

Identify the cause of claims on construction contracts in the West Papua Provincial Government Area

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ABSTRACT

Keywords:

Construction claims, construction contracts, and causative factors of claims.

Along with the development of the construction service industry today, which is increasingly complex, construction service actors must carry out better project management so that the planned design can be realised properly. Before carrying out a construction project, the parties will agree on a legal basis in the form of a letter of agreement or a contract. In the execution of construction contracts, sometimes there are differences in interpretation and other things that can cause claims or claims. The formulation of the problem in this study is what are the potential risk factors of claims on construction contracts, what are the variables of potential claim risk on construction contracts, what are the variables of claims-forming models, what are the causes of risks in model-forming variables and what are the improvement recommendations produced in this study. The data collection method for this questionnaire was obtained by distributing the questionnaire three times. The results to be achieved in this study are to be able to determine the potential risks of what factors and variables can cause construction claims (first questionnaire), find out the variables of the claim-forming model (second questionnaire), and find out the causes of risk in the model-forming variables (third questionnaire). By knowing the level of influence of factors and variables, conclusions can be drawn about what needs to be anticipated in construction claims. Thus, appropriate recommendations are given to the West Papua Provincial Government to regulate the articles in the contract in more detail to minimise the potential for construction claims.



Introduction

The construction industry in Indonesia today has developed very rapidly (Arsana, 2016). The complexity of construction work requires Service Providers to master technology to assist Service Providers in carrying out construction work (Syahputri, 2022).

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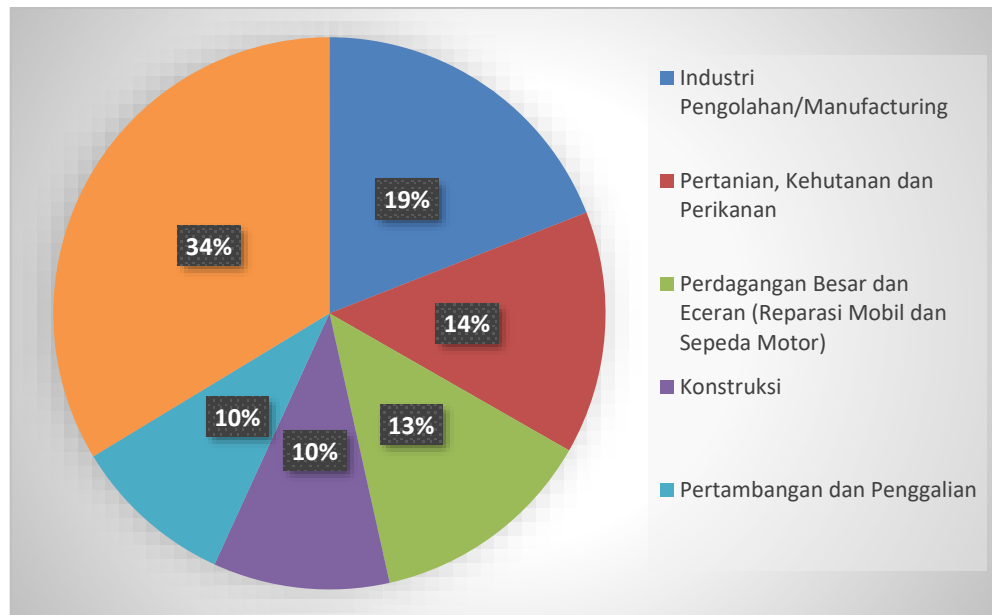


Figure 1 GDP Distribution Based on Prices Effective Quarter III of 2021 (Source: Central Statistics Agency)

Infrastructure development in Indonesia is one factor that is increasing the construction sector's role in the Indonesian economy. This can be seen from the large percentage of the construction sector to the Gross Domestic Product (GDP) of 10.39% in the third quarter of 2021 (Construction in 2021 Figures, <https://www.bps.go.id>).

Before the construction process begins, Service Users and Service Providers will agree in a letter of agreement or contract (Ibrahim, Octora, & Sirait, 2016). In a construction project, a contract is a document that must be complied with and executed jointly between parties who have agreed to be bound by each other (Ariani, Roza, & Ayu, 2022). Contract documents that are not by the conditions in the field can cause disputes and interpretation conflicts. If there is a delay in completion time, differences in specifications, and changes in design from those agreed in the construction project contract with implementation in the field, it could become a claim. The involvement of various parties certainly represents different interests, causing various kinds of conflicts that can affect the continuity of the project, so the project may deviate in terms of budgeted costs, planned time, and quality (Armanita, 2018).

The issue of construction claims is well-known and is a common problem in executing construction work. Claims in the construction industry are issues that can refer to requests for increased costs and time and trigger disputes (Ariani, 2019). The request for additional time to implement construction projects affects the project's performance and the use of the construction project implementation budget (ALIVIA, 2024). Building owners, especially the government, feel allergic to the term claim while contractors feel reluctant to file claims for fear of being recorded as fussy or demanding contractors. Service providers who often submit claims are usually not given recommendations or included in the next tender opportunity (Noviani, Amin, & Hardjomuljadi, 2022).

Some construction service companies look for opportunities to win tenders no longer in efficiency but from accuracy when seeing large claim opportunities at tender time (Harto et al., 2023). The Employer needs to analyse the claims submitted by the Service Provider by considering the alignment of the clauses in the contract, the responsible party, the project situation, imperfections of specifications, and

misinterpretation of the contract. However, few service users also want an addition or change in the scope of work that can cause claims to occur. These parties have different interests and goals, leading to conflicts or disputes during project planning and implementation (Arief & Hardjomuljadi, 2020).

According to Suntana S. Djatnika, in his article downloaded from the <https://sibima.pu.go.id> website wrote that based on empirical facts from the Supreme Court for case decisions that have permanent legal force from the total number of civil cases as many as 16,287 (sixteen thousand two hundred and eighty-seven) decisions, as many as 3,710 (three thousand seven hundred and ten) decisions or 22.78% (twenty-two point seventy-eight per cent) are about cases in the construction sector, A total of 2,080 (two thousand eighty) rulings or 12.77% (twelve point seventy-seven per cent) are regarding legal dispute cases in the agreement. The same is true in the settlement of legal dispute cases carried out through arbitration proceedings. From the empirical facts of all cases submitted to the Indonesian National Arbitration Board (BANI) in the framework of Arbitration and Alternative Dispute Resolution (APS) from 2014 to 2016, disputes in the construction sector showed the highest percentage compared to other sectors.

Thus, we need to know the claim itself, such as where the possibility of a claim comes from, what elements can give rise to a claim, categories of claims (types of claims) and others, to mitigate these claims early. By knowing the causes of a claim, construction service actors are expected to be able to place the claim problem reasonably and proportionately. Therefore, it is necessary to study the factors that cause the construction claim model and methods of resolving construction claim disputes that are acceptable to all parties, both Service Users and Service Providers, so that the implementation of construction service work can run well without violating the rights and obligations of each party. With this research, it is hoped that the problem of construction claims in the future will no longer cause significant disputes or arguments so that construction service actors can treat claims fairly and resolve them professionally so that the principle of justice and equality can be realised.

Research Methods

Research Process

This research process will start by identifying the problem in this research so that researchers can raise the topic. The sources of the factors causing the construction claim in question come from books, expert opinions, journals/previous research relevant to this research, sources related to this research, and other literature related to the factors causing construction claims.

In identifying these problems, what factors can give rise to construction claims? From the factors that have been established, the next step is to analyse these factors. After searching the literature and analysing the factors of construction claims related to this research, the next step is to look for data to be processed, such as the example of claims on construction contracts in the West Papua Provincial Government area.

From the factors that have been determined, the next step is to discuss the data so that later, it will be processed using qualitative description methods and quantitative description. After getting the results of the discussion of this study, the researcher will provide recommendations for improvement of each problem that has been prepared and then make conclusions and suggestions.

Research Variables

Table 1
Variability of research

No.	Construction claim factors	Variable	Code
A. Factors Derived from Service Users			
1.	Incomplete/imperfect tender information	a) Imperfect design information	X1
		b) Imperfect detail engineering design (DED)	X3
2.	Inconsistency and incompleteness of contract documents	a) Unclear specification provisions	X5
		b) Field conditions are different from the conditions stated in the contract.	X6
3.	Changes to linkup jobs	a) Initial design changes	X7
		b) Drawing is impossible to implement	X8
4.	Late payment of job performance by service users	a) Quite a complicated payment system	X14
		b) Inconsistency between contract specifications and field-installed materials	X18
5.	Delay in delivery of the job site	a) Delays in land permits	X21
		b) Delays in land acquisition	X22
		c) Field conditions that are difficult to reach due to natural factors	X23
		d) Licensing with other agencies that have not been completed	X24
		e) There is still unfinished work by the previous contractor	X25
B. Factors derived from Planning Consultants			
1.	Imperfect design information	a) Inadequate human resources of planning consultants	X27
		b) Lack of coordination among internal planning consultants	X28
2.	Design changes	a) Errors from the initial design	X29
C. Factors derived from Supervisory Consultants			
1.	Late approval of the process of carrying out work	a) Heavy equipment submitted by contractors is not suitable and may endanger other work	X34
2.	Late material inspection	a) There has been no submission of material approval by the contractor	X35
		b) Scheduled material arrival	X36
3.	Work delay/termination	a) Contractor errors in the preparation of work time plans	X37
		b) Contractors are late in submitting laboratory test results	X39
D. Factors derived from Construction Service Providers			
1.	Defective work/poor quality of work	a) Higher than normal rainfall/days of heavy rain	X41
2.		a) Erratic weather conditions	X45

No.	Construction claim factors	Variable	Code
	Delay in completion of work	b) Difficulty in finding local materials	X47
		c) Material damage at the time of delivery	X48
		d) The amount of material produced is not to the needs of the field	X49
		e) The longness of the minerals in the soil	X51
E. Factors of External Origin			
1.	The condition of the community around the project	a) Social disturbances around the job site	X58
F.	Construction claims can affect the performance of project execution time and changes in total contract value.		Y

Data Engineering and Analysis

The research data will be analysed through statistical test tools using SPSS 26.0 software with testing as described below:

a. Validity and Reliability Test

This validity and reliability test is used to determine the consistency or stability of an answer. A valid instrument means that the instrument can be used to measure what should be measured, and an instrument is said to be reliable if the instrument is used to measure the same object and will produce the same data.

b. Multicollinearity Test

According to Frisch, a regression model is said to be exposed to the problem of multicollinearity when there is a perfect or near-perfect linear relationship between some or all of its independent variables. As a result, the model will need help seeing the influence of independent variables on dependent variables. If there is a strong correlation among fellow independent variables, then the consequences are:

1. Coefficient - the regression coefficient becomes inestimable.
2. The standard error value of each regression coefficient becomes infinite.

Thus, it means that the greater the correlation between independent variables, the greater the error rate of the regression coefficient, which results in a greater standard error. The method used to detect the presence or absence of multicollinearity is to use Variance Inflation Factors (VIF).

c. Regression

Simple regression analysis is used to predict or test the effect of one independent variable on the dependent variable. If the score of the independent variable is known, the score of the dependent variable can be predicted in magnitude. A good regression model is that there are no symptoms of multicollinearity.

Results and Discussion

Data validity and reliability testing is performed with the SPSS 26 tool. The validity and reliability test results can be seen in the table below.

Table 2
Validity Test Results

Variable	r calculate	r table	Information
X1	.672	0.312	Valid
X3	.724	0.312	Valid
X5	0.606	0.312	Valid
X6	0.652	0.312	Valid
X7	0.511	0.312	Valid
X8	0.508	0.312	Valid
X14	0.469	0.312	Valid
X18	0.612	0.312	Valid
X21	0.601	0.312	Valid
X22	0.659	0.312	Valid
X23	0.710	0.312	Valid
X24	0.542	0.312	Valid
X25	0.795	0.312	Valid
X27	0.795	0.312	Valid
X28	0.763	0.312	Valid
X29	0.677	0.312	Valid
X34	0.561	0.312	Valid
X35	0.552	0.312	Valid
X36	0.792	0.312	Valid
X37	0.781	0.312	Valid
X39	0.765	0.312	Valid
X41	0.667**	0.312	Valid
X45	0.612	0.312	Valid
X47	0.613	0.312	Valid
X48	0.677	0.312	Valid
X49	0.597	0.312	Valid
X51	0.558	0.312	Valid
X58	0.537	0.312	Valid

Based on Table 2, the results of the validity test show that there are no invalid questionnaire items. This means that all questionnaire items can be further analysed.

Based on the reliability test results, the value of Cronbach's Alpha is 0.947, so the instrument in this study is reliable. The results of the reliability test can be seen in the table below.

Table 3
Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
0.947	28

From the results of the Multicollinearity test for variables that do not occur, multicollinearity is variable X3, X6, X21, X22, X23, X25, X27, X28, X29, X34, X36, X37, X45 and X48.

Table 4
Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	BRIGHT
X3	0.173	5.780
X6	0.260	3.850
X21	0.320	3.128
X22	0.234	4.281
X23	0.259	3.861
X25	0.213	4.702
X27	0.121	8.258
X28	0.180	5.566
X29	0.433	2.310
X34	0.341	2.931
X36	0.198	5.057
X37	0.330	3.031
X45	0.445	2.248
X48	0.292	3.423

From the regression test results, an R2 value of 0.803 was obtained, which means that variable X, which is the variable that causes construction claims, affects variable Y, namely the performance of project implementation time, and changes in the total contract value simultaneously by 80.3%. With details of the effect of effective donation as follows:

- a. Imperfect detail engineering design (DED) at 2.81%
- b. Field conditions are different from the conditions stated in the contract by 2.64%
- c. Delay in land licensing by 4.04%
- d. Delay in land acquisition by 24.91%

- e. Field conditions that are difficult to reach due to natural factors of 32.12%
- f. There is still unfinished work by the previous contractor at -23.68%
- g. Inadequate human resources of planning consultants by 14.05%
- h. Lack of coordination among internal planning consultants by -12.76%
- i. Error from the initial design of 10.33%
- j. Heavy equipment submitted by contractors is not suitable and can endanger other work by 16.47%
- k. Unscheduled material arrivals amounted to 0.88%
- l. Contractor error in making work time plan 8.28%
- m. Erratic weather conditions 0.60%
- n. Material damage at the time of delivery -0.37%

Table 5
Regression Test Results

Regression Test Results				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.896a	0.803	0.711	0.25323

The improvement recommendations in this study are as follows:

1. Service Users and Planning Consultants must coordinate well and maximise the design process at the Detail engineering design (DED) stage to reduce errors during the construction process.
2. In making a letter of agreement, it must be ensured that the location of the work is by the location written in the letter of agreement (contract).
3. Before construction work begins at kick-off, the Service User must ensure all permits are completed not to hamper ongoing construction work.
4. Before construction, Service Users must ensure that field conditions ensure no land disputes or unresolved land acquisitions.
5. With conditions in some locations that are difficult to reach due to natural factors, Service Users and Service Providers must make good plans, such as making alternative roads to the work site so that at the time of carrying out construction work, it does not damage other people's land and the location to be carried out construction work can be done properly.
6. In some construction projects, unfinished work from the previous contractor is still obtained, and the Service User must coordinate with the old contractor to accelerate the completion of the work. The new contractor must coordinate with the old contractor so that the new contractor can carry out the work and not interfere with the activities of the old contractor.
7. Planning consultants must have human resources who have and are certified to plan well to avoid technical errors during construction.

8. Team leaders in the organisational structure of planning consultants must be able to coordinate well with all personnel involved in the design process to understand the design process clearly.
9. Planning consultants must understand very well what the outputs/outputs of the planning consultant's design are. The planning consultant must conduct a thorough evaluation before sending all planning technical documents to the Service User so that there will be no significant errors in the design results later.
10. Before carrying out the construction work process, the contractor must fully understand what will be done and what heavy equipment is needed in the work process so that the work can run well.
11. Contractors and supervisory consultants must periodically monitor all work and materials to be used during the implementation so that delays in the arrival of materials cause no delays in work.
12. When submitting the work time plan (S curve), the contractor must ensure from all aspects that what will be done is by the proposed S curve so that the construction work process is by the planned schedule. The supervisory consultant must also evaluate the S curve proposed by the contractor so that the proposed S curve can be carried out according to the work's implementation time.
13. The implementing contractor must have a good plan so that when uncertain weather conditions occur during the work process, they do not hamper the progress of the work.
14. The contractor must escort the process of shipping goods to the work site so that the materials brought do not cause damage upon arrival.

Conclusion

Based on the results of the research that has been done, conclusions can be drawn as follows:

- a. Factors causing construction claims can come from service users, service providers, and external factors.
- b. Of the factors analysed, 14 (fourteen) factors can cause construction claims based on respondents' questionnaires. In this case, construction service actors are contractors and experts by conducting regression tests.
- c. The construction work contract must stipulate each construction work stage.
- d. All activities must be well documented so that if a claim occurs, it can be resolved professionally and there is no construction dispute

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