

Communication Culture Language Style In Project Implementation In Lamongan City

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ABSTRAK

Komunikasi dalam suatu proyek merupakan kunci keberhasilan dalam manajemen proyek. Kesalahan atau kurangnya pola komunikasi yang baik dalam suatu proyek dapat berdampak pada buruknya kinerja. Penelitian ini bertujuan untuk menganalisis keberhasilan proyek ditinjau dari komunikasi antara pemilik proyek, kontraktor dan konsultan. Variabel independen yang digunakan dalam penelitian ini adalah komunikasi penggunaan biaya, komunikasi dalam pendistribusian material, dan komunikasi dalam perancangan jadwal. Variabel terikat yang digunakan adalah komunikasi untuk menunjang keberhasilan proyek. Sampel dalam penelitian ini adalah 31 orang yang terlibat langsung dalam proyek konstruksi di kota Lamongan. Hasil penelitian yang telah dilakukan adalah seluruh variabel independen mempengaruhi variabel dependen, dan variabel yang paling dominan mempengaruhi variabel dependen adalah komunikasi dalam pendistribusian material dengan nilai koefisien regresi sebesar 0,618. Secara simultan terdapat pengaruh yang signifikan antara variabel bebas terhadap variabel terikat dengan hasil nilai F hasil perhitungan dibandingkan F tabel, maka F hitung hasil perhitungan lebih besar dari F tabel ($28,072 > 2,960$). Secara parsial terdapat pengaruh yang signifikan antara masing-masing variabel independen pembentuk model regresi linier individual terhadap variabel dependen.

ABSTRACT

Communication in a project is a key to success in project management. Errors or lack of good communication patterns in a project can have an impact on poor performance. This study aims to analyze the success of the project in terms of communication between the project owner, contractor and consultant. The independent variables used in this study are communication in the use of costs, communication in material distribution, and communication in schedule design. The dependent variable used is communication to support project success. The sample in this study was 31 people who were directly involved in construction projects in Lamongan city. The results of the research that has been done are all independent variables affect the dependent variable, and the most dominant variable affecting the dependent variable is communication in material distribution with a regression coefficient value of 0.618. Simultaneously there is a significant influence between the independent variable on the dependent variable with the result of the F value of the calculation result compared to F table, then the F calculate of the calculation result is greater than the F table ($28.072 > 2.960$). Partially, there is a significant influence between each independent variable forming an individual linear regression model on the dependent variable.

Keywords:

Language Culture Project, Regression, Factor Analysis, SPSS.

INTRODUCTION

Communication is the process of conveying information from one party to another, communication is one of the factors that can influence the results of an activity (Nasirzadeh *et al.*, 2022), such as communication in a construction project must be well established between parties so as not to have a negative impact on other parties. Project (Choi and Lee, 2022).

Developments in the construction sector are currently experiencing very rapid development, such as the construction of buildings, roads, housing, etc. Especially in the developing city of Lamongan, there are many construction projects that are currently running or will be running. (Likita *et al.*, 2022) In a construction project, many things must be fulfilled so that the project objectives can be achieved, one of which is communication (Siju, Shafiyia and Ben Maaouia, 2022).

In a construction project, the most important factor for the smooth running of a job, apart from human resources, is communication between the parties involved in the construction project, including consultants and contractors (Rodrigues and Lindhard, 2023) (Hussain *et al.*, 2018). Conflict and chaos are factors that can hinder

project implementation and project team management. In medium and large scale projects, the communication factor between project members is very important (Ma, Jiang and Jia, 2022), considering the large number of individuals spread across several places and even different geographical areas (Lu, Xu and Söderlund, 2020) (Zaman *et al.*, 2021).

Communication is the process of delivering information (messages, ideas and ideas) from one party to another (Zaman *et al.*, 2021) (Muktar Ishaq *et al.*, 2019). In general, communication is done verbally or verbally which can be understood by both parties. When there is no verbal language that can be understood by both parties, communication (Martins *et al.*, 2022) can still be done by using body gestures, showing sika for example smiling, shaking the head, shrugging the shoulders, this way is called non-verbal communication (Kim *et al.*, 2022).

Historically, communication comes from the Latin *communis*, which means the same or means making the same (Liu, van Nederveen and Hertogh, 2017) (Schönbeck, Löfsjögård and Ansell, 2020). In simple terms, communication can occur if there is a similarity between the person sending the message and the person receiving the message. Therefore, communication depends on our ability to understand each other (Ramadhan, Prasetyo and Raflis, 2023) (Ahmed, Hussain and Philbin, 2022). In the beginning, communication was used to express an organism's needs. Humans communicate to share knowledge and experience. Common forms of human communication include signal language, speech, writing, gestures, and broadcasting. Through communication, the attitudes and feelings of a person or group of people can be understood by other parties (Khanyile, Musonda and Agumba, 2019) (Jiang *et al.*, 2022). However, communication will be effective if the message conveyed can be interpreted in the same way by the recipient of the message. Each communicator will thus carry out four actions: forming, conveying, receiving, and processing messages (Ahmad *et al.*, 2022). These four actions usually occur sequentially (Suleiman, 2022). Forming a message means creating an idea or ideas. This happens in a person's mind through the working process of the nervous system. The message that has been formed is then conveyed to other people. Either directly or indirectly (Zulch, 2014). Form and send a message, someone will receive the message conveyed by another person (Naveed and Khan, 2022) (Alajmi and Ahmed Memon, 2022). The message it receives will then be processed through the nervous system and can be interpreted. Once interpreted, the message can cause a response or reaction from the person (Suleiman *et al.*, 2023). If this happens, the person will form and convey a new message again. Thus, these four actions will continue to occur repeatedly (El-Saboni, Aouad and Sabouni, 2009) (Ghaleb and Abdullah, 2021).

Project communication management is a process that includes the collection, distribution, channeling (Eliwa, Jelodar and Poshdar, 2022), information seeking, and movement of information within the project (Gamil and Abd Rahman, 2023). The communication management process must be able to provide information to all members needed for project success. Everyone involved in the project must understand how to communicate effectively in project implementation (Malik *et al.*, 2021). Project communication management includes the processes necessary to ensure that information in the project is created quickly and precisely in terms of collection, dissemination, storage and disposition (Gamil and Rahman, 2017). This creates important connections for the people, ideas and information needed for the project to succeed successfully (Borysenko and Mygal, 2021). Everyone involved in a project must be prepared to send and receive information, and must understand how communication takes place where they are involved as individuals and how communication can affect the project as a whole (Muneer *et al.*, 2022).

The following is a general overview of the main processes in Project Communication Management, namely:

1. Communication Planning: determining the information and communication needed by stakeholders: who needs what, when they will need it, and how the information will be given or communicated to them (Ramadhan, Prasetyo and Raflis, 2023).
2. Information Distribution: making required information available to project stakeholders in a timely manner (Ramadhan, Prasetyo and Raflis, 2023).
3. Performance Responsive: collect and disseminate or distribute performance information. This includes status reporting, progress measurement and forecasting (Ramadhan, Prasetyo and Raflis, 2023).
4. Stakeholder Management: communication management to meet needs and solve problems between parties involved in the project (Ramadhan, Prasetyo and Raflis, 2023).

The above processes are interconnected with each other. Each process involves individuals and groups based on the information needs of the project (Olaniran, 2015).

This study aims to analyze the role of communication in the success of construction projects, particularly in Lamongan City, to identify challenges in communication among stakeholders, and to propose strategies to address these challenges. Additionally, this research seeks to evaluate the impact of effective communication on the efficiency and overall outcomes of construction projects.

The contributions and benefits of this research are multifaceted. First, this study provides **practical benefits** by offering actionable recommendations for project managers, consultants, and contractors to enhance communication systems, thereby improving collaboration and efficiency in construction projects. Second, it contributes **theoretically** by enriching the existing body of knowledge on communication management in construction, particularly in the context of developing cities, with insights into specific challenges and proposed solutions. Third, the research offers

policy-related benefits by highlighting the significance of communication in construction and guiding policymakers in creating frameworks or regulations to encourage more effective practices. Finally, this study aims to create awareness among all stakeholders involved in construction projects about the importance of structured communication to prevent misunderstandings and inefficiencies that could hinder project success.

The novelty of this research lies in its focus on the unique context of Lamongan, a developing city, differentiating it from studies that generally address urban construction projects. It also adopts a comprehensive approach, integrating theoretical perspectives with practical recommendations by analyzing real-world challenges and proposing actionable solutions. Additionally, this study highlights the interconnected roles and interactions among various stakeholders, such as consultants, contractors, and workers, emphasizing the importance of stakeholder-centric communication analysis.

METHOD

Research Variable

The variables used in this research are as follows:

1. Independent variable (*Independent Variable*) namely variable X which includes:
 - a. Delivery of cost usage information is variable X_1
 - $X_{1.1}$ Use of large costs for projects
 - $X_{1.2}$ Availability of sufficient funds/budget until the project is completed
 - $X_{1.3}$ Slow payment of salary
 - b. Communication in the use of materials is a variable X variable₂.
 - $X_{2.1}$ Materials are complete and sufficient until the project is completed
 - $X_{2.2}$ The quality of project materials affects the smooth running of the work
 - $X_{2.3}$ Delays in material distribution increase processing time
 - c. Schedule planning (*schedule*) is the X variable₃
 - $X_{3.1}$ Scheduling the start-finish of the project according to the initial plan
 - $X_{3.2}$ Project delays were due to weather constraints which affected the predetermined scheduling
 - $X_{3.3}$ Lack of skilled labor causes delays in project completion
2. Dependent variable (*Dependent variable*) namely: project success is Y.
Communication is the Y variable₁
 - AND_{1.1} Communication within the project in the use of methods and technology appropriate to the project
 - AND_{1.2} Ability to communicate (*communication skill*) internally with project workers
 - AND_{1.3} Communication between related parties that influences the level of project success

Data Analysis Technique

The literature used as a reference in data analysis in this research is the Parametric Statistics Practice Book (Rijali, 2019). To analyze the data in this research, statistical software was used using statistical methods as explained below:

1. Multiple Regression Analysis
2. Assumption of Normality
3. Multicollinearity Assumption
4. Heteroscedasticity Assumption
5. Factor Analysis

RESULTS

Normality Assumption Testing

A regression model can be said to meet the normality assumption if the residuals caused by the regression model are normally distributed. To carry out the test, the Kolmogorov-Smirnov test is used. To test the assumptions, the Kolmogorov-Smirnov Z method is used which can be seen in the table below:

Table 1. Normality Assumption Test Results

<i>One-Sample Kolmogorov-Smirnov Test</i>			<i>Unstandardized Residual</i>
<i>N</i>			31
<i>Normal Parameters^{a,b}</i>	<i>Mean</i>		.0000000
	<i>Std. Deviation</i>		.95912983
<i>Most Extreme Differences</i>	<i>Absolute</i>		.076
	<i>Positive</i>		.058
	<i>Negative</i>		-.076
<i>Test Statistic</i>			.076
<i>Asymp. Sig. (2-tailed)^c</i>			.200 ^d
<i>Monte Carlo Mr. (2-tailed)^{h,i}</i>	<i>Say.</i>		.912
	<i>99% Confidence Interval</i>	<i>Lower Bound</i>	.905
		<i>Upper Bound</i>	.919

Source: SPSS 25 Analysis Results, 2024

Multicollinearity Assumption Testing

The VIF value can be seen in the table below:

Table 2. Multicollinearity Assumption Test

<i>Coefficients^a</i>								
Model		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Say.</i>	<i>Collinearity Statistics</i>	
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>			<i>Tolerance</i>	<i>VIF</i>
1	<i>(Constant)</i>	1.757	1.063		1.653	.110		
	total_x1	.128	.137	.135	.936	.357	.430	2.327
	total_x2	.449	.081	.618	5.533	<.001	.721	1.386
	total_x3	.271	.111	.314	2.431	.022	.539	1.854

a. *Dependent Variable: AND*

Source: SPSS 25 Analysis Results, 2024

Multiple Linear Regression Analysis (Stepwise Method)

Regression analysis is used to obtain data on factors that influence the implementation of construction projects in the city of Lamongan. Based on the results of data processing using SPSS 25 software, a summary is obtained as in the table below:

Table 3. Results of Regression Analysis (Stepwise Method)

<i>Coefficients^a</i>						
Model		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Say.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	<i>(Constant)</i>	4.951	.861		5.750	<.001
	total_x2	.567	.084	.781	6.729	<.001
2	<i>(Constant)</i>	2.031	1.019		1.992	.056
	total_x2	.483	.072	.666	6.723	<.001
	total_x3	.338	.085	.391	3.952	<.001

a. *Dependent Variable: total_y*

Source: SPSS 25 Analysis Results, 2024

Table 4. R Square Analysis Results

<i>Model Summary^c</i>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 ^a	.610	.596	1.237
2	.866 ^b	.749	.731	1.009

a. *Predictors: (Constant), total_x2*

b. *Predictors: (Constant), total_x2, total_x3*

c. *Dependent Variable: total_y*

Source: SPSS 25 Analysis Results, 2024

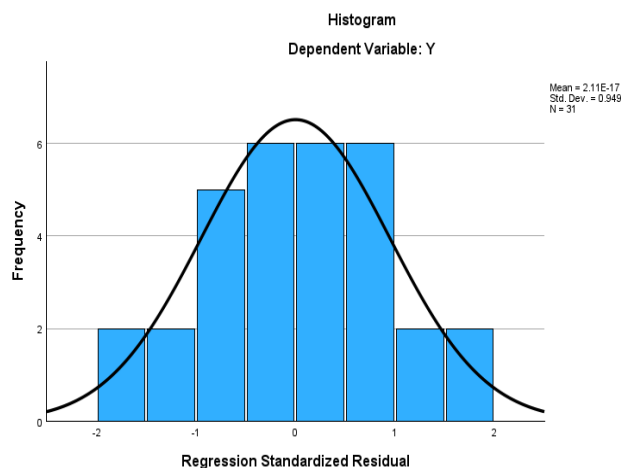


Figure 1. Communication Stepwise Dependent Histogram Graph (Y)
Source: SPSS 25 Analysis Results, 2024



Figure 2. Communication Dependent Stepwise Regression Graphs (Y)
Source: SPSS 25 Analysis Results, 2024

DISCUSSION

Based on the Kolmogorov-Smirnov test in table 1 above, a significant value of 0.200 was obtained, where this value is greater than $\alpha = 0.05$, so it can be concluded that the residual normality assumption has been met.

The multicollinearity test is intended to see the relationship or correlation between each variable. The multicollinearity test is a linear relationship between independent variables in multiple regression. To detect the presence or absence of multicollinearity, it can be seen from the Variance Inflation Factor (VIF). If the VIF value is >10 , it indicates multicollinearity. Conversely, if $VIF < 10$, there is no multicollinearity. From the calculation results in table 2, each independent variable shows a VIF value ($X1=2.327$) ($X2=1.386$) ($X3=1.854$) which means no more than 10, so the assumption that there is no multicollinearity has been met.

Detection of whether there is heteroscedasticity can be done by looking at whether there is a certain pattern on the scatterplot graph, where the Y axis is the predicted Y, and the X axis is the residual. If there is a certain regular pattern, such as the points forming a regular pattern (wavy, widening then narrowing), then this indicates heteroscedasticity has occurred. If there is no clear pattern, and the points spread above or below the number 0 on the Y axis, then heteroscedasticity does not occur. The results of the heteroscedasticity test can be seen in the following scatterplot graph:

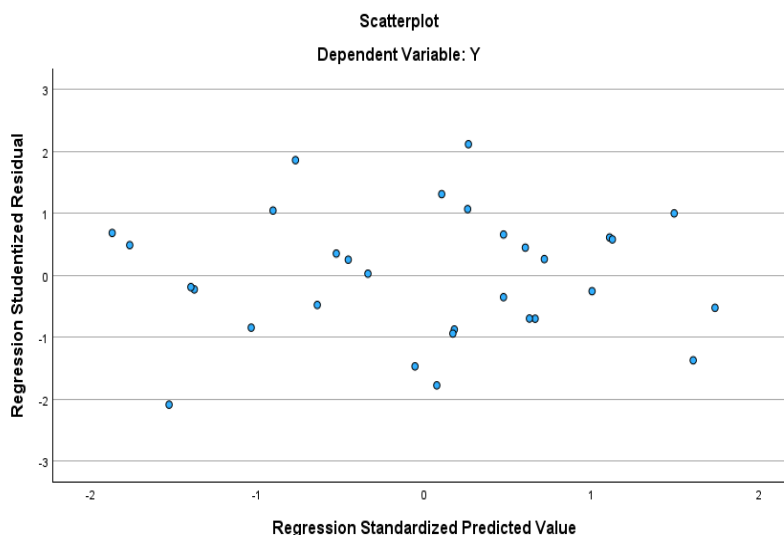


Figure 3. Scatter Plot of Heteroscedasticity Test
Source: SPSS 25 Analysis Results, 2024

Based on the scatterplot graph, it can be seen that the points are spread randomly and are spread both above and below the number 0 on the Y axis. Thus it can be concluded that heteroscedasticity does not occur in the regression model

Based on table 1 to table 4 it can be seen that the independent variables X1-X3 have significant values. Interpretation of the stepwise method from the results of the table above is as follows:

$$Y = 4,951 + 0,567 (X2)$$

Where:

1. *Constant* = 4,951

Positive constant values indicate the positive influence of independent variables (cost, material, and schedule). If the independent variable increases or has an effect of one unit, then the dependent variable (communication) will increase or be fulfilled.

2. $b_2 = 0,567$

The coefficient value of the material X2 variable on communication Y variable shows a positive value of 0.567 or 56.7% which can be interpreted as the material

3. Variable X1 does not appear in the results of the stepwise regression analysis, which means that among all the variables, only variable

CONCLUSION

The results of the study showed that simultaneously and partially, the independent variables (material and schedule) had a significant effect on communication in the implementation of construction projects in Lamongan City. The communication factor was proven to have an important influence, with the material variable (X2) as the most dominant factor based on the highest regression coefficient of 0.618. This confirms that communication (Y) is more influenced by material than other factors (X1, X3).

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