The Effect Of Contractor Management On The Quality Of Construction Work In District Of Demak

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Abstract- Several factors influence the performance of the contractor's management on the quality performance of the resultant work. Through management studies on this contractor is intended to provide an overview of what effect is correlated with the quality achievement of construction work in Demak district. The data collection is done by survey method of existing contractor company of middle-qualified (CV) in Demak district. The results of this study indicate that contractor management contributes 82% to the quality performance of construction work in demak district. While some components of contractor management that affect the quality achievement is Planning Variable regression coefficient (X1) of 0, 152 , Organizing Variable regression coefficient (X2) of 0.373, *Staffing* variable regression coefficient (X3) equal to 0,559, Directing variable regression coefficient (X4) amounted to 0.236, Controlling variable regression coefficient (X5) amounted to 0.133

Keywords: Management, Contractors, Quality Work

1. Preliminary

Successful implementation of a project on time is the main goal for both the owner as well as for project contractors. The delay in the completion of a project gives a big impact to the company, especially in terms of financial or cost incurred. The longer the project is completed then the greater the cost. This time and cost factor is an important thing to be considered in working on two types of projects one of which is a construction project. Late delays and large expenditures on the project can be overcome if the time and cost performance of the project is good.

Project management consists of four stages of planning, organizing, implementation and control (Husen, 2010).The planning stage is to plan the time, cost and resources to estimate the work required for the project to be managed effectively and to reduce the risks in the project.Organizing phase is done to classify the types of work, determine the authority and responsibility of each organizational element.Implementation stage is the implementation of the plan that has been made before.The final stage is the control stage intended to ensure that the project is running in accordance with the plan with minimum deviations.

The implementation of the implementation of Quality Management System (SMM) within the Ministry of Public Works needs to be done to accommodate all systems related to quality assurance throughout the process of activities undertaken by the Ministry of Public Works.The SMM implementation of the Public Works Department should be able to demonstrate continuous improvement in the Work Unit / Implementing Unit within the Ministry of Public Works by actualizing 8 (eight) principles of quality management in each process of activities, including: (1) Customer focus;(2) Leadership;(3) Involvement of personnel;(4) Process approach;(5) Systems approach to management;(6) Continuous improvement;(7) factual approach to decision making;(8) The relationship of mutually beneficial suppliers (Ministry of Public Works Decree 04 Year 2009).

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Along with the development of construction services business in Demak District it is expected that the contractors pay attention to aspects other than technical aspects which is the main key.The project management aspect of the contractor is an important aspect that can not be ignored in construction activities.Project management at the contractor is one aspect that must be understood by the entrepreneurs of construction services, increasingly large and complex work that should be addressed in achieving the objectives and expected quality demand soft the implementers in construction services consider and controlling the use of all resources owned by efficient and thorough.

Based on some of the findings of the problems faced by the Contractor, the authors are interested in researching on contractor management related to planning, Organizing, *staffing,* Directing, Controlling.

1.1. Management

Management Basics The word Management comes from the languageFrench ancient ménagement, which has meaningart execute and organize.According to Indonesia Dictionary (KBBI) management is "effective use ofresources to achieve the goals" or "leader responsible for the operations(Toelah, et al: 2014)

Construction management is athe process of managing the implementation workphysical development that is handled in a multi-faceted wayprofessional discipline, where the stagesplanning, design,job auctions, job execution,and delivery /operation for a comprehensive system andintegrated in order to achieve resultswhich is optimized in terms of minimizing costs,take advantage of time and maintain quality of the project(Toelah, et al: 2014)

The main purpose of construction managementis to manage or manage the implementationdevelopment in such a way as to obtainresults in accordance with the requirements.For that it is necessarypay attention to the quality of the building, the costused, and the time of execution(Toelah, et al: 2014).

In general, management efforts undertaken on a construction project have four important functions (Anondho, Basuki et al, 1998). These important functions can be spelled out in the following four management process activities:

1. Planning
   In the planning process, set goals and targets to be achieved related to the construction process to be implemented. This activity includes the preparation of the implementation schedule plan as well as the cost plan. The basis in the planning process is that the construction project can be completed as quickly as possible with the most efficient use of resources.

2. Organizing
   In this process, measures are taken to coordinate the linking of human resources to be involved in a construction project with the planned activities to be undertaken. For this purpose, a scope of work and detailed structure of the activities covered in the work packages are prepared in the form of WBS (Work Breakdown Structure). While the organizational structure of the human resources involved in the implementation of the planned work package is organized in the form of OAT (Organization Analysis Table). This planning and organizing process is often referred to as the planning stage of a construction project.

3. Actuating
   In the process of implementing the construction in the field, one of the objectives is to carry out the physical implementation of the established plan. Implementation of construction methods should be managed and managed so that objectives and targets can be achieved by using resources as effectively and efficiently as possible.

4. Controlling

The management effort in a construction project also serves to control the results of the work achieved in order to conform to the quality standards and plans set forth so that the established triple constraints can be achieved.

While George R. Ferry*(Principles of Management),*states that the management process consists of four activities (with the acronym POAC), namely; planning *(planning),* organizing *(organizing),* implementation *(actuating),* monitoring *(controlling).* While Luther Gulic, in the book Construction Management (Djoyowirono, 1991) argues that the process of administration and management includes 7 activities namely;planning *(planning),*organizing *(organizing),*preparation of employees *(staffing),*direction *(directing),*coordination *(coordinating),*reporting *(reporting),*finance *(budgeting).*

Construction management has the function and purpose of the process of applying management functions on a project with existing resources effectively and efficiently in order to achieve project objectives/project quality optimally.Then in research this will discusses konstruction management functions include:

a. *Planning*
b. *Organizing*
c. *Staffing*
d. *Directing*
e. *Controlling*

2. Methods

This study is a case study, which is about the variables that affect the quality performance of construction work In Demak District.The case study is a study that aims to investigate in depth on a particular subject to give a complete picture of a particular subject (Indriantoro and Supomo, 2000).The scope of research related to a life cycle or only covers certain parts that are focused on particular factors or elements and overall incidence.

The approach method used is descriptive method, which is a method designed to collect various information about the current situation.Sigit (2001) defines descriptive research methods as an activity that includes data collection in order to answer questions concerning the current state of the course from the subject of a study.

Judging from the objectives, this study is also a correlational study conducted to determine the presence or absence of relationships (relationships) among the variables affecting the quality performance of construction work In Demak District.

2.1. Population and Sample

The target population of this study is the contractor and consultant in theDistrict of Demak.In order for the sample size to be representative then calculated using Slovin formula.So that the number of respondents who meet the criteria specified researchers as follows:as many Government Agencies 85 respondents.

2.2. Research instrument

The instruments used in this research can be seen in table 1, where the free variable X is comprised of 5 (five variables, namely (1) Planning, (2) Organizing, (3) Staffing, (4) Directing, (5) Controlling. While the bound variable Y is Quality of Work in Demak.

3. Result And Discussion
3.1. Analysis Results
3.1.1. Coefficient of Determination

The coefficient determination test of R2 is used to find out how well the sample uses the data. R2 measures the amount of reduction in the dependent variable obtained from the user of the independent variable. R2 has a value between 0 and 1, with a high R2 ranging from 0.7 to 1.

Table 1. Table of Determination Coefficients
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.912[a]	.832	.820	1.131	2.096

a. Predictors: (Constant), Controling, Directing, Organizing, Planning, Staffing
b. Dependent Variable: quality_of_contruction
Source: Primary Data Are Processed, 2017

R2 is the value adjusted R square which is R2 that has been adjusted. Adjusted R square is an indicator to know the influence of the addition of a time-independent variables into the equation. As for the determination of the coefficient of test results can be seen in attachment.

From the output visible value of the correlation coefficient is 0912 determination 0820 thus 82% variation changes the variable performance of road maintenance that is described by variables of Planning, Organizing, Staffing,Directing and Controling to 18% in influence by other factors that we do not thoroughly.

3.1.2. Multiple Linear Regression Analysis
Table 2. Table Results Analysis Multiple Linear Regression
Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-6.756	1.645		-4.108	.000
Planning	.152	.072	.136	2.096	.040
Organizing	.373	.119	.267	3.136	.002
1 Staffing	.559	.093	.495	6.017	.000
Directing	.136	.053	.131	2.551	.013
Controling	.133	.068	.125	1,961	.054

a. Dependent Variable: quality_of_contruction
Source: Primary Data That Is Processed, 2017

Analysis Multiple linear regression do for knowing to what extent variabel independent have influence variable *dependent*. With variables the could arranged in equation as following:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 + b_4 + x_5 x_5 e$$

According to the table 4. 4, it can be seen multiple linear regression equation is as follows:

$$Y = -6.756 + 0.152x_1 + 0.373x_2 + 0.559x_3 + 0.236x_4 + 0.133x_{5+} e$$

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The equations of multiple linear regressions can be explained as follows:

1. Constants of -6756 can be interpreted if (1) Planning (2) Organizing (3) *Staffing* (4) Directing (5) Controlling. and The dependent variable is Quality Jobs in Demak (Y) shall be equal -6756.

2. Variable regression coefficient Planning (X1) of 0, 152 meaning that any changes in the variable Planning (X1) of the unit will result in a change of Quality jobs in Demak at 0, 152unit, assuming that the other variable is fixed. The increase in the unit at variable Planning (X1) will improve the quality of Jobs in Demak 0, 152 unit, where as a decrease of one unit in the variable Planning *(Planning)* (X1) will lower Quality jobs in Demak amount 0, 152 unit.

3. Variable regression coefficient Organizing (X 2) of 0.373 meaning that any changes to variables Re-organized (Organizing) (X 2) of one unit then it will result in a change in the quality of jobs in Demak of 0, 373satuan, with the assumption that other variables are fixed. The increase of one unit in Organizing variable (X 2) will improve the quality of jobs in Demak 0, 373satuan, otherwise decrease one unit on variables Re-organized X 2) will lower the quality of jobs in Demak amounted 0, 373units.

4. People Placement variable regression coefficient *Staffing* (X 3) equal to 0,559 meaning that any changes in the variable *Staffing* (X 3) of the unit will result in a change of QualityJobs in Demak amounted to 0,559 unit, assuming that the other variable is fixed. The increase in the unit in the variable *Staffing* (X 3) will improve the quality of Jobs in Demak 0,559unit, whereas a decrease of one unit in the variable placement of People (X 3) will lower Quality Jobs in Demak amount 0.559 unit.

5. Directing variable regression coefficient (X 4) amounted to 0.236 means any Directs variable changes (X 4) of the unit will result in a change of Quality Jobs in Demak amounting to0.236 unit, assuming that the other variable is fixed. The increase in the unit at variable Directing (X 4) will improve the quality of Jobs in Demak 0.236 unit, whereas a decrease of one unit in the variable Directing (X 4) will reduce the quality of Jobs in Demak amount 0.236 unit.

6. Controlling variable regression coefficient (X 5) amounted to 0.133 meaning that any changes in the variables Controlling (X 5) of the unit will result in a change of Quality Jobsin Demak amounting to 0.133 unit, assuming other variables are fixed. The increase in the unit at variable Controlling (X 5) will improve the quality of Jobs in Demak 0.133 unit, whereas a decrease of one unit in the variable Controlling (X 5) will lower Quality Jobs in Demak amount 0.133 units.

3.1.3. Partial Hypothesis Testing (t test)

Table 3. Results of t test

Coefficientsa

Model		t	Sig.
1	(Constant)	-4.108	.000
	Planning	2.096	.040
	Organizing	3.136	.002
	Staffing	6.017	.000
	Directing	2.551	.013
	Controling	1,961	.054

a. Dependent Variable: quality_of_contruction
Source: Primary Data That Is Processed, 2017

1. *Test Statistic t Planing Against quality of contruction*

   Planning positive and significant impact on the *quality of contruction* in order to obtain the test results as follows: Table 4. 6. Issuer obtained t value for the variable Planning amounted to 2,096 where as t table is 1.66 2 (df = 85 -3-1 = 86) using one-tailed test. As for the value signifikansiya is 0.0 40. From these data it can be interpreted that t > t table and the result was positive (2,196 > 1, 66 2) and shows the significance value smaller than the significance level of 0.05 (0.0 40 <0.05)

2. *Test Statistic t Organizing Against quality of contruction*

   Organizing positive and significant impact on the *quality of contruction* in order to obtain the test results as follows: Table 4. 6. Issuer obtained t value for the variable Organizing amounted to 3,136 where as t table is 1.66 2 (df = 85 - 3-1 = 86) using one-tailed test. As for the value the significance a is 0.0 0 2. From these data it can be interpreted that t> t table and the result was positive (3,136 > 1. 66 2) and shows the significance value smaller than the significance level of 0.05 (0.0 0 2 <0.05)

3. *Test Statistics Staffing T To quality of contruction*

   Staffing positive and significant impact on the *quality of contruction* in order to obtain the test results as follows: Table 4. 6. Issuer obtained t value for the variable is equal to 6017 Staffing whereas t table is 1.66 2 (df = 85 -3-1 = 86) using one-tailed test. As for the value significance is 0.0 0 0. From these data it can be interpreted that t> t table and the result was positive (6017 > 1. 66 2) and shows the significance value smaller than the significance level of 0.05 (0.0 0 0 <0.05)

4. **Directing** *Against Statistics t test quality of contruction*

   Directing positive and significant impact on the *quality of contruction* in order to obtain the test results as follows: Table 4. 6. obtained t value for the variable Directing amounted to 2.551 while t table is 1.66 2 (df = 85 -3-1 = 86) using one-tailed test. As for the value significance is 0.0 13. From these data it can be interpreted that t> t table and the result was positive (2.551> 1, 66 2) and shows the significance value smaller than the significance level of 0.05 (0.0 13 <0.05)

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5. *Test Statistic t* **Controlling** *Against quality of contruction*

Controlling positive effect on the *quality of contruction* in order to obtain the test results as follows: Table 4. 6. Issuer obtained t value for Controlling variable is equal to 1,961 whereas t table is 1.66 2(df = 85 -3-1 = 86) using one-tailed test. As for the value significance is 0.0 54. Featuring of the data can be interpreted that t> t table and the result was positive (1,961> 1, 66 2) and shows the significance value is greater than the significance level of 0.05 (0.0 54 > 0.05).

3.1.4. Simultaneous Test (F Test)

Table 4. Table Results test F

ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	456.746	5	91349	71383	.000 [b]
	Residual	92.138	72	1.280		
	Total	548,885	77			

a. Dependent Variable: quality_of_contruction
b. Predictors: (Constant), Controling, Directing, Organizing, Planning, Staffing
Source: Primary Data Processed, 20

Based on test results or test ANOVA F in Table 4. 20. Showed that tilapia F count equal to 71 383 while for the F table at 2:32 (df 1 and df = 3 2 = 88 -3-1 = 8 4). Also obtained the significance value of 0.000 is smaller than the significance level of 0.05. Thus F count> F table (71 383> 2.32) and the significance value smaller than the significance level (0.000 <0.05)

3.1.5. Conclusion

1. Through linear regression analysis showed Simultaneously or partial (1) Planning (2) Organizing (3) *Staffing* (4) Directing (5) Controlling . influence on the quality jobs in Demak (Y) it may be seen from the results of the ANOVA test or F test in Table 4:20. Showed that tilapia F count equal to 71 383 while for the F table for 2. 32.Also obtained the significance value of 0.000 is smaller than the significance level of 0.05.
2. The most influential variables significant (dominant) to quality jobs in Demak is staffing this can be seen because the significance value of 0.000.

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