement and achieving the study's goals, especially in developing countries with a small number of manufacturing companies participating in the stock market, and low reliability of published secondary data, such as Saudi Arabia (El-Kassar et al., 2014; Nalukenge et al., 2018; El Gammal et al., 2020). Therefore, the authors suggest that conduct a quantitative sectional survey of 370 Saudi manufacturing firms and analyze the data using partial least squares structural equation modeling (PLS-SEM) for examining the relationships in the proposed model.

### **Conclusion**

This study has developed a conceptual framework that links the ERM aspects (internal variables, external factors, structure, and process) individually, OC, and financial performance in manufacturing businesses in developing nations. This study is significant because it expands the body of knowledge by providing a framework for analysing how the internal factors, external factors, structural, and processes of ERM implementation affect financial performance in manufacturing firms. A further unique aspect of this study is that it

investigates the possibility of using the OC as a moderator in the interaction between several ERM dimensions (internal factors, external factors, structure, and process) individually and financial performance. One of the study's main goals is to promote awareness among manufacturing firm managers in developing nations about the importance of ERM dimensions and OC in improving the financial performance and competitiveness of their companies.

### Limitation and Future Research

Nevertheless, this study has its own limits, just like all other studies. First off, as this is a conceptual article, further empirical research is needed to support the claim made in this study. Second, because this approach focuses on Manufacturing firms, additional study is required to verify its validity in other, SMEs and larger businesses, and different sectors.

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## Appendices

Table.1

*The dimensions of ERM and previous studies for ERM*

Reference	Country	Dependent	Method	Dimensions				Result
				Internal Factors	External Factors	Structure	Processes	
Muralidhar ,2010	Saudi	The current status of ERM in oil and gas entities	Qualitative and quantitative through six case studies	X	X	X	X	Partial
Alrashidi & Bakeel, 2012	Saudi	financial development & economic growth	Survey for 150 employees at SME				X	Significant
Aleisa, 2017	Saudi	ERM dimensions implementation	103 online surveys.	X		X	X	Significant
Rao, 2018	Saudi	Firm's value	Secondary data, non-financial firms listed				X	Significant
Malki & Aldwais, 2019	Saudi	ERM suitability for Saudi university	Universities	X	X	X	X	Suitable
Omer et al., 2020	Saudi	Delay of audit report	198 manufacturing companies listed	X				Significant
Alghamdi & Tayachi, 2021	Saudi	The approach to risk management in Saudi Arabia's banking sector	Questionnaire for 50 executives from the banks in Saudi Arabia				X	73.5% use ERM
Lai, 2014	Malaysia	ERM Implementation	public listed firms			X	X	All important

Agustina & Baroroh, 2016	Indonesia	Financial performance and firm value	Secondary data, 53 banking companies listed in Indonesia Stock Exchange	X	X	X	X	Not-Significant
Lai & Shad, 2017	Malaysia	Firm's Performance through Economic Value Added (EVA) analysis.	Questionnaire for PLCs' firms			X	X	Positive Significant
Callahan & Soileau, 2017	US	Operational performance	Questionnaire COMPUSTAT database and Secondary data from 1631 US companies				X	Positive Significant
Yang et al., 2018	Pakistan	Competitive advantage and SMEs' performance	Questionnaire for 304 SMEs				X	Positive Significant
Shad et al., 2019	Malaysia	Business Performance	Secondary data (2013 to 2017) for oil and gas firms	X		X	X	Positive Significant
Khan et al., 2019	Pakistan	Firms' performance	2012 to 2015 130 non-financial listed firms	X				Positive but not-Significant

Omar & Javaria, 2019	Saudi Arabia, Malaysia, Bahrain, Bangladesh, Kuwait, Qatar, UAE, Oman, Sri Lanka and Pakistan	Financial Performance	2012 to 2015 30 Takaful Firms	X	X	X		Positive Significant
Silva et al., 2019	Brazil	Firm value	2004–2013. 649 firm listed in the IBrX100 index on the Brazilian stock exchange				X	Positive Significant
Altanashat et al., 2019	Jordan	Institutional performance	Questionnaire for 382 supervisory staff in extractive companies	X		X	X	Positive Significant
Rehman & Anwar, 2019	Pakistan	SMEs' performance	Questionnaire for 327 SMEs	X		X	X	Positive Significant
Yakob et al., 2020	Malaysia	SMEs performance	Questionnaire for 300 SMEs	X			X	Positive Significant
Al-Nimer et al., 2021	Jordan	Financial Performance	Questionnaire 228 Jordanian financial firms	X		X	X	- Direct impact not Significant - Indirect impact Significant

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Saeidi et al., 2021	Iran	financial and non-financial firm performance	Questionnaire for 84 financial firms	X		X	X	Positive Significant
21	Total			13	4	12	18	