

Project Portfolio Management (PPM) In Claims Priority Of Specialist Contractors In Indonesia

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Abstract – Abstract— Claims management is the process of using and coordinating resources to advance claims from identification and analysis through preparation, and presentation, before proceeding to negotiation and settlement. There are still quite a number of claims cases in Indonesia where there are several obstacles in the claim submission process. Due to the significant number of claims in multiple projects, a strategy is needed to prioritize claims that will be submitted according to the specified criteria. This study aims to determine applied Project Portfolio Management (PPM) factors to prioritize claims in multiple project claims management. This study uses a literature study and survey method conducted by distributing questionnaires to respondents in specialist contractors in Indonesia. The results of this study indicate that factors & criteria of Project Portfolio Management (PPM) can be applied to prioritize claims in multiple project claims management. Further research on the strategy to prioritize claims in multiple project is proposed.

Keywords – Project Portfolio Management, Claims Management, Construction Claims, Claims Priority

I. INTRODUCTION

Claims management is the process of using and coordinating resources to advance claims from identification and analysis through preparation, and presentation, before proceeding to negotiation and settlement. There are still quite a number of claims cases in Indonesia where there are several obstacles in the claim submission process. Claims that are not achieved can develop into a fairly serious dispute with side effects on other aspects of the project, namely the relationship in the future (Relationship) so that it will affect the performance of the company.

The report issued by Arcadis through Global Construction Disputes in 2015 stated that the growth rate of the total value of claims according to surveys tends to increase, especially in Asia. One of the reports from this survey indicates that in the Asian continent, the number of claims reached US \$ 85.6 million in 2014 which increased from US \$ 41.9 million from the previous year. This report also indicates that the time needed to settle claims in the Asian continent region also tends to take quite a long time. In 2013 it was indicated that it took an average of 14 months to settle claims on a large scale project, while in 2014 it took an average of 12 months. This shows the magnitude of the potential for claims to affect the time performance and project costs if these claims are not managed properly and correctly. There are still quite a number of obstacles found in claim cases in Indonesia in the process of submitting claims. The percentage of approved claim value or claim success rate is still very low [1].

Specialist contractors can be involved in a project by becoming a subcontractor of the main contractor carrying out a project, or contracting with the project owner through a specialist contract as a Nominated Subcontractor (NSC). This causes specialist contractors to often work on many projects simultaneously at the same time. The specialist contractor must undertake project management for all of these projects, including project claims with different characteristics, such as contract type, contract value, terms, stakeholders, etc. To assist contractors in submitting construction claims, a comprehensive claim management concept is needed, both in the claim identification process, claim quantification, claim prevention and resolution to improve project performance. Due to the significant number of claims in multiple projects, a strategy is needed to prioritize claims that will be submitted according to the specified criteria.

II. THEORITICAL STUDY

2.1. Specialist Contractor in Indonesia

According to article 14 in Law no. 2 of 2017 concerning Construction Services (UUJK 2017), construction work businesses or contractors are categorized as general and specialist construction work businesses. Classification of specialist construction work businesses in UUJK 2017 article 14 paragraph (1) letter b. The division of sub-classification and sub-qualification of the construction service business is further regulated in the Regulation of the Minister of Public Works and Public Housing Number 19/PRT/M/2014. Specialist construction work businesses or specialist contractors can be involved in a project by becoming a subcontractor of the main contractor carrying out a project, or contracting with the project owner through a specialist contract as a Nominated Subcontractor (NSC). This causes specialist contractors to often work on multiple projects simultaneously at the same time. Specialist contractors are often involved in various types of construction projects, such as construction projects for buildings, infrastructure, factory construction, power plants, even projects in the oil and gas sector.

2.2. Claim Management

Construction claims management can be interpreted as a process of seeking approval (dealing) to control and seek consideration or change by one of the parties involved in a construction project (Arditi and Patel, 1989). Construction Claim Management is also a process for controlling claims, as the substantial number of construction claims is currently increasing, the implementation of effective construction claims management is absolutely necessary [2]. The main objective of the claims management process is to resolve certain issues in an effective and efficient manner, avoiding litigation and arbitration in their settlement (Enshassi & Mohamed, 2009).

If the contractor wants to submit a claim, several steps must be considered, namely: preparation of claim submission, claim analysis method, and causes of claim failure [3]. Based on the Construction Extension to A Guide to the Project Management Body of Knowledge PMBOK Guide-2000 Edition, claim management consists of four processes, namely: claim identification, claim quantification, claim prevention, and claim resolution. Also described six steps in the claim management process, namely: Claim Identification, Claim Notifications, Claim Testing, Claim documentation, Claim Presentation and Claim Resolution [4].

The concept of claims management requires an appropriate methodology that can assist project stakeholders in assessing the level of effectiveness in the construction claims process. The need for such a structured instrument to process important construction claims through the management of resources to resolve claims by identification and analysis preparation, presentation, negotiation and settlement [4]. Therefore, it is important for the contractor to establish a structured claims management either on his own or through the appointment of a third party specialist to work as part of his team. This team can then identify claims and prepare all requirements as a first step before final negotiations in settlement.

2.3. Project Portfolio Management (PPM)

A project portfolio is defined as “a collection of projects or programs and other work grouped together to facilitate the effective management of work to meet strategic business needs (PMI, 2017). Another definition states that a project portfolio is “a collection of projects or programs and other works that are grouped together to facilitate the effective management of that work to meet strategic business objectives (Petit, 2012). According to Killen (2017), a project portfolio is a collection of projects managed under a common budget to achieve organizational goals. Jonas (2010) defines a project portfolio as a group of projects that compete for scarce resources and are carried out under the sponsorship or management of a particular organization. PPM is a commonly used technique for aligning project portfolios with strategic objectives (Kaiser et al., 2015). The project portfolio needs to be aligned with the strategy and balanced in terms of risk especially during the selection of the project portfolio to positively influence future returns (Martinsuo, Korhonen, & Laine, 2014). Companies must align their portfolio of projects with their strategic business objectives, combining the performance of their components to maximize shareholder value while balancing resource allocation and risk.

Project portfolio management can be grouped into four stages: portfolio structuring, resource allocation, portfolio briefing, and portfolio learning (Beringer, Jonas & Kock, 2013; Jonas, 2010). Portfolio management ensures that projects and programs are reviewed to prioritize resource allocation, and that portfolio management is consistent and aligned with organizational strategy (PMI, 2013). The main processes of portfolio management are as follows: component identification and selection, component assessment and prioritization, portfolio monitoring and control (PMI, 2013).

The steps for developing a quantitative model to evaluate and prioritize projects are as follows:

1. Define evaluation criteria;
2. Set a scoring scale for each criterion;
3. Define the scoring method for each criterion;
4. Calculate the project score for each criterion and the total score
5. Set project priorities based on a single score (single criterion approach) or total score (multi-criteria approach).

There are various types of criteria (Frame, 2003) used to evaluate and prioritize portfolio components, such as:

- Financial criteria;
- Technical criteria;
- Risk related criteria;
- Criteria related to resources (human resources, equipment, etc.);
- Contract condition criteria;
- experience and other qualitative criteria.

For example, financial criteria, such as: benefit-cost ratio, net present value, internal rate of return (IRR), weighted average cost of capital, and terminal value. Several different studies (Flanagan & Norman, 1993; Phillips & Phillips, 2006; Yescombe, 2002; Esty, 2003; Fabozzi & Nevitt, 2006) discuss the limitations of this indicator.

III. METHOD

This research was conducted with construction companies in Indonesia as the objects of research. The research variables were determined by conducting literature studies and expert validation. The criteria of PPM that applied to prioritize claims are obtained from literature study and validated by 3 experts with expert qualifications in the field of construction who have at least 10 years of experience, with minimum positions at the manager level with minimum academic qualification of a bachelor's degree. The criteria to prioritize claims is obtained from the results of distributing questionnaires to 34 respondents who work for 34 contractors in Indonesia. The results of data collection are tested first with Validation Test (Product moment Pearson Correlation), and Reliability Test (Cronbach's Alpha) with SPSS software. The Relative Importance Index (RII) is used to see which variable X dominates over the other variables. In this RII, manual analysis was used, Ms. Excel and assisted by the results of the SPSS cross tabulation results. The product of this research is the multiple criteria that applied in claims priority.

IV. RESULT & DISCUSSION

In order to achieve the expected research objectives, the authors have collected data from the results of filling out questionnaires by respondents who are considered experts in the field of specialist contractors. A total of 34 expert respondents who gave an assessment in the questionnaire were obtained. Where the 32 Expert Respondents obtained were those who worked in Claim Management, PPM, or Project Management, while 2 Respondents worked in fields other than Claim Management, PPM, or Project Management. Based on the respondent's information and considering the purpose of the research, respondents who worked outside the field of claims management and PPM were excluded from the study. This is done so that the research is not biased, and can focus on respondents who really work and know about Claims Management, PPM, or Project Management.

Validity test is used to measure whether the data obtained is valid data or not, done by comparing the value of the test results with the R_{df} value, where df stands for degrees of freedom, with the formula $N-2$. Where N is the total amount of data obtained minus 2. To shorten processing, the SPSS software (Analyze-> Scale-> Reliability) is utilized. Based on the SPSS results above, it can be decided that there is 1 question that fails to reject H_0 at the 5 percent significance level because $R_{(count)} < R_{.30}$, namely question X1.4. Thus it can be concluded that question X1.4 is not valid.

Reliability is a measure to know that the question items in the questionnaire are consistent, or in other words it can be said that the question items can be used to measure the same case in different respondents consistently. This test was carried out using

the Cronbach's Alpha test on the SPSS software. Where H0 will be rejected if Cronbach's Alpha > 0.600. H0 will be accepted if Cronbach's Alpha < 0.600, which means the questions in the study are not reliable. (Analyze -> Scale -> Reliability). Based on the test using the SPSS software in the figure above, it can be seen that the Cobrach's Alpha value is 0.963, more than 0.6. Thus it can be concluded that the research data obtained are reliable and can be used (Reject H0). The greater the reliability value, it shows that the size of the questionnaire increases the reliability.

The Relative Importance Index (RII) is used to see which variable X dominates over the other variables. In this RII, manual analysis was used, Ms. Excel and assisted by the results of the SPSS cross tabulation results. Then the following results are obtained:

Variabel	RII	Rank
X1.2	0,806	8
X1.3	0,731	33
X1.5	0,763	19
X1.6	0,713	41
X1.7	0,813	6
X1.8	0,775	16
X1.9	0,744	29
X1.10	0,838	3
X2.1	0,775	16
X2.2	0,850	2
X2.3	0,725	35
X2.4	0,831	5
X2.5	0,750	26
X2.6	0,706	43
X2.7	0,769	18
X2.8	0,813	6
X2.9	0,738	30
X2.10	0,800	11
X2.12	0,756	22
X3.1	0,763	19
X3.2	0,725	35
X3.3	0,756	22
X3.4	0,788	14

Variabel	RII	Rank
X3.5	0,713	41
X3.6	0,725	35
X3.7	0,756	22
X3.8	0,750	26
X4.1	0,725	35
X4.3	0,719	40
X4.4	0,756	22
X4.5	0,750	26
X5.1	0,638	46
X5.2	0,700	44
X5.6	0,656	45
X6.1	0,788	14
X6.2	0,831	30
X6.3	0,738	30
X6.4	0,725	35
X6.5	0,881	1
X6.6	0,794	13
X6.7	0,800	11
X6.8	0,806	8
X6.9	0,731	33
X7.1	0,838	3
X7.4	0,763	19
X7.6	0,806	8

Based on the processing results, ranking RII number 1 is obtained by variable X6.5, namely the resource variable that states that money/capital resources are the most dominant criteria that influences claim priority. While the variable that has the lowest RII value, namely X5.1 or the social variable, where the variable X5.1 states that social-return has lowest influences in claim priority.

V. CONCLUSION

The results of this study indicate that factors & criteria of Project Portfolio Management (PPM) can be applied to to prioritize claims in multiple project claims management. Based on the processing results of expert questionnaires, money/capital resources is obtained as the most dominant criteria, while social-return has lowest influences in claim priority. Further research to develop a strategy to prioritize claims in several projects can be carried out based on the relationship between the independent variables and the dependent variable by using a formative model to determine the magnitude of the influence and overall relationship of the independent variables to the dependent variable.

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