CHAPTER I

INTRODUCTION

1.1. Background

In the competitive business era, the manufacture demand to seek best strategy to adopt and compete with the competitors for their life cycle. It tries to survive with any strategy which could makes the manufacture life. The strategy can be influenced by the operational (internal) or external business activity. Most of global firms set the newest system that adopted with any internal or external forces. Toward this condition, most of manufactures implement computing paradigm where the business adapt the Information Technology (IT) based system on infrastructure which able to ease on running the business activity (Bernabe, et al. 2014). System that based on Information Technology (IT) will help the company to integrate the business process and it will make the manufactures' more efficient and simpler to run the business process.

One of the models from IT based system is Enterprise Resource Planning (ERP) system which in this case uses System, Application, and Product (SAP) software for operational. ERP system itself can provide the integration information system that could help the firm more effective and flexible to run their (O'Leary, 2000). The design of ERP system can operate under multiple operating system. The business process on SAP software is represented with specific transaction code (T-Code) that could help user to operate. Transaction code represent the transaction activity on SAP or can be called SAP text. SAP has sophistication that able to integrate cross-information between different directorate. The information has been collected in one system that will ease the user to access the transaction data or cross function business process that involve cross-division or cross-directorate.

PT. Krakatau Steel (Persero) Tbk is one of companies which implement ERP to run their business activity. The company has decided to implement SAP software as the consequence of business standardization and want to simplify the business process. Furthermore, as the Initial Public Offering (IPO) standard requested the company to has integrated system and especially the information regarding financial report and performance (Bashirudin, 2016). Those aspects become the background of PT. Krakatau Steel in implementing SAP software. The company believes that the implementation of the software can enhance the running of business operation that involves multi-function division.

The company has applied SAP software for running the business process since 2010. In the beginning of implementation, this manufacture purchased SAP license for 700 user ids (Bashirudin, 2016). The authorization of user id was given based on either function of personal employee or the job description of position. It makes the manufacture should pay more than contract with host of SAP. It also added with the cost of user id maintenance on every month by 20% from license cost. In the beginning, PT. Krakatau Steel considered in applying multiple log on system where with one user id can be accessed by two or more users. Previously, the company believes with this policy can economize the cost for investment on the software development. However, it arises uncertainty since every user can access sensitive data. Moreover, the inexistence of standard for user to operate the software as border to restrict the user for access some critical data becomes the company's problem. It because SAP contains sensitive data and information from every business process or activity. With multiple log on system where the data of user cannot be detected the unknown entities can access the SAP operation. If there are occurrences of some problems in transaction, the main user cannot detect who performed the wrong transaction or modified the transaction data.

Regarding those problem, the multiple log on policy has been eliminated and replaced with single log on where one user id can be accessed by itself. This policy taken as external assesor's recomendation because many risks appear and the policy of multiple log on will make the firm face the law problem from the SAP developer. The impacy of shifting policy from multiple log on to single log on brought concequences,

by increasing user id to 1425. By shifting the obligation, either multiple log on or single log on still give problems to the company and give uncertainty on software operation. The failure to control some uncertainties provide potential risk on software development project (Islam., et al. 2014). To overcome this situation, hence the research is conducted to assist the company to identify the risk and help the company to solve this issue. In identifying the possible risks, this stage involves source of potential risk, the risk type, and also the impact area if the risk happens.

Furthermore, to address the risk level, risk assessment will be performed to measure the level on each risk. As assessment method, the research will apply Committee of Sponsoring Organizations of the Tredway Commission (COSO) framework where this method has already implements at PT. Krakatau Steel. The company chooses to use COSO framework for risk management activity because it more suitable to be implemented towards the situation and condition in the company. Previous research of Tekathen & Dechow. (2013) pointed out that designated method provides managerial alignment of organization with ensure accountability. In addition, the journal of Martin,. et al (2014) define that COSO will provide result that can be a suggestion for internal control for improvement of efficiency and effectiveness operation, thus can help the company to acquire and sustain the major objective. Based on those explanations, the COSO framework is being chosen, risk assessment result that shows the risk level where it can be as recommendation to determine what action should be implement to minimize the potential emergence of risk type.

As mitigation activity, new approach method is needed to address the challenge. The requirement and standardization for user to access and operate SAP software is required. User authorization which based on the job position and job description is proposed to control the accessing sensitive data and information on SAP software also as guidance for user to operate the software. Authorization is the obligation or policy that given to people or user (employee) to operate something in the company (Aiash & Loo, 2015). Authorization arise to simplify the system on the company toward job description and operation software on manufacture. Mapping of transaction code (t-code) which based on the job position and job description as the consideration of user to operate the software. Furthermore, relevance and effectiveness of user authorization

will help the manufacture in managing the risk as the impact of operation the software. Then the user authorization also will enhance the security system on the SAP operation. The proposed user authorization will take the vital aspect into consideration on the sensitive data and information of software source.

Properly, SAP already has user friendly interface that ease the user to operate the software. SAP software also helps the business process easier. However, SAP software operation has many issues which appear such as the capability of user to operate the software, the security system of software, and obligation or policy of the manufacture about SAP operation. Those situations effect to emergence of risk and the needed of certain standard become critical issues toward the software operation which are the impact of competitive manufacture activity. With this research, the researcher proposed a risk identification and assessment toward software implementation and operation, and with the mitigation activity to reduce the existing risk. The research that uses COSO framework will combine qualitative and quantitative data to address the challenge from cross function division where the user located that involve on procurement activity.

1.2. Problem Formulation

This research would design and critically analyze also simulate the parameter of risk management on SAP software operation in manufacture. Related to the purpose, main research question addressed in this review are:

1. What are risks that arise from SAP software operation on PT. Krakatau Steel (Persero) Tbk?
2. How is the result from risk assessment on SAP software operation?
3. What is the action to mitigate the emerging risk toward SAP operation?

1.3. Research Objectives

Based on problem formulation above, this research is created to fulfill several obectives as mentioned below:

1. Able to identify the risk that occur from SAP software implementation in PT. Krakatau Steel (Persero) Tbk.
2. Able to assess the emerging risk on SAP software implementation.
3. Able to develop the authorization management based on job description as the mitigation activity from emerging risk on SAP software operation
4. Able to give recommendation for SAP software operation

1.4. Research Limitation

Problem limitation is a limitation of problems to make a border in the research in order to keep the research inside the scope. Base on the background there are some scope to make the research focus,the scope as follows:

1. The research is conducted only in PT. Krakatau Steel (Persero) Tbk.
2. The research takes part only on procurement activity which run on SAP software
3. Risk identification only identified by analyzing the procurement business process and interview some users which involve on SAP development and procurement activity
4. The researcher has no chance to run the SAP software when doing the research
5. The variables that were used on risk assessment are possibility and impact aspect

1.5. Research Benefit

It is expected that by conducting this research, some benefits can be earned:

1. To understand the risk which come up as impact from the implementation and operation of SAP software on a manufacture

2. This research could become a suggestion for a manufacture to minimize emerging risk on SAP software operation
3. This research could help PT. Krakatau steel to complete project of user authorization software
4. The result of research could help the manufacture to enhance the operation SAP software
5. To be the contributor in the development of knowledge

1.6. Systematical of Thesis Writing

Furthermore, this thesis writing will be continued as follows:

CHAPTER I INTRODUCTION

This chapter contains the background of the problem, the formulation of the problem, research objectives, research benefits, limitation of problem and systematic writing.

CHAPTER II LITERATURE REVIEW

This chapter will explain about the literature studies. The literature review conducted in systematic literature review, from the literature previous research and paper will be used for the study.

CHAPTER III RESEARCH METHODOLOGY

This chapter will be steps for conducting the research are applied as a references in order to keep focusing on the primarily goals, whic are going to be archived. Will be explain and summaries the phases of the risk management with COSO framework as the guidance to support every stage as well as the section of the article where these are addressed.

CHAPTER IV DATA COLLECTION AND PROCESSING

This chapter will be explain the analysis and synthesis in phase of systematic literature review. Will be explaining how the selection method for synthesis and analysis, and how the extraction data of paper.

CHAPTER V DISCUSSION

This chapter will be discuss from the finding paper and literature, and also explaining how the sustainable in manufacture industry.

CHAPTER VI CONCLUSION AND RECOMMENDATION

The final section will describe the overall conclusions from the results of study and the suggestion for the future research.

REFERENCES

APPENDICES