Available at https://journalenrichment.com/index.php/jr/

Enrichment: Journal of Multidisciplinary Research and Development

Risk Management in Direct Procurement of Construction Services at The Klungkung Regency Government

I Gusti Ngurah Putra Wiyasa*, Anak Agung Diah Parami Dewi, Anak Agung Gde Agung Yana

Universitas Udayana, Indonesia

Email: wiyasa2@gmail.com*, anakagungdewi@unud.ac.id, agungyana@unud.ac.id

Keywords

risk management; direct procurement; construction services; mitigation; assessment.

Abstract

Procurement of direct construction work according to Presidential Regulation Number 46 of 2025 is an election method to obtain construction service providers with a maximum contract value of IDR 400,000,000.00 (four hundred million rupiah). Meanwhile, direct procurement of construction consultancy services is an election method to obtain construction consultancy service providers with a maximum value of IDR 100,000,000.00 (one hundred million rupiah). The Klungkung Regency Government is one of the active local governments implementing direct procurement of construction services. Due to the large number of direct procurement packages being implemented, procurement actors often encounter various problems throughout the direct construction service procurement process. These challenges may lead to the emergence of risks affecting the procurement actors involved in the implementation of such projects. This study aims to identify, map, and determine risk acceptance levels, identify dominant risks, formulate mitigation strategies for dominant risks, and determine the impact of dominant risks on project cost and time. This study employed a qualitative descriptive method. Data collection methods included literature reviews, interviews, and brainstorming sessions. The study involved 30 respondents, with the results identifying 45 risks, of which 26 were classified as dominant risks. Six risks were categorized as unacceptable risks, one of which was the absence of advance payment provisions in the contract, resulting in the need for initial capital to support project operations. The proposed mitigation strategy for this risk was to establish a proportional payment scheme in the contract, such as initial installment payments or payments based on work progress. Twenty risks were categorized as undesirable risks, including technical disruptions such as network failures, internet outages, and server downtime. The mitigation strategies included preparing alternative networks, establishing backup implementation schedules, and ensuring coordination with system managers to minimize technical disruptions.

INTRODUCTION

According to Law Number 2 of 2017 concerning Construction Services, construction services are defined as construction work planning consultancy services, construction work implementation services, and construction work supervision consultancy services. These services are essential for the construction of public facilities and government offices, as well as facilities in the private sector. Broadly, the project life cycle consists of several stages, including the conceptual stage, feasibility studies, planning and consolidation, design engineering, procurement, fabrication and construction, and finally, testing and commissioning before the project is handed over to the project owner (Soeharto, 1999). According to

Presidential Regulation No. 16 of 2018, procurement of goods and services is an activity to obtain goods or services, beginning with the identification of needs and continuing through to the handover of work results (Modisakeng et al., 2020; Nani & Ali, 2020; Patrucco et al., 2021). Government procurement of goods and services can generally be divided into two categories: procurement in the public sector and procurement in the private sector or business sector.

Government procurement of construction services consists of construction work and construction consultancy services (Republic of Indonesia, 2017; Republic of Indonesia, 2025). Based on Presidential Regulation No. 46 of 2025, construction work refers to all or part of activities that include the construction, operation, maintenance, demolition, and reconstruction of buildings, while construction consultancy services are professional services requiring expertise in the construction field and emphasizing intellectual processes (Republic of Indonesia, 2017; Republic of Indonesia, 2025). The procurement of construction work and construction consultancy services within the government sector can be conducted using the direct procurement method under specific value thresholds established in procurement regulations (Republic of Indonesia, 2025; National Public Procurement Agency [LKPP], 2021). Direct procurement of construction work is limited to contracts with a maximum value of IDR 400,000,000, whereas direct procurement of construction consultancy services is limited to IDR 100,000,000 (Republic of Indonesia, 2025). According to LKPP Regulation Number 12 of 2021 concerning Guidelines for the Implementation of Government Procurement of Goods/Services Through Providers, invited providers submit administrative, technical, financial, and qualification documents, which are subsequently evaluated by the Procurement Officer (LKPP, 2021). The Procurement Officer then performs qualification verification, taxpayer confirmation, clarification, and technical as well as price negotiations based on the Owner's Estimate (HPS) before reporting the procurement results through the Electronic Procurement System (SPSE) to the Commitment Making Officer (PPK) and the Head of the Procurement Service Unit (UKPBJ) (LKPP, 2021; OECD, 2023; World Bank, 2020; Thai, 2017; Erridge & McIlroy, 2002).

The Klungkung Regency Government is one of the regional governments that actively implements direct procurement of construction services. Due to the large number of direct procurement packages carried out by the Klungkung Regency Government, procurement actors frequently encounter challenges during the direct procurement process for construction services. This situation is reflected in failures during the direct procurement provider selection process. Based on data from the Klungkung Regency Electronic Procurement Service (Layanan Pengadaan Secara Elektronik/LPSE), 21 direct procurement processes experienced failures in 2023. A similar condition occurred in 2024, with 18 failed procurement processes recorded. Risks in direct procurement of construction services do not only occur during the provider selection stage. Based on Presidential Regulation Number 16 of 2018, the implementation of construction service contracts covers activities from the commencement of work implementation to the handover of work results. In practice, this stage is often critical because various risks may arise and affect the overall success of construction projects. Based on audit reports from the Indonesian Supreme Audit Agency (Badan Pemeriksa Keuangan Republik Indonesia/BPK RI) regarding regional expenditures of the Klungkung Regency Government for the 2023 and 2024 fiscal years, problems were still identified, including insufficient work volume and non-conformity between work quality and contract specifications. These findings

indicate that control mechanisms during the contract implementation stage have not been fully effective (Demirel et al., 2019; Seboka & Gidebo, 2026).

The focus of this research on direct procurement of construction services is based on the dominant role of this procurement method in local government procurement and development activities. Quantitatively, the number of direct procurement packages is generally higher than those conducted through other procurement methods. Therefore, procurement actors need to provide greater attention to managing risks in direct procurement of construction services because such risks may significantly influence the overall performance of construction procurement. The selection of Klungkung Regency as the research location is based on the phenomenon of failures in the direct procurement provider selection process in 2023 and 2024, as well as recurring findings related to discrepancies in work volume and construction quality during contract implementation. These conditions indicate the existence of interconnected and accumulated risks across various stages of the direct procurement process. Therefore, direct procurement of construction services in Klungkung Regency represents a relevant research object from a risk management perspective.

Consequently, direct procurement of construction services in Klungkung Regency requires the application of risk management principles. Risk management is a systematic process involving risk identification, risk analysis, risk evaluation, and risk mitigation. Generally, risk management frameworks consist of risk identification, risk classification, risk analysis, and risk response strategies. Risk management not only functions to prevent potential losses but also assists organizations in maximizing opportunities arising from uncertain conditions (Vikaliana & Nazla, 2024). The implementation of risk management is expected to prevent or minimize losses caused by risks and provide a positive contribution to improving the direct procurement process of construction services in Klungkung Regency.

METHOD

This research was designed using a qualitative descriptive method. Qualitative descriptive methods are research approaches used to describe and understand a phenomenon in depth through data collection such as literature studies, *brainstorming* , and interviews. This method emphasizes understanding the meanings, experiences, and perspectives of research subjects as they exist in the field.

Data was collected from parties involved in the procurement process through *brainstorming* and interviews.

Location and Time of Research

The research location was carried out at the Klungkung Regency Government. The location map of Klungkung Regency is based on Figure 4.2.

Figure 4.2 Research Location

Types, Sources and Data Collection Techniques

The data used in this study consists of two types: primary and secondary data. The selection of these two data types was intended to obtain up-to-date information from the field and to strengthen it with theoretical foundations derived from relevant literature.

a. Primary data collection in this study was conducted directly with procurement actors involved in the direct procurement of construction services in the Klungkung Regency Government using interview and *brainstorming techniques* . Interviews were conducted in a semi-structured manner to obtain in-depth information regarding the implementation of direct procurement and the implementation of direct procurement contracts for construction services, by providing space for the interviewees to convey their experiences and views comprehensively. Interviewees were selected purposively *based* on their involvement and understanding of the direct procurement process for construction services. In addition, *brainstorming techniques* were used as a directed discussion involving several procurement actors to gather various views and perceptions regarding the conditions of the implementation of direct procurement of construction services and the implementation of its contracts. The results of these interviews and *brainstorming* were used as a basis for identifying actual conditions in the field and as input in the preparation of instruments and subsequent research analysis.
b. Secondary data is data collected from previously published written sources, both academic and government agencies. Secondary data sources include scientific articles, theses, research, books, and internet sources. Secondary data is collected through library research , which involves searching for literature related to direct procurement, risk management, and qualitative analysis methods. This process involves reviewing various written sources, both print and digital, with the aim of strengthening the conceptual framework and broadening insight into relevant previous findings.

Procedure Sampling

In study this, sample taken with method *purposive sampling*, namely perpetrator procurement in Klungkung Regency which is involved direct with procurement direct service construction in Klungkung Regency.

Population

The population in this study was procurement actors within the Klungkung Regency Government's regional apparatus organizations (OPD). This population was selected because they have relevant experience and understanding of the risks that arise in the direct procurement phase of construction services.

Sampling Techniques and Criteria

The sampling technique used in this study was *purposive* sampling. *Purposive sampling* is a non-probability sampling technique in which researchers select respondents based on specific considerations related to the research objectives.

The criteria for respondents in this study were their status as procurement actors within the scope of the Klungkung Regency Government.

Instrument Study

Instrument study is tools used by researchers For obtain the required data in answer formulation problem research. Instruments research used is questionnaire is instrument research used For collect primary data systematic from respondents through a series question written . In study this , questionnaire used For obtain data regarding perception respondents to risks that occur in procurement direct service construction , in particular related level frequency occurrence risk (*likelihood*) and level consequence risk (*consequence*).

Use questionnaire chosen Because capable reach respondents in a way more wide, providing uniformity in measurement, as well as facilitate the data processing process quantitative.

Questionnaire Form and Structure

Questionnaire in study This arranged in form question closed, where respondents requested For give evaluation to every variables risks proposed. Structure questionnaire consists of on three part man, namely :

a. Respondent Identity. This section contains general information about the respondents, such as their position and involvement in direct procurement of construction services. This information is used to ensure that the respondents meet the research criteria.
b. Risk list: This section lists the risks identified through literature reviews, *brainstorming*, and interviews. Respondents assessed each risk based on two aspects: risk frequency and risk consequences.
c. Assessment scale, assessment is carried out using a *Likert scale* with a score range of 1 to 5.

This study uses two stages of questionnaires, namely a preliminary questionnaire aimed at testing the relevance of risk variables and obtaining input from respondents regarding the completeness of risk variables and the main questionnaire used for collecting research data and analyzed to find the risk acceptance scale.

Target Respondents

The criteria for respondents in this study were procurement actors within the Klungkung Regency Government. Based on this criteria, 30 respondents from procurement actors within the Klungkung Regency Government were selected.

Questionnaire Rating Scale

likelihood) and consequences (*consequences)* assessment scales are presented in Table 1 and Table 2.

Table 1. Frequency Level and Scale (*Likelihood*)

Frequency Level	Scale	Information
Very often	5	Occurs more than 2 times in 1 year
Often	4	Occurs about 1-2 times in 1 year
Sometimes	3	Occurs about once every 2 years
Seldom	2	Occurs about once every 3 years
Very rarely	1	Occurs more than once every 3 years

Source: Godfrey & Halcrow (1996)

Consequences are a value that indicates the likelihood of the event occurring as a risk.

Table 2. Level and Scale of *Consequences*

Consequence Level	Scale	Consequence Description		
		Time	Cost	Quality
Very large	5	Delay > 20% of the total duration of procurement and/or contract, or repetition of the supplier selection process	Cost deviation > 10% of procurement/contract value	Has a huge impact on achieving work quality
Big	4	Delay of 10% – 20% of the total duration of procurement and/or contract	Cost deviation of 5% – 10% of the procurement/contract value	impact on the achievement of work quality
Currently	3	Delay of 5% – 10% of the total duration of procurement and/or contract	Cost deviation of 2% – 5% of the procurement/contract value	significant impact on the quality of work but can still be controlled
Small	2	Delay < 5% of the total duration of procurement and/or contract	Cost deviation < 2% of procurement/contract value	limited and insignificant impact on the quality of work
Very small	1	There is no delay significant	There is no deviation cost	very minimal impact

Source: Godfrey & Halcrow (1996)

The use of a scale of 1–5 aims to provide flexibility to respondents in conveying their perceptions, while also facilitating the statistical data analysis process.

How to Fill Out the Questionnaire for Respondents

To ensure uniformity in filling out the questionnaire, the following filling instructions are provided:

1. Respondents were asked to read each risk statement carefully.
2. Respondents provided an assessment of each risk based on their experience and knowledge in implementing direct procurement of construction services.
3. The assessment is carried out by selecting one score for the frequency aspect of the risk occurrence (*likelihood*) and one score for the consequence aspect of the risk (*consequence*).
4. The score chosen should reflect the most appropriate conditions according to the respondent's view.
5. There are no right or wrong answers in filling out the questionnaire; all answers are subjective based on the respondent's experience.

Questionnaire Output

The questionnaire results, consisting of *likelihood* and *consequence scores* for each risk variable, are used as input for the risk analysis. The data is then processed to determine the mode value, risk acceptance level, dominant risks, and the development of dominant risk mitigation strategies.

Data analysis

Data analysis is stage important in study qualitative purposeful For processing raw data from sources from questionnaire become meaningful information to determine risk priority procurement direct service construction . Data analysis can in the form of interviews , primary data or secondary and material other so that easy understood and its output Can notified to parties who need it (Sugiyono, 2010) . Analysis techniques This includes :

1. Risk Identification

   The risk identification process is carried out through data collection obtained from several literature studies, which include a review of journals, procurement regulations, and previous research relevant to construction service procurement risk management. The initial risk list is then compiled into a preliminary questionnaire draft, which is then subjected to a brainstorming session with parties familiar with the procurement process. During the *brainstorming stage* , informants are asked to assess the relevance of each risk variable and are given the opportunity to add other risks deemed important but not yet listed. The result of this stage is a final list of risk variables that will be used as a research instrument.
2. Questionnaire Preparation

   The established risk list was then used to develop the main questionnaire. This questionnaire included respondents' assessments of the risk's likelihood *and* consequence . The first phase of the questionnaire was then distributed.
3. Validity and Reliability Test

   Before conducting a risk analysis, the quality of the research instrument was first tested. The validity test aims to determine the extent to which the questionnaire items are able to measure the variables being studied. This test was conducted using SPSS software. A questionnaire item is declared valid if the calculated *r value* is greater than the table *r value* . Next, a reliability test was conducted to measure the consistency of the research

instrument. The reliability test was conducted using *the Cronbach's alpha method* in SPSS. The instrument is declared reliable if *the Cronbach's alpha value* meets the predetermined criteria of ≥ 0.60, making the questionnaire suitable for use in further analysis.

4. Advanced Questionnaire Data Distribution and Processing.
   The valid and reliable follow-up questionnaire was then redistributed to respondents. Each respondent's answer was assigned a numerical score according to a predetermined rating scale.
5. Risk Assessment
   Data obtained through the questionnaire were processed to determine *the likelihood* and *consequence modes* of each identified risk. In qualitative data, the mode describes the most frequently occurring characteristic or condition. The mode value in this study was obtained from the number of answer choices most frequently chosen by respondents based on the results of risk identification. This value reflects the respondents' views on the identified risks. The resulting modes consist of two types: frequency mode and consequence mode. The mode values for each frequency and consequence category were then multiplied to determine the form of risk acceptance, allowing for mitigation steps and allocation of responsibility for the most dominant risks. The results of the multiplication of frequency (*likelihood*) and consequence (*consequence*) were then grouped based on a risk acceptance scale table. According to Godfrey & Halcrow (1996), the risk acceptance scale is grouped as in Table e.

Table 3. Risk Acceptance Scale

Acceptance Indicator	Scale
Unacceptable	x > 12
Undesirable	5 ≤ x ≤ 12
Acceptable	2 < x < 5
Negligible	x ≤ 2

Source : Godfrey & Halcrow (1996)

   X = risk value (result of multiplying the frequency mode by the consequence mode)
   Risks that require control measures are all risks that fall into the *unacceptable* and *undesirable categories.*
6. Risk Mitigation
   Based on the results of risk acceptance, mitigation is carried out on risks that are classified as *very high risk (unacceptable)* and *high risk. (undesirable).* Risk mitigation is carried out using *expert judgment* from parties competent in procurement. Interviews are conducted to obtain recommendations for appropriate mitigation actions, including prevention efforts, impact reduction, and allocation of responsibility for unacceptable risks. The results of this mitigation are expected to provide recommendations and solutions for those directly procuring construction services.

RESULTS AND DISCUSSION

Risk Identification of Direct Procurement of Construction Services in the Klungkung Regency Government

Risk identification is the initial stage in risk management, aiming to identify various potential risks that may occur in the direct procurement process of construction services. This stage is crucial to ensure that all potential risks that could impact the success of the procurement process are identified early. In this study, the risk identification process was conducted through literature review, brainstorming, and interviews with parties with expertise and experience in the field of direct procurement of construction services. Based on the risk identification, 39 risks were identified from the literature review and an additional 6 risks were identified through brainstorming and interviews.

Distribution and Testing of Research Instruments

The questionnaire was distributed in two stages: the initial questionnaire (pilot test) and the final questionnaire. The initial questionnaire (pilot test) was distributed to 10 respondents with similar characteristics to the research respondents, namely procurement actors, especially in construction work. The aim was to test the validity and reliability of the instrument and ensure the clarity of each question. The pilot test results showed that all questions were valid and reliable, so the research instrument could be used without revision. Next, the main (final) questionnaire was distributed to 30 respondents who were procurement actors or parties involved in the direct procurement process of construction services in Klungkung Regency. The results of the final test also showed all over grains valid and reliable questions

Analysis Risk Assessment in Procurement Direct Construction Services in Government Klungkung Regency

Acceptance rate risks in procurement direct service construction in the Government Klungkung Regency is described as following :

1. Unacceptable (not can accepted)
2. Undesireable (not desired)
3. Acceptable (can accepted)
4. Negligible (can ignored)

Evaluation risk obtained through multiplication in frequency mode with consequence mode As seen in Appendix 5, the risk values are obtained based on this multiplication to determine the risk acceptance level. The risk acceptance level obtained is 6 unacceptable risks, 20 undesirable risks, 16 acceptable risks, and 3 negligible risks.

Dominant risks, mitigation of dominant risks and potential impact of dominant risks on costs and time

Identification of dominant risks aims to determine which risks require primary attention and priority handling. Therefore, mitigation is necessary to reduce their impact. The dominant risks are 6 unacceptable risks (13%) and 20 undesirable risks (49%).

One of the most significant unacceptable risks is the lack of a down payment under the contract, necessitating initial capital for operations. This risk is particularly significant for construction projects requiring material procurement, labor mobilization, and equipment procurement from the outset. The absence of a down payment requires the contractor to

independently provide substantial working capital. For contractors with limited financial capacity, this can lead to delays in resource mobilization, disrupt the company's cash flow, and potentially impact the quality of the work. This risk becomes even more significant in island regions, where mobilization costs are relatively high compared to mainland regions. Risk mitigation measures include setting proportional payment schemes within the contract, such as initial installment payments or progress payments, to maintain the contractor's cash flow without relying on down payments. The potential impact of this risk on costs and time is approximately 15% of the contract value, with potential delays exceeding 10% of the project duration.

One of the undesirable risks is the high cost of mobilizing labor, materials, and equipment for projects in the archipelago, which impacts the preparation of the HPS for direct procurement. This risk is particularly relevant to the geographic conditions of Klungkung Regency, which encompasses archipelagos such as Nusa Penida. High transportation and mobilization costs result in higher construction costs compared to mainland areas. If this condition is not properly accounted for in the HPS preparation, it can impact both the supplier's interest in participating in the procurement and the success of the project. The risk mitigation formulated is by preparing the HPS by considering in detail the mobilization cost components based on the geographical conditions of the region and using comparative data from similar projects in the archipelago as a reference in the clarification and negotiation process. The potential impact of this risk on costs and time is 5-10% of the contract value, with potential delays of around 10%-20% of the implementation duration.

CONCLUSION

In the direct procurement of construction services within the Klungkung Regency Government, 45 risks were identified. Thirty-nine risks were identified through previous literature reviews. Following interviews and brainstorming sessions, six additional risks were identified, resulting in a total of 45 risks.

Of the 45 identified risks, 26 were categorized as major risks. Six risks were classified as unacceptable risks, and 20 risks were classified as undesirable risks, while the remaining risks were categorized as acceptable risks. Unacceptable risks represent the highest risk level and require immediate attention because they have the potential to significantly affect the continuity and performance of direct procurement of construction services within the Klungkung Regency Government. The risks with the highest risk scores included the work volume (bill of quantities) being inconsistent with the design drawings, the absence of advance payment provisions in the contract requiring the contractor to provide initial operational capital, and inconsistencies between the procurement package name and the Daftar Pelaksanaan Anggaran (DPA) or budget implementation document.

Based on the research findings, it can be concluded that risk mitigation measures have been implemented to address unacceptable and undesirable risks. A total of 26 mitigation strategies were formulated for major risks. One of the proposed mitigation measures involves conducting a thorough review and synchronization between the bill of quantities and design drawings, as well as involving the technical team to ensure conformity with project requirements before implementation.

The impact of dominant risks on cost and time significantly affects the implementation of direct procurement of construction services within the Klungkung Regency Government. To obtain an overview of the impact of dominant risks on cost and time in direct procurement packages, a simple range approach was applied to all identified risks. Based on the analysis, it was found that the impact of dominant risks on project costs ranged from 2% to 20% of the procurement or contract value, while the impact on implementation time ranged from 5% to 25% of the total project duration.

REFERENCES

Chartered Institute of Procurement & Supply. (2021). *Procurement and supply cycle*. CIPS.

Demirel, H. Ç., Volker, L., Leendertse, W., & Hertogh, M. (2019). Dealing with contract variations in PPPs: Social mechanisms and contract management in infrastructure projects. *Journal of Construction Engineering and Management, 145*(11), 04019073. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001699

Erridge, A., & McIlroy, J. (2002). Public procurement and supply management strategies. *Public Policy and Administration, 17*(1), 52–71. https://doi.org/10.1177/095207670201700105

Godfrey, P., & Halcrow, W. (1996). *Control of risk: A guide to the systematic management of risk from construction*. CIRIA.

International Federation of Consulting Engineers. (2022). *FIDIC procurement procedures guide*. FIDIC.

Modisakeng, C., Matlala, M., Godman, B., & Meyer, J. C. (2020). Medicine shortages and challenges with the procurement process among public sector hospitals in South Africa: Findings and implications. *BMC Health Services Research, 20*(1), 234. https://doi.org/10.1186/s12913-020-05080-1

Nani, D. A., & Ali, S. (2020). Determinants of effective e-procurement system: Empirical evidence from Indonesian local governments. *Jurnal Dinamika Akuntansi Dan Bisnis, 7*(1), 33–50. https://doi.org/10.24815/jdab.v7i1.15617

National Public Procurement Agency. (2021). *Regulation of the National Public Procurement Agency of the Republic of Indonesia Number 12 of 2021 concerning Guidelines for the Implementation of Government Procurement of Goods/Services Through Providers*. LKPP.

Organisation for Economic Co-operation and Development. (2023). *Government at a glance 2023*. OECD Publishing. https://doi.org/10.1787/3d5c5d31-en

Patrucco, A. S., Agasisti, T., & Glas, A. H. (2021). Structuring public procurement in local governments: The effect of centralization, standardization and digitalization on performance. *Public Performance & Management Review, 44*(3), 630–656. https://doi.org/10.1080/15309576.2020.1851209

Republic of Indonesia. (2017). *Law of the Republic of Indonesia Number 2 of 2017 concerning Construction Services*. Government of Indonesia.

Republic of Indonesia. (2025). *Presidential Regulation of the Republic of Indonesia Number 46 of 2025 concerning the Second Amendment to Presidential Regulation Number 16 of 2018 on Government Procurement of Goods/Services*. Government of Indonesia.

Seboka, D. A., & Gidebo, F. A. (2026). Investigating the effectiveness of contract administration at construction stage to averting substandard construction performance: In Shagar City public building projects. *Journal of Asian Architecture and Building Engineering, 25*(2), 1325–1343. https://doi.org/10.1080/13467581.2025.2451138

Soeharto, I. (1999). *Project management: Dari konseptual sampai operasional*. Erlangga.

Sugiyono. (2010). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

Sugiyono. (2011). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
Thai, K. V. (2017). *International handbook of public procurement* (2nd ed.). CRC Press.
United Nations Commission on International Trade Law. (2014). *UNCITRAL model law on public procurement*. United Nations.
Vikaliana, R., & Nazla, A. (2024). Risk analysis in the procurement process at an Indonesian oil company using the House of Risk approach. *Intent Journal: Journal of Integrated Industry and Technology, 7*(1), 33–40. https://doi.org/10.47080/intent.v7i1.3372
World Bank. (2020). *Benchmarking public procurement 2020: Assessing public procurement systems in 180 economies*. World Bank. https://doi.org/10.1596/978-1-4648-1546-5