

Risk Management in Public Educational Institution (Case Study at XYZ Education and Training Center)

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Abstract. This study aims to evaluate the risk management implementation and provide suggestions for improvements to the XYZ Education and Training Center as the research object, following regulations and best practice implementation. XYZ Education and Training Center is an educational institution in the field of sea transportation that opens its facilities to the public. Research on the risk management implementation in educational institutions is not widely carried out in Indonesia. Educational institutions also face internal and external risks, so risk management is needed so that organizations can mitigate risks that hinder the achievement of organizational goals. This study used a qualitative descriptive method with data instruments such as documentation analysis, interviews, and FGDs. This study used a conceptual framework for risk management ISO 31000[1] and a benchmarking method by comparing risk management at similar educational institutions as best practices. The study results indicated that the XYZ Education and Training Center had carried out the risk identification and analysis process but had not completed the risk evaluation and mitigation process. The proposed improvements included risk likelihood scale improvement, recalculating risk scores, setting risk priorities, determining risk appetite, and compiling risk mitigation.

Keywords: Risk Management, Risk, Education Institution, Education and Training Center.

1 Introduction

Risks always accompany a growing organization in achieving its goals. Risk management functions to protect the organization from risks that can interfere with the achievement of organizational goals[2-4]. Risk management is not created to eliminate risk but to reduce the value of risk by implementing appropriate controls[5]. Organizations that do not implement risk management will not have a view of what risks can occur[6]. When a loss occurs, the organization does not have the resources to cope with the loss, decisions are made without adequate information, and the process of achieving goals will be disrupted.

As an organization, educational institutions also need a risk management system[7]. Educational institutions face internal and external factors that can affect the mission and goals of the organization[8, 9]. In addition to providing educational services, educational institutions are also required to develop and earn income. In the development process, there are risks. With good risk management, educational institutions can maintain the course of achieving organizational goals.

The risk management implementation in educational institutions differs from other organizations. The difference lies in the specificity in educational services, which can be seen from the characteristics of educational services, the workforce that requires special skills, and the education market[3]. Typical risks that occur in educational institutions must be appropriately monitored and mitigated[3]. Given these typical risks, if an educational institution does not implement risk management, the educational institution will experience difficulties if that risk occurs. Therefore, every educational institution should run a risk management program thoroughly and adequately.

XYZ Education and Training Center is a Government agency with public service agency (PSA) status that opens its facilities to public. Students studying at the XYZ Education and Training Center are not only employees of the Center but also the public. As a government agency, XYZ Education and Training Center must comply with Government Regulation Number 60 of 2008 concerning the Government Internal Control System (*Sistem Pengendalian Intern Pemerintah/SPIP*). In the regulation, risk assessment is one of the five elements of the Government Internal Control System (SPIP)[10]. Risk must be one of the things considered in leadership decision-making to create conducive leadership.

Like other organizations, XYZ Education and Training Center must implement risk management to achieve organizational goals. The XYZ Education and Training Center risks have unique characteristics, such as risks in other educational institutions. The risk of teaching staff competence and the education implementation process are examples of the typical risks of educational institutions owned by the XYZ Education and Training Center.

On the other hand, as a PSA in the education field, the XYZ Education and Training Center should comply with the Minister of Finance Regulation Number 129/PMK.05/2020 concerning Guidelines for Public Service Agencies (PSA)[11]. The regulation mandates all PSAs to carry out comprehensive risk management. Suppose the XYZ Education and Training Center does not carry out risk management according to the order of the

regulation, in that case, it will impact the low value that will be obtained in the monitoring and evaluation process carried out by PSA supervisors. Low scores indicate poor performance. PSA with poor performance can be demoted to a regular work unit.

In financial management, educational PSA, including the XYZ Education and Training Center, are given the flexibility to manage finances based on economic and productivity principles and apply sound business practices. If a PSA is revoked its status and becomes a general work unit, the flexibility of financial management will also be revoked, and financial management will be returned to the technical ministry in charge of the work unit. For this reason, PSA must comply with all obligations listed in the Regulation of the Minister of Finance, including in terms of carrying out risk management.

This study evaluates the risk management implementation as the object of research based on the conceptual framework of International Standard ISO 31000[1], in terms of the stages of risk management in general and the common framework related to the risk management implementation, namely Government Regulation Number 60 of 2008 concerning the Government's Internal Control System. The evaluation was also carried out based on a comparison between the risk management of the XYZ Education and Training Center and the risk management of other institutions that are considered best practices in applying risk management in vocational education. International Standard ISO 31000[1] conceptual framework was chosen because the framework is closest to the risk management conceptual framework in Government Regulation No. 60 of 2008. In addition, according to the National Risk Management Survey 2018[12], the risk management conceptual framework from the International Standard ISO 31000[1] is the most widely used conceptual framework in Indonesia.

There are PSAs in the education sector that correctly implement risk management according to regulations. That PSA is used as a best practice or benchmark to analyze the risk management implementation at the XYZ Education and Training Center using the benchmarking method. The authors have selected institutions that is considered a best practice based on the completeness and compliance of the regulatory documents and compares the institution's risk management document with the XYZ Education and Training Center's risk management document. The chosen institutions are the KLM Polytechnic and Gadjah Mada University (UGM). The authors chose the KLM Polytechnic as the best practice because the KLM Polytechnic had implemented and compiled risk management according to applicable regulations. The regulations are Government Regulation Number 60 of 2008, PSA guidelines (129/PMK.05/2020), and special rules compiled by the technical ministry to be complied with by all work units under the ministry. Gadjah Mada University (UGM) was chosen as the best practice because it had been researched by Mukhlis and Supriyadi[13] as an educational institution and run a risk management program well and systematically.

Previous studies examined the risk management implementation in educational institutions with a regulatory framework. In addition to using the regulatory framework and textbooks, this research will also look at the practice of implementing risk management in the field by comparing the risk management implementation to the object of study with the risk management implementation to best practice. This is done so that this research looks at the obstacles that occur in the field related to the risk management implementation.

The description above shows the urgency of research on the risk management implementation in educational institutions. In Indonesia, research on the risk management implementation in educational institutions is still not widely done. Therefore, this study is interested in evaluating the risk management implementation at the XYZ Education and Training Center as an educational institution.

The questions in this study are: [1] How is the evaluation of the risk management implementation at the XYZ Education and Training Center at existing condition? And, (2) How to improve XYZ Education and Training Center risk management that is more in line with regulations and best practice implementation? This research aims to formulate risk management improvement for XYZ Education and Training Center that is more in line with regulations and best practice implementation. Hopefully, this research can provide results in the form of problem-solving for the root problems faced by the XYZ Education and Training Center.

2 Literature Review

Organizations today face various kinds of risks and need help and tools to help sort these risks to make decisions regarding costs and risks[14]. The tool is a risk management process. Risk management is an implementation of management functions in overcoming the risks faced by the organization[15]. Risk management includes planning, organizing, and supervising risk management plans.

International Standard ISO 31000[1] divides the risk management process into six stages: communication and consultation, scope, context, and criteria, risk assesment, risk treatment, monitoring and reviu, and recording and reporting. The risk assessment stage is further divided into three stages: risk identification, risk analysis, and risk evaluation. In total, the risk management process of the International Standard ISO 31000[1] consists of eight stages. These eight stages are an integrated part of the overall risk management process[16].

Communication and consultation aims to assist stakeholders in understanding the risks, the basis for decisions made, and the reasons why certain actions are needed in dealing with risks[1]. The stages of communication and consultation can be carried out in the form of meetings, either routinely or incidentally.

Scope, context, and criteria formulation aim to understand the environment and limitations of risk management implementation in each risk owner unit[16]. Organizations must define the scope of risk management activities because the risk management process can be applied at various levels in the organization. Risk management context must also be formulated because a common understanding of the risk context is important.

Next stage of risk managements is risk assesment wich consist of risk identification, risk analysis, and risk evaluation. Risk identification produces a risk register[13]. The risk analysis aims to understand the nature of the risk and its characteristics, including the level of risk[1]. Risk evaluations are a follow-up to risk assessment[13].

Ruzic-Dimitrijevic and Dakic [3] identify risks that usually arise in educational institutions based on the processes that occur in educational institutions. Risks, hazards, and consequences are identified for each process. Huber's research[17] concluded that educational institutions that do not know their primary function as an organization, namely carrying out teaching and research, cannot properly carry out risk management programs.

Risk analysis involves a detailed consideration of uncertainty, sources of risk, consequences, likelihood, events, scenarios, controls, and their effectiveness. Risk is analysed based on the likelihood of occurrence and its impact on the organization's business processes. After risk identification and risk analysis, management will find that many risks can occur in the organization's operations. However, not all of these risks are mitigated. Some risks that have little impact on the organization may not be mitigated. The process of accepting risk based on the tastes of the risk owner, whether by establishing control or not, is called risk acceptance[5]. In addition to conducting risk assessments, management also carries out response planning. The response to risk can be in the form of risk avoidance, risk reduction, risk transfer, and risk retention[15].

The next stage of the risk management process is risk treatment. The purpose of risk treatment is to ensure and improve the quality and effectiveness of process design, implementation, and response outcomes. The results of monitoring and review should be incorporated into all management activities, measurement, and reporting of the organization's performance. In the risk treatment process there is risk mitigation process.

Next stage is monitoring and review, Risk monitoring or risk mitigation is an action that aims to reduce or maintain the magnitude and level of the main risk until it reaches the expected residual risk[16]. The purpose of risk monitoring is to ensure and improve the quality and effectiveness of process design, implementation, and response outcomes. Risk monitoring should be carried out at all stages of the organization's activities. Risk monitoring includes planning, gathering and analyzing information, recording results, and providing feedback on risk control activities. The results of monitoring and review should be incorporated into all management activities, measurement, and reporting of the organization's performance.

Last stage of risk management process is recording and reporting. The risk management process and the results obtained must be documented and reported through appropriate mechanisms. The recording and reporting of the risk management process is used as consideration and supporting data in decision making and feedback on the risk management implementation[16]. With the report on the risk management process for the previous period, the organization will make decisions regarding risk management in the future period. The International Standard ISO 31000[1] risk management framework and related regulatory frameworks will be used in this study to answer research questions.

As a Government Agency and Public Service Agency (PSA), XYZ Education and Training Center is subject to and complies with applicable laws and regulations, including regulations regarding the risk management implementation. These regulations are Government Regulation Number 60 of 2008 concerning the Government's Internal Control System and Minister of Finance Regulation Number 129/PMK.05/2020 concerning Guidelines for the Management of Public Service Agencies.

In Government Regulation Number 60 of 2008, risk assessment is one of the five elements of the Government's Internal Control System. According to Government Regulation No. 60 of 2008, risk assessment consists of two things: risk identification and risk analysis. Before conducting a risk assessment, the Government Agency's leadership determines the Government Agency's objectives and the objectives of its activities, both of which are guided by the laws and regulations. Government Agency objectives contain statements and directions that are specific, measurable, achievable, realistic, and time-bound and must be communicated to all employees. To achieve the goals of the Government Agencies, the Heads of the Agencies establish a consistent operational strategy and an integrated management strategy and risk assessment plan.

Risk management for PSA is regulated in Minister of Finance Regulation Number 129/PMK.05/2020 concerning Guidelines for the Management of Public Service Agencies. Article 250 of 129/PMK.05/2020 states that PSA leaders must consider risk in every decision-making. The risk management program must also be developed and implemented by the PSA leaders in an integrated manner. The implementation of this risk management program is carried out by establishing a separate work unit. However, if this is not possible, the

Internal Supervisory Unit (SPI) holds this risk management function. PSA leaders carry out risk assessments through risk identification and risk analysis.

Based on observations of the PSA in the field of vocational education, the authors found that the KLM Polytechnic has implemented and developed risk management following applicable regulations. These regulations are from BPKP (GR Number 60 of 2008), PSA guidelines (129/PMK.05/2020), and special rules drawn up by the technical ministry to be obeyed by all work units under the ministry. KLM Polytechnic has carried out risk management stages, starting from risk identification, risk analysis, risk evaluation, and risk monitoring. The risk management process has aligned with the organization's strategy.

Based on research of Mukhlis and Supriyadi [13] the authors found that Gadjah Mada University has implemented risk management according to regulations and systematically. Based on the application of risk management at the KLM Polytechnic and Gadjah Mada University, this study will compare the risk management implementation to the object of research with the risk management implementation at the KLM Polytechnic and PTN BH UGM. This comparison is carried out to evaluate the application of risk management to the current research object and develop a risk mitigation plan following the research object.

Four studies on risk management in educational institutions were used as references. Table 1 contains the research gap from any previous research used as literature in this study. The previous studies have discussed the risk management implementation in educational institutions in terms of specificity, characteristics, and the role of risk management on the sustainability of these educational institutions. The previous studies complement the risk management conceptual framework of the International Standard ISO 31000 [1], which is used as the conceptual framework in this study.

Table 1. Previous Studies

No.	Authors	Research Content	Research Gap
1.	Suray, et al. [7]	Regarding the risk management implementation in educational institutions in general	This study examined the implementation of specific risk management in higher education institutions.
2.	Ruzic-Dimitrijevic and Dakic [3]	Regarding the risk management implementation in educational institutions for higher education levels in general	This study examined risk management implementation in higher education under the Government.
3.	Jamil and Saleh [8]	Regarding the benefits of implementing ERM in public higher education (under the Government) in general	This study discussed the risk management implementation in higher vocational education.
4.	Huber [17]	Regarding risk identification in universities	This study discussed not only risk identification, but all stages of risk.

3 Research Method

This study is a case study. The case study was conducted because this study aims to evaluate the risk management implementation at the XYZ Education and Training Center and formulate proposals for risk management improvements for the XYZ Education and Training Center that are more in line with regulations and best practice implementation.

The object of this research was the XYZ Education and Training Center as a single unit analysis. XYZ Education and Training Center is an Education and Training Center in the field of sea transportation that opens its facilities to government employees and the general public. The risk management process at the XYZ Education and Training Center is the responsibility of each Risk Owner Unit and is coordinated by the Quality Assurance Unit.

This research was conducted at the XYZ Education and Training Center as one of the PSAs in the field of vocational education. The limitation of the research object was directed at the Functional Technical Education and Training Organizing Section as a strategic unit at the XYZ Education and Training Center. This research was conducted based on the risk document in first semester of 2021 and focused on risk management implementation to the research object.

This study used a qualitative methods with descriptive qualitative analysis as data analysis method. The limitation of the object of research was directed at the Functional Technical Training Organizing Section Unit as a strategic unit at the XYZ Education and Training Center. This research was conducted based on the risk document in semester 1 of 2021 and focused on the risk management implementation to the object of research.

Data collection techniques in this study were documentation analysis, interviews, and Focus Group Discussion (FGD). The documentation analysis technique analyzed all risk documents, administrative regulations and work procedures, and KPIs from the XYZ Education and Training Center. This documentation analysis also included transcriptions of interviews with risk managers at the KLM Polytechnic as best practice, paper on risk management at UGM[13], and transcriptions of interviews with practitioners and academics in the field of risk management as data triangulation. This documentation analysis was carried out to obtain data and information, which would later be processed into initial information for interview techniques.

The interview technique was carried out by separately interviewing sources from the XYZ Education and Training Center. The resource persons were the Head of the Risk Ownership Unit, the Head of the Internal Audit Unit, and the Head of the Quality Assurance Unit at the XYZ Education and Training Center. The things that were asked in the interview were those whose information was not obtained in the documentation analysis. Documentation analysis and interview techniques answered the first research question, namely an evaluation of the risk management implementation at the XYZ Education and Training Center. Interview techniques were conducted face-to-face and online.

The author used a semi-structured interview technique in this separate interview. This semi-structured interview technique was to find problems more openly, where the parties invited to the interview were also asked for their opinions and ideas. Ideas from resource persons were used as additional information to answer research questions.

In addition to resource persons from the research object, the authors also interviewed KLM Polytechnic risk managers as best practices. The purpose of this interview was to find out the flow of the risk management process at the KLM Polytechnic which was used as best practice in this study. The results of the interviews were included in the best practice document and used as data in the benchmarking method for the risk management implementation between the XYZ Education and Training Center and the KLM Polytechnic. The authors interviewed risk management practitioners and academics from the Ministry of Finance. The purpose of this interview was to get data triangulation and get more objective research results.

The FGD or Focus Group Discussion technique discussed the proposed risk management improvement for the XYZ Education and Training Center with three resource persons from the XYZ Education and Training Center in a joint forum through online media. There were four themes discussed in the FGD, each theme was discussed one by one. The author proposed a risk management improvement proposal according to the discussed theme, and the resource person responds to the proposal. If the resource persons agreed and the proposal was deemed applicable to the XYZ Education and Training Center, the discussion would continue to the next theme. If it was felt that the proposal could not be applied to the XYZ Education and Training Center, the authors and resource persons discussed which form is the most appropriate and could be applied.

4 Results and Discussions

The risk management process must align with the organization's objectives. According to Government Regulation Number 60 of 2008, the risk management process begins with establishing clear and consistent aims and objectives of Government Agencies both at the agency level and the activity level[10]. Organizational objectives are essential to guide the risk management process. A risk management academic at the Ministry of Finance said, "...for the risk management process, regardless of the institution, the process remains the same. The only difference is the main risk. To make it easier, we usually negate the goal and identify the factors causing it...". Therefore, every organization must determine its goals before deciding the risks accompanying the organization's activities.

The organizational goals at the XYZ Education and Training Center were presented in the form of the Organization's Vision, Mission, and Quality Policy. While the objectives of the activities had been determined based on the activities carried out. The purpose of this activity had been listed on the risk list of the XYZ Education and Training Center.

The risk management process at the XYZ Education and Training Center began with the risk identification process. Moeller[14] said that the risk identification process should be carried out at various organizational levels.

Government Agencies identify risks that can hinder the achievement of agency goals and activity objectives effectively and efficiently[10]. At the XYZ Education and Training Center, the risk identification process is carried out by interviewing each employee about the duties of their respective functions. Risk identification is also carried out by evaluating every activity carried out by the organization. The Head of the Risk Ownership Unit said, "...by evaluating each existing activity. Then from the evaluation results, we get the risks that exist..." In agreement with the Head of the Risk Ownership Unit, the Head of the Internal Audit Unit also said, "Risk identification is identified from our activities carried out..." The risk identification process at the XYZ Education and Training Center is also carried out by recognizing the obstacles that arise in activities that have been carried out in the past.

The person in charge of the risk identification process at the XYZ Education and Training Center was the Head of the respective Risk Owner Unit. Although there is the Quality Assurance Unit, responsibility for the risk management process at the XYZ Education and Training Center remained with the respective Risk Owner Units. The Quality Assurance Unit only coordinated and managed organizational risks more systematically.

The risk could be sourced from within or outside the organization. Risks at the XYZ Education and Training Center had been identified based on the sources of risk, from internal and external factors. Risks originating from external factors at the XYZ Education and Training Center were in the form of policy risks from the Finance Bureau or the Guiding Agency, the risk of changing teachers (because the teachers at the XYZ Education and Training Center came from specialized agencies outside the XYZ Education and Training Center), and coordination risk with management (vertical agencies). Meanwhile, the risk of an uneven HR workload came from internal factors at the XYZ Education and Training Center.

For the main risks, the XYZ Education and Training Center had identified the typical risks of educational institutions related to the organization's key performance index (KPI). Examples of typical risks of educational institutions identified by the XYZ Education and Training Center were the risk of sudden teacher/instructor changes, the risk of lack of education personnel, the risk of leaking exam questions, and the risk of lack of competence of educators, et cetera. However, the risks at the XYZ Education and Training Center were not grouped by risk category.

The function of determining risk categories was not only to describe all types of risks that exist in the organization but also so that the organization could determine the appropriate mitigation for each risk[15]. Moeller[14] gave examples of risk categories: strategic, operational, financial, and technology and information risk. For Government Agencies, risk categories could be reputation, fraud, operational, compliance, state financial, and legal risks[16].

Although the XYZ Education and Training Center did not classify risks based on risk categories, the XYZ Education and Training Center identified risks associated with these risk categories. For example, for the risk of fraud, the XYZ Education and Training Center had identified the risk of illegal levies being carried out by unscrupulous individuals. This risk was the risk of fraud that must be mitigated. Moreover, for reputation risk, the XYZ Education and Training Center mentioned the risk of complaints and the risk of not maintaining education and training facilities and infrastructure as reputation risks.

Risk analysis was carried out to determine the impact of risk on achieving organizational goals[10]. Risks at the XYZ Education and Training Center were classified based on the impact and likelihood scales. Risks were classified into 4 levels on the impact scale: very low, low, high, and very high. On the likelihood scale, the risks were classified into 4 levels: very unlikely, unlikely, likely, and very likely/has happened.

The impact of risks on the XYZ Education and Training Center was divided into 7 impacts: financial impact, recruitment impact, compensation claim impact, service delay impact, health and safety impact, reputation impact, and impact on related parties. Each impact had its description based on the scale of the risk impact (Appendix 1).

The XYZ Education and Training Center's risk likelihood scale was also divided into 4 levels. For the likelihood scale, the risk with a level of "very unlikely" was a risk that was likely to occur once in more than 5 years. Risks that may occur every 1 to 5 years were classified as risks with an "unlikely." A "likely" level of risk was a risk that was likely to occur within 1 to 6 months. And the risk with a level of "very likely/has occurred" was a risk that may occur at least every week or month (Appendix 2).

The risks identified and recorded in the risk register were assessed as relevant to the activity's objectives[10]. At the XYZ Education and Training Center, the risk assessment process was carried out with the help of professional consultants in the field of risk management. According to the Head of the Internal Audit Unit, "...each Risk Owner Unit was directed to identify risks until they become weighted, with consultant help." Likewise, the Head of the Risk Ownership Unit said, "...with the help of a consultant. Consultants who calculated the weight of each risk. Risk was assessed by weight in terms of frequency and impact." All risks identified at the XYZ Education and Training Center had been assessed based on how significant the risk was (impact of the risk on the organization) and the estimated likelihood of the risk occurring.

Based on the impact and likelihood scales, a risk score was obtained, which will later become the basis for determining risk priority in the form of a risk level score. This risk level score was determined by combining the impact and likelihood scale levels[16]. The risk level at the XYZ Education and Training Center was presented in the form of a score between 1 and 4 based on the impact and likelihood scales.

In addition to determining the priority of risks, the organization also planned the response to the identified risks. The organization planned to respond by “risk avoidance”, “risk reduction”, “risk transfer”, or “risk acceptance”. XYZ Education and Training Center had responded with “risk reduction”, “risk transfer”, and “risk acceptance” for all identified risks. There is no “risk avoidance” response in the XYZ Education and Training Center’s risk response planning.

The “risk transfer” response was given to risks that could be transferred to third parties, for example, participant dissatisfaction with the accommodation provided by the XYZ Education and Training Center and the risk of participants getting sick during education. The “risk acceptance” response was given to human risks, such as natural disasters that could not avoid. Meanwhile, other risks were given a “reducing risk” response.

After the risk identification, risk analysis, and risk evaluation, the next stage of the risk management process was risk treatment. Risk treatment aimed to ensure and improve the quality and effectiveness of process design, implementation, and response outcomes[5]. In this risk treatment process, there was a risk mitigation process which was an action that aimed to reduce or maintain a risk level score.

Since the function of risk evaluation was to determine which risks were mitigated first, the organization needed to determine its risk appetite to determine the lower limit of the risk being mitigated. For example, if an organization determined a low-risk appetite, then risks with low and very low levels were accepted and were not mitigated, while risks with moderate, high, and very high levels are mitigated. Thus, the organization could focus on mitigating risks that significantly impact the achievement of organizational goals.

XYZ Education and Training Center had not determined the organization’s risk appetite. Therefore, all XYZ Education and Training Center risks had not been properly and systematically mitigated. The XYZ Education and Training Center’s risk document contained information about the form of risk control. However, the XYZ Education and Training Center had not compiled a mitigation report on the controlled risks. According to the Head of the Quality Assurance Unit, the XYZ Education and Training Center had carried out the risk identification process, risk assessment, risk priority and response determination, and risk control but had not carried out the risk mitigation process.

Evaluation of the risk management implementation at the XYZ Education and Training Center was carried out by analyzing data from documentation analysis and interview results and then comparing them with best practices, namely KLM Polytechnic and UGM, and applicable regulations, namely Government Regulation No. 60 of 2008. This evaluation used a qualitative descriptive analysis using the International Standard ISO 31000 risk management conceptual framework[1].

4.1 The Communication and Consultation Process

The risk management process began with communication and consultation. The communication and consultation process at the XYZ Education and Training Center occurred before the risk identification process started. XYZ Education and Training Center used consultant services to compile a risk register. According to the Head of the Internal Audit Unit, consultants communicated with employees to find out the duties and functions of each employee and recognize the risks that accompany these duties and functions.

The communication and consultation process at the XYZ Education and Training Center stopped during the risk identification process. The XYZ Education and Training Center did not continue the communication and consultation process after the consultant finished compiling the risk list. The XYZ Education and Training Center should continue this communication and consultation process so that the risk management process does not stop in the middle of the process and can continue.

4.2 The Scope, Context, and Criteria Formulation Process

The risk management implementation process at the XYZ Education and Training Center was guided by Government Regulation No. 60 of 2008 concerning the Government's Internal Control System. According to Government Regulation No. 60 of 2008, the risk management process began with setting the Government Agencies' goals and the activities' objectives, both of which were guided by the laws and regulations[10]. XYZ Education and Training Center had set the goals of Government Agencies in the form of a vision, mission, and quality policy. The XYZ Education and Training Center had also set the activity objectives listed in the risk list for each activity.

4.3 The Risk Identification Process

The risk identification process at the XYZ Education and Training Center had aligned with the organization's goals and activity objectives. The risk identification process was also carried out properly according to the risk management conceptual framework. XYZ Education and Training Center used the assistance of professional consultant services in this risk identification process. The consultant interviewed all employees for their respective duties and functions and identified risks that accompany the duties and functions of each

employee. Risk identification was also carried out through an evaluation of each activity that had been carried out and studying deficiencies that have the potential to become risks.

According to Moeller[14], the risk identification process by interviewing all the people in charge of the activities was the correct process. However, it was better if the risk identification process also considered the performance contract signed at the beginning of the year, as is the case with the risk identification process at UGM, which became the best practice in this research. By considering the performance contract in the risk identification process, the identified risks would be more focused on the risks that have the potential to arise in the organization's main activities.

The risk identification process had also considered the organization's Key Performance Index (KPI). XYZ Education and Training Center's KPI reflected the KPI of an educational institution. The identified risks were also aligned with the KPIs. Typical risks of educational institutions, such as the risk of leaking exam questions, the risk of changing teachers/instructors, and the risk of lacking HR competence, had been identified at the XYZ Education and Training Center.

Risks were also identified based on the cause of occurrence. Causes of risk could be internal factors or external factors of the organization. XYZ Education and Training Center had identified the risk of these causal factors. However, the XYZ Education and Training Center had not classified risks based on risk categories.

Risk classifying by risk category was not mandatory in the risk management process. However, classifying risks based on risk categories would make it easier for organizations to determine the appropriate mitigation for these risks. Compared with the KLM Polytechnic, the best practice in this study, the KLM Polytechnic has classified risks based on risk categories. The KLM Polytechnic used 6 (six) risk categories in classifying the identified risks. The six risk categories were reputation risk, fraud risk, operational risk, compliance risk, state financial risk, and legal risk. This classifying per category made it easier for KLM Polytechnic to mitigate the identified risks.

XYZ Education and Training Center did not classify risks according to risk categories but based on the activities carried out. Therefore, a risk impact assessment was carried out based on the activities. The risk was assessed for impact and likelihood of occurrence based on activities carried out by the XYZ Education and Training Center.

4.4 The Risk Analysis Process

The scale of the impact on the XYZ Education and Training Center, which was divided into 4 (four) levels, had weaknesses. The impact scale was divided into very low, low, high, and very high. There is no "medium" option in the XYZ Education and Training Center's risk impact scale. This caused the risk classification only to be able to choose between "low" and "high."

Compared to the KLM Polytechnic as a best practice, the risk impact scale at the KLM Polytechnic was divided into 5 (five) levels: insignificant, minor, moderate, significant, and very significant. The division of the scale into five levels, like the KLM Polytechnic, made it easier for risk owners to classify risks based on impact. However, these weaknesses were offset by a clear description of each level of risk impact, making it easier for risk managers to determine the level of risk impact.

The XYZ Education and Training Center divided the risk impact into seven risk impacts. The seven risk impacts had specific descriptions for each level of impact. This helped risk managers classify the identified risks at the XYZ Education and Training Center.

For the likelihood scale, in the description, there was an inconsistency of meaning. On a scale of "very unlikely" and "likely," the description refers to risk likely to occur at least once in five years and one to five years. Using the word "likely" for a description that shows a risk that may occur creates an inconsistency of meaning. It was recommended that at the level of likelihood scale, the words used were changed to "very rarely happening," "rarely happening," "often happening," and "very often happening," as used by KLM Polytechnic as best practice, so as not to cause inconsistencies in meaning. The authors proposed a new description for the XYZ Education and Training Center's likelihood scale as on Appendix 3.

4.5 The Risk Evaluation Process

The XYZ Education and Training Center's risk level score was product of multiplication of risk impact score and risk likelihood score. With 4 levels of risk impact scores and 4 levels of risk likelihood scores, the risk level score had a range from 1 to 16. The risk score at the XYZ Education and Training Center did not have any description. The level of risk could not be defined with certainty because of the absence of a description of this risk score. The risk manager could not determine whether a risk with a score of 16 was high or very high and risk with a score of 1 was low or very low.

When compared with the KLM Polytechnic as a best practice, the KLM Polytechnic divided the risk level into 5 (five) levels: very low, low, medium, high, and very high. Meanwhile, the risk scale was divided into 25 levels: levels 1-5 for very low risk, levels 6-11 for low risk, levels 12-15 for moderate risk, levels 16-19 for high risk, and levels 20-25 for very high risk. With this division, KLM Polytechnic could quickly determine risk

mitigation patterns for identified risks. It was suggested at the XYZ Education and Training Center to recalculate all risk scores using the authors' proposed risk likelihood scale.

4.6 The Risk Treatment Process

The risk treatment process at the XYZ Education and Training Center required special attention. In this risk treatment process, there was a risk mitigation process. To carry out the risk mitigation process, organizations needed a risk appetite. The XYZ Education and Training Center had not determined the organization's risk appetite. This caused all risks were not mitigated properly and systematically. Determining this risk appetite was essential so that the XYZ Education and Training Center did not have to mitigate all the risks that had been previously identified. Mitigating all identified risks was not a bad thing. However, some risks did not need to be mitigated because the impact and likelihood of their occurrence were minimal. Focusing on the risks that need to be mitigated would save organizational resources, especially in the financial sector.

Risk appetite could be presented in a risk map. The authors proposed risk appetite 4 for XYZ Education and Training Center (Figure 1). Risk appetite 4 meant that XYZ Education and Training Center only mitigated risks with a risk level score above 4. Meanwhile, risks with a score of 4 or below were not mitigated. By determining risk appetite, XYZ Education and Training Center could choose which risks were mitigated.

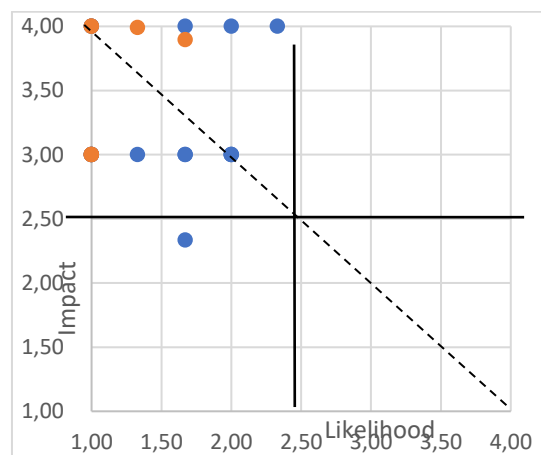


Figure 1. XYZ Education and Training Center's Risk Map with Risk Appetite Proposal

On risk treatment process there is risk control process. At the XYZ Education and Training Center, the risk control process had been implemented but not systematically and coordinated. Each employee was responsible for controlling risks that accompanied their duties and functions. In fact, some risks required coordination from the leadership in the mitigation process. The XYZ Education and Training Center should implemented the risk control process systematically and coordinated so the XYZ Education and Training Center could implement risk mitigation process systematically.

4.7 The Monitoring and Review Process

Monitoring and Review process was an important stage in the risk management process because this process includes planning, gathering, and analyzing information, recording results, and providing feedback on risk control activities. The monitoring and review process began the risk identification process for the next period. This process also fulfilled the entire risk management process. XYZ Education and Training Center had not completed the risk monitoring and review process. Therefore, the organization does not know the risks that will occur in the coming period.

Compared to the best practice documents from the KLM Polytechnic, the KLM Polytechnic carried out a risk monitoring process in April, July, October, and January of the following year. The monitoring was carried out on the magnitude and level of risk, risk status, projected changes in risk magnitude, and implementation of subsequent risk mitigation plans. Thus, KLM Polytechnic could continue to monitor risks and have data on decision-making for the risk management process for the next period. It was recommended at the XYZ Education and Training Center to carry out the monitoring and review process after XYZ Education and Training Center had implemented all the previous risk management processes.

4.8 The Recording and Reporting Process

The risk recording and reporting process was the final stage of the entire risk management process, as well as a guide for the risk management process for the next period. The risk recording and reporting process produced a risk management report which was also a means to communicate the risk management process at the XYZ Education and Training Center to external parties. Risk management reports are an integral part of organizational

governance, therefore the XYZ Education and Training Center should compile a risk management report so that stakeholders could understand the risk management process at the XYZ Education and Training Center.

Compared with UGM as best practice, UGM had compiled a report on implementing UGM risk management at the end of the risk management process. The report was a compilation, review, and synchronization of the risk management results at UGM. The XYZ Education and Training Center was recommended to compile a risk management report after completing the entire risk management process.

A risk management process was implemented to help organizations manage the risks that accompany organizational development. Risks that were not managed properly will hinder the achievement of organizational goals. The XYZ Education and Training Center should carry out this risk management process as a whole and systematically so that the organizational goals contained in the vision, mission, and quality policy could be achieved without significant obstacles.

5 Conclusions, Implications, and Limitations

The risk management process at the XYZ Education and Training Center has been carried out following regulations. However, some deficiencies must be corrected at some stages of the process. According to the risk management conceptual framework, the risk identification process had been carried out properly. The risk identification process had also considered the organization's Key Performance Index (KPI). Risk factors were also considered in the risk identification process.

The analysis process of the risk impact and risk likelihood at the XYZ Education and Training Center was going quite well. Impact and likelihood scales had been provided with descriptions for each level. However, for the scale, it may be necessary to improve the narrative to avoid inconsistencies in meaning.

The risk monitoring process of the XYZ Education and Training Center required more attention than other processes. The XYZ Education and Training Center had not determined the organization's risk appetite, so the XYZ Education and Training Center could not determine which risks should be mitigated and which risks should not be mitigated. Carrying out a risk mitigation process on all identified risks is not bad. However, it would be better if the organization focuses on the risks that must be mitigated to save organizational resources, especially in the financial sector.

The recommendation for the XYZ Education and Training Center is for the XYZ Education and Training Center to immediately determine risk appetite, which is contained in an official letter issued by the Head of the Center. Determining this risk appetite will help XYZ Education and Training Center decide which risks need to be mitigated and which risks do not need to be mitigated. It is also recommended to the XYZ Education and Training Center to immediately carry out all risk management stages, from the communication and consultation process to the recording and reporting process, properly and systematically according to regulations.

This research has contributed both empirically and to practice in the field. Empirically, this study complements previous research on the application of risk management in educational institutions. Research on the application of risk management in educational institutions has not been widely carried out in Indonesia. Therefore this research can be an additional reference for similar research in Indonesia.

The contribution of this research practice is to provide suggestions for improvements to the risk management process at the XYZ Education and Training Center. The results of this study have been applied to the XYZ Education and Training Center as a guide to improve risk management at the XYZ Education and Training Center as a whole.

The authors realize that this research has limitations. This research is a single case study. Further research can expand the object of study into a multiple case study to broaden the implications. The risk management conceptual framework used in this study is only limited to International Standard ISO 31000 risk management conceptual framework[1]. Future research can use other risk management conceptual frameworks such as COSO ERM or others.

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Appendix

Appendix 1: XYZ Education and Training Center Risk Impact Scale

Score	1	2	3	4
Level	Very Low	Low	High	Very High
Financial Impact	< 3% of budget	3-8% of budget	8-12% of budget	> 12% of budget
Recruitment Impact	Minor impact on recruitment	Impact on the ability of the field to recruit	Resulting in the ability of Directorate to recruit	Affecting the agency's ability to recruit
Compensation Claim Impact	Claims of sebesar Rp 100.000 – Rp 1.000.000	Claims of Rp 1.000.000 – Rp 5.000.000	Claims of Rp 5.000.000 – Rp 25.000.000	Claims of > Rp 25.000.000
Service Delay Impact	Half working day	Full working day	2-3 working days	A week of working days or more
Health And Safety Impact	Minor injuries to a person or some people	Major injuries to a person or some people	Serious injuries to a person or some people	Multiple injuries to a person or some people
Reputation Impact	Known by the whole office	Loaded by local mass media but quickly forgotten by the public	Loaded in the national media and temporarily remembered by the public	Loaded by national/ international media and long remembered by the public
Impact On Related Parties	Impact only 1 party	Impact on 2-3 parties	Impact on 4-5 parties	Impact on more than 5 parties

Appendix 2: XYZ Education and Training Center Risk Likelihood Scale

Score	Level	Likelihood
1	Very Unlikely	Might happen once in more than 5 years
2	Unlikely	May happen every 1 to 5 years
3	Likely	May happen every 1 to 6 months
4	Very Likely/Has Happened	May happen at least every week/month

Appendix 3: Risk Likelihood Scale Proposal

Score	Level		Likelihood	
	Existing	Recomedation	Existing	Recomedation
1	Very Unlikely	Very rarely happening	Might happen once in more than 5 years	Happens once in more than 1 year
2	Unlikely	Rarely happening	May happen every 1 to 5 years	Happens once every 6 to 12 months
3	Likely	Often happening	May happen every 1 to 6 months	Happens once every 1 to 3 months
4	Very Likely/Has Happened	Very often happening	May happen at least every week/month	Happens at least once every month