

# ***Levers of Control and Enterprise Risk Management: A Conceptual Study of the Business Strategy and Financial Performance of State-Owned Enterprises***

I Made Pradana Adiputra<sup>1,\*</sup> Desak Nyoman Sri Werastuti<sup>2</sup> Ni Kadek Sinarwati<sup>3</sup>  
Made Denny Oktariyana<sup>4</sup>

<sup>1,2,3,4</sup> *Department of Accounting, Universitas Pendidikan Ganesha, Singaraja, Indonesia*

\*Corresponding author. Email: [adiputra@undiksha.ac.id](mailto:adiputra@undiksha.ac.id)

## **ABSTRACT**

Business management is no longer centered on individual ownership, but becomes a division of roles or collaboration or mutual cooperation. It takes a system that can carry out this role that can be carried out by all members of the organization. Management control system (MCS) and company risk management (ERM) are systems that theoretically and empirically support each other in influencing performance, because they involve all levels of management in the company. The operation of both systems will depend on external and internal conditions. It is necessary to study the influence of contingent factors so that a contingency approach is used to analyze its role business strategy is indicated to affect the effectiveness of MCS and ERM through analysis of misfits that have an impact on financial performance. It is hoped that this conceptual framework can be used to capture the phenomenon of the problem of State-Owned Enterprises in Indonesia as a result of the COVID-19 pandemic in terms of management accounting and corporate risk management so that SOEs with their characteristics can carry out their operations effectively.

**Keyword:** *Contingency, ERM, MCS, Performance*

## **1. INTRODUCTION**

The management control system (MCS) is an important aspect of organizational behavior. MCS aims to ensure the achievement of performance [1]. MCS is used to ensure the firm achieves its predetermined performance by using available information and comparing actual results with plans [2], [3]. The MCS framework in a comprehensive manner shows a representation of the aspects of core values, behavior, monitoring and feedback [4].

MCS design must consider the risks faced by the company that will have an impact on performance [5]. Risk must be managed by the company in a corporate risk management known as the concept of enterprise risk management (ERM) as a phenomenon characterized by calculation and quantification that is expected to affect the management control system [6]. The MCS literature can help understand corporate risk management. Management control should be enriched by exploring ERM as another aspect of organizational control and accountability [7].

ERM is a management system carried out by managing risks, due to uncertainties faced in determining business strategies. ERM is a comprehensive framework issued by

the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and ISO 31000. ERM proposes that companies must mitigate risks in a comprehensive and coherent manner [8].

The importance of analyzing MCS and ERM is based on the argument that ERM has a role in managing the board and director [9]. This is seen as a critical aspect of an organizational control system that deals with the identification, assessment, and management of the risk portfolio faced by the entity in relation to achieving its goals and objectives [10], [7]. Building a corporate risk management system requires investment in managing various risk growths in an increasingly volatile and dynamic business environment [11].

Based on the MCS point of view, the basis of a contingency is that managers act with the intention of making the organization adjust to other contingent factors to achieve fit and increase performance [12]. Meanwhile, from an ERM point of view, contingency theory must have hypotheses about the specific relationship between specific organizational factors and the design of the ERM structure and the system as well as a performance hypothesis about the appropriateness of specific organizational factors and the

ERM system design that will improve performance as did [13], [14].

The integration of MCS and ERM by considering contingent factors that affect the implementation of the system will be important for companies both private and public (such as BUMN) in carrying out their operational activities so that they can affect their performance. For example, State-Owned Enterprises based on SOE Ministerial Regulation Number: PER-01/MBU/2011 concerning the Implementation of Good Corporate Governance in Article 25 regulates the obligation of SOE to implement risk management as the implementation of corporate governance. However, the focus of studies on MCS and ERM on SOE has not been done much and tends to use private companies to analyze the implementation of the two systems in the company. Based on this conceptual framework, it is hoped that it will contribute to the thought of making company decisions in the realm of conceptual studies that can help SOEs perform better.

Recent issues show that a number of SOEs have released financial reports in the first semester of 2020. Many of them have shown a decline in performance due to the Covid-19 pandemic, causing trillions of rupiah in losses (liputan6.com). Arya Sinulingga, a special staff of State-Owned Enterprises, explained that the Ministry of State-Owned Enterprises has a big strategy in reforming the company by dividing four quadrants or groups. Improvement is carried out by taking into account business implementation and the impact on the wider community. The first quadrant, SOE, which focuses on business and looks for profits in order to provide dividends for the country. In the second quadrant, SOE must also focus on serving the community. The third quadrant, SOE in charge of implementing public services (public service obligation/PSO). The fourth quadrant, SOE who loses and does not provide services to the community. Limited companies in this quadrant will be closed or merged with other SOEs (beritasatu.com).

This description gives the idea that SOE faces a big challenge during the Covid-19 pandemic to examine business strategies in a more accurate and structured way to survive and be able to contribute to the economic growth of the country and society. Facing this uncertain condition requires SOE to understand the risks that must be faced through a risk management system that is inseparable from maintaining its continuity. In addition, risk cannot be better anticipated if the risk through the company's risk management system cannot run without a management control system pattern that plays a role in prioritizing routine procedures at the company through existing information so as to align all interests of both individuals and companies in order to achieve its main goal of achieving the company's financial performance. SOE is encouraged to take advantage

of the momentum of the global market situation and conditions that have the potential to provide higher profits.

In this era of globalization, business competition requires a certain strategy by companies so that they can be a going concern for their business activities. Environmental conditions filled with uncertainty, of course, must also be considered by the company in this case by managers, so that they can anticipate all changes and environmental dynamics along with determining the company's business strategy. This will relate to the company's management control system and corporate risk management to regulate the behavior of organizational members and efforts to mitigate corporate risk so that it is indicated that it will further complement and strengthen the company's business strategy so that it has an impact on company performance. Strategy has a close relationship with the control system. The control system is a tool for implementing strategy while strategy is a plan for achieving organizational goals [15].

A recent review of MCS and ERM show that there is a relationship between the two of them in the public sector or public financial management [16]. According to him, ERM has penetrated into global practice, impact, and debate about how risks can be embedded in endless reform programs and what improvements are needed to address the problem of unintended consequences [17], [18]. Meanwhile, empirical studies of accounting and public management have analyzed this and investigated how risk has taken root in governance, business processes, strategic decision making, MCS and company performance [16], [19]-[21]. However, there is still a dearth of studies that focus on the practice of risk management in public services, especially on the integration of risk management with the MCS in the context of the organization [22], [23].

Based on this description, the main focus of the conceptual framework that will be studied is also the objective of the conceptual framework based on the contingent approach (fit-contingent), namely to analyze the business strategy contingency factors on SPM and ERM which have an influence on the financial performance of BUMN. Fit-contingent is an approach in management accounting research that focuses on the existence of factors that affect the operation of a management accounting system that comes from external and internal to the organization.

## **2. LITERATURE REVIEW**

### **2.1 Theoretical Framework**

#### **2.1.1 Agency Theory in MCS and ERM**

Agency relationships arise when one or more people (principal) employ other people (agents) to provide a service and then delegate decision-making authority to these agents [24]. The Levers of Control framework clearly

distinguishes each levers as having their respective functions in the context of agency theory between company management and stakeholders related to beliefs control as controlling the company based on basic values, goals, and directions for the organization; boundary control as a company controller related to business behavior/ethics; diagnostic control as a company controller where managers monitor organizational results and deviations from predetermined performance standards; interactive control as company control through formal information systems, namely effective communication patterns when facing strategic opportunities and uncertainties.

### *2.1.2. Resource Dependence Theory in MCS dan ERM*

The fundamental assumption of Resource Dependence Theory (RDT) is that dependence on critical and important resources in influencing organizational actions and organizational decisions and actions can be explained depending on specific situations [25]. In the context of ERM, RDT is linked to the concept of ERM definitively in COSO (2004) concerning Enterprise Risk Management - Integrated Framework, that ERM as a process that involves several parties, namely the board of directors of entity, management and other personnel, in managing company risk so as to obtain a guarantee reasonable about achieving the entity's objectives. Likewise, [52] explains that corporate risk management that is integrated with strategy and performance provides a framework for boards and management in entities of all company sizes. Meanwhile ISO 31000 describes the role of the board of commissioners and the board of directors in implementing risk management in the company so that it can run well.

### *2.1.3. Contingency Theory in MCS and ERM*

The basic essence of the contingency approach says that an organization must adapt to its contingent factors such as environment, organizational size and business strategy if the organization is well run [26]. In developing an ERM framework, COSO recognized that a suitable ERM system would likely vary from company to company. COSO suggests a contingent perspective on ERM systems that are appropriate for specific organizations [13]. Contingent factors considered to influence MSS design are environmental uncertainty, strategy, technology, and company size and company culture [12]. Some of these contingent factors are also thought to influence ERM [13].

## **2.2 Literature Review**

### *2.2.1. MCS: Balance of Levers of Control and Firm Performance*

MCS is seen as a formal procedure and system that uses information to achieve or change various patterns in an

organizational activity [27]. In several studies on MCS, the levers of control framework proposed by Simons has gained a prominent position in contemporary management control thinking [28]. The LoC framework is a business strategy control achieved by balancing the strengths of the four control levers, namely: beliefs control, boundary control, diagnostic control and interactive control [29]; [30]. Beliefs control system communicates the company's core values which are formally carried out by managers to provide basic values, goals, and direction for the organization [30]. Boundary control systems communicate risks to be avoided, by describing acceptable domains of activity for organizational participants. It contains coercive rules of business behavior for organizational members [30]. Diagnostic control system is a formal information system used by managers to monitor actual performance and any deviations from predetermined performance standards [30]. Meanwhile, the interactive control system is a formal information system used by managers to regularly and personally involve themselves in subordinates' decision activities [30].

### *2.2.2. ERM and Firm Performance*

Enterprise Risk Management — Integrating with Strategy and Performance in [52], defines ERM as a culture, capabilities and practices, integrated with strategic and performance settings, depending on the organization to manage risk in creating, sustaining and delivering value. To keep pace with the rapidly changing environment, companies use proactive risk management techniques, and especially corporate risk management (ERM) being the main resource in risk management system design [31].

Meanwhile, ISO 31000 (2018) provides the concept of risk management into 3 (three) parts, namely:

- 1) Principles of risk management aimed at value creation and protection;
- 2) Risk management framework which aims to help integrate risk management into all activities and functions;
- 3) The risk management process involves implementing systematic policies, procedures and practices for communication, consulting, monitoring and risk reporting activities.

### *2.2.3. The Role of SPM and ERM on Company Performance*

Management control and risk control, which are each carried out through MCS and ERM, which have been stated earlier, require that the two are not run partially, but both must be integrated to improve company performance [7]; [6]; [9]. The effectiveness of MCS and ERM stems from the determination of strategy as a consequence of implementing

the company's vision and mission. Companies need strategies to seize opportunities and achieve goals. The management control system is closely related to company strategy. This is based on the concept of MCS as a system used to implement strategies. In addition, a risk-based approach is needed to implement corporate strategy. The main benefit of a risk-based approach to strategic execution is that it allows managers to focus on the opportunities outlined in the company's strategic plan, while at the same time minimizing the potential impact of any threats.

#### *2.2.4. Business Strategy, Management Control System and Enterprise Risk Management*

Changes in the business environment during the Covid-19 pandemic have systematically changed organizational patterns in directing companies to determine the right steps in their business strategy. At a time when business competition has declined due to the cessation of business activities of several private companies, which has resulted in the country's economy having high hopes for SOE. SOE in entering the increasingly fierce competition will implement a competitive strategy in order to survive. Of course, the strategy applied is in accordance with the core competencies and external conditions of the company [32]. There are three types of strategies, namely prospectors, defenders, and analyzers [33] and used in business strategy research at banks associated with ERM [14]. The prospector and defender typology are two typologies of strategy that are at two extreme points. The characters and the strategies are completely opposite. These two types of organizations with a competitive strategy model, namely differentiation strategy and cost leadership [35].

Companies that implement a defender strategy emphasize efficiency and low costs, lower than their competitors. Emphasis on efficiency is seen in strictly controlling costs, for example minimizing R/D costs, services and promotion costs, achieving economic of scale productions to obtain low per-unit costs [35]. Companies that have a prospector's strategy usually face greater unpredictability and environmental uncertainty than companies that have a defensive strategy [36], so that the need for greater information on prospectors companies in order to improve organizational performance. Analyzer is a category for companies that operate in two types of market product domains, one is relatively stable, while the other is changing. In a stable area, the company operates routinely and efficiently using formalized structural structures and processes. In an area of constant change, top managers pay close attention to their competitors with regard to the ideas to be adopted, then quickly adopt the ones that are most promising.

Research focuses on the relationship between strategy, management control systems and performance [14]. There

are 3 (three) mainstreams in this regard, namely: (1) Studies investigating the effect of strategy on management control systems. In this stream, a management control system is a strategy implementation system. SPM must be designed to support the company's choice of strategy to win competitive advantage and good performance. (2). Studies explaining the effect of MSS on strategy. In this stream, SPM is a system used by management to formulate strategies. (3). A study that investigates the effect of strategy suitability and MSS on performance. This stream is based on the premise that the existence of a strategic fit and SPM will be achieved when the characteristics of the business strategy and control system are integrated in certain configurations that complement each other to explain the social system [37].

Every company, risk management practices must be aligned with the organization's strategy. There have not been many studies or analyzes on the relationship between ERM and corporate strategy [38]. The main thing that is fundamental to the relationship between the two is in the business strategy which greatly influences ERM to be something important or a priority for the company. The relationship between business strategy and ERM adoption clearly refers to the literature whether ERM adoption will improve company performance [13], [39]. Previous studies have also found that there is a relationship between business strategy and organizational performance [40], [41]. Thus, it is important to examine whether ERM adoption can explain the relationship between business strategy and firm performance.

Risk management is new to many companies and that the right place to start is identifying and managing the company's strategic risks as well as those that most impact an organization's ability to execute its strategy and achieve its goals [42]. Three key elements of the COSO ERM definition related to strategy [43]. First, ERM will be effective if it is directly linked to company strategy. Second, ERM is designed to identify events that can impact the company's performance as determined by its strategic objectives. Third, the goal of ERM is to provide assurance that the company achieves its strategic goals.

#### *2.2.4. Financial Performance*

The initial use of financial performance measurement was mainly carried out in the 1980-1990s era through accounting or financial approaches. The study uses accounting and market performance measures based on a focus on different aspects of performance and each of which has certain limitations. Accounting-based performance measurement shows a side of limitations that only touches historical aspects of firm performance [44]. Accounting-based performance must also be adjusted for risk, industry characteristics, and other variables [45]. In order to avoid accounting-based measurement problems, the development

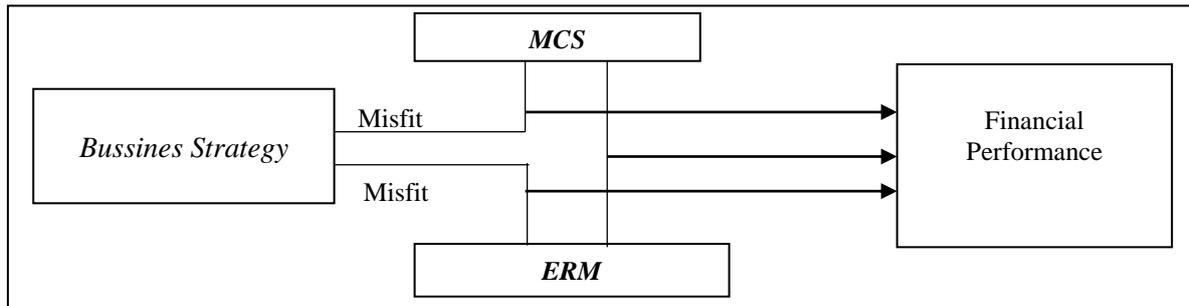


Figure 1. Conceptual Framework

of empirical research suggests using market-based performance measures.

### 2.3. Conceptual Framework

Based on the theoretical and empirical studies in the previous discussion, the conceptual/thinking framework can be presented in the following Figure 1.

## 3. METHOD

### 3.1 Management Control System (Levers of Control)

LoC as a proxy for MCS can be measured using 17 question items, namely 4 (four) items each to measure the intensity of using beliefs, boundaries and diagnostic control [27]. Meanwhile, 5 (five) question items are used to measure the intensity of interactive control usage.

### 3.2 Enterprise Risk Management

Enterprise risk management is a system designed to identify, analyze and control corporate risk based on the principles that integrate risk, strategy and performance by COSO and ISO 31000. Company risk management is measured using 6 (six) question items include: policies, procedures, analysis, mitigation, reports and risk monitoring [31].

### 3.3 Business Strategy

Business strategy is a strategy a company chooses to compete in the industry and gain a competitive advantage relative to competitors. The variables measured by instruments that include defenders, prospectors and analyzers consisting of 6 questions as the defenders category, 7 questions as the prospector category and 5 questions as the analyzer category with the answer 1=no. describe the condition of the company, 2=very rare, 3=rare, 4=frequent, 5=very often, 6=high level [36], [14]. Furthermore, each question will be weighted for each

category on the grounds that the question items for each category are not the same. Weighting is done by dividing all items for each category with all business strategy question items multiplied by the respondent's answer. For the defender's category, each respondent's answer is multiplied by 6/18, the prospectors' category for each respondent's answer is multiplied by 7/18 and the analyzer category for each respondent's answer is multiplied by 5/18. Respondents are given the option to fill in which business strategy is appropriate to the conditions in the company to determine the grouping of business strategies in data analysis. The previous business strategy groupings were replaced with the names Type 1, Type 2 and Type 3. Type 1 for Defender, Type 2 for Prospector and Type 3 for Analyzer

### 3.4 Financial Performance

The company's financial performance is defined as the achievement of the goals set by the company in terms of the company's financial aspects for the last 3 (three) years. Company performance in this study was measured using 7 (seven) question items, including: net profit, product/service sales growth, and return on investment, profitability, market share and overall performance [46].

## 4. RESULTS AND DISCUSSION

The conceptual framework described in Figure 1 is expected that a contingent approach to business strategy contextual variables through a misfit analysis with a management control system and company risk management will have an impact on the financial performance of SOEs. Based on the theoretical and empirical studies used in building this conceptual framework, SOE problems can be reduced or eliminated, especially in matters of planning and controlling company management as well as problems of corporate risk due to misidentification, management and mitigation that must be carried out.

4.1 Business Strategy, MCS and Performance

The relationship between strategy, management control system, and performance is the direction of conceptual study and even research has been done on the relationship. Several studies have shown that there is a strategic impact on the management control system [47], [48]. The research topic in this area argues that MCS is a strategy implementation system. MCS must be designed to support the strategy chosen by the company to gain competitive advantage and superior performance.

There are further areas of research that analyze the influence of MCS on strategy [49]-[51]. The focus of this study considers MCS as a system used by management to formulate corporate strategy. Meanwhile, the third research area investigates the impact of strategy alignment and MCS on performance [14]. This perspective is based on the premise that MCS-strategy fit is achieved when the characteristics of the business strategy and management control system are integrated in a particular configuration that fully describes the social system [37]. The performance effects of the MSC-strategy fit should reflect a simultaneous and holistic pattern of linkages between strategy and management control systems, whereas non-conformities will deviate from this pattern.

Based on this, business strategy and MCS are synergistic relationships that can affect company performance. SOE in Indonesia is currently in the public spotlight as a result of restructuring at the top management level so that SOE performance can be better, thus one of the efforts that can be made is through governance reform that puts forward a business strategy based on a management control system that has a positive impact for its performance. Attention to the internal factors of SOE is an important thing to review as the strong foundation of SOE in its operations which is adjusted to changes in external companies so that the role of management control becomes an integral part of generating performance (especially financial) for SOE.

4.2 Business Strategy, ERM and Performance

Enterprise risk management (ERM) is a company's ability to identify and control the level of risk it takes in managing its business strategy and accountability processes. ERM provides a perspective and focus on risk management across all lines of the company. The role of top management, in this case the board of directors, is so big in ERM. The Indonesia Banking & Finance Institute (IBFGI) stated that by taking this as a guide, the board adopted a strategy that would help management and the board of directors answer relevant business questions about the risks that the company will face. Business strategy and risk coverage, governance and policies, risk data and infrastructure, measurement and evaluation, environmental control, response, risk appetite, and stress testing.

Based on COSO [52] and ISO 31000 [53], the existence of corporate risk management can provide answers to three basic business questions:

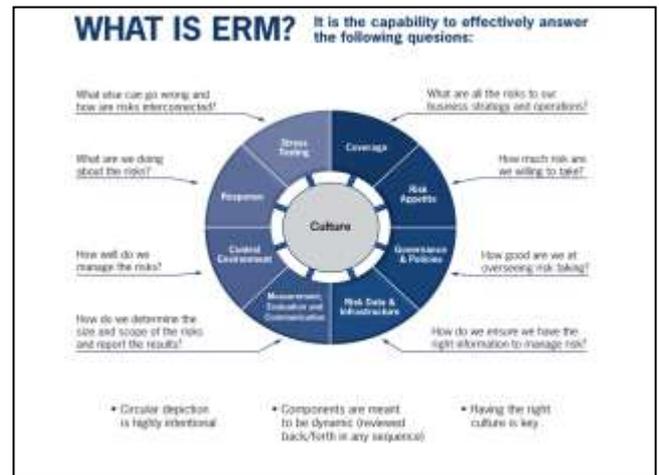


Figure 1. ERM-IBFGI

- 1) SOE conducts its activities in line with business strategy, risk appetite, culture, values and ethics;
- 2) SOE must have components such as people, processes, structures, and supporting technology capabilities;
- 3) SOE assesses the expected results, continuous learning, and a strong system of checks and balances.

Based on the adoption from the Indonesia Banking & Finance Institute (IBFGI) the figure shows that ERM is independent of the size of the organization or company and how the organization can categorize the risk. From the figure it can be explained that the individual components (such as coverage or risk appetite) are not intended to be sequential, but rather flow is created dynamically in both directions. Moreover, culture is described as the center/heart/foundation of this model because without the right culture the other components cannot be related. This ERM framework is designed to help management and the board of directors answer the following business questions:

- 1) What are the risks to business strategy and operations (coverage)?
- 2) How big is the risk that will be taken (risk appetite)?
- 3) How do we regulate risk taking (culture, governance and policies)?
- 4) How do we capture the information we need to manage this risk (risk data and infrastructure)?
- 5) How do we control risk (control environment)?
- 6) How do we know the size of the various risks (measurement and evaluation)?
- 7) What should we do about this risk (response)?
- 8) What things might hinder the company's business process (stress testing)?
- 9) How these risks are related (stress testing)?



**Figure 2.** ERM-COSO

Based on figure 3, ERM according to COSO, the mission and vision set by the company provides an overview of the types and amounts of risk that can be accepted by the company. Both can help organizations to build boundaries and focus on how a decision that is taken affects the company's strategy. ERM does not create a company strategy but only informs about the risks associated with the strategy considered with strategy adoption. The organization must evaluate how the strategy chosen can affect the risk profile of the company, especially the type and amount of risk the organization can be exposed to. ERM provides a valuable view of how changes in the company will have an impact on the achievement of company goals.

**5. CONCLUSION**

The conceptual framework is expected to be a study both theoretically and empirically that will produce empirical testing steps at a later stage, namely: MCS and ERM are interconnected and integrated with one another which has an important role for SOE in improving financial performance. The contingency approach has an important role in the design of a better MCS and ERM because it has considered the internal and external factors of the company that greatly affect the financial performance of SOE. The things that have been described provide direction for conducting empirical testing of the conceptual framework presented and can be proven to be the results of research that can be used to capture the phenomenon of BUMN problems in Indonesia from the scientific side of management accounting and corporate risk management.

**REFERENCES**

[1] Anthony, D., Dearden, J., and Bedford N.M. (1991). *Sistem Pengendalian Manajemen*. Erlangga. Jakarta.  
 [2] Waterhouse, J.H. dan Tiessen, P. (1978). The Contingency Framework for Management Accounting System Research. *Accounting, Organization and Society*. 3 (1), 65-76.  
 [3] Fisher, J.G. (1998). Contingency Theory, Management Control Systems and Firm Outcomes: Past Result and Future Directions. *Behavioral Research in Accounting*. Vol. 10. 48-63.

[4] Martyn, P., Sweeney, B., dan Curtis, E. (2016). Strategy and control: 25 years of empirical use of Simons' Levers of Control framework. *Journal of Accounting & Organizational Change*, Vol. 12 Issue: 3, 281-324.  
 [5] Widener, S.K. 2007. An empirical analysis of the levers of control framework. *Accounting, Organizations and Society*, 32, 757-788.  
 [6] Rad, A. (2016). Risk management–control system interplay: case studies of two banks. *Journal of Accounting & Organizational Change*, Vol. 12 (4), 522-546  
 [7] Mikes, A. (2009). Risk management and calculative cultures. *Management Accounting Research*, 20, 18-40.  
 [8] Bromiley, P., M. K., McShane, A., Nair, & E. Rustambekov. (2015). Enterprise risk management: review, critique, and research directions. *Long Range Planning* 48 (4), 265-276.  
 [9] Shin, I, & Park, S. (2017). Integration of enterprise risk management and management control system: based on a case study. *Investment Management and Financial Innovations*, 14(1), 19-26.  
 [10] Beasley, M. S., Clune, R., & Hermanson, D. R. (2005). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), 521-531.  
 [11] Subramaniam, N., Collier, P., Phang, M., & Burke, G. (2011). The effects of perceived business uncertainty, external consultants and risk management on organisational outcomes. *Journal of Accounting & Organizational Change*, 7 (2), 132-157.  
 [12] Chenhall, R.H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28, 127-168.  
 [13] Gordon, L.A., Loeb, M.P., & Tseng, C.Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *J. Account. Public Policy*, 28, 301-327.  
 [14] Gani, L., & Jermias, J. (2012). The effect of strategy-management control system misfits on firm performance. *Accounting Perspectives*. Vol. 11, No. 3, 165-196.  
 [15] Anthony, R.N., & Govindarajan. (1998). *Management Control System*, Ninth Edition. New Jersey: Mc Graw Hill.  
 [16] Rana, T., Wickramasinghe, D., & Bracci, E. (2019). New development: Integrating risk management in management control systems—lessons for public

- sector managers. *Public Money & Management*, 39(2), 148-151.
- [17] Barrett, P. (2014). Risk management—how to regain trust and confidence in government. *Public Money & Management*, 34(6), 459–464
- [18] Flemig, S., Osborne, S., & Kinder, T. (2016). Risky business—reconceptualizing risk and innovation in public services. *Public Money & Management*, 36(6), 425–432.
- [19] Bhimani, A. (2009). Risk management, corporate governance and management accounting: Emerging interdependencies. *Management Accounting Research*, 20(1), 2–5.
- [20] Soin, K., & Collier, P. (2013). Risk and risk management in management accounting and control. *Management Accounting Research*, 24(2), 82–87.
- [21] Woods, M., & Linsley, P. (2017). *The Routledge companion to accounting and risk*. Routledge.
- [22] Woods, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. *Management Accounting Research*, 20(1), 69–81.
- [23] Soin, K., Huber, C., & Wheatley, S. (2014). Management control and uncertainty. In D. Otley & K. Soin (Eds.), *Management control and uncertainty*. Palgrave Macmillan
- [24] Jensen, M.C., & Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial and Economics*, 3(4), 305-360.
- [25] Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependency perspective*. New York: Harper and Row.
- [26] Gerdin, J., & Greve, J., 2008. The appropriateness of statistical methods for testing contingency hypotheses in management accounting research. *Accounting Organizations and Society*, 33, 995-1009.
- [27] Bedford, D.S. (2015). Management control systems across different modes of innovation: implication for firm performance. *Management Accounting Research*, 28, 12-30.
- [28] Kruis, A.M., Speklé, R. F., & Widener, S. K. (2016). The Levers of Control Framework: An exploratory analysis of balance. *Management Accounting Research*, 32, 27–44.
- [29] Simons, R. (1994). How New Top Managers Use Control Systems as Levers of Strategic Renewal. *Strategic Management Journal*, 15, 169–189.
- [30] Simons, R. (1995). *Levers of Control*. Boston, MA: Harvard Business School Press.
- [31] Sax, J., & Torp, S.S. (2015). Speak up! Enhancing risk performance with enterprise risk management, leadership style and employee voice. *Management Decision*, 53 (7), 1452-1468.
- [32] Hax, A.C., & Majluf, N.S. (1995). *Strategy Concept and Process: A Pragmatic Approach*, Prentice Hall, 2nd Edition
- [33] Conant, J. S., M. P. Mokwa, & P. R. Varadarajan. 1990. Strategic types, distinctive marketing competencies and organizational performance: A multiple measure-based study. *Strategic Management Journal*, 17 (5), 145–61.
- [34] Simons, R. (1990). The role of management control systems in creating competitive advantage: new perspectives. *Accounting, Organizations and Society*, 15, 127–143.
- [35] Porter, M.E. (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, the Free Press, New York.
- [36] Miles, R. E., and C. C. Snow. 1978. *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- [37] Van de Ven, A. 1979. Review of Howard E. Aldrich's organization and environments. *Administrative Science Quarterly*, 24 (2), 320–25.
- [38] Soltanizadeh, S., Zaleha, S., Rasid, A., Golshan, N.M., Khairuzzaman, W., & Ismail, W. (2016). Business strategy, enterprise risk management and organizational performance. *Management Research Review*, 39 (9), 1-25.
- [39] Hoyt, R. E., & Liebenberg, A. P. (2011). The Value of Enterprise Risk Management. *Journal of Risk and Insurance*. 78 (4), 795-822.
- [40] Yamin, S., Gunasekruan, A., & F.T. Mavondo, F.T. (1999). Relationship between generic strategy, competitive advantage and firm performance: An empirical analysis. *Technovation*, 19(8), 507-518.
- [41] Andrews, R., Boyne, G.A., Law, J., & Walker, R.M. (2009). Strategy Formulation, Strategy Content and Performance. *Public Management Review*, 11(1), 1-22.
- [42] Frigo, M.L., & Anderson, R. J. (2011), Strategic risk management: A foundation for improving enterprise risk management and governance. *Journal of Corporate Accounting & Finance*, 22(3), 81-88.
- [43] Frigo, M., & Anderson, R. J. (2012). *Strategic Risk Management: The New Core Competency*: John Wiley & Sons Limited, New Jersey.
- [44] McGuire, J.B., Sundgren, A., & Schneeweis, T. (1998). Corporate Social Responsibility and Firm Financial Performance. *The Academy of Management Journal*, 31(4), 854-872.
- [45] Aaker, D., & Jacobson, R. (1987). The role of risk in explaining differences in profitability. *Academy of Management Journal*, 30, 277-296.

- [46] Tse, Y.K., Zhang, M., Tan, K.H., Pawar, K., & Fernandes, K. (2019). Managing quality risk in supply chain to drive firm's performance: the roles of control mechanisms. *Journal of Business Research*, 97, 291-303.
- [47] Quattrone, P., & Hopper, T. (2005). A 'time' space odyssey': Management control systems in two multinational organisations *Accounting Organizations and Society*, 30(7), 735-764
- [48] Langfield-Smith, K. (1997). Management Control Systems and Strategy: A critical review, *Accounting, Organizations and Society*, 22 (2), 207-232.
- [49] Chenhall, R.H., & Euske, K.J. (2007). The role of management control systems in planned organizational change: An analysis of two organizations. *Accounting Organizations and Society*, 32(7-8), 601-637.
- [50] Chenhall, R.H. (2005). Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study. *Accounting, Organizations and Society*, 30 (5). 395-422.
- [51] Bisbe, J., & Otley, D. (2004). The effects of the interactive use of management control systems on product innovation. *Accounting, Organizations and Society*, 29(8), 709-737.
- [52] Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2017). Enterprise Risk Management Integrating with Strategy and Performance. Februari 15, 2018. <http://www.coso.org>
- [53] International Organization for Standardization 31000 - 2018: Risk Management