THE INFLUENCE FAKTORS ON PROJECT PERFORMANCE: INTEREST, COMPETENCY AND CONTRACT PROJECT

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Abstract: In order to increase economic growth through the development of industrial areas in Indonesia, the Government is making efforts to accelerate projects that are considered strategic and have high urgency so that they can be realized within a short period of time. A project is considered successful if good project performance is achieved. Competence of project funds is important. This research was conducted to determine the influence of competence, interests and project contracts which are thought to have an impact on project performance. This research contained 55 samples and used the smarPLS method. From the results of this research, it was found that there was a significant influence on project interests and competencies. This shows that the competencies possessed by the project team are very influential. Apart from competency, the results obtained from project interests have an influence on project performance. But this is not the case with project contracts which do not include any influence on project performance.

Keyword : *project intererst, project competency, project performance*

INTRODUCTION

In order to increase economic growth through the development of industrial areas in Indonesia, the Government is making efforts to accelerate projects that are considered strategic and have high urgency to be realized in a short period of time. This is because construction is an industry that is very prone to risk due to certain special characteristics of construction projects. In addition, the development of the national economy is directly influenced by the success of construction. Many construction projects directly affect the quality of life of the community, such as roads, bridges, buildings, and irrigation facilities (Irfan et al., 2021). A project is considered successful if the quality of the expected work results is in accordance with predetermined standards, is sustainable, achieved within the specified time, and within the specified budget (Rolstadås et al., 2014). Adequate leadership and competence are important keys to the success of any company or business performance, and this is much more important for the construction industry (Liphadzi et al., 2015). Because, leadership is considered good if it is designed to achieve the goals or missions of an organization that is carried out through project team leadership and projects manage time, on budget, high quality, and with satisfied customers (Jarad, 2012). This is confirmed by Haider et al., (2024) project managers need to know how to lead teams through the planning and implementation phases of projects while remaining in line with organizational goals. In order to successfully manage complex projects, emotional intelligence is an important leadership quality.

In addition to the competencies needed to achieve successful construction, there needs to be clarity of contracts, contracts in construction projects that are diverse and diverse can have a

negative impact on project performance, including fostering hostility between project parties, causing project delays, and increasing costs (Mbat & Eyo, 2013). These results ultimately hinder the role of the construction sector as a major contributor to a country's development. Although this is very important, the construction sector experiences several obstacles that prevent it from achieving the goals of this sector with full success (Doumpos et al., 2017).

While project success is the achievement of project objectives from the perspective of related stakeholders which are traditionally measured by indicators of cost accuracy, time, quality according to the agreement of related parties. The success of a project, both infrastructure projects and other construction projects, cannot be separated from factors that influence both directly and indirectly. Stakeholder management is an important part of an organization's management strategy in achieving its goals. The stakeholder management process begins by identifying stakeholders based on the dominance or impact caused by the success of the project, knowing the expectations or interests of stakeholders and at the same time increasing the psychological empowerment of these stakeholders.

Previous research conducted by Zahra, 2022 requires good competence in order to compete in the construction industry and also to make project performance run according to plan. Construction activities are very dynamic activities, large resources and many parties involved. In construction activities, many problems are also faced, one of which is the incompatibility of field conditions with planning so that changes must be made in the contract (Herman Susila, 2019). In addition, the psychological empowerment of stakeholders and the impact of stakeholders have a significant influence on preliminary research and main research (Chandra et al., 2011). There is a lot of progress to be pursued, this lag must be pursued with development in all fields. This development is in the form of physical construction of projects, construction of buildings, bridges, toll roads, large or small industries, telecommunications networks, and others (Laksana & Huda, 2019). Based on the results of previous studies, it can be understood that there is a relationship between project interests, project competence and project contracts on project performance results and overall project implementation. The influencing factors can vary according to the context and relevance of each research. By considering the results of previous research and considering the theory that is used as the basis for thinking in this research, the formulation of the research hypothesis is as follows:

H1: There is an influence between project interests and project performance

H2: There is an influence between project competence and project performance

H3: There is an influence between project contracts and project performance

H4: There is an influence between interests, competence and project contracts on project performance together

In this study, a test will be carried out on the model in determining the influence of factors that determine performance on the project to see the magnitude of the influence of the composition of independent variables on the dependent variable and on the moderating variable. The model is depicted in Figure 1.

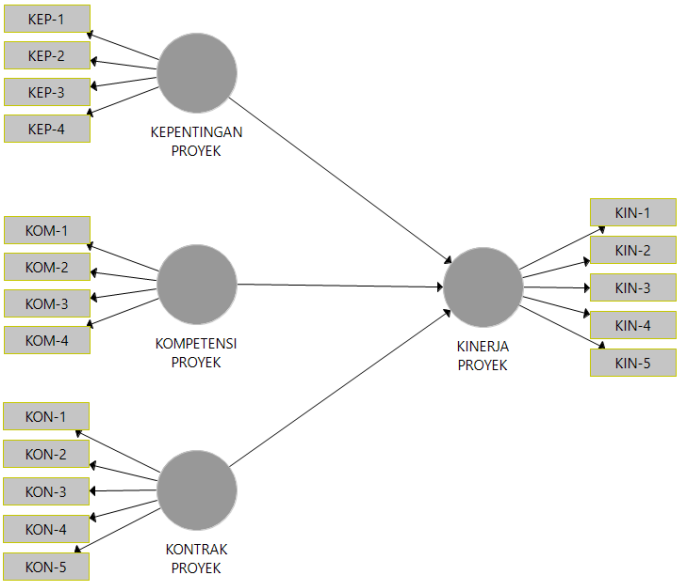

Figure 1. Factors that influence project performance

RESEARCH METHODS

Research on factors that determine project performance, this is designed based on its objectives, including in explanatory research. According to Sudaryono (2017), explanatory research is research that aims to describe generalizations or explain the relationship between one variable and another. When viewed from the characteristics of the problems discussed, this research is included in the type of causal-comparative research, namely research that shows the direction of the relationship between independent variables and dependent variables, in addition to measuring the strength of the relationship (Sudaryono, 2017:89). Based on the method and measurement and analysis of the data, this research is classified as survey research, because it uses questionnaires as its main source, and also as quantitative research, namely research that aims to describe social phenomena or symptoms quantitatively or analyze how social phenomena or symptoms that occur in society are interrelated with each other (Sudaryono, 2017:90). Population according to Kurniawan (in Sudaryono, 2017:166) is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. Meanwhile, according to Sugiyono (2012:81), a sample is part of the number and characteristics possessed by the population. From all the variables determined in this study, a pattern of relationships between independent variables and dependent variables will then be arranged according to the rules based on previous theories and studies in a form of structural equation modeling (SEM). This study will use Partial Least Square (PLS) as an analysis tool. The software applied in this study uses SmartPLS 3.0. PLS can be used for structural modeling with indicators that are reflective constructs and formative constructs. Reflective constructs require testing the validity and reliability of the construct, while formative constructs are measured only by looking at the significance of their weight. From the explanation above, this study will use structural modeling with reflective constructs, so that 3 measurement methods are needed, namely Covergent Validity, Discriminant Validity and Composite Reliability (Ghozali, 2014:39). The structural model is evaluated using R-square for dependent constructs, Stone-Geisser Q-Square test for predictive relevance and t-test and significance of the structural

path parameter coefficients. The inner model (inner relation, structural model, or substantive theory) describes the relationship between latent variables based on substantive theory.

RESULTS AND DISCUSSION

Based on the research results, the profile of respondents who participated in this research can be explained in the following table.:

Table 1: Sample Information

Variable	category	Total
Gender	Female	12
	Male	43
Job	Service User	7
	Consultant	5
	Contractor	28
	Subcontractor	15
Working Experience	0–5	12
	6–10	10
	11–15	18
	16–20	10
	>20	5

The sample determined was 70 respondents, and again 55 data were taken by representing 3 parties considered as project stakeholders, in each project proportionally according to the percentage. Of the 55 questionnaire samples, 7 respondents were taken from stakeholders for employers, 5 respondents were taken from stakeholders of supervisory consultants, 28 respondents were taken from implementing contractors and 15 respondents from subcontractors. From the equation model above, a sample modeling model will be used, namely all test samples, test samples on industrial development projects. In this evaluation, it will be used to measure loading factors, validity and reliability.

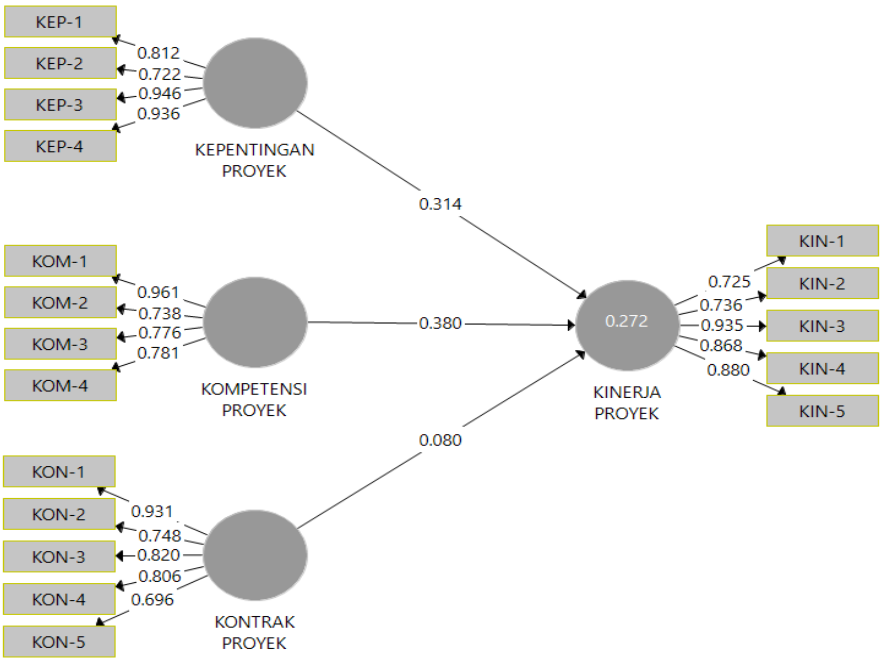

Figure 2. Factor loading values

The results above show that all research variables are above 0.6, so it can be concluded that the loading factors of all variables are good. In addition to using the loading factor criteria, the validity test of the model also looks at the results of the convergent validity value using the AVE value, which is obtained from the SmartPls output and the reliability test of the construct in the model, is carried out using the composite reliability and Cronbach's alpha measuring instruments.

Table 2 : *Factor loadings, Cronbach's Alpha, Composite, Reliability and AVE All sample*

	Items	Factor Loadings	CA	CR	AVE
KEP	KEP-1	0,812	0.882	0.917	0.738
	KEP-2	0,722			
	KEP-3	0,946			
	KEP-4	0,936			
KOM	KOM-1	0,961	0.888	0.918	0.694
	KOM-2	0,738			
	KOM-3	0,776			
	KOM-4	0,781			
KON	KON-1	0,931	0.886	0.890	0.671
	KON -2	0,748			
	KON -3	0,820			
	KON -4	0,806			
	KON -5	0,696			

	Items	Factor Loadings	CA	CR	AVE
KIN	KIN-1	0,725	0.901	0.938	0.647
	KIN -2	0,736			
	KIN -3	0,935			
	KIN -4	0,868			
	KIN -5	0,880			

The results above show that all research variables in the three sample area models are above 0.5, so it can be concluded that the convergent validity of all variables is good. From the results of the model estimation, the composite reliability value is above 0.7 and Cronbach's alpha is above 0.6, so that all constructs have good reliability..

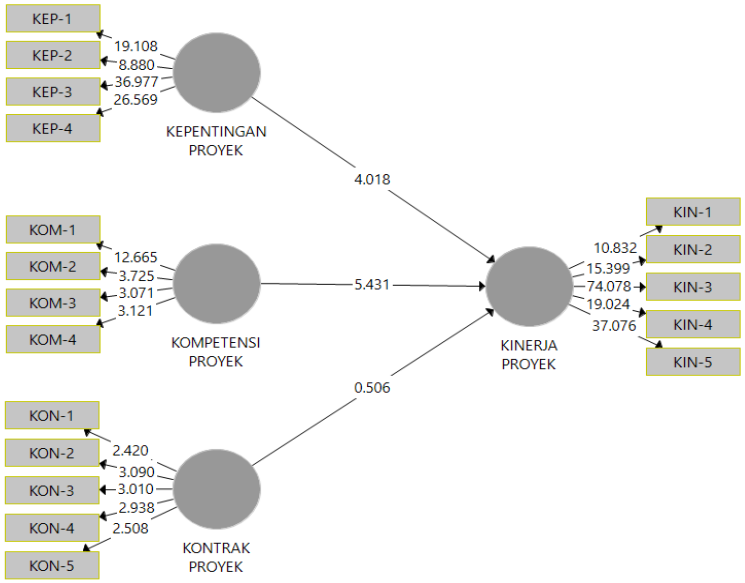

Figure 3. Inner research model

The results of the analysis of this measurement model with PLS are shown in the figure below, which can explain the results of the R square value and its t-statistics. Hypothesis testing is used to see the direction of the relationship between the independent variable and its dependent variable. Testing in this study was carried out by means of path analysis of the planned model. Hypothesis testing in this study will be assisted by SmartPLS 3.0 software which will simultaneously test complex structural models, so that the results of the path analysis will be obtained in one regression analysis. The results of the correlation between constructs are measured by looking at the path coefficient and its level of significance. And in this research, the possibility of errors in decision making is 5%, which is based on:

p-value $\geq$ 0.05, then Ho is accepted and Ha is rejected

p-value < 0.05, then Ho is rejected and Ha is accepted.

This measurement uses assumptions in the bootstrapping process with a sub-sample of 300 and a significance level of 0.05, so that the t-table used according to the SmartPLS 3 standard is 1.960. The partial hypothesis of the significance value and t-statistics of this model measurement are presented in table 3.

Table 3 : *Path coefficient, t-statistics and partial hypothesis*

Path	Path Coefficient	t-stat.	Sign.	Hip. (H_a)
ALL SAMPLES				
KEP → KIN	0.314	4.018	0.078	Accepted
KOM → KIN	0.380	5.431	0.070	Accepted
KON → KIN	0.080	0.506	0.158	Rejected

From the results of the model estimation, in the sample measurement, it can be concluded that the hypothesis stating that there is a significant relationship between project interests and project performance (H1) can be proven. For project competence on Project Performance (H3) can be proven. While the significant influence between Project contract conflict on project performance (H2) cannot be proven in this study. In addition to testing the significance of the relationship partially or individually from each predictor variable to its criterion variable, a hypothesis test was also carried out on the influence of the significance of the mediating variable. This hypothesis test uses a comparison between the calculated t-value and the t-table and its significance value. And in this study there is a possibility of error in decision making of 5%, which is based on:

p-value ≥ 0.05, then Ho is accepted and Ha is rejected

p-value < 0.05, then Ho is rejected and Ha is accepted.

To determine the influence of independent variables simultaneously on the dependent variable, a calculation is carried out using the following formula:

Definition 4: F-statistic formula for simultaneous hypothesis testing

Particulars:

n = Total sample

k = Total independent variable

R2 = Influence value

$$F = \frac{(n - k - 1)R^2}{k\,(1 - R^2)}$$

Table 5: ***Simultaneous hypothesis testing table based on F-statistic and F table***

Path	F-statistic	F-table	Hypothesis
ALL SAMPLES			
KEP, KOM and KPN → KIN	54.6	2.69	Accepted

DISCUSSION

Based on the results of hypothesis testing on the model that affects project performance for all sample data, it can be seen that the H1 and H2 hypotheses stating that there is a significant relationship between project interests and project competencies with project performance can be proven. The hypothesis finds a significant influence of project interests on project performance which indicates that if there is a conflict of project interests, the overall project performance will be disrupted, especially since the project team must have good cooperation so that the project does not fail. Likewise, the H2 hypothesis stating that there is a significant influence between project competencies on project performance finds a significant influence on project performance. In contrast to the H1 and H2 hypotheses, the measurement model for all sample areas rejects the significant influence between project contracts and project performance. From the test results, it was found that there was a significant influence between the competencies possessed by the project team personnel on project performance. This shows that the better the competency possessed by the team, the project that is carried out will be in accordance with the predetermined plan. The role of this competency is very necessary in achieving the desired performance.

CONCLUSIONS AND SUGGESTIONS

The results of this study provide an overview of the construction process on a project measured based on the variables of project interest, project competence and project contract on project performance. From all samples processed in this study, project interest consistently has a significant influence on the results of project performance both on the project. Thus, the more project interests owned by stakeholders, in any modeling conditions, are able to contribute positively to project performance directly. Project competence consistently has a significant influence on the results of good project performance. Thus, the better the competence owned by stakeholders, in any modeling conditions, are able to contribute positively to the results of project performance directly. The project contract does not have a significant influence on the results of good project performance. Thus, if only the project contract is an obstacle in construction, it will not have an impact when the project is running. But if someone has a project contract that has an impact until the performance decreases, then there is a role of project interests and project competencies that are owned. As a suggestion for future research, further studies need to be carried out to identify factors that can affect project performance in the construction industry that can improve performance and can reduce potential obstacles in construction projects.

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