



Analysis Influence Factors Negotiation Model, Competency and Domination of Stakeholders to Project Success in Indonesia

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ABSTRACT

Construction projects play an important role in the advancement of a nation through infrastructure development that leads to economic growth. many factors that influence the success of the project construction, limited to the main variables such as competency of stakeholder, domination of stakeholder and negotiation model. Project success in construction sector must have stakeholders with the competency and domination for knowledge how make the project success. This research based on 100 samples from the infrastructure sector wich which will be analyzed with the partial structural-least square equation model (PLS-SEM). The result of the analysis show that the competency, domination of the Stakeholders and negotiation model giving effect to the project success in partial variable. Simultaneously, competency and domination of stakeholder, project success and characteristic are able to explain about the significant effect upon the business benefit.

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1. Introduction

Construction projects play an important role in the advancement of a nation through infrastructure development that leads to economic growth. They are planned carefully to accomplish certain goals (Yong yee & Nur ema, 2017). For get the goals Project stakeholders' competence is another important finding that emerged from the literature review, success of the project it self is traditionally measured by an indicator achievement of cost, quality and time and eventually in the devel opment it also adds customer satisfaction as one of its parameters (PMI, 2018).

In fact, it is also one of the main themes that has consistently emerged from both pilot study and quantitative survey. Higher stakeholders' competency will eventually result in greater project quality and detailed risks assessment thus increasing the likelihood of project success. there is often a project failure due to the large number of domination of stakeholders without being based on the cability of the stakeholders.

Most often, the relative success or failure of any project is linked to/ measured in terms of project deliverables in a contractual framework, which involves the cost, time and quality parameters. Therefore, the success/failure of a project is linked to meeting or not these contractual parameters (Ramakrisna, et.al, 2017). Projects fail when they fail to fulfill their mandates.

A study concluded that a project is said to be successful if it meets at least four factors, including the project running according to the contract schedule, benefiting from spending as planned, problems that occur in small projects, and no work accidents (Riswandi et al., 2019), stakeholder psychological empowerment and stakeholder impact have a significant influence on the success of construction projects (Herry Pintardi Chandra et al., 2011). Another study states that Starting from the description

above, it can be shown that stakeholders have dominance, attitudes, and personal interests that can affect project outcomes (Chandra, n.d.).

They fail whenever they fail to have a good grip on the constraints, scope, quality, schedule, resources, and cost. Many more factors, unfortunately, bring down even a well-planned project. They include factors related to negotiation model of stakeholder. Based on the explanations that have been submitted previously regarding previous studies that are related to this research, this research will discuss the factors that affect the success of project development, limited to the main variables such as stakeholder competence, stakeholder dominance and negotiation models. Variables will be tested using the Partial Least Square (PLS) tool. The results of the research are expected to become information for business people in the construction sector in order to obtain maximum project success.

2. Method

2.1. Hypothesis of Research

By considering the capability model and its variables, the hypothesis of this research is composed as follows:

- H1 : Negotiation model have significant positive effects on the project success.
- H2 : Domination of stakeholder have significant positive effects on the project success.
- H3 : Competency have significant positive effects on the project success.
- H4 : Negotiation model, domination of stakeholder and competencies have significant positive effects on the project success simultaneously.

2.2. Research Variable

Independent variables in this research consists of 3 capability of stakeholders influencing the negotiation process, among others:

- a. Competency (Alvarenga, et.al, 2020), measured according to indicator (a) Project manager competency (Hammad, 2015) (X1.1), (b) Communication (X1.2), (c) Interpersonalskill (X1.3), (d) Leadership (X1.4)
- b. Negotiation Model (Ladika, 2020), measured according to the indicator of (a) Avoiding (X2.1), (b) Competing (X2.2), (c) Accomodating (X2.3), (d) Collaborating (X2.4), (e) compromising (X2.5)
- c. Domination of Stakeholders (Sanggoro et.al, 2020), measured according to indicator (a) Power of Stakeholders (X3.1), (b) Legitimacy of Stakeholders (X3.2), (c) Urgency of Stakeholders (X3.3), (d) Proximity of Stakeholders (X3.4) (e) attitude of Stakeholders (X3.)

Dependent variables in this research explain about standard and parameter of the Project Success (Athanasios Lamproua, 2018) (Y-PS), comprising the indicator of (a) on cost budgeting (Y.1), (b) Quality performance (Y.2), (c) on Time planning (Y.3), (d) Customer Satisfaction (Y.4).

This research population is the Project Owner, Design Consultant/Supervision Consultant, Sub Contractor and Main Contractor.

2.3. Research Frame Work

This research will test the interaction model influence upon based on competency, negotiation model and domination of stakeholder to the project success using the sample standard in infrastrctur project. The interaction model analyzed in this research is proposed as in figure 1 below.

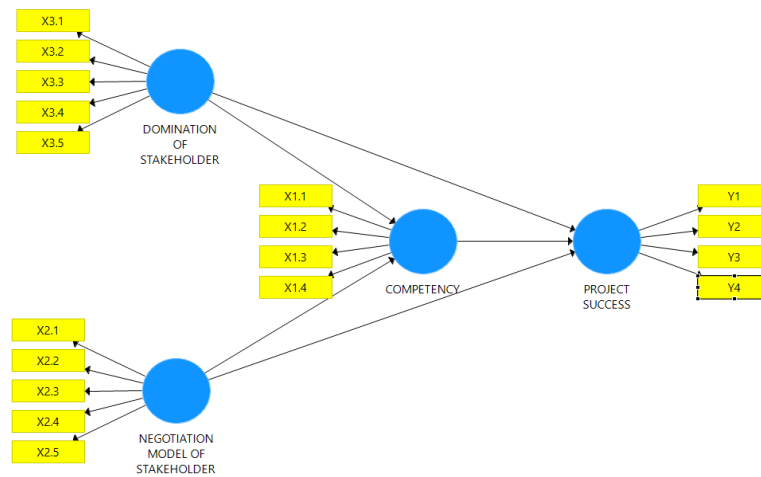


Figure.1. Factor Project Success

3. Result and Discussion

3.1. Description of research object

Total of sample used in this research is 102 stakeholders spread in infrastruktur project from each criteria of stakeholders selected. The background information of the 102 respondents is displayed in Table 1..

Table 1.
Information of sample

Variable	Category	Frequency
Working category	Project Owner	25
	Project Consultan	25
	Main Contractor	25
	Sub Contractor	25

3.2. Outer model evaluation

This measurement model testing will be made data from all Sample. This measurement model evaluation uses SmartPLS software to get values of loading factor, convergent validity, cronbach's alpha (CA), composite reliability (CR) and average variance extracted (AVE).

The reliability test in this equation must meet the requirements that the composite reliability value must be more than 0.7 and its Cronbach's Alpha is more than 0.6. From estimating this model, resulting that all datas having value more than 0.7 for composite reliability and more than 0.6 for Cronbach's Alpha, which can be concluded that the variable used has good reliability. Composite reliability represents the internal consistency of the latent variables proposed by Hoffmann and Birnbrich. 0.70 is the minimum acceptable value for composite reliability and all the constructs involved were found to have exceeded the minimum value. set up 0.5 as a minimum value for AVE. Table 2 shows that the factor loadings, AVEs and the CR of the constructs were higher than the threshold value mentioned. Furthermore, it can be seen through the value of convergent validity, that is a level to what extent the measurement result of a concept indicates positive correlation with the measurement result of other concepts which theoretically must have positive correlation. This value of convergent validity uses the value of average variance extracted (AVE) which must be more than 0.5 to be said good. Result of AVE value from this research having values more than 0.5 and meaning that having good validity.

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

	Items	Factor Loadings	CA	CR	AVE
CMP	CMP-1	0.722	0.904	0.935	0.785
	CMP-2	0.964			
	CMP-3	0.968			
	CMP-4	0.867			
NM	NM-1	0.73	0.902	0.926	0.72
	NM-2	0.665			
	NM-3	0.959			
	NM-4	0.954			
	NM-5	0.332			
DOM	DOM-1	0.803	0.9	0.926	0.716
	DOM-2	0.741			
	DOM-3	0.935			
	DOM-4	0.929			
	DOM-5	0.875			
PS	PS-1	0.879	0.917	0.938	0.671
	PS-2	0.863			
	PS-3	0.89			
	PS-4	0.801			

3.3. Inner model evaluation

Result of model analysis for this evaluation is based on the result of SMART- PLS data as in Table 3. displaying the each value of R square and path coefficient.

Table 3.
R² variable

Variable	R ²	R ² Adjusted
Project Success	0.740	0.652
Competency	0.625	0.352

From Table 3, the equation obtained from the model measurement for all sample data is as follows:

$$\begin{aligned} \text{Project Success} &= 0.075 \text{ NM} + 0.818 \text{ CMP} + 0.173 \text{ EQ}; & R^2 &= 0.740; \\ \text{Competency} &= 0.734 \text{ NM} + 0.196 \text{ DOM}; & R^2 &= 0.625; \end{aligned}$$

Definition 1 : *Equation model formula for all sampel data*

Based on the equation (1) above, the conclusion is as follows:

- The value of R² Project success is 0.740, the meaning is PS is influenced by NM, DOM and CMP by 74 %, while the rest is influenced by other factors not examined in this research.
- The value of R² Competency is 0.625 , the meaning is CMP is influenced by NM and DOM by 62.5 %, while the rest is influenced by other factors not examined in this research

3.4. Hypothesis testing

Partial hypothesis testing

This testing is to test the influence upon the significance between predictor latent variable and criterion latent variable directly. This testing is made by considering t-statistic and its t-table and between the significance value and its research significance level; in this research it uses significance level by 5% or 0.05. Criteria of this hypothesis testing is as follows:

This measurement uses assumption in the bootstrapping process with total sub-sample of 300 and significance level of 0.05, so that t-table used according to the standard of SmartPLS 3 is 1.960. The

partial hypothesis of the significance value and t-statistics of this model measurement is presented in table 3.

Table 4.
Path coefficient, t-statistics and partial hypothesis

Path	Path Coefficient	t-stat.	Sign.	Hip. (H _a)
NM → PS	0.075	5.655	0.005	Accepted
DOM → PS	0.173	2.798	0.005	Accepted
CMP → PS	0.818	10.410	0.000	Accepted

Simultaneous hypothesis testing

This hypothesis is used to know the influence upon the relation and significance effect between independent variable and dependent variable simultaneously. To test this hypothesis by comparing between F-statistic to -Table. F-calculation is obtained from the calculation with formulation as follows:

Table 6.
Simultaneous hypothesis testing table based on F-statistic and F table

Path	F-statistic	F- table	Hypothesis
NM, DOM and CMP → PS	90.169	2.69	Accepted

Based on the result of hypothesis testing in the research model for all sample data it can be concluded that in this model, competency of stakeholder, domination of stakeholder, Negotiation model have effect to the project success in partial testing (**H1, H2, H3 is accepted**). Competency of stakeholder powered by negotiation model and domination of stakeholder has significant effect upon project success in simultaneously (**H4 is Accepted**). It means that in project success in construction sector must have a good competency, a good negotiation on conflict and domination.

4. Conclusions

Based on the result of hypothesis testing in the frame model for all sample data, all of the result give effect upon the conclusion giving effect to project success. It means that all data becomes reflection to the conclusion of this research hypothesis, because the research conclusion of all samples is the same result of the conclusion obtained from the respondents' sample testing of infrastructure project. The results of this study provide an overview of the project success in construction infrastructure sector that are measured based on competency and domination of stakeholder, negotiation model on the project success. From all the samples processed in this study, the following conclusions Competency of stakeholder have a significant effect on the project success. Thus, if the stakeholder have a competency and supported by a good negotiation and domination, it will have an impact when conducting a project infrastructure.

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