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Enterprise Risk Management Practices in Malaysian Small and Medium-Sized Enterprises: An Overview

Nadhrah Manas[1], Norhayati Zakuan[1], Muhamad Zameri Mat Saman[1] & Mariam Setapa[2*]
[1]Universiti Teknologi Malaysia, Malaysia
[2]Universiti Teknologi MARA, Malaysia
nadhrahmanas@gmail.com, norhayatimz@utm.my, zameri@utm.my, maria135@uitm.edu.my*

Abstract: SMEs are crucial to the economic growth of many countries, particularly developing ones like Malaysia. SMEs have contributed significantly to economic growth but they also often struggle with problems related to poor management, which increases the risk of failure and closure. Effective risk management is essential in sustaining the long-term sustainability of SMEs and improving managerial performance. This study investigates the enterprise risk management (ERM) practices used by Malaysian SMEs in the manufacturing sector. The factors influencing the risk management behaviors and practices of SME manufacturing workers and their compliance with risk management protocols are examined in this study using a mixed-methods approach. This study focuses on employee behavior to better understand how organizational culture affects risk management techniques in SMEs. To design effective reward and recognition programs, this research also examines the psychological components of risk management while accounting for the organizational, societal, and financial challenges that followed the 2008 financial crisis. The study also examines the impact of organizational structure on the efficacy of risk management initiatives in small and medium-sized enterprises. The practical findings of the study are expected to demonstrate the extent to which ERM influences organizational effectiveness in Malaysia's SME manufacturing sector. This study intends to equip industry participants with the knowledge and confidence necessary to implement ERM successfully in their operations by offering insights into the factors that encourage and impede ERM adoption and its impact on organizational performance. This research advances ERM practices among SMEs and strengthens Malaysian businesses' resilience and risk awareness.

Keywords*: Enterprise Risk Management, Small and Medium Enterprises, Malaysia, Top Management, Reward and Recognition.*

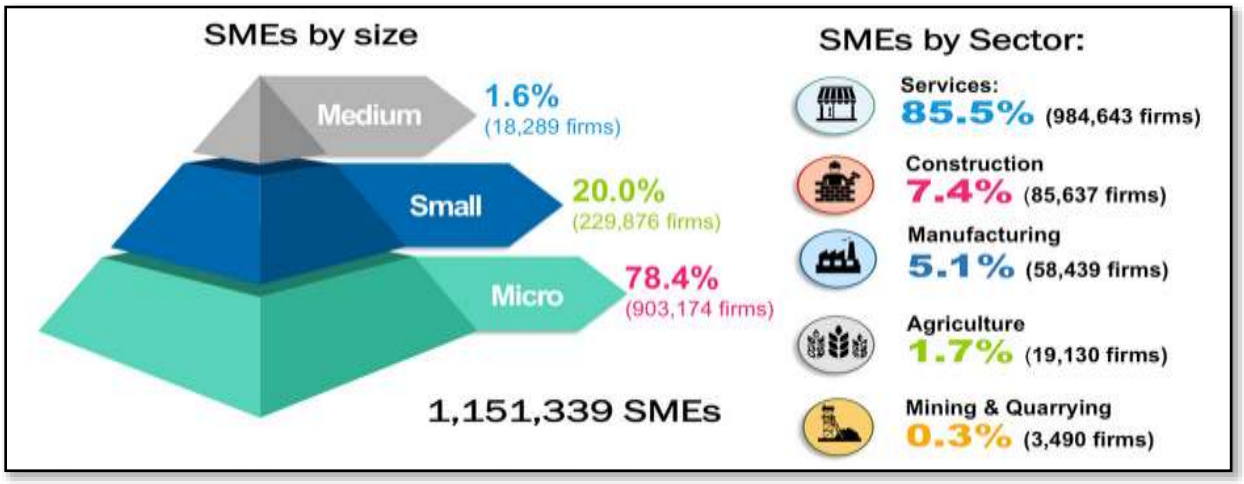
1. Introduction and Background

Most countries, especially developing ones, have many small and medium-sized businesses, or SMEs, which are essential to the growth of the economy. SMEs not only generate the greatest number of jobs relative to their size but also have the best rates of employment growth and sales growth, according to a study that used data from the World Bank Enterprise Surveys (ES) database on 49,370 enterprises in 104 countries (Yeboah, 2021). From Malaysia's perspective, SMEs are the backbone of Malaysia's economy, playing a significant role in economic growth, job creation, and innovation. Like many developing nations, Malaysia depends heavily on its SME sector to foster entrepreneurship and advance socioeconomic development. Over 98% of all businesses in Malaysia are small and medium-sized enterprises (SMEs). Manufacturing, services, agriculture, and technology are some of these industries. The GDP of Malaysia is influenced by the total number of small and medium-sized businesses, or SMEs, that are active in various industries. Consequently, these sectors play a major role in the economic growth of the nation. These sectors have emerged as the most significant to the nation's economy based on the contributions made in the past by SMEs, and the government has taken action to support SMEs' expansion in these areas (Tahir et al., 2018).

SMEs account for about two-thirds of all jobs in the nation, making them vital sources of employment in addition to being important contributors to GDP. Additionally, SMEs play a crucial role as nodes in supply chains, promoting local economic development in both rural and urban regions and assisting in the expansion and competitiveness of bigger businesses. SMEs are consequently among the largest industries, encompassing a wide range of businesses in the manufacturing, trading, services, and agricultural sectors. Furthermore, 90% of all business organizations in certain countries are SMEs. Similarly, based on estimates from the Department of Statistics Malaysia (DOSM) for the year 2020, SMEs in Malaysia account for about 97.2% of all businesses. An overview of SMEs in Malaysia is given in Figure 1. In 2020, there were 1,151,339 SMEs in Malaysia, accounting for 97.2% of all firms, according to the DOSM. The Malaysia Statistical Business Register (MSBR)

has the latest recent statistics, which are the source of this data. Compared to the 1,086,157 SMEs that existed nationwide in 2016, almost 140,000 new enterprises have been founded. This has led to an average annual growth rate of 5.2% over the five years.

Figure 1: Overview of SMEs in Malaysia



The SME sector is significant for reasons other than just economics. SMEs frequently serve as engines for social mobility, giving people from all walks of life the chance to follow their dreams and participate in the entrepreneurial world. Additionally, by encouraging inclusive growth throughout Malaysia's several states and territories and decentralizing economic activity, SMEs support regional development. Small and medium-sized enterprises (SMEs) encounter several obstacles that impede their expansion and endurance. These difficulties include restricted financial resources, deficient infrastructure, onerous regulations, and challenges in attracting and retaining people. Furthermore, SMEs are especially susceptible to outside shocks and uncertainties, including shifts in the dynamics of the market, disruptions from new technologies, and downturns in the world economy. When compared to major corporations and SMEs in other industrialized nations, SME productivity in Malaysia is poor (SME Corporation Malaysia, 2012). The average productivity per worker for SMEs is RM 47,000, or about one-third that of large businesses. In contrast, SMEs in Singapore and the US are four and seven times more productive than SMEs in Malaysia, according to SME Corporation Malaysia (2012). Most SMEs in developing countries struggle with productivity issues (Ayyagari et al., 2011). Low productivity is an indicator of SME failure or crisis as well as a risk factor (Ropega, 2011).

SMEs are frequently exposed to threats from the inside as well as the outside. Uncertainty is rampant due to the rapid changes in the corporate environment. Innovation in new products, changing consumer preferences, and technological advancements are a few examples of this. SMEs are also susceptible to internal hazards, which include things like production disruption, technical malfunction, corruption, and human mistakes (Dickinson, 2001). SMEs need to be creative and continuously enhance their processes and practices to succeed in this environment (Bahri et al., 2011). In the current age of globalization, risk is a ubiquitous component shared by all industries, and it is typically perceived as a loss to a company. Risk is the potential for loss rather than an actual loss. Schieg (2006) defined risk as a deviation of a variable, either positively or negatively, from its expected value. Taillandier et al., (2015) asserted that organizational variables and human decision-making processes have the greatest influence on risk. This suggests that, depending on how an organization manages risk, risk can either present an opportunity or a threat. When risks materialize, they will influence the organization's performance in terms of cost, quality, and time, which will cause delays and difficulties in achieving the objectives.

Conversely, organizations may reduce and manage risks through careful planning and management, allowing them to turn hazards into opportunities that will increase their success. Organizations need to be ready for any unforeseen events or uncertainties that can develop in the future (Olson & Wu, 2010). This is because well-prepared organizations can identify the dangers that they may face, which enables them to create backup plans

in case these hazards materialize. Therefore, one tactic that SMEs may use to manage the risks is enterprise risk management or ERM. Effective risk management techniques are crucial for the resilience and survival of SMEs in Malaysia considering these difficulties. SMEs may improve their long-term sustainability, competitiveness, and agility by proactively recognizing, evaluating, and reducing risks and opportunities. SMEs in Malaysia, however, still use very few enterprise risk management (ERM) practices; this is because many of these companies lack the institutional backing, resources, and expertise needed to put in place strong risk management frameworks. Considering this, this article presents an overview of Malaysian SMEs' enterprise risk management procedures. By examining the current landscape of risk management in the SME sector, identifying key challenges and opportunities, and offering insights into potential strategies for improvement, this study aims to contribute to the enhancement of risk management capabilities and the overall resilience of SMEs in Malaysia.

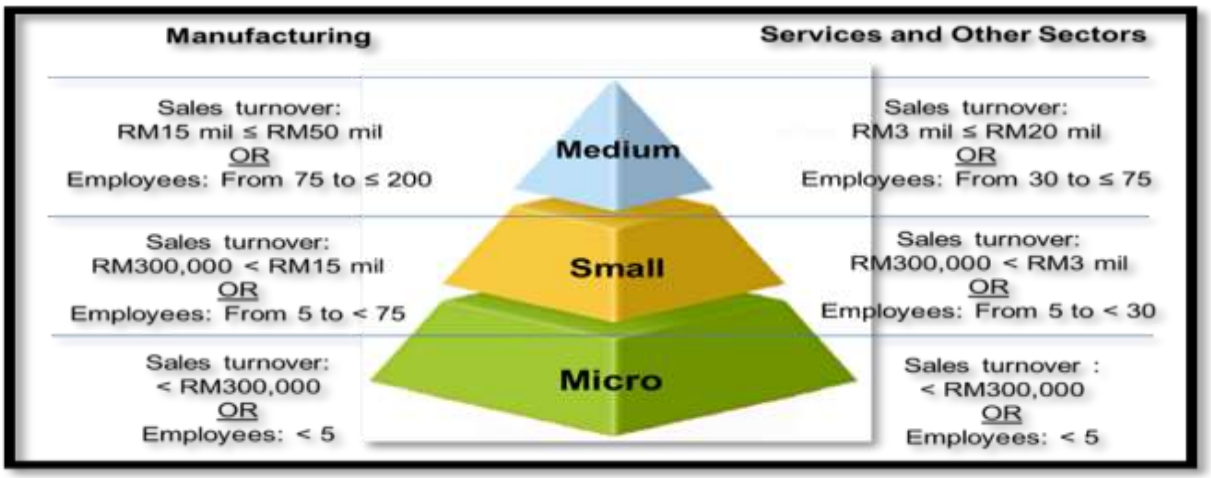
Problem Statement: One major issue that has contributed to the recent failure of some SMEs is management. Take, for example, the inability of Malaysian SMEs to establish marketing networks and their ignorance of marketing channels. The primary problems that Malaysian SMEs have, according to Muhammad (2011) and Hashim and Wafa (2002), are a lack of knowledge about branding, marketing tactics, and client loyalty as well as a lack of solid connections with both domestic and international companies (Khalique et al., 2011). In addition, Malaysia's SMEs are impacted by the Covid-19 pandemic. An event that people, groups, or organizations are unable to control by following regular, normal procedures is referred to as a crisis (Booth, 1993; Anthony et al., 2019; Lai, 2020). The author classified crises into three categories based on the study's findings: abrupt, periodic, and chronic threats. The COVID-19 epidemic is considered a "sudden threat" since it struck suddenly and caused a major global economic shock in addition to negative effects on health (Booth, 1993). During the lockdown phase, SMEs face significant hurdles such as interruptions to their company operations and temporary closures. According to Minister of Human Resources, Datuk Seri M Saravanan, 2,713 SMEs were compelled to shut down their activities between March and December 2020 because of the government's abrupt execution of the MCO.

Most SMEs are also affected by internal management issues, which result in staff members suffering from pay cuts or nonpayment of salaries. Poor management, which increases the possibility of termination or closure, is a common cause of organizational failures. Consequently, it is critical for any organization and society to increase managerial effectiveness and effective risk management (Muniapan, 2007). Interaction between internal and external stakeholders is necessary for risk management (Kutsch & Hall, 2010). To foster a sense of individual accountability for risks and their management, the entire management team needs to be included in the risk management process (Project Management Institute, 2004). A follow-up study found that a behavior approach is required since it is becoming clear that employee conduct and attitude affect their ability to recognize danger in the workplace (Curty et al., 2017). Prior years have seen a greater emphasis on improving compliance behavior, specifically on adhering to safety norms and regulations (DeJoy et al., 2004). For example, safety studies have shown that most of these incidents are caused by human mistakes. Another name for this is “people risk." Therefore, it is critical to investigate how employees in SME manufacturing follow a set of procedures for risk management.

2. Literature Review

Malaysia's industrial industry and overall economy have risen dramatically since the country gained independence in 1957. After relying heavily on "natural" resources like tin and rubber, it began to diversify into other natural resources, such as palm oil. Malaysia has developed a great number of manufacturing sectors unrelated to its natural resource bases, such as the palm oil processing industry, even though it has also established several unrelated manufacturing sectors like steel and automotive industries. Figure 2 defines the manufacturing micro firm as one that employs less than five full-time workers or has an annual sales turnover of less than RM 300,000. A small business has a sales turnover of between RM300,000 and less than RM15 million, or five to fewer than 75 full-time employees. SME Corp. Malaysia (2013) defines medium-sized businesses as those with 75–200 full-time employees or RM15–50 million in annual sales.

Figure 2: Detailed Definition of SME Category



Risk: In his 1997 book Against the Gods, financial journalist Peter Bernstein claimed that the term "risk" came from the ancient Italian word "Risco" or "Risicare," which means to dare. A careful reading of the literature demonstrates that there is no clear definition for the concept of risk. Risk, according to Teoh and Muthuveloo (2015), is the chance that the outcome of a procedure will not meet expectations. On the other hand, the risk was described by Mhetre, Konnur, and Landage (2016) as any event or action that will affect the project's goals being achieved.

Risk Management: Risk management is a method that involves determining the origins of hazards from many domains, assessing the risks, and using suitable measures to mitigate them (Zou, Zhang, & Wang, 2006). Effective risk management, according to the authors, can help organizations better identify the dangers they will face and get ready to handle them. According to Zavadskas et al., (2010), risk management is a continuous process that involves identifying risk sources, evaluating risk consequences, developing coping mechanisms, and getting feedback from organizations to improve risk response plans. This procedure helps guarantee that the goals of the organization are accomplished. In addition, Banaitiene and Banaitis (2012) presented a similar viewpoint on risk management in their study, stating that risk management is an iterative process that is methodically carried out from the project's planning phase to its completion.

Traditional Risk Management: According to Madushanki and Ekanayake (2022), TRM aims to address management issues related to exposures that have the potential to cause either a loss or no change at all. The total risk profile of the institution and the impact of risks on accomplishing the organization's strategic goals are not considered by TRM, even though it enables institutions to assign risk management to the specific units most impacted by risks. As the benefits of TRM, in a world that is more linked and complicated, became apparent over time, the shift to ERM started. As time and technology advance, organizations are becoming more conscious of the significance of risk management. Consequently, systematic risk management, or ERM, was adopted as a means of effectively identifying and responding to risks (Woon et al., 2011).

Enterprise Risk Management: ERM is based on the concept of risk management. Published in 1963, Risk Management in the Business Enterprise was the first risk management textbook. Maximizing a company's productive efficiency is risk management's first main objective (Zhu et al., 2023). Moreover, risk management has a long and contentious history in academic finance research. Finance experts used to think that corporate risk management is either obsolete or useless. Moreover, ERM has been around for more than 20 years; it is not a new practice. The first evidence of these operations dates back to 1998, according to Colquitt, Hoyt, and Lee's 1999 publication of the first academic study on ERM (Hoyt & Liebenberg, 2011; Iyer et al., 2010). The first ERM study was carried out by Colquitt et al., (1999), who looked at managers' responsibility for non-operational risks and the tactics they employ to reduce certain risks. Because of this, most ERM research has been published in peer-reviewed insurance and accounting publications, with a bias towards the use of management control systems and quantitative risk analysis (Iyer et al., 2010).

Landsittel and Rittenberg (2010) argued that ERM research ought to go beyond summarizing state-of-the-art methods. According to Iyer et al. (2010), since ERM research does not readily fit into any one subject, it can be analyzed from a range of management theory viewpoints. A study of the literature indicates that operational, strategic, financial, and hazard risk are the four main categories of risk that have been the subject of most prior research (D'Arcy, 2001; CAS, 2003; Cassidy, 2005). The researchers can conclude that risk management ought to encompass more than just the individual assessment of various risk kinds. The establishment of ERM in the late 1990s should have been the result of an integrated, comprehensive evaluation of many forms of risk. Cassidy (2005) claimed that planning, organizing, leading, and controlling (POLC) organizations are the birthplace of enterprise risk management (ERM), which includes programming for reorganizing an organization's processes to reduce risk. Additionally, it appears that ERP is a vital tool for businesses to look at when maximizing good effects and minimizing negative ones. More importantly, there have been major advantages for organizations that have adopted a more integrated strategy to control organizational risks. These advantages extend beyond organizations to include members and future successes (Lam, 2000). Implementing Enterprise Risk Management (ERM) has the potential to enhance a company's risk awareness and decision-making capabilities, ultimately leading to better firm performance (Razali et al., 2011).

Definition of Enterprise Risk Management: Smit and Watkins (2012) stated that for management to create a risk strategy that will address possible hazards as they materialize, risk management practices must be used. Since management will oversee organizing steps to lessen the likelihood of potential dangers, they must be equipped with risk management abilities. ERM is defined in several different ways. Enterprise risk management (ERM)—also referred to as "enterprise-wide risk management," "corporate risk management," "strategic risk management," "business risk management," "holistic risk management," and "integrated risk management"—is the most employed method by businesses to address uncertainty (D'Arcy, 2001). In the 1990s, it "exploded" (Arena et al., 2010). It is based on the function of internal controls which aims to offer a managerial viewpoint on a respectable level of certainty regarding the accomplishment of the organization's objectives (COSO, 2004). By incorporating risk management into goal-positioning and corporate strategy, which in turn influences accountability, control, and decision-making, ERM seeks to move beyond. To increase the value that organizations gain, enterprise risk management (ERM) is defined as an integrated framework that may be used to manage a variety of risks, including credit, market, operational, economic, political, and social risks (Lam, 2000). Instead of responding and reacting after threats have materialized and damage has been done, enterprise risk management (ERM) entails planning and anticipating organizational risks before problems arise (Barton et al., 2002). The definition of risk management given by Liebenberg and Hoyt (2003) is a systematic approach to risk control that shifts the focus of risk management from being largely defensive to being more aggressive and strategic.

Enterprise Risk Management Frameworks: There are several different ERM models in use now. However, the most utilized model is the Committee of Sponsoring Organizations of the Treadway Commission (COSO) model (Arena et al., 2010; Wan Daud et al., 2010; Tahir et al., 2018; Razali et al., 2011; Yazid et al., 2011). The evaluation of ERM in this study is based on the COSO model. The internal control-integrated structure developed by COSO serves as the foundation for the ERM methodology. Published in 1992, this framework attempts to offer a broad approach to the management of internal control systems. The framework creates a framework for risk management. The eight components represented by the horizontal rows are the internal environment, goal setting, event detection, risk assessment, risk response, control actions, information and communication, and monitoring. The vertical columns stand for the four objective categories: strategic, operational, reporting, and compliance. An entity's subsidiary, business unit, division, and entity level are the entities that make up its third dimension. The picture in Figure 3 illustrates the ability to concentrate on a certain target category, element, entity unit, or subset of an organization's enterprise risk management.

Figure 3: COSO's ERM Integrated Framework

Source: Imported from COSO (2004).

The eight interrelated parts of this framework, which are drawn from how management functions inside an organization, are included in the management process. The internal environment, which describes an organization's mindset and how its people view and handle risk, is the first of these elements. It also encompasses the operational environment, integrity and ethical standards, and the attitude and appetite for risk management. Objective setting is the second part, which calls for the defining of goals before management recognizes any occurrences that could jeopardize their accomplishment. ERM guarantees that management has developed a goal-setting procedure and that the goals chosen are covered by, in line with, and compatible with the mission and risk tolerance of the institution. Thirdly, event identification necessitates assessing how internal and external events impact the accomplishment of an entity's objectives and modifying the ratio of opportunities to hazards. Next, risk assessment involves the risks being evaluated, which include the expectations and consequences that go along with them, and how they are used to determine the best course of action. The fifth part is risk response in which the management should select the proper reactions, such as avoiding, accepting, lowering, or involving risk in an increase in a series of activities, to match risks to the entity's risk appetite and tolerances. Following that, control activities entail determining and implementing methods and policies to guarantee that risk responses are executed to the greatest caliber. Information and communication is the seventh part where appropriate information is found, acquired, and disseminated so that individuals can fulfill their duties. Finally, in monitoring, the whole ERM process is overseen, and necessary adjustments are implemented. Monitoring is done through ongoing management activities, independent assessments, or both.

Uses and Benefits of Enterprise Risk Management: According to COSO (2004), Enterprise Risk Management (ERM) encompasses the creation of protocols to handle associated risks, assessment of strategic options, and synchronization of risk strategy and desire with the entity's risk tolerance. Second, risk acceptance, sharing, avoidance, and reduction are just a few of the various risk approaches that ERM helps managers identify and choose from. Third, ERM lowers operational surprises and losses by strengthening an organization's ability to foresee future occurrences and deal with them head-on, hence lowering shocks and related expenses or losses. Fourth, any business faces a variety of risks that affect many organizational components. Firm risk management (ERM) offers comprehensive and efficient responses to various risks along with efficient responses to the consequences that follow. Fifth, ERM assists management in identifying and taking advantage of opportunities proactively by considering a broad range of potential outcomes. This makes it easier for management to do so. Sixth, by improving capital deployment through the acquisition of reliable risk information, management can assess total capital requirements and optimize capital allocation. Organizations can accomplish the entity's performance and profitability goals while preventing income loss thanks to the performance indicators in ERM. With the use of the ERM, management can guarantee adequate coverage, adherence to legal requirements, and protection against potential risks and harm to the entity's integrity. In summary, Enterprise Risk Management (ERM) enables an organization to achieve its goals while mitigating risks and unforeseen circumstances.

Previous Studies of Enterprise Risk Management: Since the 1990s, the field of enterprise risk management (ERM) has expanded and developed along with the use of ERM. It is believed that Miller's 1992 paper, "A Framework for Integrated Risk Management in International Business," was the first to be published in an academic journal on ERM. Miller limited the definition of risks in this conceptual study to the unpredictability or uncertainty of organizational outcome determinants. Miller presented a counterargument to the innovative method of managing risk independently of the other. Additionally, Miller popularized the integrated risk management approach, which accounts for a range of variables. In 1998, Robert Schneier and Jerry Miccolis, who are strategy and risk consultants at Tillinghast Towers Perrin, unveiled new ideas in risk management, which are referred to as enterprise risk management. They did so because they comprehensively addressed all the organization's major risks at the enterprise level. A new era in the field of ERM has now been brought about by a notable increase in interest in academic research on the subject. Some of the recurrent study topics in the ERM literature are the components of ERM adoption, the financial characteristics of ERM adopters, ERM practices, its impact on the value and performance of organizations, and, to a lesser extent, the effectiveness of ERM in risk management.

The engagement of senior management, which includes the Chief Risk Officer (CRO), the Board of Directors (BOD), and internal audit, is another area that seems to be being investigated. Previous research addressed a variety of topics, such as the origins and effects of ERM. For example, Holton (1996) discovered that when analyzing the components of ERM implementation, internal factors influence efficacy. The study's findings suggest that technology, organizational culture, and rules all have a big influence on risk management in companies. According to this study, BOD members and people alike need to be ready to handle risks associated with the corporate culture. Nonetheless, to comply with ERM, organizations also rely on procedures to modify current procedures. One of the first investigations of the factors influencing the use of ERM in businesses was carried out by Kleffner et al. (2003). The poll indicates that more than one-third of participants have put ERM into practice, and a higher proportion of the remaining participants are headed their way. Organizational structure and a general aversion to change were determined to be the primary barriers to the adoption of ERM. On the other hand, the strategy's advocates included the support of the Board of Directors, the impact of the Risk Manager, and adherence to Stock Exchange guidelines.

Beasley et al. (2009) stated that senior management and the board must take the lead in promoting the broad adoption of ERM. The study concluded that assessing the amount of ERM implementation also requires an understanding of other organizational features, such as size, industry, auditor type, and place of residence. To determine the financial characteristics of ERM adopters, early ERM studies are typically exploratory (Lam, 2000; Kleffner et al., 2003; Liebenberg & Hoyt, 2003; Pagach & Warr, 2007; Lin et al., 2012). For instance, Liebenberg and Hoyt (2003) found companies that use a lot of leverage are more likely to designate CROs. As a result, companies that bear greater risk are more likely to employ ERM. Similar conclusions are reached by Pagach and Warr (2007), who found companies that have a history of volatility, high debt levels, and underperformance in the stock market are more likely to utilize ERM. According to Lin et al. (2012), insurers with bigger reinsurance ratios and more varied geographic portfolios tend to use ERM more frequently. The study also found that insurers seem to purchase less reinsurance and have less volatility in their asset portfolios after implementing ERM while increasing their positions in derivatives.

This suggests that insurers reduce the costs associated with reinsurance and increase the costs associated with financial risk by using more derivatives and having less volatile asset portfolios. Research on ERM is still being conducted generally in Malaysia (Manab et al., 2010). For instance, Lai and Samad (2011) investigated how ERM affected organizational performance. Razali et al., (2011) divided the companies in the same year into two groups: (1) ERM adoption and (2) factors impacting ERM adoption. Meanwhile, a study was carried out by Soltanizadeh et al., (2014) to ascertain the extent of ERM adoption across Malaysian enterprises in various industries. Determining the degree of ERM adoption across Malaysian publicly listed firms is the aim of that study. The results from 199 businesses that are listed on the Bursa Malaysia showed that there are differences in ERM implementation between industries, with the infrastructure, hotel, and technology sectors using it the most. The earlier study demonstrated that different writers have examined the efficacy of ERM on many occasions, albeit they have focused on different industries and nations. The theme and dependent variable in this study will be the effectiveness of ERM; however, the research was limited to the manufacturing sector in Malaysia.

Enterprise Risk Management in SMEs: SMEs need to manage risks and create risk models to succeed in such a competitive market (Yang et al., 2018; Tan & Lee, 2022). On the other hand, the risks that put SMEs' competitive advantages in jeopardy are usually related to the creation of new niche competitors, globalization, laws, and innovative technology (Laforet & Tann, 2006). ERM helps them recognize opportunities, assess risks, and implement innovative business concepts. SMEs frequently have low financial and human resource availability, which further increases their susceptibility to external economic shocks (Rehman & Anwar, 2019). Such shocks may be lessened by ERM (Yang et al., 2018). Remember that ERM could add significantly to an SME's costs, further straining its already thin budget. Furthermore, entrepreneurs may be able to identify risks immediately without having to formalize or disclose information (Cantonnet et al., 2019). Therefore, ERM has no direct impact on SMEs' performance quality. It is critical to evaluate this underlying relationship between ERM and SMEs' performance since informal management techniques are prevalent in SMEs and applying ERM can be expensive (Brustbauer, 2014). Rehman and Anwar (2019) claimed that ERM research with SME samples is still in its infancy.

According to what is already known, ERM may moderate the creation of competitive advantages (Yang et al., 2018) and some ERM components may affect how well SMEs perform (Yakob et al., 2020). When participating in any informal decision-making process, keep in mind that most SMEs are family-run companies (Chua et al., 2012). Only 18% of manufacturing organizations experimentally adopt ERM and execute risk management in their strategic business activities (Yazid et al., 2012). According to earlier research, only 43% of publicly traded corporations utilize ERM (Wan Daud et al., 2010). Malaysia is still trailing behind in the ERM's adoption. Good risk management strategies therefore enable businesses to accomplish their objectives and increase the value of their stakeholders (Yazid et al., 2008). Furthermore, organizations can maximize profits by fully utilizing their resources with an effective ERM implementation (Yakob et al., 2020). In fact, according to the recently updated COSO ERM framework, integrating ERM across entities will provide several advantages, such as raising opportunities, recognizing, and controlling risks among entities, promoting favorable results and benefits, reducing unfavorable shocks, reducing performance variability, boosting resource utilization, and raising firm value. Businesses may efficiently control and reduce their risk exposure by implementing ERM, which helps the business achieve its objectives.

3. Discussion

A study by Abidin (2015) found that risk behavior and ERM have a big impact on R&D project success. Risk behavior would dictate how ERM is implemented because the two are interrelated. Therefore, it could have a favorable or negative impact on how ERM is implemented and how often R&D projects succeed. Promoting positive risk behavior in team members, project managers, and other stakeholders is essential to increase the efficacy of research and development projects. Furthermore, Ahmad (2014) demonstrated that risk behavior has a substantial impact on the ERM since it is individualized, subject to change, and can have a favorable or negative effect on risk. Because of this, it is very important to pay attention to employee behavior rather than merely protocol and law. In the oil and gas platform construction sector, employee beliefs, practices, and behaviors around risk need to be integrated into the organization's culture in addition to the successful application of risk management techniques. This needs to be continuously assessed. According to Trimpop (1994), risk behavior is any regulated behavior, whether conscious or unconscious, that is judged to be unclear in terms of its outcome and/or possible advantages or costs to the physical, financial, or psychological well-being of the individual or others. Danger behavior, according to Rohrmann (2004), is the actual actions people take when faced with danger.

In addition, Sitkin and Pablo (1992) defined risk behavior as the level of risk associated with making decisions. Cultural, psychological, habitual, and motivational factors are used to categorize risky behavior (van Winsen et al., 2011). A few of the studied hypotheses have something to do with risky behavior. According to Cyert and March's (1963) behavioral theory, an organization is a coalition of individuals. This indicates that a company is composed of a variety of people, such as shareholders, employees, and upper management. This aims to forecast decision-making procedures as well as organizational behavior. It can also anticipate and comprehend what supervisors or individuals do, as opposed to what they ought to do. It combines decision-making and development, which generates more concepts and inventions (Greve, 2003). According to behavioral theory, management will act differently to improve an acquired unit's performance when it deviates from

predetermined benchmarks. The idea that a manager's success rate is based on their actions or behaviors is another way to characterize the theory. In a roundabout way, this notion also inspires individuals to become outstanding leaders.

This idea emphasizes that managers' actions or the support of upper management will impact the performance of the organization when it comes to risk behavior. Organizational operations may be impacted by the degree of risk behavior and the response of top management to risk (Jung et al., 2020). According to Dewett (2006), risk behavior may change depending on the CEOs' leadership style. If risks are to be appropriately assessed and effectively managed, research must concentrate on the factors that lead to risky behavior in the workplace. Considering the organizational, economic, and societal changes that followed the 2008 financial crisis, a contemporary core issue is the need for a deeper understanding of the psychological aspects of risk management within organizations to design effective reward and recognition policies (Sartori, Ceschi, & Costantini, 2015). Furthermore, researchers have found that organizational structure is one of the most important success criteria for risk management in a company (Agoi, 2013); Banasadegh et al., 2014; Carey, 2011; Yaraghi & Langhe, 2011). Meanwhile, studies have also discovered that organizational structure plays a critical role in the effectiveness of risk management systems (Yaraghi & Langhe, 2011; Carey, 2011). The importance of organizational structure on the effectiveness of risk management in financial institutions is emphasized in the study.

Top Management Support: Regardless of whether the study is focused on ERM adoption or effectiveness, senior management support is the variable that is most frequently highlighted in ERM studies. Top management is necessary for effective risk management (Kaplan & Mikes, 2014). Effectiveness of ERM (Togok, 2016), risk management (Banasadegh, Riahi, & Davari, 2014; Cooper, Faseruk, & Khan, 2013; Maina, Mbabazize, & Kibachia, 2016; Ngundo, 2014), security risk management (Zafar et al., 2011), and risk management success (Agoi, 2013) are all directly correlated with top management support. Academic studies have indicated that one of the most important success factors for risk management is upper management support. For example, Agoi (2013) discussed the idea that commitment and leadership are crucial success factors for risk management. Banasadegh et al. (2014) investigated the significance of these factors for risk management in Iran's oil and gas industry while Zafar et al., (2011) presented the importance of executive management support for the goal of security risk management effectiveness. According to an empirical study by Ngundo (2014), risk management efficacy in Kenyan public housing construction projects is significantly and directly impacted by top management support. According to the findings of other researchers, such as Sax and Torp (2015), risk management performance is directly and significantly impacted by participative leadership styles.

Maina et al., (2016) found that the effectiveness of risk management in a public housing construction project in Rwanda is significantly and directly impacted by top management support. Additionally, the researchers found that poor support from upper management for the risk management process results in inadequate resource allocation, as well as poor participation and decision-making from upper management, all of which have an impact on the effectiveness of risk management. Furthermore, there is no direct effect and a negligible relationship between top management support and commitment and risk management effectiveness among Thai financial institutions. However, the findings do suggest that top management support and commitment are critical to effective risk management (Ranong & Phuenngam, 2009). Most studies looked at how top management support directly affects the dependent variables (Ngundo, 2014; Ranong & Phuenngam, 2009). On the other hand, several studies looked at the direct or indirect effects of top management support on the variables being studied (Togok, 2016). The results of a study by Togok (2016) showed that organizational culture has an indirect impact on ERM effectiveness, but tone from the top also has a substantial direct impact. Additionally, Ngundo (2014) discovered an indirect relationship—which is already mediated by organizational structure, procedures, and systems—between risk management efficacy and top management support. Consequently, this study's goal is to ascertain how top management support directly affects the efficacy of ERM.

Reward and Recognition: The impact of reward and recognition on the efficacy of ERM has not been thoroughly studied in the field of ERM studies. However, according to Carey (2011), who employs the Turnbull approach, compensation concerns are crucial to risk management. Because pay policies have an impact on employee conduct, the researcher highlights the importance of remuneration rules in an organization, such as bonuses paid to staff. Consequently, it is critical to pay attention to an organization's reward and recognition

programs since they have an impact on employee performance, which in turn has an impact on risk management performance. A study by Yaraghi and Langhe (2011) found a strong correlation between the performance of risk management systems and reward and recognition systems, classifying both as essential success criteria for risk management systems. Gibson (2012) found a substantial association between effective compensation and incentives on risk management adoption in South African financial services organizations, which validated the prior findings by Yaraghi and Langhe (2011). In line with the findings of Abdullah et al. (2007) regarding organizational achievement of the nation's electrical and electronic sector with reward and recognition, Abdullah et al. (2008) also discovered a significant and direct relationship between reward and recognition with the performance improvement among Malaysian electrical and electronic firms. Thus, the purpose of this study is to determine how reward and recognition directly affect the effectiveness of ERM.

Organizational Structure: While research on the effectiveness of ERM is scarce, most previous studies on the effects of organizational structure have focused on financial performance (Laisasikorn & Rompho, 2014), risk management success (Agoi, 2013), and effectiveness of risk management (Carey, 2011; Ngundo, 2014; Ranong & Phuenngam, 2009). Togok (2016) found no significant relationship between organizational structure and ERM effectiveness in publicly traded Malaysian companies. Previous research (Ranong & Phuenngam, 2009) demonstrated a noteworthy association between organizational structure and the use of risk management in Thai financial institutions, which further supports the findings. Various scholars have stated that organizational structure is a critical success factor for risk management in business (Agoi, 2013; Banasadegh et al., 2014; Carey, 2011; Yaraghi & Langhe, 2011). Carey's (2011) study, which emphasized the importance of organizational structure on risk management efficacy in financial institutions, supported Yaraghi and Langhe's (2011) discovery that organizational structure is a significant success factor for risk management systems.

Perceived Effectiveness in ERM Practices: To ascertain the proper match with organizational features, contingency research has identified ERM effectiveness as a necessary dependent variable (Otley, 1980; Merchant & Simons, 1986). According to Beasley et al. (2006), an effective ERM program must meet several conditions. The authors stated that incentive programs and performance monitoring should be incorporated into a strong ERM program. The following year saw the publication of a manual on best practices for creating an efficient ERM program (Collier et al., 2007), which serves to emphasize the need for an efficient ERM of risk management. The studies by Paape and Speklé (2011), Jalal et al., (2011), Arnold (2010), Gordon et al., (2009), and Collier et al. (2007) are among the few that discussed the successful implementation of ERM programming. According to Gordon et al., (2009), the relationship between ERM effectiveness and organization performance depends on how well it fits with a few firm-impacting contingency components. Collier et al. (2007) investigated efficient risk management techniques at the highest level of aggregation using wide categories of activities as independent variables. A study evaluating the effectiveness of risk management recommendations provided to local authorities found that there may be a chance to develop a will to adopt effective risk management if the concepts are firmly embedded in the operational procedures.

In their 2012 study, Paape and Speklé (2011) concentrated on the correlation between particular risk management decision-making and how it affected the perception of risk management methods' efficacy, finding a positive relationship between the two. Conversely, Arnold (2010) investigated how organizational structure and its capacity to adapt to changes in the volatile business environment are impacted by the strategic benefits of ERM techniques. The results show that an organization's strategic flexibility is strongly predictive of how effective its ERM practices are; this link is somewhat mediated by IT compatibility, or the capacity to access and use enterprise-wide data from all organizational systems (Arnold, 2010). Based solely on the stories of chief internal audit executives, the study may not be representative of the public and lacks a diverse viewpoint on the experiences of other chief executives. This is because the chief audit executives represent just one respondent, which introduces bias into the analysis. Overall, the study showed that integrating new regulatory standards is not too challenging for organizations that already have flexible organizational structures and effective ERM practices in place. Conversely, companies that do not have strong ERM procedures in place before the introduction of new rules found it more difficult to comply with the regulations and have poorer implementation strategies. The second study by Jalal et al. (2011) attempted to provide empirical evidence that the eight elements of the ERM framework developed by COSO (2004) are the requirements for an efficient and prosperous ERM project. Nevertheless, only four of the eight useful elements of a strong ERM are used by the researchers in their analysis (Jalal et al., 2011).

4. Significance and Contribution of Research

In this section, the relevance and contribution will be discussed in terms of both theoretical and practical components. Practically speaking, the researchers anticipate that the study's results will show that ERM significantly affects effectiveness and will provide industrial participants the confidence to use ERM in their operations. The methodology in this study is anticipated to uncover gaps between ERM's strengths and limitations which help and encourage its implementation in the manufacturing sector. Therefore, for Malaysia's SME manufacturing industry to thrive in the global market, effective ERM implementation is essential. The results of the study will guarantee a thorough comprehension of the function of ERM in the expansion and advancement of businesses. It is anticipated that the researcher and practitioners will both profit from the findings. In addition, this study adds Knowledge Management (KM), a novel variable and mediator in the ERM framework that is absent from earlier studies. It is thought to play a role in the process of risk behaviors and enhance the efficacy of ERM procedures. It also yields important findings for governments, business, and academia. Corporate governance regulatory bodies may utilize these results to develop new policies and procedures governing an organization's risk management procedures. In addition, the results will show how Malaysians, both in the country and across all industries, have adopted ERM in comparison to other emerging nations worldwide.

To make a theoretical contribution, the current study uses KM as a mediator to examine the relationship between risk behaviors and their effects on effectiveness. The results will aid in the comprehension of ERM in the manufacturing industry for SMEs in Malaysia. This study will validate and offer empirical evidence to support the findings in academia. The created and proven hypotheses of this study will fill a research gap by offering a dependable and verified framework and source material. This study aims to examine how risky behaviors affect the efficacy of ERM procedures. Additionally, a mediator is found, with a particular focus on the manufacturing industry. Research on ERM in developing nations will advance the understanding of ERM generally which could help to create a unique ERM framework. To meet new business difficulties, the application of ERM practices has been enhanced. To obtain more proof of the efficacy of ERM, certain writers have emphasized the significance of empirical research (Razali et al., 2011; Wan Daud et al., 2010; Rasid & Rahman, 2009; Pagach & Warr, 2010). Unlike earlier research, this study offers a thorough framework that considers mediators in the relationship between risk behaviors and the efficacy of ERM practices in the Malaysian setting. However, there are not many empirical studies—especially in the manufacturing sector—that look at the connection between risky behavior and the efficacy of ERM methods.

5. Conclusion and Recommendations

In conclusion, this paper has provided a comprehensive overview of ERM practices in Malaysian SMEs. Through the examination of previous studies, it becomes evident that while there is a growing body of literature on ERM, there remains a significant gap in research specifically tailored to the SME sector in Malaysia. This underscores the need for further empirical investigation to deepen the understanding of how ERM is implemented and perceived, and its impact within this vital segment of the Malaysian economy. Furthermore, the discussion highlighted the myriad of benefits that effective ERM implementation can bring to SMEs in Malaysia. From enhancing decision-making processes to improving operational efficiency and financial performance, ERM enables SMEs to navigate uncertainties and seize opportunities with greater confidence. By fostering a risk-aware culture and integrating risk management into strategic planning, SMEs can build resilience and adaptability, thereby enhancing their long-term sustainability and competitiveness in the marketplace.

The effectiveness of ERM within SMEs is contingent upon various factors, as discussed. Foremost among these is top management support. Without strong endorsement and commitment from senior leadership, ERM initiatives are likely to falter. Therefore, SMES must cultivate a culture of risk awareness from the top down, where executives champion risk management efforts and allocate necessary resources for their implementation and sustenance. Moreover, the role of reward and recognition mechanisms cannot be overstated in driving ERM effectiveness within SMEs. Incentivizing and acknowledging employees' contributions to risk management efforts can serve as powerful motivators, fostering greater engagement and commitment across all levels of the organization. By tying performance metrics to risk management goals, SMEs can align individual and organizational objectives, reinforcing the importance of ERM in achieving

business success.

Additionally, the discussion emphasized the importance of organizational structure in facilitating ERM effectiveness. A well-defined and integrated organizational structure enables SMEs to streamline risk management processes, enhance communication and coordination, and allocate resources efficiently. By embedding risk management responsibilities into job roles and delineating reporting lines, SMEs can ensure accountability and transparency in their ERM practices, driving continuous improvement and resilience-building efforts. In summary, while challenges may exist in implementing and optimizing ERM practices within Malaysian SMEs, the potential benefits are significant. By leveraging the insights gleaned from previous studies and prioritizing top management support, reward and recognition, and organizational structure alignment, SMEs in Malaysia can harness the transformative power of ERM to mitigate risks, capitalize on opportunities, and achieve sustainable growth in an ever-evolving business landscape.

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