

# Identification and Analysis of the Causes of Problems in the Implementation Stage of Construction Projects with APBD Funding Sources in West Sumatra Province

Yan Parta Wijaya<sup>1\*</sup>, Oni Guspari<sup>2</sup>, Suci Rahma Wijaya<sup>3</sup>, Dewi Adriyani<sup>4</sup>

<sup>1,2,3,4</sup> Civil Engineering, Politeknik Negeri Padang, Indonesia

\*Correspondence Author: [yan\\_parta21@yahoo.com](mailto:yan_parta21@yahoo.com)

## Abstract

*Aims to determine and analyze the causes of problems that often arise at the implementation stage of construction projects with APBD funding sources in West Sumatra Province. The research method used is descriptive qualitative research, data collection through interviews, field observations and analysis of related documents. This research revealed several main causes of these problems, including a lack of thorough planning, frequent design changes, and problems in supervision and coordination between related parties. The results of this research can provide valuable insight for the West Sumatra Provincial Government in increasing the effectiveness of implementing construction projects with APBD funding sources. By understanding the causes of existing problems, corrective steps can be taken to optimize budget use and ensure the smooth running of construction projects. This research can also be a reference for construction researchers and practitioners in similar contexts in other fields.*

**Keywords:** Construction Projects; APBD Fund Sources; West Sumatra Province

## 1. Introduction

Infrastructure growth is a crucial determinant of a region's development (Sukwika, 2018). This development is being realized in large part by construction projects funded by the Regional Revenue and Expenditure Budget (APBD) (Tumbel, 2017). However, there are frequently issues and barriers that affect the efficiency, effectiveness, and accountability of the use of public funds when construction projects are implemented using APBD funding sources (Labolo, 2017). Construction is a sector of the economy that is still expanding. According to information from Timetric's Construction Intelligence Center (CIC) study and the US Bureau of Labor Statistics, the construction sector will experience the fastest growth through 2020 (Santoso, 2023).

A research titled "Global Construction Outlook 2021" was released by Market Research Hub (MRH) in May 2017 (Ogunnusi et al., 2021). The growth of the worldwide construction industry was stable in 2016,

increasing by 2.4%, according to this report's extensive study of the industry's prospects through 2021. The following five years saw improvement, with average growth of 2.8%. The global economy is anticipated to expand by an average of 3% year between 2017 and 2021. In the meantime, over the past three years, Indonesia's construction sector has grown significantly, by almost 30%. (Ministry of Public Works and Public Housing, Director General of Construction Development (PUPR, 2017). Through federal and provincial government-implemented initiatives, Indonesia, a developing nation, continues to carry out national development, particularly infrastructure development (Mahadiansar et al., 2020). Indonesia's construction sector never ceases due to government-sponsored infrastructure development. Infrastructure development is also being improved in Java, Sumatra, and Bali.

The contract serves as a binding agreement between the project owner, who is

the service user (owner), and the service provider, who is the contractor (Efrijal et al., 2014). The contract uses simple language and explicit technical, commercial, and legal terms to express the type of cooperation (Maddepungeng et al., 2016). Due to the complexity and danger of the present construction business, strong and legally grounded work bonds are required. There are several instances of construction claims and disputes in Indonesia alone. This is a result of varying viewpoints on the clauses in the building contract and a lack of comprehension of the clauses. Every building project in the region uses APBD funding, and since each region creates its own construction contracts based on the requirements of its own projects, there is a chance that claims and disagreements will arise (Kesek & Hardjomuljadi, 2020).

According to Tumebow (2016), issues with service providers as well as service users frequently arise during the execution of building work contracts. There are a number of potential factors that could result in legal issues during the execution of construction work. These issues can be categorized into three (3) aspects: the first is a payment delay; the second is an implementation time frame that is inappropriate in light of the agreement; and the third is a factor that does not correspond to the drawing's column structure. The three factors of late payment, nonpayment, and length of work all have an impact.

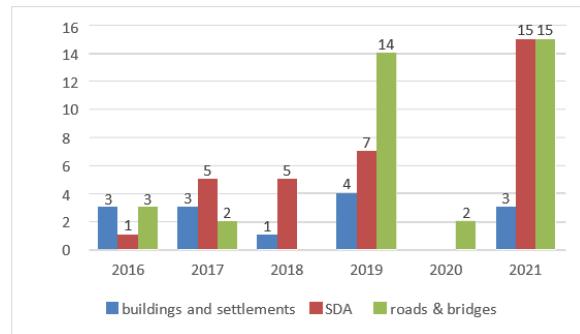
(Jannah & Musjtar, 2019) claims that are not served, such as late payment, late completion of work, discrepancies in the interpretation of contract provisions, and both technical and managerial ineptitude of the parties, can result in construction disputes, among other things. In addition, if service users or service providers perform management jobs improperly or do not have adequate financial support, construction disputes may also result. In a nutshell, it can

be claimed that a construction dispute develops when one of the parties causes harm (by default or otherwise).

Laws or regulations that govern the procurement of construction services are applied to government construction projects at every level to ensure that the job is completed without difficulty. In actuality, every contract document, most notably the actual contract or agreement, is lawful. According to Article 1338 of the Civil Code, all agreements formed in good faith are binding on their parties (Ali & Fitrian, 2022).

However, despite the fact that all phases of construction work are governed by laws with legal power, a number of issues still arise during project implementation that even lead to issues like contract violations or legal issues. One of them is that delays will result in losses for connected parties, particularly owners and contractors, because they frequently come with disputes, requests for time and money, and deviations in the caliber of project completion (Nurtsani et al., 2017).

According to the preliminary data that researchers have gathered from various sources over the course of at least 2016–2021, there are over one hundred APBD budget construction work packages in West Sumatra that are experiencing difficulties during the project execution phase. This information is in Appendix 1. In Figure 1, the graph of the issues is displayed:



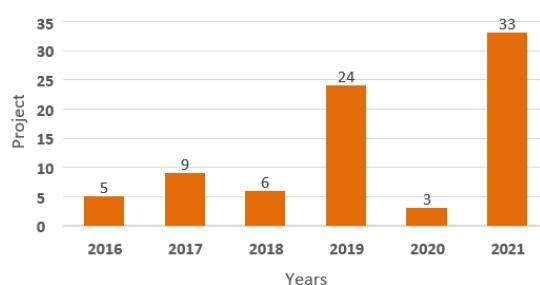


Figure 1. Frequency of construction project problems per year

Table 1. Data on the number of construction project problems

No	Problem	Number of Projects
1	Late	24
2	Skipping the Fiscal Year	33
3	Contract termination	15
4	Late Payment	1
5	Insufficient payment	1
6	Overpayment	10

In order to complete all development in line with expectations, service providers, in this case qualified and professional consultants and contractors, are actually required. The choice of service providers in the construction sector is crucial and must be taken into consideration due to the enormous number of construction projects that the government undertakes. For businesses and governments responsible for the success of a construction process, the evaluation and selection of contractors is a crucial and relevant issue (Sari, 2015). It's crucial to select a contractor who is capable of completing the job successfully (Simanjuntak, 2019).

The Presidential Regulation (Perpres) Number 54 of 2010 concerning Government Procurement of items/Services and its revisions govern the entire procurement process for items, work, and construction services paid for out of regional or state

budgets. The selection and evaluation of construction service providers and contractors who are qualified to carry out building projects is the goal of the procurement process. These laws must be followed by the provincial, district, and city governments in East Java and Bali that enjoy regional autonomy. Public auctions are essentially used to choose the suppliers of products and services for the government. Public auctions are a technique of choosing suppliers of goods, building work, and other services for all work in which all suppliers of goods, construction work, and other services who meet the conditions can participate.

E-procurement, or the procurement of goods and services through information technology and electronic transactions in line with statutory laws, is how auctions are conducted electronically in Indonesia (Soetanto et al., 2015). The procurement service unit (ULP), on the other hand, serves as the organizational unit that is responsible for carrying out the acquisition of goods and services. The concepts of efficiency, effectiveness, transparency, openness, competition, fairness/non-discrimination, and accountability must be used when implementing the purchase of products and services. The two steps of the procurement process—selection preparation and selection implementation—of the suppliers of the goods or services have numerous substages in each. The procurement process should be able to run smoothly in accordance with the anticipated principles and objectives if there are binding regulations and procurement ethics that are followed.

Contrary to popular belief, there are still challenges and issues with the procurement process, which involves numerous parties and technology. To ascertain whether there were any signs of fraud and whether e-procurement may lessen this fraud, Purwanto (2008) studied the procurement processes for building services. According to Sohail and

Cavill (2008), issues and corruption were still present at every stage of the construction process, including the tendering procedure, therefore three principles of accountability were required. Collusion, which frequently occurs, specifically in terms of paying commissions to win auctions, is one of the variations in the behavior of construction service actors, according to Kaming and Panuntun (2012). According to Mokoginta (2012) one form of conspiracy that often occurs in the auction/tender process is collusion, while online auctions which continue to increase also give rise to the potential for irregularities (Ningrum, 2018).

## 2. Theoretical Perspective

### 1) Government Construction Project Contracts

According to (Taurano & Hardjomuljadi, 2013), is a collection of requirements or expectations that bind the parties to the agreement. Generally speaking, the shape of a contract is based on how much of it will actually be implemented. The form of the contract typically includes: a. proof of purchase or payment; b. receipt. Letter of Work Order (SPK) d. a letter of agreement; e. a mail order. The Construction Services Law Number 2 of 2017 mandates that "the regulation of work relations between service users and providers must be stated in the construction work agreement" (Cahyono, 2022). A construction work agreement is defined as the whole contract instrument that governs the legal relationship between service users and service providers in the provision of construction services in Article 1 paragraph (8).

According to Law No. 2 of 2017's definition of a construction work contract, a construction work contract has the following components: a) The presence of parties, namely service users and service

providers. b) A shared goal, namely construction, has been established. c) The availability of legal instruments governing the contractual arrangement between service recipients and service providers. A construction work contract is a legal document containing an agreement between the service user and the service provider in the provision of construction services, wherein each party is required to abide by the terms of the contract that has been made. regulations for public construction projects. Every building project in the region uses APBD funding, and since each region creates its own construction contracts based on the requirements of its own projects, there is a chance that claims and disagreements will arise (Kesek & Hardjomuljadi, 2020).

The Construction Services Law No. 18 of 1999, Government Regulation No. 29 of 2000, Presidential Regulation No. 54 of 2010, and Government Regulation No. 70 of 2012 are among the laws and regulations that govern construction contracts in Indonesia (Kesek & Hardjomuljadi, 2020). As a type of work contract, the agreement must be made in accordance with article 1320 of the civil code, which states that four requirements must be met for a contract to be valid: the consent of the parties who will be bound, their capacity to enter into an agreement, and a particular thing or a cause that is not prohibited. According to Article 1338 of the Civil Code, all contracts that have been made legally apply as law for the parties involved if they satisfy the conditions for a contract's validity as outlined in Article 1320 of the Civil Code. This is known as the *Pacta Sunt Servanda* principle. the feat. As a result, the parties to the contract are required to submit to and abide by its terms.

## 2) Construction Project Problem Solving

Settlement of construction services conflicts that cannot be handled by discussion and agreement is intended to take place outside of court and results in the resolution of disputes through peace, according to (Poerdyatmono, 2007). The term "institutions for resolving disputes or differences of opinion through procedures agreed upon by the parties, namely settlement outside the court by means of consultation, negotiation, mediation, conciliation or expert assessment" is defined in Article 1 number 10 of Law Number 30 of 1999. Construction service problems that cannot be handled via discussion and agreement are settled outside of court, which results in peace-based dispute resolution. The following avenues can be used to settle contractual disputes (Priyambodo, 2021):

a. Route for Consultation The "client" and the "consultant" are the two parties involved in a "personal" action known as consultation. To suit the demands of the client, this expert offers advice. In the sphere of construction services, consultants are crucial in resolving technical issues, particularly if they are planning or project supervisor consultants. Their judgment is heavily weighted in determining how smoothly the project will proceed.

b. Negotiation Techniques Peacemaking can be done before or after the court trial process, both outside and inside the court session, whereas negotiation is an alternative institution for dispute settlement that is carried out outside the court. The legal literature demonstrates that, in addition to being a dispute resolution institution, it is also informal, even

though it can occasionally be formal.

c. Mediation Roadmap A third party (either a human or an independent organization), impartial and neutral, whose job it is to mediate the interests and is nominated and approved by the parties to the conflict, is the definition of mediation, according to a number of extant definitions. The mediator meets with the parties to the disagreement and brings them together, acting as an impartial third party without the power to compel agreement. The mediator can assess a case's strengths and weaknesses using this information before compiling it into a proposal that is then directly discussed with the parties. Because it must be able to provide favorable circumstances and conditions for the disputing parties to compromise and reach a mutually beneficial agreement, mediation plays a significant role in the resolution of disputes. Another form of alternative dispute resolution is mediation.

d. The Path of Peace The peace route is the first stage prior to the holding of a court trial, and the peace provisions governed by the Civil Code are also an additional method of resolving disputes outside of court, with the exception of subjects or disputes that have already received a ruling. judges with existing legal authority

e. Routes taken by Arbitration Institutions for Legal Opinions In addition to being entrusted with settling disagreements or disputes between the parties to the main agreement, arbitration is a type of institution that can also offer advice in the form of legal or other expert opinions at the request of the parties

to the agreement. The legal opinion of the arbitration institution is binding, and any violation of the legal opinion provided means a violation of the agreement.

### 3. Method

In order to pinpoint and examine the root causes of issues that develop during the implementation phase of building projects using APBD funding sources in West Sumatra Province, this study will employ a qualitative methodology. Through study of contextual information, non-numerical data, and the perspectives of project stakeholders, a qualitative method will enable researchers to develop a deeper understanding of the problems.

The selection of a sample of building projects to be investigated is the first step in this process. Based on factors including project kind, project scale, and level of complexity, project samples will be chosen. The variety of problems that can be analyzed will be ensured by choosing a representative sample. Data collecting is the next phase. A variety of qualitative methodologies will be used to gather the data, including in-depth interviews with key participants like members of the local government, consultants, contractors, and affected populations. Additionally, project documentation including progress reports, budgets, and contracts will be analyzed, along with field observations.

The third step is data analysis, which involves utilizing a theme analysis approach to examine the gathered data. Finding trends, topics, and classifications that arise from the data will be required for this. To determine the root causes of issues, which may include managerial, technological, policy, or other pertinent variables, data will be coded, categorized, and thoroughly evaluated. Data validation is the fourth phase. The first findings will be confirmed with the

respondents or stakeholders involved in the initiatives to strengthen the validity of the research. This will make sure that the analysis' findings reflect their perceptions and experiences.

It is hoped that this qualitative research approach will offer a thorough understanding of the reasons behind issues with the execution of construction projects funded by the APBD in the West Sumatra Province and serve as a foundation for suggestions for enhancements that can boost the effectiveness and efficiency of these projects.

### 4. Result and Discussion

#### 1) Analysis of Factors Causing Problems in West Sumatra APBD Construction Projects.

Because construction project work is unique, non-repetitive, the result of planning, and handmade, there is a tendency for errors to arise, not all series of activities run peacefully, easily, and without any barriers during the course of project work. As they carry out their task, a number of unforeseen circumstances may occur and maybe get out of control, resulting in a variety of issues and conflicts. These occurrences produce work that is thought to be in accordance with what was committed and planned, but due to the construction implementers' ignorance of the regulations' provisions or their willful disregard for them, conflicts and issues arise.

An analysis of the causes of the problems is identified and discussed in this section based on the results of interviews that have been conducted regarding the causes of problems in the West Sumatra APBD construction project and the chronology, in order to determine the factors that lead to problems that occur in the West Sumatra APBD construction project as previously explained in the background section. cases as a result of

court decisions. By grouping each statement from the interview findings and the timeline in the court decision into each coding that was identified as a variable contributing to construction project issues, coding analysis was used to carry out the study.

Interviews and document studies were undertaken based on the elements that have been identified to determine the main causes of issues based on the responses of those who were interviewed and information from court decisions. These findings are displayed in Appendix 3 below:

Table 3. Factors causing Top Problems

No	Factor
1	Poor project management control by personnel
2	Field / Workers in the field are incompetent
3	Government officials are negligent in their work
4	Material quality does not comply with technical specifications
5	Disruption of local communities / problems with land owners who have not received compensation / do not want to be compensated

Project control is the primary cause of construction project problems at the implementation stage, according to respondents and information from court decision data. Ineffective project management control aspects by field people or personnel who lack the necessary skills. Then, if the material quality factor does not meet the technical requirements, it may result in work being completed late or unsuccessfully, which is supported by PPK orders to repeat the work, leading to other issues, such as the contractor's work not being paid because it is believed to have violated the terms of the contract. Repetition of the task and unpaid

employment by the service provider lead to additional issues, such as cash flow issues for the contractor or trouble managing project expenses. These elements result in project delays and budget year overruns. The delay in bringing in project human resources is a further project control.

The negligence of government-appointed officers can also result in issues with construction projects during execution. Even though the competencies demanded by PPK and PPTK have been met, problems with construction projects at the implementation stage can still arise as a result of work provider officers' negligence that is caused externally by officer personnel, such as being busy or relying on supervisors in the field. Additionally, there are still regular instances of theft or thuggery in West Sumatra during active building projects, when the expenses of recovery are not accounted for in the project budget plan. This will certainly cause problems in controlling project costs later. In road work, there are still problems with land that is not yet free, which prevents work from starting.

Another aspect that contributes to issues is the contractor's failure to execute all of the administrative tasks required to fulfill the guarantee. Because there is no evidence of supporting quality from the results of the material testing, when the inspection presents a problem the work cannot be handed over, and when the building's quality inspection does not meet the necessary standards it will become a finding.

Furthermore, based on data from court decisions, there are problems with companies borrowing or subcontracting all work to other parties because the company being loaned is deemed to meet the qualification requirements during the tender or there is a conflict of interest

therein. Respondents from the Goods and Services Procurement Bureau also said that there were still many incidents of company borrowing in the tender process, but when the proof was still being made, the executor was offered and the contract was signed by the director according to the deed or if it was authorized there was proof of the power of attorney, the problem in the field was the personnel who were in the field during the work progress is not in accordance with what is offered or the personnel in the field are personnel who do not have the technical ability to control the work so that due to inability to control, the work is delayed.

## 2) Analysis of the Impact of Problems that Occur at the Construction Project Implementation Stage

The author further analyzes the causes and effects of construction project problems based on the factors discussed in the previous sub-discussion so that readers are aware of how the causes of problems can result in projects being late, lasting past the budget year, breaking contracts, late payments, lack of payment, and overpayment. The cause instruments utilized in studying the cause and effect of this building project problem are as follows:

### a) Contract Law and Administration

Legal factors and contract administration refer to guidelines for implementing the entire series of work because the essence of law and contracts are agreements and propriety that must be implemented (Ismaryadi et al., 2023). During implementation, problems from this aspect can arise which can hamper the implementation process. The results of the descriptive analysis for cause and effect of legal factors and contract administration can be seen in the following table:

Table 2. Cause and Effect of Construction Project Problems at the Implementation Stage from the Legal and Contract Administration Aspects

Cause	Effect
Changes in legal regulatory policies	<ul style="list-style-type: none"> <li>• Risk of default</li> </ul>
Ease of setting up a construction company	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Terminate the contract</li> </ul>
There are no additional provisions/conditions by service users regarding the contractor's experience	<ul style="list-style-type: none"> <li>• Risk of default</li> </ul>
Inspection or supervision is carried out by non-technical people	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• A dispute occurred during the inspection</li> <li>• The company is listed as having poor experience</li> </ul>
Failure to resolve conflicts administratively	<ul style="list-style-type: none"> <li>• Cost losses by the contractor</li> <li>• The project is late</li> <li>• Terminate the contract</li> <li>• The company is listed as having poor experience</li> </ul>
There is conspiracy and giving fees for project implementation	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Overpayment by the government</li> <li>• A dispute occurred during the inspection</li> <li>• The company is listed as having poor experience</li> </ul>
Borrow from the company	<ul style="list-style-type: none"> <li>• Risk of default</li> <li>• Risk of dispute during inspection</li> </ul>
Subcontract all work	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Overpayment by the government</li> <li>• Risk of dispute during inspection</li> <li>• Risk of default</li> </ul>
The handover of the first job is still carried out even though the work is not 100% complete	<ul style="list-style-type: none"> <li>• Overpayment by the government</li> <li>• Risk of dispute during inspection</li> </ul>

Approval of work weights based on on site materials	<ul style="list-style-type: none"> <li>Cost losses by the contractor</li> <li>Terminate the contract</li> <li>Risk of dispute during inspection</li> <li>Risk of default</li> </ul>	payments not yet being paid	<ul style="list-style-type: none"> <li>Terminate the contract</li> <li><u>A default occurs</u></li> </ul>
Test results for work guarantees do not match specifications / Work administration is not completed	<ul style="list-style-type: none"> <li>Construction failure</li> <li>Overpayment</li> <li>Risk of dispute during inspection</li> </ul>	Contractors only rely on payment terms	<ul style="list-style-type: none"> <li>Construction failure</li> <li>The project is late</li> <li>Terminate the contract</li> </ul>
There is no checking/testing of requirements/checking of test results when submitting payment terms	<ul style="list-style-type: none"> <li>The project is late</li> <li>Construction failure</li> <li>Cost losses by the contractor</li> <li>Overpayment</li> <li>Terminate the contract</li> <li>A dispute occurred during the inspection</li> </ul>	Material quality does not comply with technical specifications	<ul style="list-style-type: none"> <li>Construction failure</li> <li>Overpayment</li> <li>Cost losses by the contractor</li> <li>A default has occurred</li> </ul>
		Work does not match the quality / planning / lack of work volume	<ul style="list-style-type: none"> <li>Construction failure</li> <li>The project is late</li> <li>Cost losses by the contractor</li> <li>Overpayment</li> <li>Risk of default</li> <li>Terminate the contract</li> </ul>
		The transfer of work was carried out without technical justification by PTK	<ul style="list-style-type: none"> <li>Construction failure</li> <li>The project is late</li> <li>Cost losses by the contractor</li> <li>Overpayment</li> <li>A default has occurred</li> </ul>
		Service users request improvements to work of poor quality	<ul style="list-style-type: none"> <li>The project is late</li> <li>Cost losses by the contractor</li> <li>Terminate the contract</li> <li>Registered as a company that passes SCM</li> </ul>

### b) Project Control Factors

Cost control, quality control, and time control are the three main project control factors (Nurtsani et al., 2017). These three factors are crucial for managing project work for successful project implementation because a project is deemed successful if it is completed at the lowest possible cost, in the shortest amount of time, and with the highest quality. The table below shows the findings of the descriptive analysis for the causes and effects of project control factors:

Table 3. Cause and effect of construction project problems at the implementation stage from the project control aspect

Cause	Effect
Contractor cash flow problems	<ul style="list-style-type: none"> <li>Construction failure</li> <li>The project is late</li> <li>Risk of default</li> <li>Terminate the contract</li> </ul>
Problems with contractor/contractor	<ul style="list-style-type: none"> <li>The project is late</li> </ul>
	<ul style="list-style-type: none"> <li>Delay in bringing in materials/equipment/labor</li> </ul>
	<ul style="list-style-type: none"> <li>The project is late</li> <li>Cost losses by the contractor</li> <li>Terminate the contract</li> <li>Registered as a company that passes SCM</li> </ul>

	<ul style="list-style-type: none"> <li>• A default has occurred</li> <li>• The project is late</li> </ul>	accompanied by technical supervision and management	<ul style="list-style-type: none"> <li>• Risk of overpayment</li> <li>• A default has occurred</li> <li>• Risk of dispute during inspection</li> </ul>
The preparation of the master program is not good		Reluctant to check for clarity and completeness	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Risk of default</li> <li>• Risk of dispute during inspection</li> <li>• Risk of excess</li> </ul>
		Employer officers do not / do not provide clarification on the qualifications and offers of service providers who win the tender	<ul style="list-style-type: none"> <li>• Risk of default</li> <li>• Risk of dispute during inspection</li> </ul>

### c) Job Provision

To ensure that a construction project runs according to schedule, excellent management is required. The project organization's ability to operate in accordance with the agreed-upon terms is crucial to project management. If a project is well-organized, it will succeed. The work provider, work supervisor, planning consultant, and implementation contractor are among the organizational or managerial components in government construction projects. In the field, job providers may take the forms of PPKs, PPTKs, PPHPs, and others (Kombong et al., 2020). based on information gathered from interviews and judicial rulings. The table below displays the findings of the identification of job provider factors and their causes and effects:

Table 4. Cause and effect of construction project problems in the implementation phase of the work provider aspect

Cause	Effect
Government officials are negligent in their work	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• The project is late</li> <li>• Risk of overpayment</li> <li>• A dispute occurred during the inspection</li> <li>• Officers are subject to sanctions</li> <li>• A default has occurred</li> </ul>
Lack of PPK/PPTK coordination with partners/supervisors	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• A default occurs</li> <li>• Terminate the contract</li> </ul>
Working units (non-technical) are not	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• The project is late</li> </ul>

### d) Planning consultant

Planning consultants are individuals or groups that contribute to the expression of thoughts or preferences of work providers in planning papers that will subsequently serve as guidance for carrying out work in the field. Planning consultants may be the cause of implementation phase construction project issues. based on information gathered from interviews and judicial rulings. The table below shows the findings of the descriptive analysis for the causes and effects of the planning consultant factors:

Table 5. Cause and effect of construction project problems at the planning consultant implementation stage

Cause	Effect
Contractor cash flow problems	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Work is delayed</li> <li>• Cost losses by planners</li> </ul>
Planning errors due to not being guided by planning regulations/guidelines/technical standards	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Work is delayed</li> <li>• Cost losses by planners</li> </ul>

Arithmetic errors in cost planning	<ul style="list-style-type: none"> <li>•Overpayment</li> <li>•Overpayment</li> </ul>
Planners do not participate in cross checks on work in the field	<ul style="list-style-type: none"> <li>•Construction failure</li> </ul>

### e) Supervising consultants

The party or staff member whose responsibility it is to supervise and make sure that all plans are carried out in the actual project while keeping to the contract is known as the supervising consultant. Supervisory consultants may also be the cause of implementation phase problems with construction projects (Martanti, 2019). based on information gathered from interviews and judicial rulings. The table below shows the findings of the descriptive analysis for the causes and effects of the supervising consultant factors:

Table 6. Cause and Effect of Construction Project Problems at the Implementation Stage, supervisory consultant aspect

Cause	Effect
Field supervisory personnel are negligent in their work / incompetent	<ul style="list-style-type: none"> <li>•The project is late</li> <li>•Construction failure</li> <li>•Risk of default</li> <li>•Terminate the contract</li> <li>•The consulting company is noted to have poor experience</li> </ul>
The supervisor is also a planning consultant	<ul style="list-style-type: none"> <li>•Quality failure</li> <li>•Risk of default</li> <li>•The consulting company is noted to have poor experience</li> </ul>
Supervisors receive fees / are under pressure	<ul style="list-style-type: none"> <li>•Quality failure</li> <li>•Risk of default</li> <li>•Overpayment by the government</li> <li>•The consulting company is noted</li> </ul>

	to have poor experience
--	-------------------------

### f) Contractor

Contractors are individuals or legal entities hired by work providers to carry out work that has been planned in the physical form of the project in line with what has been agreed (Telaumbanua & Syarif, 2022). Contractors are parties or employees offering construction work services. Contractor issues might arise during the execution phase of a construction project. The results of a descriptive analysis for the cause and effect of the supervisory consultant factors may be seen in the table below, which was based on information from interviews and court judgments:

Table 7. Cause and effect of construction project problems at the contractor aspect implementation stage

Cause	Effect
Insufficient field personnel	<ul style="list-style-type: none"> <li>•The project is late</li> <li>•Risk of default</li> <li>•Terminate the contract</li> </ul>
Poor project management control by field personnel / Incompetent field workers	<ul style="list-style-type: none"> <li>•The project is late</li> <li>•Quality failure</li> <li>•Risk of default</li> <li>•Cost losses by the contractor</li> <li>•Terminate the contract</li> </ul>
The contractor in the field does not meet the qualifications	<ul style="list-style-type: none"> <li>•Terminate the contract</li> <li>•Risk of default</li> <li>•The company has bad experience</li> <li>•Disputes during inspection</li> </ul>
Contractors push for work with low bids	<ul style="list-style-type: none"> <li>•Construction failure</li> <li>•Risk of default</li> <li>•Terminate the contract</li> </ul>
The company director is not a technical person	<ul style="list-style-type: none"> <li>•Construction failure</li> <li>•The project is late</li> <li>•Risk of default</li> </ul>
Contractors want to get more margin when carrying out work	<ul style="list-style-type: none"> <li>•Construction failure</li> <li>•Risk of default</li> <li>•Terminate the contract</li> <li>•Disputes during inspection</li> </ul>

Misuse of project/term advance payments	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• The project is late</li> </ul>
Contractors push for unrealistic work deadlines	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Risk of default</li> </ul>
Executors who work from the company's loan. Work / is carried out by contractors involved due to the influence of the relationship	<ul style="list-style-type: none"> <li>• Construction failure</li> <li>• Risk of default</li> <li>• Projects are late</li> <li>• The company is listed as having poor experience</li> </ul>

### g) Project Conditions

Each construction project has unique physical requirements, such as the degree of difficulty of the task, as well as site-specific requirements, such as the nature of the soil or the surrounding environment (Noumeiry, 2017). Construction project issues might also arise during the implementation stage, depending on the circumstances of the project. The results of a descriptive analysis for the cause and effect of the supervisory consultant factors may be seen in the table below, which was based on information from interviews and court judgments:

Table 8. Cause and effect of Construction Project Problems at the Implementation Stage, aspects of project conditions

Cause	Effect
Differences between field conditions and contracts (different site conditions)	<ul style="list-style-type: none"> <li>• Work is delayed</li> <li>• Additional project costs</li> <li>• Cost losses by the contractor</li> </ul>
The project is located far away to access	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Risk of default</li> </ul>
The work of SATKER is classified as complex	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Construction/quality failure</li> <li>• Risk of default</li> </ul>

### h) Job Technical

Based on data obtained from interviews and court decisions, the results of descriptive analysis for the causes and

effects of technical work factors can be seen in the table below:

Table 9. Cause and effect of construction project problems at the implementation stage of technical aspects of the work

Cause	Effect
Difficulty in finding materials	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Quality failure</li> <li>• Risk of default</li> </ul>
Equipment is not prepared according to equipment schedule	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• Risk of default</li> </ul>
The equipment used does not match the work method / work item	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• Risk of default</li> </ul>
Due to certain conditions the tool cannot be operated/equipment damage	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• Risk of default</li> </ul>
Not converting planning drawings to soft drawings	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• Risk of default</li> </ul>
Wrong in making work methods	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> <li>• Risk of default</li> </ul>

### i) External Factors

According to (Agsarini, 2015), "external factors" include things like uncontrollable social situations, unanticipated government actions like economic policies, and natural occurrences. Because the resulting effects cannot be foreseen by construction implementers, these external factors are categorized as aspects that are not handled by risk management when a project is implemented. Contractor issues might arise during the execution phase of a construction project. The table below shows the outcomes of descriptive analysis for the causes and effects of

external factors based on information from interviews and court rulings:

Table 10. Cause and Effect of external factors

Cause	Effect
Disruption of local communities / problems with land owners who have not received compensation / do not want to be compensated	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> </ul>
Inflation/price changes/turbulence economist	<ul style="list-style-type: none"> <li>• Cost losses by the contractor</li> <li>• Construction failure</li> </ul>
Involvement in political issues / Opportunistic behavior	<ul style="list-style-type: none"> <li>• Work is delayed</li> <li>• Disputes during inspection</li> </ul>
The wishes of local authorities who wanted to include materials/participate in the work were not achieved	<ul style="list-style-type: none"> <li>• Work is delayed</li> <li>• Disputes during inspection</li> </ul>
The existence of force majeure	<ul style="list-style-type: none"> <li>• Work is delayed</li> <li>• Increase the budget</li> </ul>
Unfavorable weather conditions	<ul style="list-style-type: none"> <li>• The project is late</li> <li>• Cost losses by the contractor</li> </ul>

### 3) Solving West Sumatra APBD Construction Project Problems

Alternative dispute resolution according to Article 1 point 10 of Law Number 30 of 1999 is "Institutions for resolving disputes or differences of opinion through procedures agreed upon by the parties, namely settlement outside the court by means of consultation, negotiation, mediation, conciliation or expert assessment (Priyambodo, 2021).

According to respondents in the interviews, contracts and talks between service providers and contractors are what problem resolution refers to. We return to the auction documents and the settlement is in accordance with regulations, technical regulations, and legal regulations; the law is contract law. This is based on the results

of the interview the author conducted regarding the resolution of problems according to the source of the errors that occurred in such a way. Therefore, the contract system and regulations are used to resolve the issue. The next sub-discussion shows how the problem-solving procedure determined from the interview results;

a) Late and Missing the Fiscal Year

They were given SCM three times to expedite the job in accordance with the agreement, and they had to demonstrate their dedication to completing the work, according to the findings of the late fine interview. The health test was found to be positive at the first meeting, and SCM decided to cancel the contract because it was no longer necessary. If the work is not finished in SCM 1, 2, or 3, the PPK will be fined, and the amount of the fine will depend on whether the contractor can do the work.

The Contract Signing Officer offers the Supplier the chance to finish the work with the imposition of a late penalty in the event that the Supplier fails to finish the work by the end of the contract implementation period but the Contract Signing Officer believes the Supplier is capable of finishing the work.

b) Giving an opportunity / Extension of time

Holding an SCM and granting the Provider the chance to do the job in accordance with the health tests decided upon when the SCM was conducted constitutes providing the Provider with the opportunity to do so. The contract addendum, which governs the application of fines, also specifies the providing of opportunities. giving the provider the chance to finish the job within 50 (fifty) calendar days following the conclusion of the work

implementation term. Giving providers the chance to finish their task may go beyond the fiscal year.

c) Late Fine

Late fines are given to the Provider and an extension of the validity period of the Performance Guarantee (if any). The amount of the late fine if there is a delay in completing the work is 1‰ (one per mil) per day of the price of the Contract part stated in the Contract or 1‰ (one per mil) per day of the Contract price.

The procedure for payment of fines is regulated in the Contract Documents. In the construction work regulations themselves which regulate the resolution of late fines problems are contained in Presidential Regulation number 16 of 2018 article 79 paragraphs 4 and 5, it is concluded that the settlement of late fines is determined by the PPK with work contract guidelines with provisions for late fines of 1% of the value of the contract or the value of part of the contract for each day of delay.

Institution Regulation Number 9 of 2018 concerning fines and compensation letter e regarding late fines, it is concluded that the amount of late fines is 1% per day of the contract value. And Head of Institution Regulation No. 14 of 2020 concerning fines and compensation, it is concluded that late fines determined by the PPK and the amount of the late fine is 1/1000 of the price of the part of the contract price which is stated in the contract and has not yet been completed, while the procedures for payment of fines and/or compensation are regulated in the contract document.

There is a problem that extends beyond the fiscal year, according to one of the sources and the regulations.

Settlement by collusion is a settlement reached through an agreement to provide an official report, in which case the work may not have been finished but has been acknowledged as such in the report. Additionally, a settlement is provided by imposing a fine and providing an opportunity. The issue with the contract has already been resolved. The contract serves as a guide for the handler because it contains the relevant regulations. Negotiations are the best course of action in such a situation. On the basis of agreements (negotiations) and work contract contracts between linked parties, issues that cause delays or go beyond the budget year on building projects in West Sumatra are resolved.

d) Contract termination

According to the interview's findings, the penalty for breaching the contract is a year's worth of blacklisting as well as the payment of performance guarantees. Contract-breaking businesses will be put on a blacklist. Therefore, if there is a breach of contract or termination of the contract, there must first be an understanding between the service provider and the client, and if this project cannot be completed, there is a government regulation or a witness in the form of a blacklist.

On the basis of work contract contracts, which make reference to regulations, issues relating contract termination on construction projects in West Sumatra are settled. The resolution of contract termination issues is governed by the construction work regulations themselves, which are contained in Presidential Regulation Number 70 of 2012 article 93 paragraph 2. It is concluded that the PPK settles contract termination on the

basis of the provisions of the contract by taking everything into account, including the provider's inability to complete the work, even if given the chance, up to 50 days in advance.

In accordance with Minister of Public Works Regulation No. 14 of 2020 articles 118 and 120, it is determined that service providers or PPK may terminate a contract if one party defaults. acts of negligence, including fraud, corruption, and irregularities in the way things are done. Force majeure is another factor that could result in contract termination. Termination of contracts is done in accordance with PPK research.

Contract termination is defined as an action performed by the Contract Signing Officer or Provider to cease the validity of the Contract for specific circumstances, according to Institutional Regulation No. 9 of 2018. If the provider breaches the agreement, the performance guarantee is paid out, the remaining down payment is demanded from the provider, or the down payment guarantee is paid out and the supplier is sanctioned by being placed on a blacklist.

#### e) Late payments and underpayments

Based on the data gathered regarding the issue of late payments and lack of payment in the execution of construction projects in West Sumatra with the APBD budget, the issue was solved through the court system because the service provider demanded rights that the service provider should have received but had not.

It is stated in Presidential Regulation Number 54 of 2010's article 122 of the construction work regulations themselves that if there is a breach of contract regarding the terms

of the contract, such as late payment, the service provider may request compensation in an amount equal to the interest value of the late bill. paid and eligible for compensation in accordance with the terms of the contract. According to Republic of Indonesia Regulation of the Minister of Finance Number 170 of 2010 Article 11, if PKA, PPK, and PP-SPM delay in making payments, they will be subject to disciplinary measures in accordance with statutory regulations.

The contractor may submit a claim for payment in order to address the issue of overdue and underpaid invoices on the grounds that the work implementation was covered under the work contract. To settle the issue of late payments, negotiations between the service provider and the work provider may be conducted. If an agreement cannot be reached during the negotiations, the service provider may propose a resolution of the issue to court.

#### f) Overpayment

According to data on overpayment issues in the execution of West Sumatra APBD budget construction projects, overpayment issues tend to be disputes that arise from violations of legal requirements that are found during the audit and are therefore handled by inspection officials rather than disputes between work providers and service providers.

1)Payment for Work Performance, as per Head of Institution Regulation No. 14 of the Year (Part C sub I) 2) The PPK is responsible for paying the Supplier for agreed-upon work performance, provided that: a) The Supplier has submitted an invoice and a work progress report; b) Payment is made on a monthly basis or according

to the terms specified in the Contract Documents; c) Payment is made for the value of the installed work, excluding materials and equipment at the work site; and d) Monthly/term payments must be subtracted from down payment installments. e) Payment requests for contracts containing subcontracts must be accompanied by documentation showing that all subsuppliers have been paid for their contributions to the project. 3) After the job is entirely finished and the minutes of the initial handover are published, the last payment is made.

As stated in the appendix to Chapter 3 of PUPR Ministerial Regulation Number 7 of 2011, Participants and parties involved in this purchase are required to abide by the applicable procurement laws by refraining from the following actions: In order to meet the standards outlined in the Election Document, an entity must either: a. present fraudulent or inaccurate papers or information; b. be shown to be plotting with other participants to set the offering price; or c. be shown to have used KKN in the provider selection process.

The overpayment happened as a result of negligence and mistakes made by the parties involved in the implementation, which were found to have violated KKN in project work and caused the budget paid to be out of line with the actual completion of the project work. Regulations that have been broken and the requirements of the fines imposed determine how the issue will be resolved.

## 5. Conclusions

This study has identified and examined a number of the root causes of issues that cropped up in the West Sumatra Province

during the execution stage of construction projects funded by APBD. Inadequate planning, frequent design modifications, and difficulties with supervision and coordination between connected parties are a few major contributing causes. The findings of this study offer a clearer comprehension of the difficulties encountered in carrying out construction projects using local APBD funding sources.

The study's findings suggest that the West Sumatra Provincial Government has to enhance the way in which building projects are planned, managed, and coordinated. Among the options here include enhancing project management, utilizing more complex project management tools, and enhancing coordination among all pertinent stakeholders. Furthermore, it is crucial to think about adopting more precise rules or regulations to deal with design modifications and scope adjustments during project execution.

It is advised to carry out a more thorough investigation of the effects of design changes on the price and timeline of project implementation as part of subsequent research. In order to discover best practices and lessons gained across areas, it is also crucial to compare construction project management methods using APBD funding sources in West Sumatra Province with those in other provinces. In order to obtain a more comprehensive understanding of the implementation of construction projects in this area, additional research might also engage a wider range of stakeholders, including contractors, consultants, and local residents.

## 6. References

Agsarini, I. (2015). Pengaruh Faktor Internal Dan Eksternal Proyek Terhadap Kinerja Proyek Konstruksi Di Provinsi Kalimantan Selatan (Doctoral

dissertation). *Institut Technology Sepuluh Nopember*.

Ali, A. A., & Fitrian, D. A. F. (2022). Jurnal: Kepastian Hukum Penerapan Asas Kebebasan Berkontrak Dalam Sebuah Perjanjian Baku Ditinjau Berdasarkan Pasal 1338 Kitab Undang-Undang Hukum Perdata. *SENTRI: Jurnal Riset Ilmiah*, 1(2), 270–278.

Cahyono, J. (2022). Analisis Yuridis Undang-Undang Nomor 2 Tahun 2017 tentang Jasa Konstruksi. *Khazanah Multidisiplin*, 3(1), 104–116.

Efrijal, F. T., Carlo, N., & Bakar, Y. (2014). Penilaian Risiko Biaya Kontrak Lumpsum dan Kontrak Unit Price Melalui Implementasi Metode AHP (Studi Kasus Kontraktor di Kab. Tanah Datar). *Abstract of Undergraduate Research, Faculty of Post Graduate, Bung Hatta University*, 4(3).

Ismaryadi, H., Khairani, K., & Mannas, Y. A. (2023). Implementasi Asas Itikad Baik Dalam Pemberian Kesempatan Penyelesaian Pekerjaan Pengadaan Barang Jasa Pemerintah. *UNES Journal of Swara Justisia*, 7(2), 680–694.

Jannah, M. P. N., & Musjtar, D. N. (2019). Penyelesaian Sengketa Wanprestasi Akibat Keterlambatan Pelaksanaan Perjanjian Konstruksi Bangunan. *UIR Law Review*, 3(2), 41–49.

Kesek, R. A. E., & Hardjomuljadi, S. (2020). Analisis Red Clause Kontrak Konstruksi APBD Dengan Fidic Red Book 1999. *Konstruksi*, 11(2), 103–126.

Kombong, E. P., Nugroho, A. S. B., & Wibowo, R. A. (2020). Pelayanan Publik dan Kajian Putusan Korupsi Pengadaan Jasa Konstruksi dalam Perspektif Kontrak Jasa Konstruksi: Civil Engineering Perspective. *Integritas: Jurnal Antikorupsi*, 6(2), 245–262.

Labolo, M. (2017). Menutup celah korupsi pemerintahan daerah. *Jurnal Ilmu Pemerintahan Widya Praja*, 43(2), 93–110.

Maddepungeng, A., Bethary, R. T., & Chasanah, U. (2016). Analisis Perbandingan Risiko Biaya Konstruksi Antara Kontrak Lumpsum Dan Unit Price Menggunakan Metode Analytic Hierarchy Process (Ahp) Dan Decission Tree (Pohon Keputusan). *Konstruksi*, 8(1), 17–33.

Mahadiansar, M., Ikhsan, K., Sentanu, I. G. E. P. S., & Aspariyana, A. (2020). Paradigma pengembangan model pembangunan nasional Di Indonesia. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 17(1), 77–92.

Martanti, A. Y. Y. (2019). Analisis faktor penyebab contract change order dan pengaruhnya terhadap kinerja kontraktor pada proyek konstruksi pemerintah. *Rekayasa Sipil*, 7(1), 32–42.

Ningrum, A. D. A. (2018). *Penerapan Pasal 22 Undang-Undang Nomor 5 Tahun 1999 Tentang Larangan Praktik Monopoli dan Persaingan Usaha Tidak Sehat pada Tender Pengadaan Peralatan CT-Scan RSUD DR. Pirngadi Kota Medan (Studi Putusan KPPU Nomor 8 Tahun 2013)*.

Noumeiry, N. (2017). Kajian Faktor-Faktor Yang Berpengaruh Terhadap Kinerja Proyek Konstruksi. *Jurnal Teknologi Berkelanjutan*, 6(02), 110–117.

Nurtansi, R. A., Septiadi, D. R., & Suharyanto, S. (2017). Pengendalian Biaya Dan Waktu Proyek Dengan Metode Konsep Nilai Hasil (Earned Value). *Jurnal Karya Teknik Sipil*, 6(4), 460–470.

Ogunnusi, M., Omotayo, T., Hamma-Adama, M., Awuzie, B. O., & Egbelakin, T. (2021). Lessons learned from the impact of COVID-19 on the global construction industry. *Journal of Engineering, Design and Technology*, 20(1), 299–320.

Poerdyatmono, B. (2007). Alternatif penyelesaian sengketa jasa konstruksi. *Jurnal Teknik Sipil*, 8(1), 78–90.

Priyambodo, M. A. (2021). Mekanisme Penyelesaian Sengketa Konstruksi Menurut Undang-Undang Nomor 2 Tahun 2017 Tentang Jasa Konstruksi. *Iblam Law Review*, 1(3), 173–177.

Santoso, R. (2023). KINERJA INDUSTRI JASA KONSTRUKSI Suatu Tinjauan pada Lingkungan Bisnis dan Strategi Bisnis. *Penerbit Tahta Media*.

Sari, R. N. (2015). Pengaruh Pengawasan Inspektorat Dan Partisipasi Dalam Penyusunan Anggaran Terhadap Kinerja Manajerial SKPD (Studi Empiris Pada Instansi Pemerintah Kabupaten Tanah Datar). *Jurnal Akuntansi*, 3(1).

Soetanto, L. A., Setiobudi, K. J., & Nugraha, P. (2015). Analisa Kendala Pelaksanaan E-Procurement Di Kota Surabaya. *Jurnal Dimensi Pratama Teknik Sipil*, 4(2).

Sukwika, T. (2018). Peran pembangunan infrastruktur terhadap ketimpangan ekonomi antarwilayah di Indonesia. *Jurnal Wilayah Dan Lingkungan*, 6(2), 115–130.

Taurano, G. A., & Hardjomuljadi, S. (2013). Analisis faktor penyebab klaim pada proyek konstruksi yang menggunakan FIDIC conditions of contract for plant and design build. *Konstruksia*, 5(1).

Telaumbanua, F., & Syarif, Y. (2022). Proyek Pembangunan Gedung Menara Bank Bri Medan. *Laporan Kerja Praktek Mahasiswa Teknik*, 1(3).

Tumbel, S. M. (2017). Partisipasi masyarakat dalam pengelolaan dana desa di desa Tumaluntung Satu kecamatan Tareran kabupaten Minahasa Selatan. *None*, 6(1), 161029.