

Implementation Of Enterprise Risk Management (ERM) And Organizational Performance: Moderating Role of Organizational Culture at State-owned Indonesian MRO

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Abstract - An economic crisis that hit the world from then until now make company need to improve their methods to anticipate and mitigate the effect. Therefore, there is not much uncertainty can be accepted by the company to still be able providing value for the stakeholders. This condition might be a challenge for management when depleting capital very quickly. Risk management is one of the plans that company need to think of to mitigate the consequences.

This research aims to analyze Enterprise Risk Management (ERM) effect to Organizational Performance in State-owned Indonesian MRO with dimension process quality, product quality, product innovation, and process innovation, and the Organizational Culture as a moderating variable.

Using partial least squares structural equation modelling (PLS-SEM), the research will examine data with respondents from risk officers, and employees who are related to the risk management process at State-owned Indonesian MRO. Finally, this research will study the impact of ERM Implementation to Organizational Performance by moderating role of the Organizational Culture.

Keywords - aviation industry, Enterprise Risk Management, Organizational Performance, Organizational Culture, PLS-SEM

I. INTRODUCTION

In economic crisis condition, all companies face uncertainty in conducting their business ventures. One of industry with a big impact is the aviation industry. In 2020, the aviation industry is experiencing difficulties, including deteriorating asset quality, and not being able to generate earnings due to travel restriction that impact to decreasing number of passengers. Therefore, there is not much uncertainty that can be accepted by the company in order to still be able to provide value for stakeholders which is a challenge for management when capital depleting very quickly.

Risk is the impact of uncertainty in achieving objectives. This impact is a deviation from the expected and can be positive or negative [1]. Meanwhile, according to [2] risk management is a process of risk identification and actions taken by companies both before and after to control the deviation between the risks faced and the company's tolerance level for risk. Therefore, it is expected that risk management can contribute to the company's goals in maximizing firm value. Risk management is fundamental in today's dynamic global environment. The paradigm for how to view risk management has shifted in

recent years. The current trend is to look at risk management in a holistic way. This holistic approach to organizational risk management is often referred as Enterprise Risk Management (ERM) [3]. The Organization, policy and ongoing reporting are incorporated into ERM. ERM implementation is not simple and requires a not short period of time, but it is expected that ERM implementation will have a positive effect on the company's performance.

Implementation of ERM helps management to identify, handle, and respond to risks efficiently. As risks cannot be removed, companies can apply ERM as a strategic planning tool to efficiently identify, handle, and respond to risks. Additionally, the tool helps understand their main material business risks better while building risk management culture within the entire enterprise. When ERM is embedded into organizational strategic planning and decision-making processes, the implementation is called complete or complete. The availability of an effective and efficient infrastructure to support the method is the starting point of all ERM operations, followed by risk analysis steps, which include risk assessment, sourcing, and evaluation. Management designing a risk management plan and the execution of the formulated strategy are part of the process. Risks, risk strategies, and implementation activities should be tracked on an ongoing basis to ensure the systems' safe and successful operation. All these tasks should be carried out, keeping in mind the key goals of the ERM process. The airline industry's market climate is uniquely complex. Historically, the airline industry has become one of the world's fastest-growing sectors, despite several problems inherent in the industry structure and the provision of airline services around it. Like every other organization, airlines face general business risks. However, external challenges, mainly related to the market structure, macroeconomic conditions, or governmental interventions over which airlines have little to no influence, are the most significant challenges for airlines [4].

In terms of risks, airlines have continued to see risk management, such as the need to protect physical properties. Security and security concerns have also been given significant and increasing attention. Some studies have been performed elsewhere on hedging financial risks, such as foreign exchange rates, interest rates, and fuel prices. These methods have been effective to a degree, but the benefits can be significantly improved by more aggressive strategies and a broader perspective. Enterprise Risk Management is one new notion that can counter this

opportunity. The implementation of ERM could positively influence the company's output based on [5], [6].

II. METHODOLOGY

The research design used in this study is a conclusive descriptive research design, which is research that aims to describe something such as the characteristics or functions of the group / market [7]. Therefore, this study focuses on the effect of Enterprise Risk Management as the independent variable on Organizational Performance as the dependent variable with Organizational Culture as the moderating variable.

Data Collection Methods:

1) *Survey Methods:* The data for the present study were collected between December 2020 and March 2021 in form of an online questionnaire using Google Form. The questionnaire consisted of 37 closes-ended question and was divided into five passages. The questionnaire was measured on a 5-point Liker scale.

2) *Research Population and Sample:* The target population of this study are risk officers, and employees who are related to the risk management process. The sample used in this research used a non-probability sampling technique with saturated sampling. The population of this research is segmented and saturated, so that author used this sampling technique. According to [8] explaining "saturated sampling is a sampling technique when all populations are used as samples and it is also known as a census". The sample being used in this research were total 60 respondents, and response rate was 86.7% (49 respondents).

3) *Type and data sources:* In this study, the primary data used are data obtained through direct data collection in the field by distributing questionnaires that have been designed beforehand to respondents who are risk officers, and employees that are related to the risk management process at State-owned Indonesian MRO through an electronic questionnaire. Target data to be collected include data on the identity and characteristics of respondents and their responses to Enterprise Risk Management, Organizational Performance, and Organizational Culture.

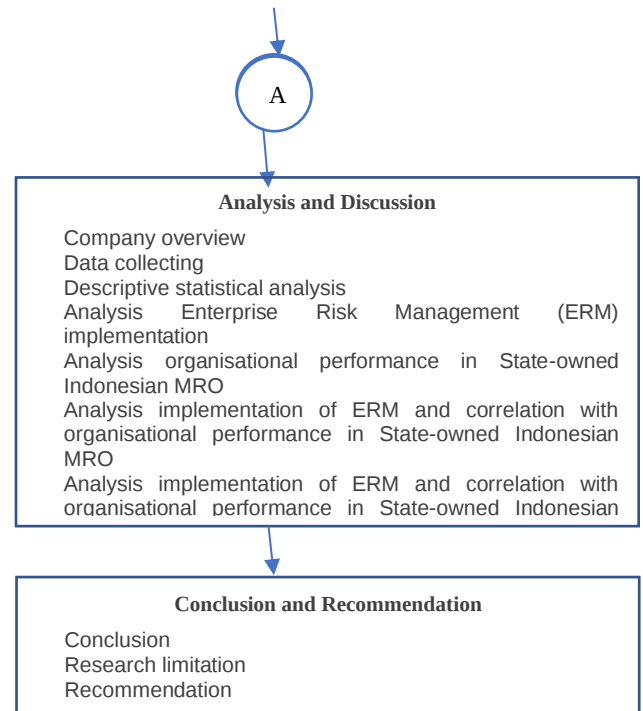
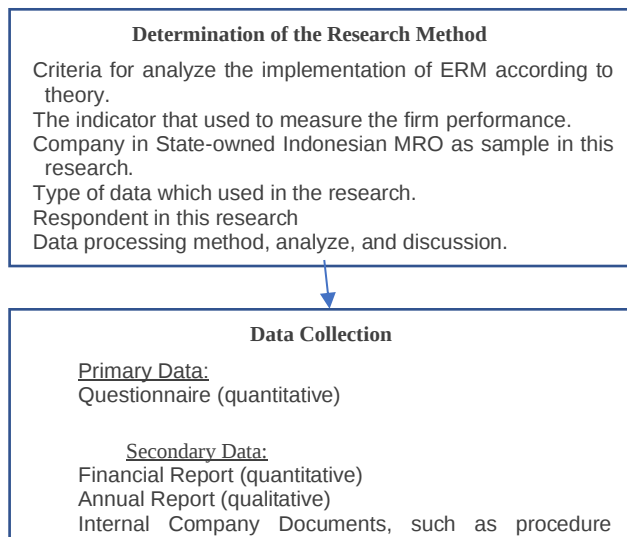


Fig. 1. Research Design.

TABLE I
PRIOR STUDY

No	Title	Author	Year	Variable
1	Enterprise risk management and firm performance: The Italia Case	Florio and Leoni	2017	Enterprise Risk Management & Firm Performance
2	The Relationship Between Organizational Culture and Enterprise Risk Management	Kimbrough and Componation	2019	Organizational Culture and Enterprise Risk Management
3	The Effects of Organizational Culture and Enterprise Risk Management on Organizational Performance	Thomya and Saenchaiyathon	2015	Organizational Culture, Enterprise Risk Management, & Organizational Performance
4	The Moderating Role of Intellectual Capital Between Enterprise Risk Management and Firm Performance: A Conceptual Review	Khan, Sajjad Nawaz & Ali, Engku Ismail	2017	Enterprise Risk Management, Firm Performance, & Intellectual Capital

Proposed Framework

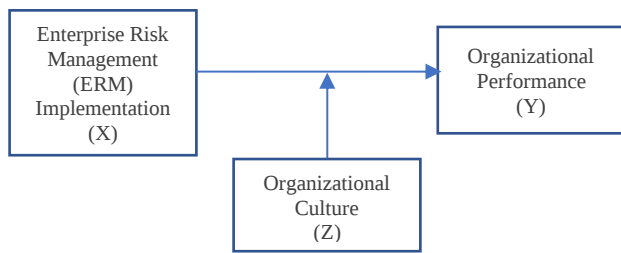


Fig. 2. Proposed Framework.

As initial stage of the research, authors review several literatures related to the application of ERM in enterprises. The parameters are then defined to assess the application of the ERM in the business and compared to the degree of maturity of the implementation of the ERM. The [12] model used to calculate the maturity level of ERM in Chinese construction firms in Singapore is adapted to these criteria. Based on the results of previous studies on ERM in different sectors, the model is compiled and has proved its reliability to assess ERM maturity in companies using 16 parameters and 66 indicators.

III. RESULTS

Table 1 reports the profile respondent of the research. means, standard deviations, and correlations among the major study variables.

A. Profile respondent

TABLE II
PROFILE RESPONDENT

No	Category	Respondent Profile	Percentage
1	Age	20-25 years	10%
		26-30 years	61%
		31-35 years	22%
		36-40 years	6%
		Male	67%
2	Gender	Female	33%
		Vice President	0%
3	Job position	Senior Manager	10%
		Manager (or Equivalent)	20%
		Staff	69%

According to Table I, the majority of respondent is from age group between 26-30 years with 60% of total respondents, followed by age group between 31-35 years with 22% of total respondents, then followed by age group between 20-25 years with 10% of total respondents, and the minority age group between 36-40 years with 6% of total respondents. For the gender category, the majority gender is male with 67% of total respondents, while female is the rest 33% of total respondents. Based on job position category, respondents are dominated by staff with 69% of total respondents, then followed by Manager (or

Equivalent) with 20% of total respondents, and Senior Manager with 10% of total respondents.

B. Factor Analysis

The following factor analysis was performed using SmartPLS software. On the initial stage of factor analysis, it is necessary to test the reliability and validity on main data. The outcomes of the experiments are shown in the table below.

TABLE III
CONSTRUCT RELIABILITY AND VALIDITY TEST RESULT

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
ERM Implementation	0.953	0.956	0.958	0.559
Organisational Culture	0.922	0.926	0.945	0.811
Organisational Performance	0.959	0.962	0.964	0.64

According to Table II, all variables have Cronbach's Alpha values above 0.7 which is acceptable. The Composite reliability value for all variables is above 0.7 which is acceptable. The AVE values for all variables are above 0.5 which is acceptable. To continue the process, factor analysis was performed for each variable.

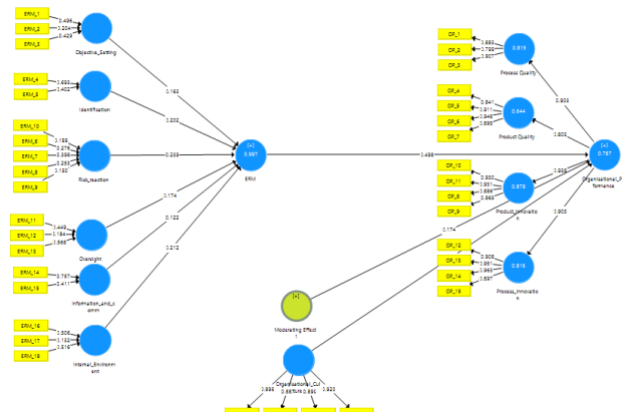


Fig. 3. Structural Model

Based on the Table III, it shows that most of all hypotheses are tested positive relationships and has significant impact as it shown P Value <0.5 and T statistics below 1,96. The relationships between ERM and Organizational Culture has shown the highest T Statistics value.

TABLE III
HYPOTHESIS TEST RESULTS

Hypothesis	Path	P Values	T Statistic	Remarks
H1	ERM -> Organizational Performance	0.012	2.516	Positive Relationship and Significant
H2	Organizational Culture -> Organizational Performance	0.011	2.559	Positive Relationship and Significant
H3	ERM * Organizational Culture -> Organizational Performance	0.020	2.323	Positive Relationship and Significant

IV. DISCUSSION

The role of organizational culture to moderating the ERM implementation and organizational performance playing a vital role. The culture of the company related to the risk can be implemented in all aspect, such as strategic risk, financial risk, operational risk, and external risk. The top management and managers need to concern about the risk management in order to reduce the impact of changes in uncertainty time. To deal with this, managers should place contingency plans that include a comprehensive identification, risk assessment and mitigation plan to improve the organizational performance in the company.

V. CONCLUSION

The study found that ERM Implementation have correlation with organizational performance. It was aligned with previous study [6] [10]. Furthermore, culture of organization plays vital role to the implementation of ERM, as shown in Table III, as it had positive relationship and significant effect as moderating variable.

Implementation of ERM might help the company to improve the organizational performance, especially during the uncertainty time. The consequence of the risk might identify and mitigate to reduce the impact as part of risk management process. The strong organizational culture will support ERM implementation in the company and impact to organizational performance.

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