Analysis of Quality Planning To Improve the Performance of the Development Projects School Buildings in the Eastern Indonesia

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Abstract: The school buildings are mostly built and operated throughout the country. The problem of this research are, to identify the most important variable of risk project the school buildings in the Eastern Indonesia and the result of analysis of risks to the project the school buildings in the Eastern Indonesia. This study will use research methodology qualitative and quantitative with respondents from the assignor. Factors and variable the questionnaire obtained from various journal and books. The questionnaire that contains parameter qualitative filled the score by which has determined later in continue with use scalar parameter quantitative. The results of the questionnaire then analysis by using program spss version 22 so obtained variable the best performance project on the increase in the school buildings in the Eastern Indonesia. The result of research that is the 3 variable dominate the improvement the performance of project the school buildings in the Eastern Indonesia. 3 variables contributed to the increase of performance project the school buildings in the Eastern Indonesia namely X55 inflation contributed on increased the performance of the development projects the school buildings in the Eastern Indonesia at 54.5 %, X76 policy the quality of (supported by senior management) to give contribution on variables the performance of the development projects the school buildings in the Eastern Indonesia at 24.1 %, and X12 the ability and capacity of work workers can be contributing to variable the performance of the development projects the school buildings in the Eastern Indonesia at 7.4 %. Recommendations the research is to better results respondents should homogeneous in terms of education, office, experience working, and age. For the assignor that really looks at what the inflation, policy the quality of (supported by senior management, also the ability and capacity of work workers. It is hoped that the variables of the findings can be eliminated.

Keywords: Quality Planning, to Improve the Performance, Development Project, School Buildings in the Eastern Indonesia

1. Background and Problems Research

Government efforts to speed up the process improving the welfare of the population and poverty reduction in Eastern Indonesia one of them is by promote school development good being done by government and by private. Eastern Indonesia still much negativity the school buildings that current are mostly done the construction of the school buildings. In project implementation the building principal is a number of problems. Obstacles he faced by company construction services when not to be overcome, resulting in the success of the project can be interrupted.

Project are the activities while the implemented within a limited period of time, done by allocation of specific resources and intended to undertake the task that has targeted have been passed in clear. Risk project is uncertainty of a condition and situation, if does not overcome as soon as can cause obstacles in the project. In the implementation of a construction project there are three obstacles that is charge, quality, and time. Charge, the quality, and time is project target which is defined as right charge, right the quality, and timely. Success or failure the implementation of a project associated with the extent to which third the objective be achieved. Example risks that faced by namely the availability of material in the area a shortage process of shipping materials, the availability of labor a shortage the cost of distributing material very high because wearing transportation air and sea that material can get to the on time.

Project management involves the project management performed with manages, allocate, and scheduled resources in a project to reach the goal of expected. In project management, planning and control that well yet can ensure that project target. There is no possibility of the achievement of the at a
mark so that required the ability to analyze, process, and seek solutions to the risks involved.

Risk management is activities to analyze risk, to minimize risk that might happen, and find a settlement of risks happened to minimize the impact of what happened. Hence, an analysis of risks to the project building to school important to do. By doing risk management the building expected project school in accordance with project target proper charge, on time, and right quality.

Next by looking very closely these backgrounds, this study will solve research problems:

a. What are the factors and variables in the project of quality planning at the school building?
b. How to measure the performance of construction process?
c. What is influence of the quality planning in improving the performance of the construction of school building in the Eastern Indonesia?

2. Literature Review

2.1 Total Quality Management (TQM)

Total quality management derived from three words the total, quality, and management. Key focus on TQM is the quality. Quality as a fulfillment of needs (conformance to requirement).

The "total" word (integrated) in Total Quality Management confirms that everyone within the organization should be involved in continuous improvement efforts. There are many definitions of the word “management” which is the initial concept of TQM itself that have been advanced by experts. Etymologically, the word “management” comes from English language which means administration, governance/leadership, and supervision.

According to Tjiptono, Total Quality Management is an approach in running a business that tries to maximize the competitiveness of an organization through continuous improvement of its products, services, people, processes, and environment. In short Total Quality Management is a system management that raised the quality as a strategy business and oriented to customer satisfaction and involving all members of an organization. The objective is to ensure that the customer is satisfied with the goods and services provided, and to ensure that no party is harmed.

2.2 The Quality of Planning

Joseph M. Juran proposes that the quality of means match/suitability the use of product to meet the needs and customer satisfaction. The concept of Juran affects the travel of the quality of being used as a measurement to the world industry. Company management that was aware of the quality of giving the best services will keep looking form of increased quality. Here Juran gives the discussion called trilogy of this process in figure below:

![Figure 1. Organizational structure](Source: Gaspersz 2005)

This concept of “Quality Planning, Quality Control Quality Improvement, and Project Quality Management” is commonly used in the construction services industry that has a unique process and different from the manufacturing industry. The construction service industry prioritizes human resource skills while manufacturing processes prioritize tools/machines in achieving the end result. So often, it termed as “hand made”, because almost 70% still rely on human skills. The Juran theory is highly relevant to project implementation conditions as it emphasizes three very important elements and one with interrelated ones.

2.3 Construction Process

In a construction process there are 3 things to note in particular to maintain the quality that will be generated.

2.3.1 Building Construction Project

A construction project is the series of activities make a building, who generally they covered basic work in the field of civil engineering and techniques architecture. In a construction project there are various activities. The project activities is a temporary activity and implemented within a limited period of time, with allocation of certain funds to undertake the task to the objective that has been set.

According to Suharto (1999), complexity project depend on:

a. The number of activities in the projects.
b. Variety and quantity of the relationship between a group (organization) in project itself.
c. Variety of and quantity of the relationship between activities (organization) in a project with the outsiders.

This complexity depends on the size of a project. Small projects can be more complex than larger size projects. Complexity requires regulation and control in such a way that there is no collision in the implementation of the project, it is necessary to have a reliable and robust project management to sustain the implementation of the project.

The description of the construction work process by Hillebrandt (1988) as something long, complicated and involving many parties. The success of the construction process depends on the interdependence of the parties involved in the construction process. In the construction process the
parties involved may be individuals/companies as the main actors, whereby the Owners, may be private individuals/governments and are responsible for the project conception, and the owner is the most decisive party. Owners are assisted by Engineering or designers, such as architects or engineering consultants. The physical execution is done by general contractor or specialist contractor.

2.3.2 Project Management of Construction Building

Project management of construction has characteristic, unique, involving many resources, and need organization. In the process of completion, it must adhere to three constraints (triple constraint): according to the specified specification, to time schedule and to the set cost (Wulfram, 2007). Furthermore, Wulfram said the purpose of project management is to obtain the best technical method or way to limited resources to obtain maximum results in terms of accuracy, speed, saving and safety.

According to Soeharto (1999), the objectives of the project management process are as follows:

a. In order for all sequences of activities to be on time, in this case there is no delay in completion of a project.

b. Cost is appropriate, meaning that there is no additional cost beyond the planned cost planning.

c. Quality in accordance with the requirements.

d. Process activities as per requirements.

Management is a distinctive process, consisting of planning, organizing, actuating, and controlling, which is conducted to determine and achieve the goals set by human resources and other resources.

2.3.3 Concept of Construction Planning

According to Asiyanto (2005), based on construction contracts, drawing documents, and technical specifications that exist, it must be prepared an implementation plan for the objectives to be achieved can be realized. The success of the construction project is largely determined by the construction planning both in the management and implementation of construction projects. It covers:

a. Selection of technology.

b. The definition of a job assignment.

c. Estimated resources required.

d. Duration for individual tasks.

e. Identification of each interaction among various job tasks.

A good construction plan is the basis for developing the budget, schedule and quality of work. In addition, the use of subcontractors in construction technical plan needs organizational decisions. While the planning steps that need to be done after the data collected and quite complete from various aspects that are considered necessary. Among others doing a review of the drawings of plans and technical specifications of existing projects, if later not in accordance with the conditions of implementation can be completed by making confirmation to the consultant planner. Then perform a more rigorous calculation of the volume of work, material requirements, equipment, and labor used. Proceed to develop a detailed implementation cost budget adjusted to the allocation of required resources and available funds. Then choose the type of technology and equipment that suits your needs. The formulation of detailed activities with an accurate and integrated schedule, as well as preparing the administrative aspects, procurement and organizing the parties involved, preparation of work programs, risk management planning, health, safety planning, and management information system planning.

2.4 Risk of Quality Planning

Project risk management involves understanding and identifying potential problems, evaluating, monitoring, and managing risks. Proactive risk management means answering how people actively seek to reduce risk and improve the success rate of project implementation.

Risk is a combination of the probability of an event and the effect of the event by not excluding the possibility that there is more than one possible effect for a particular event. Definition of risk is an opportunity or chance that can be mathematically formulated as follows:

Risk Exposure = Risk Likelihood \times Risk Impact

Risk likelihood is the probability occurrence of a quantifiable event into a number; the risk impact is the impact of the event which is usually measured by monetary units such as rupiah, while the level of risk interest is called risk exposure, which in the cost-benefit analysis will reflect the cost. Risk exposure is what will be compared with the risk exposure of another job and become a reference for people to choose which job will be done.

According to IRM (2002), there are at least 4 types of risks that are already known to people, namely Operational Risk, Financial Risk, Hazard Risk, and Strategic Risk.

In general, the main risk management objectives are to prevent or minimize adverse effects from unforeseen events through risk avoidance or preparation of contingency plans related to those risks. In the project risk management is an uncertain event or condition, and if it has a positive or negative impact on the project objectives.

Furthermore, in the context of project management, project risk management is understood as the art and science of identifying, analyzing, and
responding to risks over the life of the project and ensuring the achievement of project objectives. Good project risk management will be able to significantly improve project success rates. However, project risk management will have a positive impact on selecting projects, determining project scope, creating realistic schedules and cost estimates.

There are three things to consider in project risk management:

a. Identify, analyze, and assess risks at the beginning of the project systematically and develop plans to anticipate risks.
b. Allocate responsibilities to the most appropriate party to manage risk.
c. Ensure that the cost of handling risk is quite small compared to the value of the project.

Decision making can generally fall into three categories:

a. Decision making in certain conditions.
b. Decision making in under risk.
c. Decision making in uncertainty.

The risk management process provides an overview to us that to manage risk there are several stages; planning involves deciding how to approach and plan risk management activities for a project. Taking into account project scope, project management plan, corporate environmental factors, the project team can discuss and analyze risk management activities for specific projects.

To make risk management planning, there are several things that are needed are:

a. Project Charter.
b. Risk management policy.
c. Roles and responsibilities.
d. Stakeholder tolerance of risk.
e. Template for an organization’s risk management plan.
f. Work Breakdown Structure (WBS).

The output of risk management planning is the Risk Management Plan which contains:
Methodology, Roles and Responsibilities, Budget, Time, Scoring and Interpretation

2.4.1 Risk Identification

Risk identification is used to determine what risks can affect the project and document its characteristics. Risk identification is an ongoing process, as there may be new risks to be discovered throughout the project from start to finish. There are two risk categories: internal and external risks. Internal risk is a risk that comes from within the company or the project itself. For example that is about cost, quality, and time. While external risk becomes a risk that comes from outside the company or project, such as economic factors for example inflation, politics, war, and others partially. According to Smith (1999), risks are identified from the source and impact of the loss.

2.4.2 Sources of Risk

According to the source, the risk can be divided into financial risk, legal risk, political risk, social risk, environmental risk, communication risk, and construction risk.

Risk identification using a project documentation checking system by collecting information by brainstorming, interviewing, identifying the root cause, resulting in a list of risks, causes of risks, a list of ways of mitigating, the root of possible risk issues in the project.

2.4.3 Risk Analysis

Risk analysis is an estimate of what will happen if a decision is taken. In choosing a risk analysis technique depends on the type and size of the project, the information, the cost, the time available to analyze, as well as the experience and expertise of the analyst (Smith 1999). There are two ways to perform risk analysis, ie quantitatively and qualitatively. Quantitative analysis is used on things that can be mathematically calculated, for example, additional cost losses due to longer work time than schedule, whereas qualitative analysis is used to matters that can not be calculated materially due to the congestion of project implementation.

2.4.3.1 Qualitative Risk Analysis

This analysis can be done quickly and inexpensively, very useful for preparing priorities in risk mitigation planning. The basis for qualitatively analyzing is:

a. The previous project data from which the data can be learned will be what the risks of the project are.
b. A clear scope of work will help find out what will be done to complete the project so that the risks it faces are also clear.
c. A risk management plan in which consist regulations and responsibilities of each personnel involved in the project.
d. List of risks that have been made at the risk identification stage.

According to the book A Guide to the Project Management Body of Knowledge (PMBOK) in this analysis system there are often used methods such as Soft System Methodology (SSM), SSM generally have 7 steps in the process. The first two steps are used to identify situations that may be at risk. The third step is to describe the work done within the project. The fourth step creates the concept of risk aversion system model. The fifth step is to compare the concept of the model that has been made with the reality that occurred in the field. The sixth step is to define the changes made in the concept model so that the concept can be used in reality and profitable. The seventh step is to
implement the concept of an improved model to combat risk. Another commonly used method is the Risk Probability and Impact Assessment, estimating possible risks of investigating the possibility of occurrence of some specific risks, while estimating the impact of risk investigating potential effects in a project that may affect the project's ultimate objectives such as time, quality, and scope of work which includes both negative and positive impacts. This impact scale can later reflect the level of impact on the project whether it is a positive or negative effect. In this method we can use relative scales that can be used to present probability values from “very unlikely” to “almost ascertained” or alternatively using numerical probability values as a general scale in both linear and nonlinear form. Nonlinear scales describe the organization's desire to avoid large losses or be used to exploit existing opportunities so as to generate substantial profits.

2.4.3.2 Quantitative Risk Analysis

This method of analysis is usually performed on the basis of the risk priorities resulting from qualitative analysis. Quantitative analysis should usually be repeated after risk mitigation planning as part of monitoring and control of risk. Before the quantitative analysis is usually done data collection using interview method, probability distribution and expert assessment. The methods that are often used in this analysis include: Sensitivity Analysis, this analysis is used to determine which risks have the greatest impact on the success of the project. According to Marshall (1995), sensitivity analysis is used to measure the effect of a project because of changes in one or more key values about where there is uncertainty. For example, pessimistic, hopeful and optimistic values may be selected for indeterminate variables. Then an analysis can be done to see how the results change if the three selected values is considered alternately with other things that are treated equally. In the Handbook for “The Economic Analysis of Water Supply Projects” it is mentioned that sensitivity analysis is a technique for looking at the impact of changes in project variables for basic problems (the most likely outcome scenario).

The purpose of sensitivity analysis is to:

a. Help identify key variables that affect the flow of profits and project costs.
b. Investigate the consequences of possible changes in key variables.
c. Assess whether the decision of the project taken is influenced by changes in key variables.
d. Identify actions that could negatively impact the project.

2.5 School Building

School buildings need to be planned in accordance with Building Law No. 28/2002 by following the requirements of the function of comfort, safety, health, considering the damage to school buildings can disrupt and paralyze some educational service process due to facilities and infrastructure that can not be used properly. Moreover, high school buildings must be absolutely certain that the school building building is able to save its inhabitants.

2.6 Role of Assignor in Project Process

The owner of the project or owner is a person or institution that has a project or a job and provides it to other parties capable of performing it in accordance with the employment contract agreement. To realize the project, the owner has a fundamental obligation that is providing funds to finance the project. The project owner is also called the assignor, owner or bouwheer is a business entity or individual, both government and private that owns, provides jobs, and finances a project in the process of build a building. The tasks, authority and responsibilities of the project owner include:

a. Appoint its representative for planning and implementation needs, in this case to appoint the implementing contractor, the project supervisor who has been selected through the auction system.
b. Ratifies decisions regarding cost, quality and execution time.
c. Resolve a dispute concerning the project that took place between his subordinates and the contractor.
d. Provide and seek funding for contractors.
e. Provide a decision on the changes in implementation time taking into account the consideration given by the consultant.

3. Research Methodology

The initial stage of Risk Identification is to identify the causes of risk factors in terms of quality in school building projects in Eastern Indonesia so that it can be said that the quality produced in the development can be said to qualify from the assignor. For this stage the causes of risk factors in terms of quality in school building projects in Eastern Indonesia so that they can be constructed from relevant research and relevant theories. The result of the identification of the causes of risk factors in terms of quality in the school building project in East Indonesia so that it can be developed will then be arranged in the form of questionnaires, in order to collect the opinion of the assignor about the presence or absence of the influence of the factors/variables found on improvement.
performance implementation of school building project construction in Eastern Indonesia. The data process questionnaire with correlation analysis and regression analysis. Both of these analytical processes are done with the help of SPSS program, to facilitate the process of data processing.

The variables analyzed in this research are dependent variable and independent variable. In this study the dependent variable (Y) is the improvement of the implementation performance of the school building project building in Eastern Indonesia. The independent variable (X) in this research was started by 7 research factors consisting of: project scope, related parties, project financing management, project scheduling management, risk management, environmental factor, and project organization. From 7 research factors then distributed to 76 independent variables.

4. Results and Discussion

Table 1. Respondent Education Level

<table>
<thead>
<tr>
<th>Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 (B.Sc)</td>
<td>34</td>
</tr>
<tr>
<td>S2 (MT)</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
</tr>
</tbody>
</table>

The following stages of the research process undertaken where the first performed is the result of the questionnaire data obtained from the respondents entered into the questionnaire data in the form of excel and then continued to enter the excel data into SPSS program that will be done continuously to get correlation analysis, intercorrelation analysis, variable analysis, factor analysis, regression analysis, model test, and get discussion of research results.

Table 2. Respondent’s Responsibility

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT MANAGER</td>
<td>40</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
</tr>
</tbody>
</table>

The respondent character of this research comes from the owner who has the project in Eastern Indonesia. Respondent with project location in project ie project manager. Qualifications of education respondents minimal research S1 with work experience of at least 3 years.

Figure 2. Diagram of Research Process

From the results of correlation analysis in the table above there are 23 variables that have coefficient r > 0.4. Furthermore, these 23 variables will be used for subsequent analysis of correlation analysis by finding coefficient r > 0.4 with the aim that each variable does not affect each other. Of the 23 interrelated variables, obtained 5 variables that have coefficients r < 0.4. These 5 variables will be used for further analysis.

Table 3. Results of Correlation Analysis

From the results of correlation analysis the largest correlation value. In table 5 has been sorted from the largest value to the smallest factor. From Table Rotated Component Matrix can be known that enter in

Table 4. Intercorrelation Analysis Results

Determination of input variables which factor is determined by looking at the largest correlation value. In table 5 has been sorted from the largest value to the smallest factor. From Table Rotated Component Matrix can be known that enter in
Factor 1 that is: X55, X30, and X31 and that included in Factor 2 that is: X76 and X12.

Table 5. Results of Rotated Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X55</td>
<td>.26</td>
<td>.47</td>
</tr>
<tr>
<td>X30</td>
<td>.26</td>
<td>.47</td>
</tr>
<tr>
<td>X31</td>
<td>.26</td>
<td>.47</td>
</tr>
<tr>
<td>X76</td>
<td>.15</td>
<td>.37</td>
</tr>
<tr>
<td>X12</td>
<td>.15</td>
<td>.37</td>
</tr>
</tbody>
</table>

From Table 6 of Contribution to Y for the determinant variables then follows the results of the discussion of each variable:

X55 = Inflation can contribute to the variable performance improvement of School Building projects in Eastern Indonesia Region by 54.5%. According to the Central Bureau of Statistics (BPS), the agency argues that the notion of inflation is a value when the rate of prices prevailing in an economic field. As one of the indicators in looking at the stabilization of the economy of a particular region, the development of the prices of services and goods can generally be calculated through the price index of consumers. Thus, the inflation rate is very affect the size of the production of a good. Quality control plays an important role in improving the performance of school building projects in Eastern Indonesia Region. With proper planning and taking into account various aspects such as rising prices of goods and services occurring in some items or continuous increases that result in the assignor should pay attention to the additional costs due to the longer processing time, high wage labor when pursuing the job, wage labor As long as there are no on-site project activities, poor quality due to hasty work and can be reworked.

According to PMBOK, the life cycle of construction projects are:

a. Phase I is the Feasibility stage.

Table 6. Summary Model Result

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.799</td>
<td>.646</td>
<td>.633</td>
<td>.141</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>.877</td>
<td>.775</td>
<td>.775</td>
<td>.196</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>.927</td>
<td>.850</td>
<td>.845</td>
<td>.191</td>
<td>100</td>
</tr>
</tbody>
</table>

From Predictors: (Constant), X55

From Predictors: (Constant), X55, X76

From Predictors: (Constant), X55, X76, X12

Dependent variable X76

b. Phase II is the Design and Planning stage.

c. Phase III is the Construction phase.

X76 = Quality Policy (supported by senior management) can contribute to the variable performance improvement of school building projects in Eastern Indonesia by 24.1%. In the construction project there is a quality standard to be achieved that all standards are set forth in the ISO 9000 standard made by "TC-176", and has issued three ISO 9000 series better known as "The ISO 9000 Family" (Family of ISO 9000) As follows (Silaban, 2011).

a. A. ISO 9000; Quality Management System - Fundamentals and Vocabulary ("Quality Management System - Fundamentals and Vocabulary")

b. B. ISO 9001; Quality Management System - Requirements ("Quality Management System - Requirements")

c. C. ISO 9004; Quality Management System - Guidelines for Continuous Improvement ("Quality Management System Guidelines for Performance Improvements")

The winning bidder contractor must be able to go through this stage and then there is a legal process which includes the contract of work. If the Quality Policy (supported by the senior management) project is well executed then the quality produced at the end of the project (dead line) will meet the owner's standards, but if this standard does not run due to unexpected things then there may be some things like rework , Add work, etc. that result in quality not in accordance with that expected by the owner and contractor.

X12 = Workers' capacity and work capacity can contribute to the 7.4% improvement in school building project performance in Eastern Indonesia

The training process is a process whereby people gain the capability to help achieve organizational goals. Training provides the knowledge, skills and change of specific and identifiable attitudes to use in their work within the organization (Mathis-Jackson: 2006). Given the knowledge and skills expected to be able to do a job or task that becomes its responsibility by using the maximum resources to achieve the desired results within the time specified in the organization.

There are four stages in the training process namely:

a. Assessment consisting of training needs analysis as well as identification of training objectives and criteria.

b. The design consists of the selection of training methods and training content.

c. Submission consists of schedule, implementation and monitoring of training.
d. Evaluation is measuring the results of the training and comparing with the intended purpose.

Figure 3. Training Process (Mathis, 2006)

The development process below is an explanation and an image showing development:

- Human Resource Planning
- Capabilities and Capacity Required to Run the Plan
- Succession Planning
- Assessment of Development Needs
- Development Planning
- Development Method
- Evaluation of Successful Development

Figure 4. HR Process and Development (Robert L. Mathis and John H. Jackson (2002))

The results of the assessment of human resources development program will become a reference in the future so that the company will always improve in its performance. If the training and development process can be done by the assignor then the results of each project will always meet the quality standards desired by the owner.

From the results of questionnaires given to the assignor until the analysis, there are 3 determinant variables that have contributed to the improvement of school building project performance in Eastern Indonesia Region. The result of dominant variable is influenced by the respondent that is the assignor with educational background and homogeneous experience. With more homogeneous respondents it is expected to get better results on the risk variables to improve the performance of school building projects in Eastern Indonesia.

5. Conclusion

With the data collection and data analysis in this study, it can be drawn conclusions based on research problems as follows:

- Variable determinants of risk in high school building projects in Eastern Indonesia Region as follows:
  - Inflation
  - Quality Policy (supported by senior management)
  - Workers' ability and capacity
- The results of the risk analysis on school building projects in Eastern Indonesia contributed X55 (54.5%), X76 (24.1%) and X12 (7.4%) to the performance improvement of school building projects in Eastern Indonesia.
- If the quality planning in improving the performance of construction school building in Eastern Indonesia such as Inflation, Quality Policy (supported by senior management), the ability and work capacity of workers can be considered and done in accordance with planner then the quality produced in Eastern Indonesia can be categorized as having good quality in terms of meeting the standards of the assignor and owner of each school being built.

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