Research Paper

Analysis to Factors Affecting Contractor Work Performance to Quality of Road Improvement Projects in Probolinggo Regency

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ABSTRACT: *Road improvement project in Probolinggo Regency in its implementation is expected to be carried out by a good contractor so it can produce a high quality road improvement which will be in line with people expectation from several aspects such as time, right quality and right in cost. However, all of those aspects depend on the work performance from the contractor who provide services expertise for the owner of the project. Related to this matter, many contractors have not carried out their duties properly and correctly as expected; therefore, this research is conducting to find out the cause. The research employs a survey method by collecting opinions, experiences, and attitudes of respondents regarding existing problems, by taking primary data through questionnaries and secondary data from related institutions. From many influencial factors to the contractors' work performance on the quality of road improvement project in Probolinggo Regency, then the factors were identified, determined, and followed by determining variables to be applied as measurable questions for the questionnaire format. The result of the study found that there are 10 (ten) variables to be used as questions for measuring indicators that affect the contractors' work performance on the quality of road improvement project, where one of the most dominant variables found was the motivation variable (X1) by a standard coefficient of 0.494.*

KEYWORDS: *Contractor Work performance, Project Quality, Road Improvement, Probolinggo Regency.*

I. INTRODUCTION

The construction service industry advances with progressive pace where its construction market also has expanded across countries to countries. This is unavoidable condition where people cannot slow down or hinder to the fast global stream of the construction market. The rapid flow of global construction market demands construction resources in a higher quality level which later will play an important role in construction development. In the same time, the necessity of qualified construction service providers for a construction project also increases along with the existence of a free market. As an implication, this situation will give open opportunity for some construction works in Indonesia to be handled by foreign contractors (from other countries) who are more professional in construction project. Therefore, construction doers in this country must prepare themselves to become professional construction doers who have a high-quality capability which approved in regional, national and the international scales.

Similar to other cases in many big cities, a road improvement project for Proboliggo Regency, during under construction, this road improvement is expected to be handled by a good contractor where as the implementation result is expected be able to produce a high quality of road according to project planning, in the aspects of punctual time, good quality and measured cost (at the right cost). These aspects are obviously can not be seperated from the contractor's role and its performance in providing their expertise services to the owner or the work assignor (represented by PPK and assisted by the technical development team) for carrying out the construction implementation works and the road maintenance period. Unfortunately, many of the contractors have not carried out the role and the work performance as expected. It is evident from 12.5 % of development result which is not in accordance with the expected quality.

So far, any discussion related about the influence of the contractor work performance to their work quality on several road improvement projects in Probolinggo regency have not been discussed by many researchers, therefore there are some problems postulate in research, namely: (1) what are some factors that influence the contractor's work performance on the quality of road improvement projects in Probolinggo Regency?, (2) What is the prominent factor influencing the contractor's work performance on the quality of road improvement project in Probolinggo Regency? (3) what are strategies should be taken to improve the contractor's work performance on the road improvement project in Probolinggo Regency?

II. LITERATURE REVIEW

2.1. Previous Research

The previous research below stated was observing the work performance problem of Supervisory Consultant, whereas this research will examine factors that affect the contractor's work performance to the quality of road improvement projects in Probolinggo Regency. By using new places and study location as well as variables which are different from the previous research, the author expecting that the result of this study will be varied and more competent. Thus, for the future implementation of road improvement projects in Probolinggo Regency will be able to carried out according to the quality target.

Table 1. Previous research

Researcher	Amir [2]
Research Title	Work Performance Evaluation to Supervisory Consultant on Road Construction Project in East Kalimantan Province
Reference	The analytical method employed were factor analysis and multiple linear regression analysis. For studied area was focused on the work performance of supervisory consultant on the road construction project in the province of East Kalimantan.
Result of the Research	The significant work performance from supervisory consultants on road construction project in East Kalimantan province is a factor of management ability to supervise the project implementation which represented by a coefficient of $t_{count} = 2,575 > t_{table} = 1,679$ and a work attendance factor with a coefficient of $t_{count} = 2,317 > t_{table} = 1,679$. The most dominant factor influencing the work performance of supervisory consultants on road construction projects in the province of East Kalimantan is the ability of management to supervise the project implementation with β coefficient of 0.639.

2.2. Contractor

Contractor is a component of the project team that receives and organizes the implementation of construction work simultaneously in accordance with provided budget and the time schedule that has been set as well as the technical requirements stated in the specifications. Contractor can be a company supported by legal entity that engaged in the implementation of a construction work [3]. In general, a contractor is an individual who's his/her work bound by a contract where his/her service is to aid those who do not have enough time to build a construction project. The contractors will then calculate the planning, the expenditure analysis up to the required implementation.

2.3. Contractor Work Performances

The contractor's work performance is the work result achieved by the contractor in carrying out the task assigned to him/her according to the skills, experience, sincerity and time. Work performance is a condition which must be known and confirmed to certain parties in finding out the level of achievement (as a result) from an agency/institution related to the vision which carried out by a company and also to understand the positive and negative impacts from an operational policy [3].

2.4. Factors Affecting Contractor Work Performance to Quality of Road Construction Project

Some factors that assumed to affect the contractor's work performance to the quality of road improvement project in Probolinggo Regency are as follows: motivation, skills, discipline, experience, finance, equipment, manpower, materials, project administration, and work environment.

1. Motivation

Motivation is a strong will from an individual by generating enthusiasm or become the impetus for someone to bring on good work and contributing as much as possible to the success of the organization in its pursuit to the goals and objectives for completing the job well. The motivational categories are: to fill spare time, to earn additional income, or to be the main source of livelihood. Encouraging a person or a group to do work by trying to fulfill their desires or provide other attractiveness for them [3].

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2. Skills

Skills are the ability to perform all necessary movements to achieve the required results, whereas the measurement include: educational background (training) in construction field, work experience in the construction field, work experience in construction sector, accuracy in doing work, have work initiative, fast and precise. According to Fadila, in Purwanti [6] skill is an individual motor ability in doing something in quick, neat and correct way that will gradually turn into a habit.

3. Discipline

Discipline is the compliance or obedience from the workforce in complying the applicable working hours in a day to complete the work according to the predetermined working hours. According to Agib, in Pratiwi [7] discipline is an action that showing obedient and orderly behavior into various provisions and regulations.

4. Experience

Experience is work length which have been carried out by an individual for pursue one type of work continously since the first day the person started the job until today. According to Siagian [8], in Hidayat and Prasetya [5] experience is an event which inherent and interrelated with one another with life. Experience can be used as a learning lesson by human to be used as provision or their daily lives, therefore experience is something very valuable. Experience includes matters or events felt by human in the course of their lives which can be beneficial and learned by someone.

5. Finance

Finance is the fund provided or available for completing a construction work, where started from the procurement of materials, the payment of wages workers, the equipment operations and others. Finance is a part of labor management that aims to increase the productivity. Finance to workforce played as remuneration for the work has been carried out and at the same time becomes a motivator for the implementation of activities and increasing productivity in the future, the enthuasiasm depends on mutual agreement on the remuneration system or the project management provision [4].

6. Equipment's

Equipment's are construction tools employed to assist and facilitate labor workers in carrying out construction development such as the process of transporting, lifting, loading, moving, digging, mixing and so on in an easy, fast, efficient and safe way where these equipment's have different types and capacities according to their functions. Riyani et al. [9] gave statement that equipment is an object or tool used in carrying out the work construction.

7. Man Power/Labor Workers

Workers are people who are directly involved in the implementation of development with the ability to carry out tasks according to their fields and responsibilities entrusted to them. According to Sastrohadiwiryo and Syuhada [10], manpower is one of the most essential elements in the company, and because of these essential qualities, people are often powerless to develop them to be good human beings.

8. Material

Materials are construction materials that available with certain specifications and are used to complete the construction work, both in terms of quality, shape and size. According to Adlin [1] material is one component of the cost that plays an important role in supporting the success of a project.

9. Project Administration

A project administration is an important activity in a project implementation. One of the works in administration project is making a periodic report. Periodic report is an official communication tool to convey everything related to project implementation. The purpose of making periodic reports is to assist all parties in their efforts to continuously monitor and control various aspects of project implementation up to the time of reporting. Periodic reports are made by the contractor, and approved by the supervisory consultant or Construction Management. The periodic reports are used by the contractor as the main elements in internal contractor and coordination meetings with all parties involved in the project. According to Setiawan [11] project administration is a group of people who organize administrative activities that relates to project handling and project quality trials.

10. Working Environment

Working environment is the condition and situation of the place (site) where the project is carried out and related to local customs, topography, weather and available land. According to Sutrisno [12], in Suwondo & Sutanto [13] the work environment is the overall work facilities and infrastructure around employees who are doing work that can affect the implementation of work. In line with Sutrisno [12], also in Suwondo & Sutanto [13] state that the work environment is a condition of everything that is around the employee's workplace which able to to influence him in carrying out his work. Meanwhile, according to Wursanto in Suwondo and Sutanto [13] the work environment consists of two types; first, the work environment that concerns about any physical aspect found in the environment that relates to every physical aspect of the work environment and second, the

work environment that concerns the psychological aspect is a work environment that cannot be captured with human five senses.

III. RESEARCH METHOD

3.1. Type of Research

Research is a scientific way to solve a problem and to penetrate the boundaries of human incomprehension. Research activities by collecting data and processing existing facts so that these facts can be communicated by researchers and the results can be utilized and used for the benefit of human. From the method perspective, this research is included into descriptive research, for obtaining what factors that affect the contractor's performance to the quality of the road improvement project in Probolinggo Regency and also to determine strategies to improve the contractor's performance.

This research uses a survey method by collecting opinions, experiences and attitudes of respondents regarding to the existing problems, by taking primary data through questionnaires and the secondary data from the related institution. Based on the factors that influence the contractor's performance about the quality of the road improvement project in Probolinggo Regency, then the factors are determined, followed by determining variables to be used as questions to be measured in the form of questionnaire.

The research location in this study is a road improvement project in Probolinggo Regency which was carried out in 2014 which conducted in three areas: (a) Condong-Segaran Road Construction, (b) Sumber-Ledokombo Road Construction, and (c) Tamansari-Banjarsawah Road Construction.

3.2. Population

According to Silaen [14] the population is the whole of objects or individuals who have certain characteristics (traits) to be studied. Population is also called the universe (*universum*) which means the whole, can be either living or non-living things. The population determined in this study are people from the Supervisory Consultant and owner who know the conditions and who are directly involved in the road improvement project in Probolinggo Regency which was carried out in 2014. There are 36 people consisting of 18 Supervisory Consultants employees (9 people as Site Engineer and 9 people of Field Supervisor) and 18 people as owner element (9 people from PPTK and 9 people of Field Supervisors).

3.3. Sample

According to Sugiyono [15] the saturation sampling is a sampling technique in which all members of the population are used as samples. This technique is usually used if the population is relatively small or the researchers want to make a generalization with small errors. Saturation sampling is also known as a census which makes all members of the population as a sample. Sampling in this study was carried out using the Saturation Sampling method, in which sampling was carried out as a whole for the entire population of 36 respondents. The consideration for saturation sampling is that the structure of the owner, supervising consultant and planning consultant is an integral part of the project population so that it cannot be reduced.

3.4. Primary Data

According to Umar [17] primary data is data obtained from the first source from individuals such as the results of interviews or the results of filling out questionnaires that are usually done by researchers. In this study, a list of questions in the form of a questionnaire was used to obtain data that was compiled based on the analysis parameters needed and relevant in accordance with the target and objectives of this research, where aimed to people who are directly involved in road improvement project work in Probolinggo Regency in the 2014 Fiscal Year.

3.5. Secondary Data

According to Sugiyono [16] the secondary data is data needed in order to complete information that can be obtained through literature studies from literature books, journal, internet and articles that support the research.

3.6. Data Collection

The data collection in this research is using a questionnaire. Any statement items within the questionnaire are related to the factors that influence the contractor's work performance on the quality of the road improvement project in Probolinggo Regency and determine the most dominant factors influencing it. The scale for this research is employing The Likert Scale which according to Sugiyono [16] The Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about a social phenomenon. The Likert scale is considered the easiest scale when compared to other measurement scales such as Thurstone and

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Gutman. In this study, the Likert scale application is ranging from 1 to 5 so the number one will express a very negative response code for the respondents while the number five is expressing a very positive response.

3.7. Research Variables
The research variables in this study are:
1. *Independent Variable* (X) consist of:
   - a. Motivation (X1)
   - b. Skills (X2)
   - c. Discipline (X3)
   - d. Experience (X4)
   - e. Finance (X5)
   - f. Equipment (X6)
   - g. Labor Worker (X7)
   - h. Material (X8)
   - i. Project Administration (X9)
   - j. Working Environment (X10)

2. *Dependent Variable* (Y) consist of:
   - a. Project Quality (Y)

3.8. Data Analysis
Data analysis in this study was using Multiple Regression (ie: Regression Model Assumption Test, Normalization Test, Non-Multiculinierity Assumption Test and Homoscedasticity Assumption Test), Multiple Linear Analysis and Regression Model Coefficient Hypothesis Testing (ie: Simultaneous Regression Model Test and Partial Regression Model Test).

IV.   RESULT AND DISCUSSION
4.1. Regression Model Assumption Test
Testing the assumption of the regression model are include testing the assumption of normality, non-multicollinearity, and homoscedasticity. The description of the calculation of the regression model assumption test can be seen as follows:

1. Normality Test
The regression model is confirmed when it meets the assumption of normality if the error or residual caused by the regression model is normally distributed. To test this assumption, the Kolmogorov-Smirnov method can be used as shown in Table 1as follow:

Table 2. Normality assumption test

Test Statistic	Value	Description
Kolmogorov-Smirnov Z	0.549	Normal Dispersal
p-value	0.924	

According to *Kolmogorov-Smirnov Z* test above, the *p-value* is found to be 0.924 where this value is bigger than $\alpha = 0.05$. This testing is showing that residual has a normal distribution so it can be concluded that error normality has been fulfilled.

2. Non-Multicollinearity Assumption Test
It is a test shown to examine whether there is a correlation between the independent variables in the regression model. A good regression model should not occur multicollinearity. In this study, one of the methods used to test the presence or absence of multicollinearity is to use the *Variance Inflation Factor* (VIF) method. If the VIF value > 10, it shows symptoms of multicollinearity. However, if the condition happens on the contrary the VIF value < 10, then there is no multicollinearity as shown in table 2 as follows:

Table 3. Multicollinearity assumption test

Independent Variables	VIF	Description
Motivation (X1)	2.278	Non-Multicollinearity
Skills (X2)	1.859	Non-Multicollinearity
Discipline (X3)	1.404	Non-Multicollinearity
Experience (X4)	1.250	Non-Multicollinearity
Finance (X5)	1.576	Non-Multicollinearity
Equipment (X6)	1.092	Non-Multicollinearity

Labor Worker (X7)	1.363	Non-Multicollinearity
Material (X8)	2.275	Non-Multicollinearity
Project Administration (X9)	2.356	Non-Multicollinearity
Work Environment (X10)	1.820	Non-Multicollinearity

From the calculation results displayed in table 2, each independent variable shows a VIF value which is not more than 10 (ten), thereby the assumption of no multicollinearity has been met.

3. Homoscedasticity Assumption Test

This test aims to examine whether the regression model has the same variance or not. A good regression model is a model that has the same variance (homoscedastisity). Checking this assumption can be done by using the Spearman Rank correlation test, which is to test the correlation between the independent variable and its absolute error. The test results using the Spearman Rank method are shown in table 3 as follows:

Table 4. Homoscedasticity assumption test

Independent Variables	VIF	Description
Motivation (X1)	0.916	Non-Heteroskedasticities
Skills (X2)	0.709	Non-Heteroskedasticities
Discipline (X3)	0.902	Non-Heteroskedasticities
Experience (X4)	0.847	Non-Heteroskedasticities
Finance (X5)	0.339	Non-Heteroskedasticities
Equipment (X6)	0.946	Non-Heteroskedasticities
Labor Worker (X7)	0.592	Non-Heteroskedasticities
Materials (X8)	0.804	Non-Heteroskedasticities
Project Administration (X9)	0.700	Non-Heteroskedasticities
Working Environment (X10)	0.824	Non-Heteroskedasticities

According to table 3 to test the assumption, the p-value for the seven independent variables is greater than = 0.05. From this test, it can be concluded that the assumption of homoscedasticity has been fulfilled

4.2. Multiple Liner Analysis Results

Regression analysis is employed to obtain the influential factors of the contractor's work performance on the quality of road improvement projects in Probolinggo Regency. In processing data using multiple linear regression analysis, several steps were carried out to find the relationship between the independent and dependent variables. Based on the result of data processing using SPSS 15 software, a summary is obtained as in table 4 as follows.

Table 5. Summary of regression analysis result

Variable	Coefficient β	Standardize Coefficient β	t_{count}	*p-value*	Description
Constant	0,117		0,108	0,915	Not Significant
Motivation (X1)	0,479	0.494	3.174	0.004	Significant
Skill (X2)	0,521	0.376	2.673	0.013	Significant
Discipline (X3)	0,247	0.304	2.484	0.020	Significant
Experience (X4)	0,155	0.129	1.122	0.272	Not Significant
Finance (X5)	0,032	0.031	0.239	0.813	Not Significant
Equipment (X6)	0,020	0.023	0.212	0.834	Not Significant

Labor Worker (X7)	0,96	0.087	0.459	0.650	Not Significant
Material (X8)	0,184	0.174	1.116	0.275	Not Significant
Project Administration (X9)	0,182	0.150	0.949	0.352	Not Significant
Working Environment (X10)	0,121	0.138	0.993	0.330	Not Significant

α	= 0.05
R^2	= 0.734
R	= 0.857
F_{count}	= 6.898
$F_{table}(0.05,10,25)$	= 2.236
p-value	= 0.000
$t_{table}(0.05,25)$	= 2.059

According to table 4, it can be seen that not all independent variables have significant values. The independent variables that have significant value (significantly influence the contractor's work performance on the quality of road improvement projects in Probolinggo Regency) are: motivation (X1), skills (X2), discipline (X3). While the variables that have no significant value (influential but not significant on contractor work performance on the quality of road improvement projects in Probolinggo Regency are: experience (X4), finance (X5), equipment (X6), labor (X7), materials (X8), project Administration (X9), and work environment (X10). The regression model obtained based on table 4 above is as follows:

$$Y = 0,177 + 0.494 X1 + 0.376 X2 + 0.304 X3 + 0.129 X4 + 0.031 X5 + 0.023 X6$$
$$+ 0.087 X7 + 0.174 X8 + 0.150 X9 + 0.138 X10 + \varepsilon$$

The value of R2 is the determination coefficient essentially measures about how far the regression model's ability to explain the diversity of the dependent variable (Y) where in study is found to be 0.734. It means the regression model obtained able to explain 73,4 % of the variability of the Project Quality variable (Y). The R value is a correlation that explains the close relationship between the independent variable (X) and the dependent variable (Y) which in this study is found to be 0.857.

Next, to determine the independent variable (factor) which predominantly influence the contractor work performance on the quality of road improvement projects in Probolinggo Regency, can be found by comparing the standardized value of the coefficient of each independent variable (factor) to Y. The variable with the most dominant influence on contractor work performance on the quality of road improvement project in Probolinggo Regency is the variable that has a significant effect and has the largest standardized β coefficient value.

According to table 4, the factor is the variable (factor) that has the largest standardized coefficient value, which means in this study as the predominant factor influencing contractor work performance on the quality of road improvement project in Probolinggo Regency is motivation (X1). It means the contractor work performance on the quality of the road improvement project in Probolinggo Regency indicated by motivation (X1). The positive standardized β coefficient value indicates the better motivation (X1) the more likely the contractor work performance (on the quality of the road improvement project in Probolinggo Regency) also getting better.

4.3. Regression Model Coefficient Hypothesis Test
Further, the regression model that has been obtained was put into testing, both in simultaneously or partially. Simultaneous testing of the regression model was carried out using the F test or ANOVA and the partial regression model testing was carried out using the t test.
1. Simultaneous Regression Model Test
Simultaneous testing was conducted to show whether all factors applied in the regression model affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency. All of these factors were tested simultaneously by F Test or ANOVA. Whereas the hypothesis employed in the testing as the coefficients of the regression model are apparent in table 5 below:

Table 6. Simultaneous regression model hypothesis testing

Hypothesis	Value	Decision
$H_0 : \beta_i = 0$ (no significant influence between X1, X2, X3, X4, X5, X6, X7,X8, X9, X10 to contractor workperfomance of quality road improvement projects in Probolinggo Regency) $H_a : \beta_i \neq 0$ (there is a significant influence between X1, X2, X3, X4, X5, X6, X7, X8, X9,X10 to the quality of road improvement projects in Probolinggo Regency) $\alpha = 0.05$	$F = 6.898$ $p\text{-value} = 0.000$ $F_{table} = 2.236$	H_0 rejected

According to table 5, testing the regression model hypothesis is conducted simultaneously by applying the F test. In the F distribution table, F $_{table}$ value with degrees of freedom (df) n1= 10 and n2 = 25 is equal to 2.236. Afterwards, when the calculated F value in table 4.4 is compared with F_{table}, then the calculated F value is greater than Ftable (6.898 > 2.236). Further, table 4.22 also shows p-value of 0.000. If the p-value is compared to $\alpha = 0.05$ then the p-value is less than $\alpha = 0.05$. From the two comparisons, it can be concluded that H_0 is rejected at the level of $\alpha = 0.05$. Thus, it can be concluded that there is a simultaneous significant effect between X1, X2, X3, X4, X5, X6, X7, X8, X9, X10 on contractor work performance on the quality of road improvement project in Probolinggo Regency.

2. Partial Regression Model Test
The partial regression model testing is used to determine whether each independent variable that construct the regression model has a significant effect on contractor work performance on the quality of road improvement projects in Probolinggo Regency or not. T test was applied to test the relationship by comparing the value of t_{count} with t_{table}. The independent variables that forming the regression model is said to have a significant effect if $t_{count} > t_{table}$ or p-value $\alpha < = 0.05$. The partial regression model testing is stated as follows:
   a. Motivation Factor (X1)
   According to table 4, the hypothesis testing of the regression coefficient from motivation factor (X1) can be written as follow: the motivation factor (X1) has a regression coefficient value of 0.494. With the aid of SPSS software, the t-test statistic obtained value of 3.174 with a p-value of 0.004. the statistic value of the t-test is greater than t_{table} (3.174 > 2.059) and the p-value is also smaller than $\alpha = 0.05$. This test shows that H_0 is rejected. So, it can be concluded that the motivation factor (X1) has a significant effect on contractor work performance on the quality of road improvement project in Probolinggo Regency. It means whether the motivation variable (X1) is good or the motivation variable (X1) is bad, both conditions will affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.
   b. Skill Factor (X2)
   According to table 4, the hypothesis testing of regression coefficient from the skill factor (X2) can be written as follows: the skill factor (X2) has a regression coefficient of 0.376. By applying the SPSS software, the t-test statistic is 2.673 with a p-value of 0.013. the statistical value of the t-test is greater than t_{table} (2.673 > 2.059) and the p-value is smaller than $\alpha = 0.05$. The result of this test showed that H_0 is rejected. So, it can be concluded that the skill factor (X2) has a significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that the skill variable (X2) will affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.
   c. Discipline Factor (X3)
   According to table 4, the hypothesis testing of regression coefficient from the discipline factor (X3) can be written as follows: the discipline factor (X3) has a regression coefficient of 0.304 By applying the SPSS software, the t-test statistic is 2.484 with a p-value of 0.020. The statistical value of the t-test is smaller than t_{table} (2.484 > 2.059) and the p-value is smaller than $\alpha = 0.05$. The result of this test showed that H_0 is rejected. So, it can be concluded that the discipline factor (X3) has a significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that whether the discipline variable (X3) is good or the discipline variable (X3) is bad, both

conditions will affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

d. Experience Factor (X4)

According to table 4, the hypothesis testing of regression coefficient from the experience factor (X4) can be written as follows: the experience factor (X4) has a regression coefficient of 0.129. By applying the SPSS software, the t-test statistic is 1.122 with a p-value of 0.272. The statistical value of the t-test is smaller than t_{table} (1.122 > 2.059) and the p-value is smaller than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the experience factor (X4) has no significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that whether the discipline variable (X4) is good or the discipline variable (X4) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

e. Financial Factor (X5)

According to table 4, the hypothesis testing of regression coefficient from the finance factor (X5) can be written as follows: the finance factor (X5) has a regression coefficient of 0.031. By applying the SPSS software, the t-test statistic is 0.239 with a p-value of 0.813. The statistical value of the t-test is smaller than t_{table} (0.0239 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the finance factor (X5) has no significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that whether the finance variable (X5) is good or the finance variable (X5) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

f. Equipment Factor (X6)

According to table 4, the hypothesis testing of regression coefficient from the equipment factor (X6) can be written as follows: the equipment factor (X6) has a regression coefficient of 0.023. By applying the SPSS software, the t-test statistic is 0.212 with a p-value of 0.834. The statistical value of the t-test is smaller than t_{table} (0.0212 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the equipment factor (X6) has no significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that whether the finance variable (X6) is good or the finance variable (X6) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

g. Manpower/Worker Factor (X7)

According to table 4, the hypothesis testing of regression coefficient from the labor worker factor (X7) can be written as follows: the labor worker factor (X7) has a regression coefficient of 0.087. By applying the SPSS software, the t-test statistic is 0.459 with a p-value of 0.650. The statistical value of the t-test is smaller than t_{table} (0.459 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the labor worker factor (X7) has no significant effect on the contractor work performance on the quality of road improvement projects in Probolinggo Regency. It means that whether the labor worker variable (X7) is good or the labor worker variable (X7) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

h. Material Factor (X8)

According to table 4, the hypothesis testing of regression coefficient from the material factor (X8) can be written as follows: the material factor (X8) has a regression coefficient of 0.174. By applying the SPSS software, the t-test statistic is 1.116 with a p-value of 0.275. The statistical value of the t-test is smaller than t_{table} (1.116 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the material factor (X8) has no significant effect on the delayed implementation project on the quality of road improvement projects in Probolinggo Regency. It means that whether the material variable (X8) is good or the material variable (X8) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

i. Project Administration Factor (X9)

According to table 4, the hypothesis testing of regression coefficient from the project administration factor (X9) can be written as follows: the project administration factor (X9) has a regression coefficient of 0.150. By applying the SPSS software, the t-test statistic is 0.949 with a p-value of 0.352. The statistical value of the t-test is smaller than t_{table} (0.949 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the project administration factor (X9) has no significant effect on the delayed implementation project of road improvement

projects in Probolinggo Regency. It means that whether the project administration variable (X9) is good or the project administration variable (X9) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

j. Work Environment Factor (X10)

According to table 4, the hypothesis testing of regression coefficient from the working environment factor (X10) can be written as follows: the working environment factor (X10) has a regression coefficient of 0.138. By applying the SPSS software, the t-test statistic is 0.993 with a p-value of 0.330. The statistical value of the t-test is smaller than t_{table} (0.993 > 2.059) and the p-value is bigger than $\alpha = 0.05$. The result of this test showed that H_0 is accepted. So, it can be concluded that the working environment factor (X10) has no significant effect on the delayed implementation project on the road improvement projects in Probolinggo Regency. It means that whether the working environment variable (X10) is good or the working environment variable (X10) is bad, both conditions will not affect the contractor work performance on the quality of the road improvement project in Probolinggo Regency.

4.4. Strategy Discussion as the Effort to Improve the Contractor Work Performance

According to the result of the regression analysis, it is found the independent variables which have prominent significant value (significantly influence the contractor work performance on the quality of the road improvement project in Probolinggo Regency) are the motivation variable (X1), skill variable (X2) and discipline variable (X3). Whereas for variables without no significant value (influential but not significant on the contractor work performance on the quality of the road improvement project in Probolinggo Regency are Experience variable (X4), finance variable (X5), equipment variable (X6), labor worker variable (X7), material variable (X8), project administration (X9), and work environment (X10). Furthermore, factors which significantly influence the contractor work performance on the quality of the road improvement project in Probolinggo Regency can be explained as follow: (1) the motivaton variable (X1) in which constructed from mafinested variables of: because they want a big paycheck (X1.1), they like the work (X1.2), they want to get recognition (X1.3), and they always work together (X1.4). Afterwards, the skill variable (X2) which constructed from manifested variables of: work skillfully (X2.1), need to be equipped with skills (X2.2), skilled in directing workers (X2.3), and skilled for always controlling work results (X2.4). The last influencial variable of discipline variable (X3) which is constructed from manifested variables of: coming and going home on time (X3.1), as an entry work (not too many absent) (X3.2), always responsible for his/her work (X3.3), and finish the work according to the planned volume (X3.4).

According to table 4, the motivation factor (X1) becomes the variable that has the largest standardized β coefficient value which means it is the prominent/most important factor influencing contractor work performance on the quality of road improvement projects in Probolinggo Regency. As motivation factor (X1), impact will happen when the standardized β coefficient has positive value where it will indicate if the motivation factor (X1) getting better then there is a likelihood for the contractor work performance on the quality of the road improvement project will also increase.

Later, to observe which indicators have the prominent influential on contractor work performance on the quality of road improvement projects related to motivation factor (X1) is apparent in the high communality value stated in table 4. As displayed in table 4, it is evident that the indicator for want a big paycheck/wage (X1.1) has the highest loading value of 0.914. Thus, according to the results, it can be said that the indicator for want a big wage (X1.1) is an indicator of high factor affecting the contractor work performance on the quality o road improvement project in Probolinggo Regency where it will be explained further in the table 6 below:

Table 7. Loading factors in motivation factor (X1)

Manifested Variables	Description	Loading Value
X1.1	For getting bigger wages	0.914
X1.3	Claim for recognition	0.903
X1.4	Always teaming up	0.886
X1.2	Love the job	0.823

From table 6, the indicator want a big wages (X1.1) with loading value of 0.914 is known to become the most influential factor to the contractor work performance on the quality of the road improvement project in Probolinggo Regency, thereby, the strategy that best applied to overcome is expected to take form in the wages

provision from the foreman according to the provision/the agreement and when necessary, some additional wages will be added as a motivation factor to work in the related project.

V. CONCLUSION

1. The influential factors to the contractor work performance on the quality of the road improvement project in Probolinggo Regency are motivation factor (X1), skills (X2), discipline (X3), experience (X4), finance (X5), equipment (X6), labor (X7), material (X8), project administration (X9), work environment (X10). Meanwhile, from the partial t-test on the factors that significantly influence the contractor work performance on the quality of the road improvement project in Probolinggo Regency resulting values of three indicators: a) the motivation factor (X1), with $t_{count} = 3.174 >$ from $t_{table} = 2.059$, b) the skill factor (X2) with $t_{count} = 2.673 >$ from $t_{table} = 2.059$, and c) discipline factor (X3) with $t_{count} = 2.484 >$ from $t_{table} = 2.059$.

2. The predominate factor on the contractor work performance to the quality of road improvement projects in Probolinggo Regency is the motivation factor (X1) with a standardize β coefficient of 0.494.

3. Strategies to overcome the dominant factors that affect the contractor work performance on the quality of road improvement project in Probolinggo Regency are: (a) it is expected to give wages to the foreman according to standard regulation or in accordance with the provision agreed in prior time and when necessary can add bonus wages after the work completed, (b) always improve the workers' ability to be able to work skillfully and must be able to direct the workers, so the work can be completed on time, and (c) make written rules for all workers to come and home according to the time schedule.

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