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FACTORS AFFECTING THE LEVEL OF TRUST PARTNERSHIP IN CONSTRUCTION PROJECTS IN THE PROVINCE MALUKU

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Abstract

The partnership is a concept which is based on trust, cooperation in a team work, to achieve mutually beneficial goals among members of the partners, where each member will always benefit the partners of each party. Therefore trust in a construction project is very important for the implementation of the project. This research was conducted in the Province of Maluku. The respondents were the parties involved in construction projects of the client / owner of the project (offices in the Province of Maluku), construction companies and consulting firms. The sampling technique was purposive sampling, in which two criteria must be met. For project owners, agencies have construction projects in the year 2020 until this study was conducted. For contractor companies and consulting firms, the companies handle projects from agency construction project owners, and the second criterion is the contractor companies and consulting firms must have a minimum working experience of 5 years. This research is a survey research using a questionnaire. The questionnaire were distributed in two ways, namely direct and through mailing survey. The results of the research showed that four factors that influenced partners' trust level: partners' performance, partners' permeability, relational bonding, and system-based trust.

Keywords: Partnership, Partners' Trust Level, Construction Project

1. INTRODUCTION

1.1 Background of Study

A Construction project is a series of activities carried out only once and is generally short term, which has a specific time with the allocation of limited resources to carry out a task/activity that has been outlined. According to (Gray & Larson, 2011) project is a complex, non-routine, efforts limited by time, cost, resources, and the achievement of certain design specifications to meet customer needs.

According to (Ervianto, 2004), the construction industry has three distinct characteristics with other industries, such as manufacturing industries. The first of the three characteristics of the construction project is that construction project is unique. Second, it takes a specific resource. Third, it involves many organizations.

Of the three characteristics, the construction project has large potential for conflict. (Chan, Chan, & Ho, 2003) suggested that the construction industry is a very competitive business with high risk, many problems occur in the construction business, such as lack of cooperation, lack of trust between the team and ineffective communication between the team. Thus, it would interfere the relationship among team members. For that reason, the

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construction business people have thought about forming cooperation in a form of a partnership.

According to (Herry Pintardi Chandra, 2002), partnership is one of innovative development in addressing the problems occurred and to achieve competitive advantage in the construction industry. Partnership is a concept which is based on trust, joint work in a team work, to achieve mutually

beneficial goals among members of partners, in which each member of the partners is always trying to solve conflicts or disputes in the procedure that will benefit each party (Slater, 1998).

According to (Swan et al, 2002) trust between participants can be caused by internal and external factors. A person's reputation in an organization will determine and have an impact on trust, where someone will look more at the individual than at the company. The focus of the factors is more directed to the contacts of each individual involved, which includes experience in the construction sector and length of work in the related company. The factors that measure the level of trust are Exhibiting trust which has 7 indicators, Achieving Results which has 7 indicators, acting with integrity with 8 indicators and Demonstrating Concern with 4 indicators.

From several previous studies adopted by the author is a combination of research according to (Wong et al., 2005) and Chan et al., 2003) in which there are 4 main factors affecting the level of partnership trust.

2. THEORY AND HYPOTHESES DEVELOPMENT FOUNDATION

2.1 Review of Literature

2.1.1 Construction Project

The project is an activity that has a particular time, allocating limited resources to carry out a task/activity that has been outlined. According to (Gray & Larson, 2011), the project is complex, non- routine, the onetime effort limited by time, cost, resources, and the achievement of certain design specifications to meet customer needs. According (Ervianto, 2004), project has those characteristics. The first is a limited time, which means that the period of time, the starting of the project and end of the project (final project), has been determined. Second, the results are not repeated, it means that the product of a project only once, not routine or recurring products (fabrication). Third, having a phase of activity (stages of planning, design and implementation). Fourth, the intensity varies with a few pattern of activities at the beginning, increasing more, decreasing, and stop. Fifth, a wide variety of activities require a variety of well qualified personnel. Sixth, specific land/site project which means that the area and the location of the project have been set, it cannot be located in any place. Seventh, certain specification project means that the requirements relating to materials, equipment, personnel and methods of execution have been defined and must meet the procedures and requirements.

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2.1.2 The Parties Engaged in Construction Projects

Attempts to create a building starts from the idea stage to implementation stage. (Tang, Duffield, & Young, 2006) suggested that the parties involved in construction projects from planning to implementation phase involves many parties including the project owner (owner/client), planning (designer), supplier, contractor, subcontractor. However, in general, the parties involved in the implementation of construction projects can be grouped into three parties, the first is the project owner (owner/client / bouwheer), the second is the planner (designer) or consultants, and the third is the contractor.

Entities or individuals, who sponsor, plan, implement the building on the element that involved in the development or project implementation. Each element has a duty, obligation, responsibility and authority in accordance with their respective positions. In carrying out these activities in accordance with their respective positions, they interact with each other by a predetermined working relationship. In detail, the parties involved in construction projects are shown in the figure below:

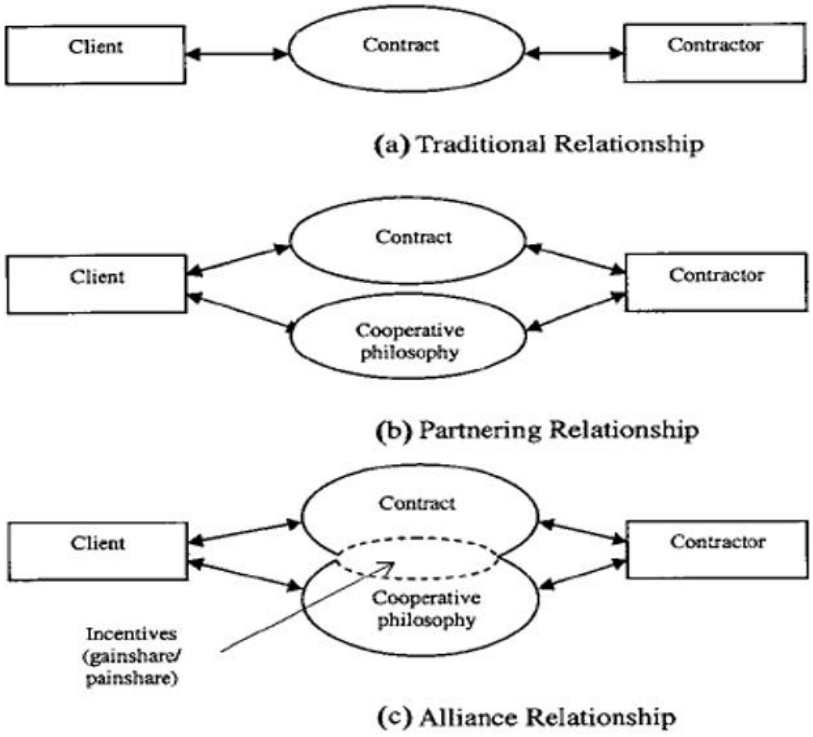

Figure 1: The Forms of Relationship in Construction Projects

2.1.3 Partnership (Partnering)

(Slater, 1998) defines a partnership (partnering) is a relationship between owners, design professionals, and contractors - the stakeholders in a project. Each party acknowledges recognizes the common goals with others. Contracts define the legal relationship between the stakeholders, while partnership establishes a working relationship. The working

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relationship establishes the basic of daily interactions between all parties and based on trust, commitment and equity.

The partnership is a concept which is based on trust, cooperation in a team work, to achieve mutually beneficial goals among members of the partners, where each member will always benefit the partners of each party (Slater, 1998). Construction Industry Institute cited by (Naoum, 2003), partnership (partnering) is defined as a long-term commitment between two organizations or defined as a long-term commitment between two or more organizations with a view to achieving specific business goals and effective ways to maximize the resources of each of the partners. While Crowely and Karim quoted by (Chan et al., 2004) seek from the perspective of the organization to define the partnership. Conceptually, partnership can be viewed as a partnership organization established to solve problems, accelerate decision-making and enhance organizational capabilities in achieving project objectives.

2.1.4 Trust level

According to (Swan, McDermott, Cooper, & Wood, 2002), trust between the participants can be caused by internal and external factors. One's reputation within an organization will determine and have an impact on trust that one would see to the individuals than to companies.

The focus of internal factors leads to the characteristics of each individual involved, which includes experience in construction and the length of working in the company concerned. On the other hand, the external factors refer to characteristics of the company (such as age and category of companies, and the length of duration of partnerships), and project characteristics (such as the type and value of the project, as well as the type and value of projects subcontracted).

2.2. Hypothesis Development

(Wong, Cheung, & Ho, 2005) studied the relationship of partners 'trust level with partnering success level in which they included four constructs that form the partners' trust level partners, namely: partners' performance, partners' permeability, relational bonding, and system-based trust. In the study, (Wong et al., 2005) proved that the significant influence to form partners' trust level, were only three, namely: partners' performance, partners' permeable, and system-based trust. This was due to the research conducted by (Wong et al., 2005) in the construction industry in Hong Kong emphasized more on professionalism resulting in less need for close relationship with their partner. It is different situation when compared to Indonesia which is more concerned with the closeness of a relationship of cooperation. Closeness of the relationship means the nature of colleague, connection, and collusion, are still happening a lot in the construction industry in Indonesia. Based on those reasons, the researcher chose the object of research in Indonesia, particularly in Maluku Province. The differences in the characteristics of the construction industry make the researcher still include relational bonding in the constructs that establish the partners' trust levels.

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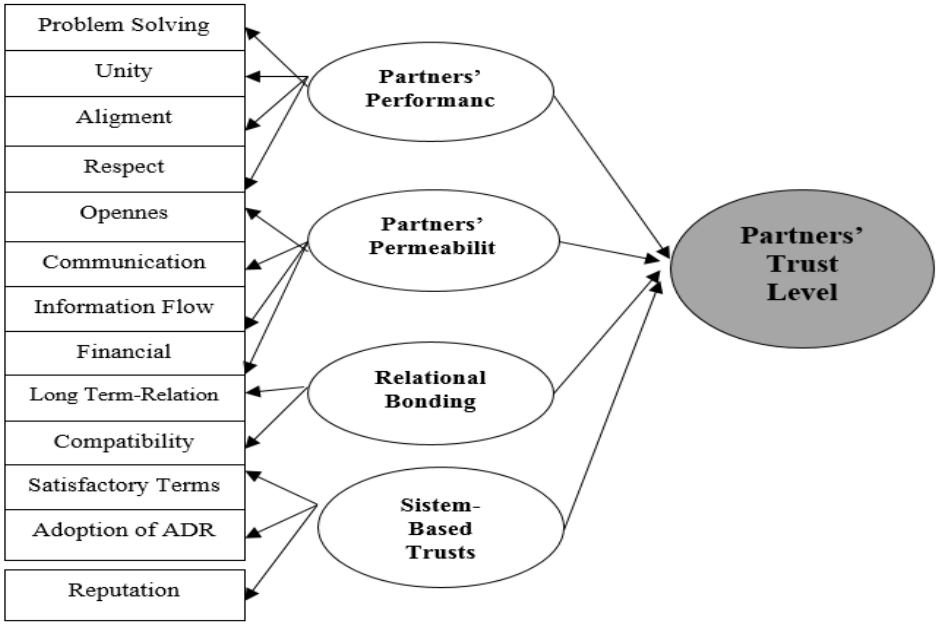

Figure 2: Research Model

3. RESEARCH METHODS

3.1 Population and Sample

Partnership is relevant for all members of the construction industry (clients, design team/ consultants, project management, contractors, suppliers, and sub-contractors). This study focuses on three categories of respondents; they are project owner (client), consultant planner/supervisor, and contractor. The population of consultants and contractors are all consultants and contractors registered with the Regional Development Agency Construction Services Maluku. The sample size is taken as many as 200. Samples were taken in a non-probability sampling technique with the first criterion that they had managed or are working on construction projects of the Agency in Maluku province, and the second criterion that they have experience in construction projects for at least 5 years.

Most of the construction projects are located in Maluku province from the public sector(government); conversely, the private sector is very small. Thus, the client is the entire population of Provincial Offices in Maluku province which has a construction project in 2020.

3.2 Type of Research

This study is a survey research using a questionnaire. The type of questions is in a form of a closed-ended question in which respondents must choose the answers provided on the questionnaire (Latuconsina et al, 2023).

Dissemination was conducted in two ways, first by mailing survey and second by distributing directly to the respondents. Questionnaires were distributed directly to the respondents that

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contain a collection of questions concerning partners' trust level, the factors that influence the success of the partnership, and the benefits of a partnership. In order to facilitate the respondents, the questionnaires were collected by the researcher. Such a method may increase the response rate, providing opportunities to obtain other information, as well as greater control on sample design as expected, but decreasing the benefit of cost efficiency (Hart & Cooper, 2012).

3.3 Testing Research Instruments

Test validity is the ability of the test to measure what really needs to be measured (Djamba & Neuman, 2002). Validity test performed in two stages, namely the validity of qualitative and quantitative. Qualitative validity consists of face validity and content validity. In this study, to test the qualitative validity, the researcher used consideration from thesis supervisor and reviews of the scientific community; whereas, the quantitative validity testing is the testing construct validity using convergent validity and discriminate validity with the help of PLS applications.

Meanwhile, to test the consistency in the measurements, reliability test was conducted using the composite reliability test and Cronbach's alpha, then processed with the help of PLS applications. Construct reliability is often used in structural equation model (SEM). The rule (rule of thumb) of the reliability test suggested factor loadings 0.6 or> 0.6 to indicate the presence of internal consistency (Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, 2006)

3.4 Hypothesis Testing

This study tested the hypotheses using structural equation models with the help of PLS program. The main reason of choosing SEM as an analytical tool is because of its ability to show the unobserved relationship and to correct the measurement error in the estimation process (Hair, 2006).

4. RESULT AND DISCUSSION

4.1. Result

4.1.1. Respondent Characteristics

Table 4.1.1: Respondent Characteristics

Project Status	amount
1. Project Owner/Client	
a. Dinas DIKOR	1
b. Dinas PU	1
c. Dinas Koperasi & UKM	1
d. Dinas Kesehatan	1
e. Dinas Kelautan & Perikanan	1
f. Dinas Pariwisata	1
g. Dinas Sosial	1

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h. Dinas Perhubungan	1
i. Dinas Pertambangan	1
2. Contractor	151
3. Consultant	33
Total	**193**
Gred	**Amount**
7	16
6	20
5	13
4	33
3	43
2	59
1	-
Total	**184**
Length of Work Experience	**Amount**
Year 5-10	116
Year 11-16	47
Year 16-20	14
Year >20	16
Total	**193**
Sub Area of Project	**Amount**
Planning	27
Supervision	6
Total	**33**
Sub Area of Project	**Amount**
a. Warehouse & Industrial Building	10
b. Non-Residential Building	64
c. Roads, Environmental	51
d. Airport & runway	1
e. Bridge	15
f. Harbor or Dock	8
g. Urban Drainage	3
h. Weir/Relatively Long Bridge	21
i. Irrigation and Water supply	15
j. Etc	5
Total	**193**

Source: Primary data is processed, 2020

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4.2 Validity Testing

Table 4.2.1: The Indicators Reduced

Variable Laten	Indicator	Loading Factor
Partners' Trust Level	AM1	0,445199
	AM4	0,486018
	KH1	0,484497
	KM3	0,421293
	KM4	0,470995
	KM5	0,470626

Source: Primary data is processed, 2020

4.3 Reliabilities Testing

Table 4.3.1: Cronbachs Alpha

	Cronbachs Alpha
Partners' Trust Level	0,777492

Source: Primary data is processed, 2020

4.4 Bias Respons

Table 4.4.1: The Average Testing Without Assistance Office

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Without assistance	82	3.6098	.49081	.05420

Table 4.4.2: The Average Testing with Assistance Office

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
With assistance	111	3.8996	.35110	.03333

The tables above show that the average difference when the questionnaire is distributed without the help of agencies of Maluku Province is 3.61; while the average difference when questionnaire is distributed by the offices of Maluku Province is 3.89. Thus, the average differences of the two is 0.28, so the conclusion is, there is no difference between the questionnaire distributed without the help of agencies and with the help of agencies.

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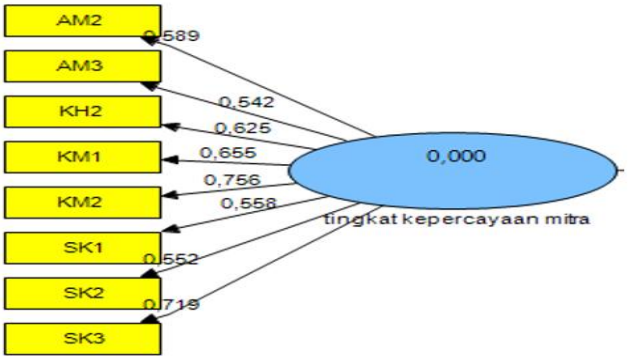
4.5 Hypothesis testing

Table 4.5.1: Structural Model



Source: Primary data is processed, 2020

5. DISCUSSION AND IMPLICATION

5.1 Discussion

Based on the results of the hypothesis, testing is seen from the structural equation as seen from the four factors that affect the partners' trust level in the construction project, proved to be the factors that influence the partners' trust level. The partners ' performance which has 4 indicators are reduced to two indicators, partners' permeability which has 4 indicators as well are reduced to two indicators, relational bonding has 2 indicator and is reduced to one indicator, and system-based trust has three indicators and none is reduced. The implication for the parties involved in construction projects is to further enhance the level of trust in order to create a long-term relationship. GAPINDO is the biggest Construction Industry Association in Maluku province and serves as the main association which affiliated with a variety of construction associations and water associations. There are 5 associations of construction services (GAPENSI, GABPEKNAS, GAPEKSINDO, ASPEKINDO and AKLI), one association of consulting services (INKINDO), and one association of water services (AKAINDO). The implication of this research to GAPINDO is providing suggestions for the development of construction industry in Maluku Province, where GAPINDO should improve its management skills related to the performance of the project: time, quality, cost, communication and management. Based on the results of the research, time, quality, and management, are extremely good so the performance should emphasized more on the completion of the project cost management and communication among the parties related to the construction projects. Communication among the parties related to the construction projects should be further enhanced, by building a flexible relationship not based on a predetermined time schedule for holding meetings. In the process of conducting the project, the parties involved in the project can be more flexible in building communication as well as holding the meetings. This allows each party to be well-informed on the progress of the projects, so if problems occur in the project, the solution can be sought immediately.

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5.2 Implications

Theoretical Benefits This research is expected to be useful for the management science literature, especially in the study of the level of trust in partnerships in construction projects where various parties are involved, and provide empirical evidence in the field of management regarding the level of trust in partnerships. Practical Benefits For all parties involved in a construction project, be it the project owner, planner or consultant, to better understand the importance of remembering trust in a project. For Other Parties As a reference material that can provide a comparison in conducting research.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The conclusion based on the results and discussion in Chapter IV is, the partnership is needed in a construction project implementation because it is a concept based on trust, cooperation in a team work, to achieve mutually beneficial goals among members of the partners that each one of the partners will always benefit one another. To test the validity and reliability, there are 6 (AM1, AM4, KH1, km3, KM4, KM5) indicators that must be reduced from the existing 13 indicators. It is due to the loading factor indicators are below 0.50. The causes of loading factors below 0.50 are based on the research objects that the researcher studied, namely the cultural context as well as working situation differences so the results of the study are slightly different from previous studies referred by the researcher.

6.2 Limitations and Suggestions

This study has several limitations on the aspect of research object. The object of the research is in Maluku Province that mostly construction projects owned by the public sectors in this case the government; whereas, very few of construction projects are from the private sectors. This study has limited project owner/client (9 companies consists of offices in Maluku province that has a construction project in 2018-the research was conducted). Suggestions for further research are researchers can seek the construction project owners equal between the public sectors and the private sectors for the object of the research so that the results can be distinguished from the influence of a partnership between the two sectors. Based on the research there are indicators that have been reduced or removed, this does not affect the existing constructs. Suggestion for other researchers is to find more information from other literatures to enrich the studies of partnerships on construction projects with the consideration of the context of the research object. The research is quantitative in nature, in which the information obtained is very limited and is on the surface. Suggestion for future research is to conduct research that combines qualitative and quantitative (triangulation). Indeed, studies that are triangulation need a lot of energy, time and cost but the results obtained are more useful and beneficial to the parties associated with this research, among others, the project owner, contractor as well as consulting firm. The last suggestion is to include other parties involved in the partnership of construction projects, among others: subcontractors, suppliers, to name a few of the parties of construction projects.

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