

# COSO ENTERPRISE RISK MANAGEMENT: SMALL-MEDIUM ENTERPRISES EVIDENCE

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## ABSTRACT

The implementation of Enterprise Risk Management (ERM) is vital for all types of organisation including the small and medium enterprises (SMEs). Thus, the objective of this study was to examine perception of the ERM framework among SMEs in Malaysia, and to analyse its effect on sales performance. ERM is becoming an issue of high concern among organisations. This is because it is hailed as one of the most important framework to provide a clear direction and guidance in managing the risks of enterprises, so that the organisation is able to minimise risk and losses. In this study, a survey of one hundred and fifty-two (152) SMEs was conducted and the data was analysed using regression analysis. This study found that SMEs focus heavily on the “control environment” and “risk appetite” components. These two (2) components were ranked as the top ERM framework by SMEs in Malaysia. The Regression result suggests that “assessing risk management”, “control activities”, “information and communication” and “monitoring” components proved to have a significant effect on sales. This paper further contributes to knowledge development on ERM framework and the influences of its components on sales performance from a dynamic capability perspective of SMEs. SMEs should primarily consider the influence of dynamic capabilities and changing resources in their organisations when practising ERM for its survival.

**Keywords:** COSO, enterprise risk management, small-medium enterprise, Malaysia

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### ARTICLE INFO

**Article History:**

*Received: 14 January 2018*

*Accepted: 3 April 2018*

*Published: 31 August 2018*

## **INTRODUCTION**

The word “risk” becomes derogatory, especially during an economic turndown and the undertaking of calculated risks in a competitive environment, which distinguishes winners from losers (Ahmad, Halim & Zainal, 2010). Enterprise risk management (ERM) is a method which affects anyone in any rank of an organisation, pertaining to strategy setting. It helps to recognise possible events affecting the organisation, such as to manage risk within its risk appetite and to give a realistic reassurance concerning the achievement related to the organisation’s goal. According to the 2004 Committee of Sponsoring Organizations (COSO), the ERM framework has become an issue of high concern among organisations, as it provides a clear direction and guidance in managing enterprise risk so that companies can minimise risk and losses (COSO, 2004). ERM is defined as a strategic process set by a company’s board of directors by identifying the potential risks, and managing the company within its risk appetite that may affect its profit. If potential negative events exist, organisations should place it as a high priority as it would affect the ERM in examining these risks (COSO, 2004). ERM proposes organisational integrated risk management with alignment to strategy and corporate governance (Bromiley, McShane, Nair and Rustambekov, 2015). The implementation of ERM would ensure the effective reporting of the situation and pre-empt damages to the organisation’s reputation. Thus, it ensures the board of directors’ benefits and reputation can be retained. ERM is categorised into four groups: strategic, operations, reporting, and compliance (COSO, 2004). This systematic strategy setting enables the company to minimise losses of capital and resources. Thus, ERM enables the organisation to deal with uncertainties and in a way helps to optimise the effectiveness of the organisation in risk management.

Small and medium-sized enterprises (SMEs) play an important role in Malaysia’s economy as they increased from 97.3% in year 2011 to 98.5% of total establishments, contributing over 65.3% of employment opportunities in 2016 (SME Annual Report 2016/2017). Despite a weak external environment, Malaysian SMEs contributed 36.6% to the national Gross Domestic Product (GDP) and 18.6% to the country’s export (SME Annual Report 2016/2017). The SMEs were less affected than the overall business environment because of the proactive measures taken by the government. This includes, among others:

1. Bank Negara Malaysia offering a RM500 million Special Relief Facility to finance SMEs in order to increase private investment, (Lee, 2015),
2. SMEs also received RM5 billion from the Services Sector Guarantee Scheme with a 70% government guarantee for a maximum funding of RM5 million (MIDA, 2017),
3. Malaysian government also introduced SME-Go via SME Bank, an export programme initiative for SMEs to intensify exports and encourage local purchases of goods and services (Lee, 2015),
4. Government agencies and GLCs allocated 30% of the procurement for the purchase of goods and services from local SMEs producers, and they are encouraged to invest locally (MIDA, 2017),
5. Government approved 125 projects for integrated assistance under the High Impact Programmes (HIPs) – Technology Commercialisation Platform in 2016,
6. Bursa Malaysia launched the Leading Entrepreneur Accelerator Platform (LEAP) Market for SMEs to raise capital in 2017, and
7. The SMEs were targeted to grow in the range of 5.5% to 6% in line with the national growth of more than 4.8% (SME Annual Report 2016/2017).

Meanwhile, the Malaysian Code of Corporate Governance (MCCG) (2017) stated that corporate governance, risk and controls (GRC) should be implemented by companies. This is used as a guide to direct and manage companies in order to enhance the effectiveness and long term business profitability (Mahzan & Chia, 2013). It plays an important role, as it could impact overall corporate performance and efficiency of asset usage. MCCG also encourages proper implementation of risk management and internal control by the board of directors (BOD) to ensure the company's goals can be achieved (Mahzan & Chia, 2013). Better risk management and internal control could lead to a better board decisions and ensure the company's generation of higher profit.

However, some Malaysian SMEs failed to adopt the system of corporate governance due to poor awareness of its benefits towards corporate performance (Mahzan & Chia, 2013). Besides, SMEs will incur higher costs if they decide to implement corporate governance. The inclusion of higher cost to set up the system could be a heavy burden to SMEs (Falkner & Hiebl, 2015), however, its implementation could bring long term benefits that may offset the costs.

In addition, participation of all parties is likely to make the framework more successful especially the regulators and BOD of SMEs (Falkner & Hiebl, 2015). Moreover, proper and clearer guidance could provide insights to SMEs on issues related to corporate governance and risk management (Falkner & Hiebl, 2015). The regulators should be responsible in creating better awareness on the benefits of risk management (Falkner & Hiebl, 2015). Currently, Malaysia SMEs' awareness on risk management is very limited. Therefore, immediate participation of all parties is necessary for the success on implementing better risk governance. Hence, the objective of this paper is to (1) examine the perception of the ERM framework by Malaysian SMEs, (2) evaluate whether various COSO ERM components increase firm performance. This paper is presented as the following: the next section presents the theoretical perspectives, followed by a literature review and hypothesis development. The subsequent section presents the methodology; findings and conclusions are discussed in the last two sections of this paper.

## **THEORETICAL PERSPECTIVE**

From a resource-based perspective, risk management provides a framework to set priorities in a complex business environment, because all organisations are subjected to an unlimited amount of potential risks. Management is not able to deal with all these risks, as they need to have the tools to identify and focus on potential threats that would have the greatest impact on the survival of their organisations. Bogodistov and Wohlgemuth (2017) propose that organisations should invest into the avoidance, mitigation or transfer of valuable (V), rare (R), inimitable (I) and non-substitutable (N) resources related risks. According to Barney (1991), a procedure, a capability and a competence can be a resource to any organisation. The core competences

that meet the VRIN criteria become potential risks with the highest impact, because they are the main source of expected revenue for the survival of the organisation. Hence, risks associated to the core competences should be dealt with first, if possible, it should be avoided completely or reduced to a minimum level. Risk management capability allows an organisation to create value through elimination and mitigation of internal and external events that threatens its survival.

Barley (1995) suggests that environmental analysis alone is not adequate to build organisational competitive advantage, firms need to identify VRIO resources and capabilities to exploit opportunities and/or neutralise threats. VRIO refers to Valuable, Rare, not Imitable by competitors and to be able to Organise to maintain competitive advantage. In today's stormy environment, VRIO is essential to sustain competitive advantage and to develop strategies through innovation to achieve superior performance (Aghazadeh, 2015). Roxas and Chadee (2011) found resource-constrained firms in Philippines deployed their entrepreneurial tactics to exploit the relational capital in gaining export knowledge to reap superior performance. The result suggests that small firms are capable of proactive, innovative and risk taking endeavours those conventionally resource-intensive activities despite facing serious shortage of resources. Hence, this resource-based view proves that organisations can achieve and sustain their competitive advantage if they possess and mobilise tangible and intangible resources that are VRIO to improve organisational performance.

Business leaders claim that we now live in a VUCA world (Bennett & Lemoine, 2014). The components refer to the environment in terms of Volatility, Uncertainty, Complexity and Ambiguity (Kail, 2010). Strategic planning is considered to be a futile effort, unless they can differentiate conditions that are volatile, uncertain, complex and ambiguous; while allocating scarce resources to improve and maintain organisational performance during challenging situations. Strategy and planning requires organisation to make predictions and prepare for future challenges and opportunities. Organisations need to adopt a more adaptive strategic planning approach to less hierarchical, more agile and more sensitive to market changes (Satell, 2014, Martin, 2014).

According to Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece and Winter (2001), dynamic capability is the ability of an organisation to intentionally build, expand and change its resource base. Organisations should focus on dynamism of environmental uncertainty, and allocate necessary resources and capabilities to handle changes related to valuable, rare and imitable resources. The above dynamic capability perspectives support ERM as the tool to predict unforeseen events and help organisations to recover from risky events (Bogodistov and Wohlgemuth, 2017). This perspective suggests that organisations need to take a necessary course of action when they encounter unforeseen events, it emphasises that organisations should have routines and processes in order to recover from these events effectively. The risk management capability focusses on the process such as assessment of valuable, rare and not imitable-related risks at the strategic level and risk management process at the operational level. The management identifies the valuable rare and not imitable-resources to set priorities for risk management at the operational level, whereby they address the high priority risks first, only then manage the low priority risks. In addition, Krause and Tse (2016) propose risk management practices as a useful and valuable creation tool. The usage of risk management tools increases the firm's performance and lowers the cost of capital which results in higher firm values. Jing, Hua and Zhao (2014) found that firms that implemented ERM reported a higher profit and experienced lesser stock price volatility.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

Agency relationship involves the delegation of decision-making from a principal to an agent. Agents tend to use information to transfer wealth to themselves from others in the presence of informational asymmetries. Therefore, corporate governance and risk management must be in place to ensure that companies are governed to reduce the abuse of financial resources and risk of business failure (Ansong, 2013). However, in the context of SMEs, they may not be motivated to implement the risk management concept since there rarely is separation between ownership and management.

Malaysian SMEs rarely implement a fully functional risk management (RM) system with identification, evaluation, treatment and monitoring. Abu Bakar and Ahmad (2010) stressed that this is the reason why many Malaysian SMEs collapse within the first five years of their operations, as the owner does his own risk assessment. Malaysian entrepreneurs have limited experience to draw a systematic risk management framework, as they do not have sufficient expertise on risk management systems which enable them to evaluate all components of ERM in their organisation (Salikin, Ab Wahab & Muhammad, 2014). A mandate from top management on the implementation of risk management is necessary for organisations to reach their goal in addition to establishing a risk management team (Fadun, 2013).

However, Hudin and Hamid (2014) stated that Malaysian SMEs that have the resources to be audited by the Big Four accounting firms are inclined towards adapting and implementing ERM practices in their organisation. This is because the external auditors may pressure SMEs to adopt the ERM framework in order to maintain their firm's reputation. SMEs need to understand the ERM process can increase the effectiveness of risk management activities, which will ultimately increase stakeholders' value (Fadun, 2013). The implementation cost of governance, risk and control (GRC) system exceeds its benefits when non-executive directors are appointed and internal audit departments are established (Altman, Sabato and Wilson, 2009). Mahzan and Chia (2013) also found that many owners and managers are ignorant of the GRC system in mitigating risks.

From a critical point of view, a German scholar, Ann-Kathrin (2009) established that those organisations that do not implement risk management practices will be taken by surprise as they rely on insurance to overcome circumstances. Many SMEs practise instinctive risk management in their organisation as they do not realise how ERM can actually be an early wake up call for a crisis (Hudin & Hamid, 2014). Owners will only fully implement ERM when they realise the potential of ERM in making their organisation more competitive in changing circumstances and increase long term profit. Although it is rare to see SMEs adopt a proper ERM system, majority of scholars agree that SMEs do actually benefit from it. They will have a more risk friendly and sustainable future in the long run as ERM is supposed to be a continuous process (Kaur, 2010).

COSO ERM (2004 & 2013) framework consists of six (6) main components; namely risk appetite, control environment, assessing risk management, control activities, information and communication and monitoring that link to its objectives.

## **Risk Appetite**

An organisation has to consider its risk appetite while deciding on which goals to pursue or operational tactics to employ (Rittenberg & Martens, 2012). Risk appetite is the level of risk that can be accepted by an organisation in pursuit of its value. It will guide the management to set business goals and make decisions to achieve their goals and sustain their operation. The company decision maker must understand how much risk is acceptable for their business and should consider ways of accomplishing their business objectives, at both organisational and individual operations levels (Epetimehin, 2016). Companies that are risk averse tend to be more conservative when setting their goals, they will choose to avoid risky opportunities even if it may generate higher profits. In contrast, companies with a high risk appetite will decide to invest in a higher reward investment although it is risky (Rittenberg & Martens, 2012). Therefore, when the company considers a strategy, they should identify whether the strategy is aligned with company's risk appetite.

According to Gorzen-Mitza (2015), although SMEs' financial position is weak in comparison to larger entities, the owners' risk appetite still remains high. Somehow, the probability of getting a credit offer is higher for the SME companies which have a stronger financial position than those with a weak financial position. In addition, SMEs with higher collaterals are also more likely to get a loan compared to companies with limited collaterals.

The core of risk assessment is the appraised chance of occurrence and estimated amount of possible loss and risk appetite that directly affects company's profit (COSO, 2013). Thus, the researchers hypothesise:

H<sub>1</sub>: Risk appetite is positively related to sales performance

## **Control Environment**

An organisation is set by the control environment which influences the control consciousness of the work staff within the organisation. It is also a foundation which provides structure and discipline to an organisation's control system. The factors of the control environment include code of conduct, competence of the people, operating style, management's culture and integrity that organise and develop the people within an organisation; as well as attention and direction provided by the business owner or board of directors (Nelson & Ambrosini, 2007). Moreover, control environment reflects the policies and attitude of the organisation in respect to the importance of internal controls in profit generation. According to Tseng's (2007) research, poor internal control would have the possibility to ruin the organisation's value. Weak internal control is related to higher information vagueness and consequently higher organisational cost of capital, thus reducing the expected future earnings.

Control environment reflects the policies and attitudes of the organisation in relation to the importance of internal controls for profit generation. Lundqvist (2014) found that the control environment is value creating and the organisation should focus on their efforts in this area. Therefore,

H<sub>2</sub>: Control environment is positively related to sales performance

## **Assessing Risk Management**

Assessing risk management can be considered as the heart of the ERM framework. It helps the SME in identifying significant risks, such as reputational and strategic risk to optimise the trade-off between risk and return, in order to strengthen the organisation in carrying out its strategic plan (Falker & Hiebl, 2015). This is because failure in recognising risks can lead to disastrous consequences, ranging from loss of customers to environmental damages or even bankruptcy. A clear definition and communication about an integrated approach in risk management process helps SMEs to increase effectiveness at all organisational levels (Gorzen-Mitza, 2015). Assessing risk management is basically determining how risk should be managed in business. It is able to help management to make better strategic decisions

and this would increase business profitability. This happens because they have a better understanding and overall view of risks involved in every project or decisions made in business. This will help them plan better to minimise risks therefore leading to higher profits (Oracle, 2009). Compared to the large enterprises, SMEs made smaller profits and hence they do not have access to a wide resource base. SMEs also have a low equity ratio and therefore they are usually more vulnerable to external events. This illustrates that the survival of SMEs is easily threatened because they face various risks with smaller resources. According to Falker and Hiebl (2015), many SMEs do not apply risk management practices due to this constraint.

ERM is becoming an important part of organisational strategic planning to achieve a competitive advantage (Krause & Tse, 2016). To achieve a sustainable competitive advantage, the capability-based perspective strongly advocates that organisation should possess valuable rare inimitable and non-substitutable resources (Bogodistov & Wohlgemuth, 2017). These criteria are one of the most important pillars for holistic risk management. Hence, the next hypothesis is:

H<sub>3</sub>: Risk management assessment is positively related to sales performance

### **Control Activities**

Control activities in the ERM framework includes operating policies and procedures to ensure management directives are being carried out (ACCA, 2015). At the same time, necessary actions are being taken to address risks in achieving business objectives. Control activities occur throughout the whole organisation at all levels and in all functions. They include segregation of duties, verifications, review of operating performance etc. A failure of control may be due to human non-compliance when they do not take control seriously or over-ride the controls (ACCA, 2015). Nothing can hinder an organisation to achieve their main and long term goal as long as the company's existing risk is being controlled and well-managed. Somehow, the risk management function of SMEs is usually at the owner's prerogative and is influenced by owner's risk perception and their attitude towards risk management (Yusuf & Dansu, 2013).

Drew and Kendrick (2005) argued that control activities practised by a holding company can add value to subsidiaries, while managing existing core competencies to become a source of competitive advantage. Mikes (2009) suggests that control activity and system adopters have profit maximising incentives to reduce risks. These core business risks reduction would become a potential source for expected incomes to the organisation (Spikin, 2013). Therefore, the researchers hypothesise:

**H<sub>4</sub>:** Control activity is positively related to sales performance

### **Information and Communication**

Information and communication is another component of the ERM framework. It is stated that information and data must be distinguished, captured and communicated in a timeframe and format. This is to enable people in the entity to carry out their responsibilities. The information must be relevant, appropriate and cover all the objectives shown on the top of the cube (ACCA, 2015). All the information, both internal control systems and external events, must be communicated to all the staff so that they understand their roles and how it relates to each other's work. Besides, relevant information needs to be communicated to external parties, such as regulators, suppliers, customers and shareholders. An effective communication is able to strengthen internal environment of the entity (COSO, 2013). According to Hannah (2013), all relevant information needs to be captured, identified and communicated in a method and time-frame that allows people to carry out their financial reporting accountabilities for internal control. Organisations should accept information systems and internal control created in financial, operational and compliance-linked material reports for running and controlling the business.

At all levels of the organisation, effective communication should happen in a wide-ranging sense of information flowing up, across and down (Hannah, 2013). This is because information and communication is one of the components which influences working relationship within the organisations. Therefore, information needs to be communicated through the whole organisation, so that the concerned personnel can perform their duties according to the expected outcome to achieve objectives. However, implementation of ERM is very challenging, and a tremendous effort is

required to communicate the implementation using a top-down approach throughout all hierarchical levels to achieve higher firm performance ((Bogodistov & Wohlgemuth, 2017). Thus, the next hypothesis is:

**H<sub>5</sub>:** COSO ERM Information and communication component is positively related to sales performance

## **Monitoring**

Monitoring is a process that has been developing since the initial guidance of COSO (ACCA, 2015). This principle states that unmonitored controls have the tendency to deteriorate over time. The regulation echoes the Turnbull regulation which draws a division between separate evaluation and on-going-monitoring. Nonetheless, there are weaknesses being identified and reported, evaluated and corrected to their respective root causes as the guidance stressed the importance of action and feedback. Internal audit departments and audit committees are main players for separate evaluation (ACCA, 2015). If any internal control deficiencies occur or signal that falls outside of the acceptable risk level, it should be reported upstream to top management and the board of directors to carry out appropriate remedial action plan so that the risk levels is maintained within the established risk levels. Although the ERM framework has provided a base for organisation to manage risks more effectively, the organisation should be aware of shortcomings of risk management, and that the risk process may fail without immediate action taken when the need arises.

The risk management cycle includes many important steps of working with risks. As the starting point, organisations need to add strategic objectives, and also risk and opportunities to this risk cycle. The detailed cycle includes a short description of assigning likelihood, impact and detection values. Organisation should follow the whole monitoring cycle and process to work with risks. From a resource-based view, core competencies that meet valuable rare inimitable and non-substitutable resources criteria represent the area of potential risks that have the highest impact on an organisation. This core business risks would become a potential source of expected return and incomes to the organisation. The next hypothesis is:

**H<sub>6</sub>:** COSO ERM monitoring process is positively related to sales performance

From the review above it was found that most SMEs are family run businesses and the reason for not implementing ERM is because they have limited resources to hire external professionals to assist them in risk management implementation. Hence, they suffer from lack of knowledge and skills to run an efficient business. A separate governing body for SMEs should be established to provide relevant information to the owners and managers to run the business. SMEs owners and managers also do not have the extra resources to hire a board of directors, hence the duty to mitigate risk falls in their hands. As the result, they need to mitigate risk after proper evaluation of their issues and circumstances with external help.

## **RESEARCH METHOD**

Survey research helps researchers to generate systematic evaluation of risk conceptions by managers (Bromiley et al., 2015). This paper collected data using questionnaires distributed to small-medium enterprises in Malaysia. Enterprises are classified as Small Medium Enterprises (SMEs) if it meets one of the criteria set (SME Corp., 2013). Enterprises in the manufacturing sector were classified as SMEs if the turnover did not exceed RM50 million or if there were less than 200 full-time employees. Enterprises in the service and other sectors were classified as SME if the turnover did not exceed RM20 million or if there were less than 75 full-time employees.

The use of fieldwork assistants for a survey study is a commonly used and most effective method of conducting research in developing economies (Roxas & Chadee, 2011). The research team consisted of nineteen (19) fieldwork assistants who were final year accounting and finance students and assisted the researchers to distribute questionnaires to randomly selected small firms. The use of fieldwork assistants to personally distribute and collect the questionnaires to and from respondents tends to receive a higher response rate (Roxas & Chadee, 2011). They received responses from one hundred and sixty-one (161) SMEs. However, data cleaning procedures reduced the sample size to one hundred and fifty-two (152) SMEs after removal of questionnaires that were considered useless. The researchers

monitored the research team closely during the data collection process through direct and extensive consultation with them. The period of this study covered 1<sup>st</sup> February to 7<sup>th</sup> May 2016.

The questionnaire is divided into two sections, A and B. In section A there are six parts of questions adapted from on COSO ERM (2004 & 2013). The first part the statements related is risk appetite; followed by the control environment, then assessing the risk management framework, control activities, information and communication and lastly monitoring. This section asked the respondents to rate 62 ERM statements using a five (5) point Likert scale (1 = disagree strongly, 2 = disagree somewhat, 3 = neutral, 4 = agree somewhat and 5 = agree strongly). The researchers adapted these statements from Web pages of Corporate Governance Board Asia Pacific (2014). Section B, is about the profile of the respondent's business. Table 1 presents the profile of the respondents. The majority of the respondents (79.6%) were from the services and related sectors. 36.2% of the services sectors have between five (5) to less than thirty (30) employees working for them. 42.76% of the respondents are owners of SMEs.

**Table 1: Profile of the Respondents**

Respondents' profile	No. of respondents (N)	%
Manufacturing and manufacturing-related services		
Number of full-time employees		
< 5	1	0.7
5 to < 75	21	13.8
75 to < 200	9	5.9
Total	31	20.4
Annual sales turnover		
< RM300,000	2	1.3
RM300,000 to < RM15,000,000	22	14.5
RM15,000,000 to < RM50,000,000	7	4.6
Total	31	20.4
Services and other sectors (including information and communication technology (ICT), primary agriculture, construction, mining and quarrying)		
Number of full-time employees		
< 5	33	21.7
5 to < 30	55	36.2

30 to < 75	33	21.7
Total	121	79.6
Annual sales turnover		
< RM300,000	40	26.3
RM300,000 to < RM3,000,000	43	28.3
RM3,000,000 to < RM20,000,000	38	25.0
Total	121	79.6
Position of the respondents		
Owner	65	42.8
Senior manager	47	30.9
Accountant/auditor	15	9.9
Others	25	16.4
Total	152	100

## RESULTS

Cronbach’s alpha was developed in 1951 to measure average correlation of items weigh its reliability (Cronbach, 1951). The Cronbach’s Alpha of the data relating to ERM statements in Section A were 0.942, indicating that the data is highly reliable and valid.

The first objective of this paper was to examine perception of the ERM framework by Malaysian SMEs, the descriptive statistics for all sixty-two (62) ERM statements was performed and is presented in Table 2. It provides descriptive statistics on minimum, maximum, means and standard deviations for those ERM statements with selected top mean values more than and equal to 4.15. The result shows that “control environment” and ‘risk appetite” are at the top seven (7) of the ERM practice list. ERM statement for “the code of ethics and value system of an organisation drives long term sustainability” scored the highest mean of 4.30. If a company has less concerns about the ethics in the workplace, there is a higher chance of employees committing fraud as ethical conduct in not prioritised in the company (Tone at the Top: How Management Can Prevent Fraud in the Workplace, n.d.). According to Smart, Barman and Gunasekera (2010), if an organisation adopts a code of ethics, their reputation is protected allows the organisation to have long term sustainability. Moreover, organisations that are concerned about the interest of society instead of their own interest will have higher chances to survive in this competitive business environment. ERM statement of

“senior management demonstrates necessary commitment to integrity to foster climate of trust within company” ranked 2<sup>nd</sup> highest with a mean value of 4.25 under the “control environment” component. This emphasis is consistent with the argument by Hannah (2013) that the control environment is greatly influenced by effectiveness of senior management, because they tone the entity through influencing employees’ control consciousness. It is reflected in the policies and attitude of organisations in respect to importance of internal control for profit generation.

From Table 2, ERM statement for “business failure is linked to poor board oversight” scored the third highest mean of 4.24. This finding is consistent with the argument by Broadeur, Buehler, Patsalos-Fox and Pergler (2010) that the board should take action to ensure optimal ERM practice, where top management must clearly define risk appetite and strategy for the organisation to ensure optimal risk oversight. In addition, lack of management skills and training are identified as the main contributors of SME’s failure (Smit & Watkins, 2012). Under the same component, the ERM statement of “the board is willing to take significant risks in achieving its strategic objectives” scored 4th highest with a mean value of 4.22. Turner (1994) reported that younger SME owners tend to be more willing to take risks hoping to make more profit. High risk appetite is fuelled by a strong desire to expand business as well as opportunities for rapid business growth. Similarly, Dominguez and Rais (2012) found those entrepreneurs who are seeking growth will have higher risk appetites to gain a competitive advantage and to strengthen their business position in the market.

**Table 2: Descriptive Statistics for ERM's Perception  
(Selected Top Mean Values)**

	<b>COSO components</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
The code of ethics and value system of an organisation drives long term sustainability and strategy	Control environment	2	5	4.30	.852
Senior management demonstrates, through its actions as well as its policies, the necessary commitment to competence, integrity and fostering a climate of trust within the company	Control environment	2	5	4.25	.855
Business failure is linked to poor board oversight on strategy and risk management	Risk appetite	1	5	4.24	.997
The board is clear about the nature and extent of the significant risks it is willing to take in achieving its strategic objectives	Risk appetite	2	5	4.22	.771
The company's culture, code of conduct, human resource policies and performance reward systems support the business objectives and risk management and internal control system	Control environment	1	5	4.17	.795
The lack of synchronisation between tone at the top, tone at middle and tone at the bottom results in black holes in organisations	Control environment	2	5	4.16	.872
The people in the company (and in its providers of outsourced services) have the knowledge and skills and tools to support the achievement of the company's objectives (people)	Control environment	2	5	4.15	.844

To address the second research objective on the relationship between COSO ERM (2013) components and sales, the following multiple regression was run:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \varepsilon$$

where  $Y$  = Sales;  $X_1$  = risk appetite;  $X_2$  = control environment;  $X_3$  = assessing risk management;  $X_4$  = control activity;  $X_5$  = information and communication;  $X_6$  = monitoring;  $\varepsilon$  = Error term;  $\beta_0$  = The intercept; and  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  and  $\beta_6$  = The regression coefficients for the six (6) main COSO ERM (2004 & 2013) components.

As shown in Table 3 the coefficient  $\beta_3$  (assessing risk management) and  $\beta_6$  (monitoring) are positively significantly related to sales performance, while  $\beta_4$  (control activity) and  $\beta_5$  (information and communication) are negatively significantly associated with sales performance. The whole model is significant ( $F = 4.026; p = 0.001$ ) and explains 14.8% of the sales performance variance.

**Table 3: COSO (2004 & 2013) ERM Components and Sales Performance**

Variable	Beta	t-value	Sig.
Constant	0.879	1.542	0.125
Risk appetite	0.024	1.316	0.190
Control environment	0.004	0.280	0.780
Assessing risk management	0.019	1.752	0.082*
Control activity	-0.056	-2.205	0.029**
Information & communication	-0.036	-1.853	0.066*
Monitoring	0.056	2.283	0.024**
$R^2$	0.148		
F-statistic	4.026		
Significance	0.001		

Note. \*\*: Significance at the 5% level, \*: Significance at the 10% level.

Based on the above result, the “assessing risk management” ( $\beta_3$ ) component is found to be positively and significantly related ( $p\ value = 0.082, < 0.1$ ) to sales. This finding is supported by Fadun (2013) who uncovered that risk management framework increases SMEs competitive advantage which increases business profit. The capability-based perspective strongly

advocates that organisations should possess valuable rare inimitable and non-substitutable resources to gain a competitive advantage (Bogodistov & Wohlgemuth, 2017). The main reason organisations adopt the risk management framework is because of its economic benefits, and not for regulatory compliance (Banham, 2016). The risk management framework is an organisation's information security program which selects appropriate security controls for information systems to protect individuals, operations and assets of the company (PwC, 2014). The framework guides a company to realise their full potential and builds organisational trust which is established via joint discussions and delegating risk with employees (Beckett, 2005). Aziz and Yazid (2015) highlighted the importance of establishing a risk management team to ensure an organisation achieves its goals. In order to optimise the risk management processes, employees should be informed of the organisation's goals and risk management approaches (Mutezo, 2013).

Other than the “assessing risk management” ( $\beta_3$ ) component, the “monitoring” ( $\beta_6$ ) component was also found to be positively and significantly related ( $p$  value = 0.024,  $< 0.05$ ) to sales. *Organisations should follow the whole monitoring cycle and process to work with risks. From a resource-based view, the core business risks would become a potential source of expected return and income to the organisation. Therefore, follow up procedures ensure appropriate response to risk, and monitoring determines potential problematic circumstances before it reaches the crisis thresholds.* Smit (2012) argues that follow up procedures help businesses to adapt to changing environments; hence entrepreneurs with a greater level of education who possess technical skills will be wiser to respond to monitoring results. Garengo, Biazzo and Bititci (2005) added that organisations must ensure risk action is tailored according to SMEs opportunities and available resources. According to Tessier (2013), the best way to bring all departments together is to coordinate monitoring of potential risks. SMEs need to formulate specific plans to monitor risk events such as fraud and illegal acts that pose potential threat to the company. This is because fraud and illegal acts are highly risky events that need to be detected and dealt with promptly. As such, efforts to monitor and prevent fraud risks need to be implemented in SMEs. The monitoring process is not a one-off process as it requires consistent follow up procedures, such that any changes in risk and control assessment are promptly and appropriately adjusted for. It also requires effort of the entire organisation and not just

the top management. Hannah (2013) stated that monitoring could ensure effectiveness of functioning internal control. Through monitoring, SMEs could easily determine whether the procedures and policies implemented by the management are effectively carried out by employees. Monitoring can be used to monitor customer's feedback and complaints, if the company can address customers' dissatisfactions as soon as possible, then, existing customers will continue to acquire services or products from these SMEs, and they may help to bring in new customers with their words, as a result, it will increase sales performance.

As shown in Table 3 the "control activity" ( $\beta_4$ ) component was negatively and significantly associated with sales performance. There are two (2) possible reasons to explain this phenomenon. Firstly, higher control activities may discourage companies to take an aggressive approach which can bring higher profits to companies due to the concerns of risk management. Secondly, those companies that responded to this survey might suffer from ineffective implementation of control activities. According to Pourquery and Mulder (2009), the shortcomings in the framework can cause the control activities' failure to work effectively. For example, a person in charge of controls are often not given the right incentives, and would cause the control activities to fail by manipulating or overriding them based on personal interest. In addition, fewer controls may be better for a business-oriented company and this leads to higher efficiencies. On a separate issue, control activities focus on segregation of duties that can potentially reduce risk of error and fraud. It can also lead to discouraging people to work together. If the duties are not segregated properly due to limited staffing, it may lead to information not being shared resulting in difficulty in data collection (Pourquery & Mulder, 2009). In addition, the most effective control activities are normally too costly to implement (DiNapoli, 2010). Hence, companies will choose to implement control activities with a lower cost instead of high efficiency which can cause companies to incur additional costs. Besides, when control activities are in place, a control gap might occur due to the insufficiency or the absence of action taken to avoid or reduce the significant risk; hence this reduces the effectiveness of control activities. In contrast, multiple control activities focusing on the same risk will increase the cost of control and reduce productivity (Window Users, 2012). Controls fail because of collusion between employees and management when they tell employees to override controls (ACCA, 2015).

There is a need to familiarise with ERM as it enables SMEs to be sustainable in the long run (Kaur, 2010).

The “Information and communication” ( $\beta_5$ ) component was also found to be negatively and significantly associated with sales (Table 3). According to Reuvid (2010), risk communication is a topic that people are uncomfortable discussing. This could be due to some managers thinking that there is no risk in their department and assume that it would challenge their ability as managers. Many managers believe that information of such a sensitive nature should be kept to a need to know basis, and therefore, should employ limited communication with staff on the matter. As the managers are not comfortable with communicating information relating to risk, the information is not available to minimise risks; hence this could affect revenue generation (Hannah, 2013).

## CONCLUSION

From the survey, it is apparent that SMEs focus heavily on the “control environment” and “risk appetite” components. These two (2) components were ranked as top COSO ERM framework by Malaysian SMEs. The regression result suggests that “assessing risk management”, “control activities”, “information and communication” and “monitoring” components proved to have a significant effect on sales. It is evident that COSO (2004 & 2013) framework is a comprehensive enterprise risk management technique to provide guidance for performance improvement. This paper contributes to knowledge development of the SMEs’ ERM perception and its influence on sales performance from a dynamic capability perspective. This study proposes that SMEs should invest into the avoidable, mitigation or transfer of VRIN and VRIO-related risk measures, because ignoring such risks will harm the organisation’s survival. SMEs should prioritise VRIN and VRIO resources during risk management implementation, so that they may adapt dynamically to external environmental challenges. In addition, leaders need to develop the VUCA framework to preserve organisational performance.

Despite the achievement of the research objectives, there are limitations to this paper. Since the sample size was perceptibly small, the reader should be cautious on how the results are interpreted and generalised. In addition,

the findings are interpreted in the context of Malaysian SMEs; there may be geographical limitation on the extent of ERM perceptions and its effect on sales performance. Further studies may consider gathering data from all firms and secondary sources to reduce sampling biases. Similar studies can be conducted to compare ERM perception with other developing countries. Future studies may consider to adopt the COSO ERM framework (2017) for better integration between risk, strategy and performance. Knowledge in this area may help organisations to improve their resilience capabilities, and to take best course of action to navigate the risk issues.

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