A STUDY ON ENTERPRISE RISK MANAGEMENT AND ORGANIZATIONAL PERFORMANCE: DEVELOPER’S PERSPECTIVE

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ABSTRACT

The housing property sector is among those industries exposed to many predictable and unpredictable risks that may have a great impact on the performance of the organization. Enterprise Risk Management (ERM) has been identified as an organized and systematic way of managing risk throughout an organization and recent research results have shown ERM implementation has positive significance on the companies’ financial and non-financial performance. However, little research has been done to measure the performance of ERM studies, especially in Malaysia which has made potential users reluctant to use ERM. This paper presents a critical review of the Enterprise Risk Management in the construction industry, with a special focus on the performance of the organization in Malaysian housing property sector. The strengths and weakness of the existing structures are investigated and it suggests a firm groundwork for an in-depth future study to gain detail insights on how ERM actually works in practise in Malaysian organizations to provide a better basis for decision-making at strategic level, tactical and operational levels of potential risk profiles.

Key words: Construction Industry, Enterprise Risk Management, Organizational Performance, Housing property.


1. INTRODUCTION

The complexity associated with risks often involves dealing with considerable ambiguity on physical, monetary, cultural and social dimensions. Additionally, the risks events have varying consequences that extend well beyond the direct physical harm to financial or physical assets, people or ecosystems that influences the way a social operates and people think [1]. Risk management has long been associated with the engineering and finance industry, which is now
a focus in almost every field which leads to a career in business. Those involved in the construction industry are not immune to the trend.

In a high-hazard industry like construction, corporate crises and project disasters have become accepted as an inherent part of our high tension workplaces which leaves effects throughout the remaining course of a project. Each crisis in turn leads to subsequent crises which lead to extreme pressures on the environmental degradation, fatal injuries, financial loss, public pressure and government regulation from federal, state, county, and local governments in the construction industry. There is a one crucial lesson to be learnt from this where in the majority of cases, the stakeholders involved in these incidents did not have an effective risk management system in place or did not implement it effectively [1]. Most studies concerning failed projects demonstrated failure to implement a good risk management plan.

From housing property perspective, increasing unpredictability on the economic and financial performance of the housing developers as well as the growing complexities of the business environment, make risk management strategies become vital to them in order to survive in the construction industry [2]. Risk management is becoming increasingly important management tool that the Malaysian construction industry, including housing property sector, cannot afford to be without [3]. However, the author also revealed the low level awareness among the housing developers which indicates as an alarming issue in improving the industry performance. Furthermore, it is notable that the risk management application still has a long way to go in the Malaysian construction industry and these businesses are slowly accepting risk management as a management tool in assisting their business [3].

Growing interconnectedness between economies and more complex trade and financial relationships increase the number and types of risk to today’s firm’s framework and internal control system. In response to that, many world’s leading corporations have reported adopting enterprise approaches to Enterprise Risk Management [4]. For example, in Malaysia, gigantic companies such as Khazanah Nasional Berhad, Telekom Malaysia Berhad and MMC Corporation Berhad [5][6] have adopted ERM approach for determining the value of their strategies for growth and profitability. According to the research by [7] into 199 of listed company in Bursa Malaysia, the results shows that ERM framework in place is more common among firms in the infrastructure, hotel, and technology sectors. Over the past few years, numerous studies have reported on the effect of ERM to the organizational performance. A number of researchers identified the effectiveness of ERM as a risk management approach that improve organizational ability to reduce negative effects of market turbulence [8] [9] as a result, lead to enhanced organization performance [10].

Given that ERM and organizational performance are important, many research studies have discussed the positive relationship between ERM and organizational performance, [11] [12] [13] [14]. However, there are also contradictory and inconclusive results from the previous studies on the same relationship [15] [16] [17]. Things get worse when the scholars ability to make accurate predictions about the potential relationship between ERM and organizational performance is limited by available research in the housing property sector and in a most recent study, the previous author has discovered that ERM implementation has positive significance on the companies’ financial and non-financial performance in Malaysian housing developers setting [2]. Nevertheless, it is noted that the study has a number of limitations, which suggests a firm groundwork for an in-depth future study to gain detail insights on how ERM actually works in practise in Malaysian organizations.

Hence, it is time to review our understanding of enterprise risk management and its impact on the organizational performance and reflect how we can improve the performance of housing property to deal with the increasing level of complexity, chaos and uncertainty in project environments. In this paper, we start with a review of literature, first to understand the concept.
of Enterprise Risk Management and organizational performance. Next, we discuss the potential impact of ERM on the organizational performance. Then, we discuss the characteristic of an appropriate framework of ERM to improve the organizational performance and to gain competitive advantage. Finally, we came out with the finding and discussion from the data collection that we have been conducted from the housing developers in Pahang, Malaysia. This paper is part of a continuing study that forms the basis for research grant of one of the authors. We conclude the paper by providing the recommendations for the ERM areas and groundwork for a more in-depth future study of the directional links of the concepts.

2. THEORETICAL BACKGROUND

2.1. Enterprise Risk Management (ERM)

In the There are differing viewpoints for the definition of Enterprise Risk Management (ERM). Enterprise-Wide Risk Management (EWRM), Holistic Risk Management (HRM), Integrated Risk Management (IRM), Strategic Risk Management (SRM), Corporate Risk Management (CRM) and Business Risk Management (BRM) are the examples of different terminologies which are synonymous with ERM term [13][18]. A close look at one of the established definitions of ERM serves as a starting point: “a process, effected by an entity’s board of directors, management and other personnel applied in a strategy setting and across the enterprise, designed to identify the potential events that may affect the entity and manage risk to be within its risks appetite to provide reasonable assurance regarding the achievement of entity objectives” [19]. This definition is used because it seemed fits to this study as it can be applied to any type of industries including the construction industry. It is interesting to note the key points arising from the definitions can be divided into two parts. Firstly, on the main role of ERM that is to integrate and to coordinate all types of risks across the entire organization. Secondly, users are able to determine their risk appetite as well as to identify any potential events that may have an impact to an organization [20].

Turning to ERM evolution, the trends and emerging practises of ERM started back at 1940’s where the initial focus of traditional risk management were on the pure risks where each risks operates in silos and was unrelated to the others. This means, individual risk management optimization within each of the business units of an organization meant by the company’s overall risk management optimization [2]. Then, throughout the 1970’s, 1980’s and early 1990’s, the focus relies merely on the financial and hazard solutions. Transition towards holistic yet integrated system emphasizes the need to move towards more appropriate approach which causes for the emergence of ERM in late 1990’s. The ERM provided guidance towards a more comprehensive and rigorous understanding of the impact of risk and increased awareness of executive responsibility to shareholders [21].

The ERM implementation process started back in 1992 from the report established by COSO. The COSO is a voluntary private sector organization dedicated to improving organizational performance and governance through effective internal control, enterprise risk management and fraud deterrence[19]. The ERM COSO framework well known as one of the most widely recognized and applied risk management structure frameworks in the world [19]. The framework serve as guidelines for companies worldwide to enhance their internal control framework through their standards such as Risk Framework in Australia and the British Risk Management Standard [22]. Meanwhile in Malaysia, the implementation of ERM arose from Bursa Malaysia listing requirements back in year 2009 where the requirements serve as the key factor requiring the listed companies to have an appropriate system for risk management [15]. The board of authority that is responsible overseeing the implementation of appropriate system to manage risks in Malaysia is Malaysian Code on Corporate Governance (MCGC).
The implementation processes lead us to the identification of COSO ERM framework model, which used as a platform to build the ERM blueprint in most of the organizations. The ERM integrated framework encompasses three-dimensional matrix which are: a) four vertical columns representing the strategic objectives of enterprise risk, b) eight horizontal rows representing the ERM dimensions, c) multiple levels of an organization. The Table 1 summarized the components of ERM dimensions based on the [19].

Through the literature process on the extent of ERM implementation in practise, it was found that most of the studies are based on the banking, insurance and financial institutions [23]. The studies revealed the significance of ERM which makes management better as value drivers and source of competitive advantage [2]. In Malaysia, many ERM articles have appeared from financial industry and main board listed multinational companies in Malaysian Bursa [2]. The key finding is that Malaysian companies have placed increasing importance on the identification, understanding and management of risks [24]. However, academic research on ERM from the property industry is still in its infancy.

<table>
<thead>
<tr>
<th>ERM Dimensions</th>
<th>Consists of strategic, operations, reporting and compliance of an organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Objectives of enterprise risk</td>
<td>It is the most important component which reflects how a company views and addresses risk. Consists of an entity’s risk management philosophy, operating style, risk appetite, the management commitment to integrity, ethical values and competence, organizational structure, methods of assigning authority and responsibility and human resource standards.</td>
</tr>
<tr>
<td>Objective setting</td>
<td>A component in the early stages of an ERM process which connected at multiple levels which act as the pre-conditions to effective event identification, risk assessment and risk response.</td>
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<tr>
<td>Event identification</td>
<td>When it comes to event identification, its either positive or negative event that lead to identification of opportunities and threats. COSO and AICPA have channelled numerous methods for evaluating the process which provides implicit guidelines for an organization.</td>
</tr>
<tr>
<td>Risk assessment</td>
<td>The process of risk evaluation involves the analysis of risks profiles (likelihood and impact) through quantitative and qualitative approach. The qualitative method can be done by labelling the potential risk as “high”, “medium” and “low”. Quantitatively, the risks are measured by assigning numeric scores and financial effects.</td>
</tr>
<tr>
<td>Risk response</td>
<td>A set of actions that consists of Risk Avoidance (A), Risk Reduction (R), Risk Acceptance (A) and Risk Sharing which mean to align risks with the entity’s risk tolerance and risk appetite (Tillman, 2011)</td>
</tr>
</tbody>
</table>
Control activities

Actions taken to minimise risk which aligned to the organizations’ policies and procedures in ensuring the risk responses are carried out effectively.

Information and communication

Process of information sharing across the organization so that people can understand and agree about what needs to be done and how it can be done effectively in managing the risks.

Monitoring

According to COSO, the monitoring process can be done in two ways as listed below:
- On-going monitoring: normal, recurring operating activities of an entity
- Periodic internal and external audits, commissioned external reviews and external programs and management reviews.

(Source: Commission, 2004)

2.2. ERM and organizational performance

Before we look at the case for a potential relationship between ERM and organizational performance, it is important to apprehend the concept of organizational performance in which ERM has a significant practical implication on it. One of the well-known definitions, has described organizational performance as organization’s ability to achieve its goal by using resources in an efficient and effective way [25]. Researchers have modelled organizational performance in many ways to determine how best to measure the concept. However, the traditional performance measurement system which was based on the cost accounting has been criticized for being insufficient to fully measure the organizational performance criteria [26]. Overcoming some of the shortcomings of the organizational traditional measurement system has led to the development of Strategic Performance Measurement System (SPMS). The Balance Scorecard (BSC) by [27] has been recognized as one the famous measurement systems that offers a combination of both financial and non-financial measures. Figure 1 depicts the framework of Balanced Scorecard which provides a general grasp of strategic performance measurement system and how financial and non-financial systems interact to contribute to a successful organization.

![Figure 1 Contents of Balance Score Card](Source: Kaplan and Norton, 1992)
Drawing upon the general view on the contents of organizational performance measurement, the following paragraphs provides some practical insights how the ERM traits are practised and the effects of this practise on organizational performance.

A large number of publications have demonstrated and proved how much impact ERM to date has on organizational performance. For example, [8] revealed that ERM eventually led to superior financial performance such retained earnings, return on assets and growth on market value. The results also in line with [14] who found ERM implementation significantly has an impact on the organizational financial and non-financial aspects. Adding to the literature, in 2012, the authors [28] investigated the impact of ERM implementation on organizational performance (financial and non-financial). Moreover, the ERM implementation has a significant positive impact on organization performance and business strategy [7]. The findings clearly showed that ERM enhances the management of the organization, for example, through better informed decision making and increased accountability. However, limited availability of publications in Malaysia may hinder the ability to draw strong conclusion on the relationship between the ERM and organizational performance due to the contradictory results from the previous studies on the same relationship [15][16].

From the point of view of ERM implementation in the construction industry, this industry is constantly exposed to a lot of complexity and risks, thus, the integration of the risks are important to ensure the risks are properly managed and the corporate objectives are succeed. Due to that, ERM is used to change the focus of the risk management function from primarily defensive to increasingly offensive and strategic at the same time to offers a new approach to enhance the project risk management in the construction industry as the construction industry is seen as prime candidates for ERM adoption [29]. This is due to the fact that the construction industry is known as a knowledge intensive industry [30].

There are growing numbers of studies focusing in investigating the influences of ERM factors on the construction organization performance. For example, [29] have identified a list of drivers for and obstacles to ERM implementation in construction firms which provides an affective ‘frame of reference’ in the subject area. In the same token, [31] also investigated the critical drivers for and hindrances to ERM implementation and compared the factors between large and small-medium for Chinese construction firms in Singapore. The findings have proved that the ERM giving the most substantial influence over improving the decision making at the top management level and the “insufficient resources” is the most significant hindrances. Both of these studies shows that ERM is significant to trace and treat the unpredictable risks which can be occurred in the construction firms either in positive or negative way which can give impact to the organizational performance. Thus the final section of this paper discusses challenges and opportunities associated with conducting research on ERM and organizational performance in Malaysian housing industry and some potential fruitful directions for the future.

A vast body of organizational performance knowledge has developed in recent decades and the only way organizations can be driven to achieve excellence is by an eye on competition and world best practice in all aspects of the business [32]. Recently more and more organizations are recognizing that translating corporate strategies into actions requires strategic management. Previous chapters have demonstrated the importance of ERM as a significant strategy tool in achieving positive growth in organizational performance. However, current findings also reveal that there is not enough research in housing perspective and there is a need to welcome more research in local setting. There are few conceptual and empirical studies discuss ERM where researchers include ERM as dimension in relation to organizational performance. However, it is worth to note that much of the discussions in this subject is tied to a general description rather than its internal characteristics in order to support management practice in local housing companies. The present proposed study addresses these issues by focusing on the ERM and
performance of organizational housing developers as well as the link between them. The following research questions guided this research:

1. What is the risk management structure currently available in Malaysian housing developers’?
2. What is the relationship between Enterprise Risk Management (ERM) and risk management structure of a housing developer’s organization?
3. How does the implementation of Enterprise Risk Management (ERM) in risk management structure enhance an organizational performance?

In addressing the key research questions identified above, it was important to adopt an appropriate research approach, which would enable appropriate data collection, analysis and interpretation of the findings for the benefit of practitioners and researchers. Subsequently, as in all researches, the study commenced with an extensive literature review to help provide a thorough understanding of the developments in the methodologies used for measuring the cognitive styles and project success including the construction management discipline. A multiple case study involving housing developer companies have been carried out to investigate further on this issue.

A conceptual framework is used to outline relationship variables in this study. The model is not typically used for explaining complicated process, but it does assist by simplifying the process and making it more understandable [33]. The model (Figure 3) is adopted from [2] where the variables represented by ERM measures consist of event, monitoring, controls, risk assessment, objective, risk response, internal environment and information and communication. Meanwhile, the organizational performance variables focus on the financials and non-financial measures.

![Figure 3: Conceptual Framework](source: Adopted from Siti (2014))
3. RESEARCH DESIGN AND METHODOLOGY

In getting an accurate and comprehensive data for this study, it was design as a qualitative
research by using case study as a strategy of the research and semi-structured interview as a
research technique which the respondents are housing developers in Pahang, Malaysia. Initially,
the researchers has proposed 20 companies in Pahang to participate in this study, unfortunately,
only five companies welcomed the researchers and willing to be interviewed toward the risk
management structure (RMS) and ERM. In conducting a systematic interview, an interview
schedule has been prepared with four important sections which section A is important in gather
respondent’s profile to figure out the respondent’s experience and their latest projects, section
B is to know respondent’s risk awareness and understanding towards risks and risk management
structure (RMS), then section C is to investigate the elements of ERM that being practice by
the respondent’s companies, finally section D is the main component of this study in
investigated the impact of ERM in organization performance based on COSO framework. Then
all the data has been gathered, classified and analyze using content analysis by assigning codes
which may be in numbers and words to specify the same words or characteristics within the
respondent’s interview transcripts.

4. RESULTS AND ANALYSIS OF FINDINGS

After all the relevant data have been gathered and analyzed, this study has found that all five
respondents are categories under established and experiences housing developers companies
because all of them have more than 5 years experiences in developing housing projects which
80% of them have 6 to 10 years and 20% have 16 to 20 years experiences. Moreover, in term
of respondent’s experience in managing risk in their organization, most of the respondents have
familiar with the risks and aware about the effect if the risk unmanaged properly from the start
of their company but the way they manage the risks are different based on their previous
experience in the construction field. The data obtained from the interviews are indicates as an
accurate data because most of them have lots experience in housing development project and
familiar in handling variety of construction risks either on-site or off-site development project.

According to the risk awareness and understanding, 75% of the respondents aware about
the existence of risk in their organization and have considered risk as an important or a priority
element that needs to be manage in an organization to ensure the organization achieve their
objectives and mission. In their opinion, improper in managing the risk will bring the
organization a huge impact not only into their project but it also will affect the stabilization of
the organization performance especially in financial, profitability, staff, asset and so on. In
relation to this, 25% of respondent’s indicates that they always improve their knowledge on risk
management by contribute their staff into seminar; workshop and other events that might help
them improve their risk management skill into their organization performance internally and
externally.

According to the application of RMS by the housing developers in Pahang, 4 out of 5
respondents used project risk management process as their tools in order to manage the expected
and unexpected risk that will occur in their organization as early as possible to ensure the risk
will not give negative impact to the organization performance. The process includes the
sequences of identifying the potential risk, analyzing the potential risk probability and
seriousness, response to the risk according to the previous project and brainstorming from the
project parties, monitoring and controlling the process regularly to mitigate the risks that have
potential to occur in their organization. Furthermore, in term of ERM, the respondents did not
have specific units/departments or person in-charge in handling the risk management in their
organization, most of them organized their potential risk together during the RMS process.
In context of the impact of ERM in organizational performance, the COSO framework is used as a model which consist 8 dimensions of risk components such as internal environment, objective setting, event identification, risk assessment, risk response, control activities, information and communication also monitoring. Through the conducted interview, the finding of the study has shown that;

(i) Firstly, 3 out of 5 organizations response that the internal environment did not give high impact to the organizational performance in terms of financial and non-financial aspect because for them their organizational structure, human behavior, assignment of authority & responsibility, integrity and ethical of their companies is in high performances and in a good condition. While 2 of respondents agreed that the internal environment will give impact to the organizational performance in term of non-financial such as employees resign, employee’s behavior, corporate culture and so on.

(ii) Secondly, the objective setting, the results indicates that 4 out of 5 respondents have agreed that the objective setting is align with the ERM objective that derived from COSO definition which the ERM process will help the company meet its objective and it is one of the first steps in ERM process and as a precondition to such components or dimensions as risk assessment, risk response and others. This objective setting that aligns with the organization mission will give good impact to the organizational performance in term of financial.

(iii) Thirdly, the event identification, which is important to figure out the potential risk that will occur could be a threat or opportunity to the organization/project. The identified event might be enhance, prevent, reduce or accelerate or delay the achievement of the organization objectives. In ERM issues, the event identification can be obtained from employees’ capabilities, fraudulent activities, natural disaster, capability of assets, market conditions and real estate value which all these can give impact to the organization performance in term of financial and non-financial aspect.

(iv) Fourthly, the risk assessment, 3 out of 5 respondents has used risk assessment in evaluating the identified events to assess whether it is an opportunity or a threat to their organization before they started to develop their mitigation plan using the selected risks that give a good result in the evaluation. This risk assessment will give effect to the organization financial if the assessment is incorrect.

(v) Fifthly, the COSO component is risk response which discussing on how the organization response to the risks that have been evaluated. In this stage, the strategy options will be consolidated and the best solution will be select. Most of the respondents have indicates that this components may give impact to the organizational performance in term of financial which means it will affect the organizational profitability income if the selection of their responses is wrong.

(vi) Sixthly, the control activities which has been reveal that all respondents agreed that all activities must be control tightly time to time starting from the project start till end of the project to make sure all mitigation plan goes well without having unexpected event that may give impact to the organizational financial.

(vii) Seventh, in term of information and communication components, a clear information and good communication between the management and their staff is important in delivering a good action and decision. Hence, all respondents indicates that it is important to an organization to give a clear information to their staff about the organization objective, goal, target and so on to enhance the staff’s understanding and also to deliver an accurate information to the project parties. This component will affect the non-financial aspect of organizational performance.
Lastly, the monitoring component, all activities are always being monitored carefully to ensure the risk is properly managed. This component will give huge impact if the project progress is mistreated.

To make a clear picture on the impact of ERM in organizational performance, this study has summarized it into figure 4 which the ERM has divided into two main affected elements like financial and non-financial aspect.

![Figure 4 The impact of ERM in organization performance.](image)

**5. CONCLUSIONS**

Recognizing the process of ERM and how it can be done effectively that can make a significant difference in an organization performance are of paramount importance. This could be due to the fact that effective risk management provides a better basis for decision-making at strategic level, tactical and operational levels by providing a robust, logical, systematic and transparent auditable process that uses best available experience to provide a clear understanding of potential risk profiles and options for dealing with them (Loosemore et al., 2006). This research will contribute to the body of knowledge on risk management by highlighting issues related to the implications of Enterprise Risk Management (ERM) which was identified as a factor that has a significant impact on the success of an organisation. A contribution to practitioners is the empirical data that helps guide risk management approaches within housing developers towards achieving the strategic objectives which will contribute to the success of projects and the organization.

From the data collection and analysis, this study has found that the ERM is significant to be applied in an organization to enhance the organization performance either in financial aspect or non-financial aspect. However, the financial aspect gives most influences in ERM implementation which can affect the organization profitability and stabilization. According to the objective of this study, the implementation of ERM in Malaysia housing developer organization is still in moderate stage because not all the respondents using a proper risk management for their organization in managing their potential risk but the way they manage the risk is look like the same pattern of RMS. In term of ERM, this words, is still new for most of the respondents but they have an idea about it and actually familiar with that but not in a proper way. Overall, this study can be concluded that the implementation of ERM and RMS give good impact to the organization performance in term of financial and non-financial aspect and at the same time it helps the organization to maintain their good performance by identifying and mitigate the potential risk earlier to develop a successful organization and project.

This study also aims to highlight possible ways to foster the implementation of ERM through training programmes so the Malaysian housing developers able to move construction economy progress by being enablers for businesses by creating the knowledge-based decision
support system for ERM (KBDSS-ERM) for Malaysia construction firms. The system is essential because it helps in assessing the ERM maturity and provides actions plans for improving ERM implementation based on the assessment results.

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