Volume 3, No. 2 February 2024 - (256-270)
p-ISSN 2980-4868 | e-ISSN 2980-4841
https://ajesh.ph/index.php/gp

ANALYSIS OF THE INFLUENCE OF LOW BIDDING FACTORS ON QUALITY AND COST PERFORMANCE IN PROCUREMENT OF SMALL CLASS PIER PROJECTS IN THE GOVERNMENT ENVIRONMENT

Peto Syamsul Alam[1*], Agus Suroso[2]
[1,2]Faculty Of Engineering, Universitas Mercu Buana, Indonesia
Emails: alampeto@gmail.com[1*], agussrs@yahoo.com[2]

ABSTRACT:
Since COVID 19 pandemic hit Indonesia, many small harbor contractors have been forced to provide low bid prices (< 80% HPS) for harbor auctions sourced from APBN funds in 2019-2022. Even though the bid price given is low, many contractors are able to complete the work according to the quality and price required in the contract agreement. This research analyzes the factors that cause contractors who have successfully completed the work, dare to provide low bids in the auction process. From the data obtained an processed using SEM-PLS method, it is know that the company's internal condition factors have the most significant influence with a path coefficient of 0.464. The biggest indicator of the company's internal condition is the company's need to achieve the minimum sales/ profit target in one year, with a path coefficient value of 0.866. Financial characteristic factors also have a significat influence with a path coefficient value of 0.223. Meanwhile the technical characteristics factors has an influence with a path coefficient value of 0.213.

Keywords: tender, auction, low bid price, harbor.

INTRODUCTION

The State Budget (APBN) is a manifestation of state financial management that aims to prosper its citizens as much as possible (Subekan & Iskandar, 2021). The State Budget (APBN) is a state financial instrument aimed at prospering citizens, in accordance with Article 23 of the Constitution 45 (Sugianto & Siagian, 2023). The government, especially in the era of President Joko Widodo, focuses on infrastructure development to increase prosperity and reduce development gaps. The Ministry of Transportation is mandated to build ports/docks at 65 crossing locations and 306 sea locations from 2015-2019 (Kou & Shi, 2024; Wu & Tham, 2023).

In addition to explaining in detail about the method of auctioning construction work within the government, Perlem LKPP No.12 of 2021 also regulates further evaluation for

prospective providers who provide low bids (Del Río & Kiefer, 2023; Smith, 2002; Tjan et al., 2023). That is an offer with a value below 80% of the Self-Estimated Price (HPS) prepared by the Commitment Making Officer (PPK) (Negara, 2022). This further evaluation is important to be carried out so that the Auction Working Group (POKJA) and KDP can ensure that prospective suppliers can really complete the work in question, according to the expected quality and time, with an unreasonable budget (Pakasi, 2019). Based on research (Kurniati & Supriyatna, 2022), the percentage of < 80 HPS offers by contractors at the Ministry of PUPR increased slowly from 2015 to 2019 (7.28% to 11.92%) and increased sharply since 2020 (32%) and 2021 (43.71%).

The phenomenon of < 80% HPS quote, called low bid, was researched by (Oetomo[a] et al., 2015) and identified 6 factors: job characteristics, company external, internal company, bid terms, project finance, and employment contract (Olatunji et al., 2023). Similar research by (UNTOROYONO, 2012) highlights internal, external, and regulatory factors as the main influences of low bidding.(Dewi & Susetyo, 2022) add that the success of low-bid contractors is related to the supply of materials themselves, allowing low-price quotes without sacrificing quality (Shelton, 2018). The focus of this research is the government tender for the construction of a small class pier, where the pier is a structure in the port (Panayides et al., 2017). The size of the tender is adjusted to the qualifications of the business entity, and the small class dock has a project value of ≤ Rp15,000,000,000 (AUTHORITY, 2021; Bradley, 1980).

In order to achieve this goal, a literature study is conducted by detailing related research themes, such as factors of low bid prices on construction projects in the government environment, factors underlying contractors in bidding or participating in construction project tenders, and dock construction projects. The variables contained in this literature will be the basis for conducting a preliminary survey to gain an in-depth understanding of these factors (Shaw & Coles, 2004).

RESEARCH METHODS

This study adopts a quantitative descriptive approach focusing on the factors influencing the submission of low bids by suppliers in small-class dock construction projects within the Indonesian government (Jenkins, 2022). Preliminary data were obtained from secondary sources, such as journals and past research, to form the basis of the phase 1 questionnaire (Fairley et al., 2021). This questionnaire is given to expert respondents with the aim of identifying variables relevant to the study. After analysis and validation, a stage 2 questionnaire was created and directed to expert respondents to explore the relationship between these variables and the type of auction that occurred (Mengist et al., 2020).

The study population includes the entire core workforce involved in the Small Class Wharf Construction work package funded by the State Budget from 2019 to 2022, with low price offers (<80% HPS) and successfully completed by the Executing Contractor. The sample was selected through a purposive sampling method with inclusion criteria involving participation in

the work package and successful completion. The minimum sample size required, based on Slovin's formula, is 48 respondents.

The data analysis process involves validity tests, multiple correlations, reliability tests to evaluate the reliability of questionnaires, and multivariate analysis. SEM-PLS analysis is used to thoroughly examine the relationship between variables. Literature studies and preliminary surveys become the basis for the selection of research variables. The survey involved expert interviews and the distribution of questionnaires to parties involved in the dock project as the main respondents. Quantitative data were collected through questionnaires, literature studies, and secondary data. Data analysis involves rating techniques, multivariate analysis, and SEM-PLS analysis to achieve research objectives.

RESULTS AND DISCUSSION

The statistical hypothesis in the questionnaire validity test is shown as follows:
H0: The questionnaire statement on the variable indicator is invalid
H1: Questionnaire statement on indicator valid variable
The statistical hypothesis is said to reject H0 if the r value is calculated > r table or P-Value < α which means that the questionnaire statement on the variable indicator is said to be valid.
The number of samples obtained in this study was 48 respondents, so that the free degree obtained was 48-2=46 and the level of significance (α) used in this study was 0.05. Based on this information and Appendix #, it was obtained that the r value of the table in this study was 0.285. The results of data processing with SPSS software are shown in Appendix # and the validity test results on variable X and variable Y for all indicators are respectively shown in Table 1:

Table 1. Variable X Validity Test Results

No	Variable	r calculate	r table	*P-Value* (Sig.)	Conclusion
1	X1.1	0.894	0.285	0.000	Valid
2	X1.2	0.875	0.285	0.000	Valid
3	X1.3	0.720	0.285	0.000	Valid
4	X1.4	0.802	0.285	0.000	Valid
5	X1.5	0.850	0.285	0.000	Valid
6	X1.6	0.791	0.285	0.000	Valid
7	X1.7	0.843	0.285	0.000	Valid
8	X2.1	0.854	0.285	0.000	Valid
9	X2.2	0.729	0.285	0.000	Valid

No	Variable	r calculate	r table	*P-Value* (Sig.)	Conclusion
10	X2.3	0.826	0.285	0.000	Valid
11	X2.4	0.784	0.285	0.000	Valid
12	X3.1	0.782	0.285	0.000	Valid
13	X3.2	0.860	0.285	0.000	Valid
14	X3.3	0.776	0.285	0.000	Valid
15	X3.4	0.733	0.285	0.000	Valid
16	X3.5	0.797	0.285	0.000	Valid
17	X3.6	0.843	0.285	0.000	Valid
18	X4.1	0.703	0.285	0.000	Valid
19	X4.2	0.738	0.285	0.000	Valid
20	X4.3	0.840	0.285	0.000	Valid
21	X4.4	0.835	0.285	0.000	Valid
22	X4.5	0.879	0.285	0.000	Valid

Based on Table 1 above, it shows that all indicators in variable X have a calculated r value greater than table r or a P-Value value smaller than α=0.05 which concludes the test results that all indicators in variable X are valid.

Table 2. Variable Y Validity Test Results

No	Variable	r calculate	r table	*P-Value* (Sig.)	Conclusion
1	Y1.1	0.899	0.285	0.000	Valid
2	Y1.2	0.855	0.285	0.000	Valid
3	Y1.3	0.899	0.285	0.000	Valid

Based on Table 2 above, it shows that all indicators in variable Y have a calculated r value greater than table r or a P-Value value smaller than α=0.05 which provides a conclusion from the test results that all indicators in variable Y are valid.

The results of the questionnaire reliability test using the SPSS Program can be seen in Table 3 below

Table 3. Questionnaire Reliability Test Results

Case Processing Summary

		N	%
Cases	Valid	48	100.0
	Excludeda	0	0.0
	Total	48	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.968	25

Based on Table 3 above, it shows that based on the answers of 48 respondents from 25 questionnaire question indicators, a Cronbach Alpha's score of 0.968 was obtained. Cronbach's Alpha value is greater than 0.7. These results show that the questionnaire that has been made is reliable and can be used in this study. The results of descriptive statistical analysis based on respondents' answers to all indicators were processed using the help of SmartPLS software and shown in Table 4 below:

Table 4. Respondent Results

Variable	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
X1.1	1	0	4.000	5	1	5	1.258	0.053	-1.101
X1.2	2	0	3.979	4	1	5	1.199	-0.209	-0.933
X1.3	3	0	4.000	4	1	5	1.061	-0.015	-0.865
X1.4	4	0	3.917	4	1	6	1.187	-0.152	-0.759
X1.5	5	0	3.792	4	1	5	1.136	0.17	-0.806
X1.6	6	0	3.958	4	1	5	1.172	-0.469	-0.879
X1.7	7	0	4.021	4	1	5	1.07	-0.038	-0.885
X2.1	9	0	3.979	5	1	5	1.315	-0.028	-1.096

X2.2	10	0	3.917	4	1	5	1.017	0.582	-1.054
X2.3	11	0	4.000	4	1	5	1.118	-0.531	-0.739
X2.4	12	0	3.917	4	1	5	1.222	-0.023	-0.968
X3.1	14	0	3.938	4	1	5	1.162	0.552	-1.108
X3.2	15	0	3.875	4	1	5	1.073	0.231	-0.787
X3.3	16	0	4.062	4	1	5	1.088	0.159	-1.03
X3.4	17	0	4.125	5	1	5	1.148	0.536	-1.192
X3.5	18	0	4.229	5	1	5	1.065	1.656	-1.442
X3.6	19	0	3.979	4	1	5	1.07	0.651	-1.01
X4.1	21	0	4.229	4	1	5	0.77	6.134	-1.843
X4.2	22	0	4.417	5	3	5	0.672	-0.519	-0.749
X4.3	23	0	4.417	5	2	5	0.702	1.533	-1.184
X4.4	24	0	3.938	4	1	5	1.144	0.767	-1.167
X4.5	25	0	4.146	4	1	5	0.841	2.41	-1.156
Y1.1	27	0	4.042	5	1	5	1.241	0.263	-1.162
Y1.2	28	0	3.979	4	1	5	1.145	-0.003	-0.903
Y1.3	29	0	4.000	5	1	5	1.242	0.095	-1.079

Based on Table 4 respondents rated the variable indicator with the lowest score between 1-3, the median ranged from 4-5, and the highest score was 5. Indicators X4.2 (Proximity of the implementing company's relationship with the supplier of dock work materials) and X4.3 (Proximity of the implementing company's relationship with the supplier of equipment owners) have the highest average score of 4.417. In contrast, the indicator X1.5 (Term of employment in 1 fiscal year) has the lowest average score of 3.792. In variable Y, the indicator Y1.1 (Low bid price if <80% HPS) has the highest average score of 4.042, while Y1.2 (Low bid price if the evaluation of price fairness by the Election Working Group) has the lowest score of 3.979. These results indicate respondents' agreement with factors affecting the low bid price, including the technical characteristics of the work, the financial characteristics of the work, the internal conditions of the executing company, and the external conditions of the company

Table 5. Outer loading results

Indicator	Low Bid Price (Y)	Financial Characteristics of the Job (X2)	Technical Characteristics of the Work (X1)	Company External Conditions (X4)	Internal Conditions of the Implementing Company (X3)
X1.1			0.892		
X1.2			0.882		
X1.3			0.702		
X1.4			0.781		
X1.5			0.868		
X1.6			0.785		
X1.7			0.859		
X2.1		0.845			
X2.2		0.722			
X2.3		0.821			
X2.4		0.802			
X3.1					0.775
X3.2					0.866
X3.3					0.777
X3.4					0.729
X3.5					0.801
X3.6					0.842
X4.1				0.714	
X4.2				0.763	
X4.3				0.867	
X4.4				0.787	
X4.5				0.877	

Indicator	Low Bid Price (Y)	Financial Characteristics of the Job (X2)	Technical Characteristics of the Work (X1)	Company External Conditions (X4)	Internal Conditions of the Implementing Company (X3)
Y1.1	0.894				
Y1.2	0.868				
Y1.3	0.891				

Table 5 above shows that the outer loading value is generated. Indicators on a variable that has an outer loading of less than 0.7 must be removed from the research model and reconstruct validity test analysis is carried out. The outer loading results obtained in Table 5 show that there is no outer loading value less than 0.7. Thus, indicators that can measure the variable to be measured have been declared constructively valid.

Table 6. Results of Construct Validity and Reliability Evaluation

Variable	*Cronbach's Alpha*	rho_A	*Composite Reliability*	*Average Variance Extracted* (AVE)
Low Bid Price (Y)	0.861	0.861	0.915	0.782
Financial Characteristics of the Job (X2)	0.811	0.825	0.876	0.638
Technical Characteristics of the Work (X1)	0.922	0.932	0.938	0.683
Company External Conditions (X4)	0.861	0.867	0.901	0.647
Internal Conditions of the Implementing Company (X3)	0.886	0.888	0.914	0.640

Table 6 above shows the results of construct reliability tests for each variable based on Cronbach's Alpha, rho_A, Composite Reliability, and AVE values according to the output results that have been processed using SmartPLS software. It was obtained that Cronbach's Alpha and rho_A values of all variables above 0.7, Composite Reliability of all variables above 0.7, and AVE of all variables above 0.5. H.The value of cross loading based on the results of analysis using the help of SmartPLS software is shown in Table 7 below:

Table 7. Cross Loading Values

	Low Bid Price (Y)	Financial Characteristics of the Job (X2)	Technical Characteristics of the Work (X1)	Company External Conditions (X4)	Internal Conditions of the Implementing Company (X3)
X1.1	0.774	0.701	0.892	0.660	0.733
X1.2	0.774	0.765	0.882	0.705	0.704
X1.3	0.578	0.467	0.702	0.634	0.564
X1.4	0.581	0.532	0.781	0.567	0.640
X1.5	0.826	0.754	0.868	0.792	0.776
X1.6	0.662	0.601	0.785	0.572	0.653
X1.7	0.767	0.689	0.859	0.704	0.669
X2.1	0.752	0.845	0.633	0.631	0.761
X2.2	0.561	0.722	0.419	0.496	0.519
X2.3	0.614	0.821	0.619	0.627	0.631
X2.4	0.792	0.802	0.799	0.719	0.676
X3.1	0.726	0.699	0.626	0.765	0.775
X3.2	0.793	0.695	0.712	0.705	0.866
X3.3	0.718	0.690	0.680	0.585	0.777
X3.4	0.728	0.688	0.697	0.658	0.729
X3.5	0.723	0.517	0.612	0.629	0.801
X3.6	0.740	0.641	0.617	0.772	0.842
X4.1	0.685	0.672	0.667	0.714	0.658
X4.2	0.617	0.493	0.599	0.763	0.663
X4.3	0.782	0.676	0.698	0.867	0.753
X4.4	0.656	0.597	0.563	0.787	0.657
X4.5	0.712	0.690	0.698	0.877	0.711

	Low Bid Price (Y)	Financial Characteristics of the Job (X2)	Technical Characteristics of the Work (X1)	Company External Conditions (X4)	Internal Conditions of the Implementing Company (X3)
Y1.1	0.894	0.756	0.726	0.794	0.821
Y1.2	0.868	0.786	0.795	0.786	0.847
Y1.3	0.891	0.751	0.777	0.708	0.780

Table 7 above shows the cross loading values for each indicator for all variables. Table 7 shows that the highest cross loading value for each indicator of something variable is measured. Thus, each indicator on all variables has met the discriminant validity test.

The R-Square value resulting from structural model testing shows the structural model's R-Square value to the low bid price (Y) of 0.909, indicating that 90.9% of low bid price variability is influenced by variables of technical characteristics of the work (X1), financial characteristics of the work (X2), internal conditions of the implementing company (X3), and external conditions of the company (X4). An adjusted R-Square of 0.900 confirms that 90.0% of low bid price variability is significantly influenced by variables in the model, including technical characteristics of the work, financial characteristics of the work, internal conditions of the executing company, and external conditions of the company. The evaluation criteria show that the research model has high substance, and an R-Square value above 0.5 signifies the acceptance of the model without multicollinearity problems, according to the classification of Chin (1996) in Sarwono (2016). The test results of the path coefficient are shown based on the results of data processing using SmartPLS software shown in Table 8 below:

The R-Square in the structural model to the low bid price (Y) is 0.909, indicating that 90.9% of the variability of the low bid price is influenced by the technical characteristics of the job (X1), the financial characteristics of the job (X2), the internal conditions of the executing company (X3), and the external conditions of the company (X4). A total of 9.1% variability was influenced by other factors that were not modeled. Adjusted R-Square (0.900) shows that 90.0% of low bid price variability is influenced by variables in the model that are significant, including the technical characteristics of the work, the financial characteristics of the work, the internal conditions of the executing company, and the external conditions of the company. The remaining 10.0% variability is influenced by other factors that are also significant. The criteria of R-Square and Adjusted R-Square values indicate that this model has high substance, with R-Square values above 0.5 reflecting the acceptance of the model without multicollinearity problems, according to the classification of Chin (1996) in Sarwono (2016). The statistical

hypothesis of testing the significance of the influence of path coefficients in this study is as follows:H0: No significant effect on the independent variable on the low bid price (Y)

H1: There is a significant influence on the independent variable on the low bid price (Y)

The results of the analysis reject H0 (P-Value < α), showing the significant influence of the financial characteristics of the work (X2) and the internal conditions of the implementing company (X3) on the low bid price (Y). The path coefficient shows a large and positive influence, with a P-Value of 0.000 < α = 0.05, confirming the significant contribution of all indicators. The highest coefficient X2 (Down payment up to 30%) 0.845 and X3 (The company's need to achieve sales/profit targets) is 0.866. This indicates a major influence, especially on down payments of up to 30% and the need to achieve sales/profit targets.

Model testing of each independent variable against the low bid price variable

Simultaneous testing of structural models has been carried out to determine the independent variables that affect the low bid price simultaneously. Testing the model of each independent variable on the low bid price variable in this study was carried out to determine the significant influence of each independent variable on the low bid price used in this study partially or separately.

Model testing of each variable Technical Characteristics of Implementation against the variable Low Bid Price

Table 8 Outer loading Test Results on the Model of the Effect of Technical Characteristics of Work (X1) on Low Bid Price (Y)

Indicator	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Results
X1.1 <- Technical Characteristics of the Work (X1)	0.892	0.889	0.036	24.736	0.000	Subtract H0
X1.2 <- Technical Characteristics of the Work (X1)	0.882	0.880	0.038	23.185	0.000	Subtract H0
X1.3 <- Technical Characteristics of the Work (X1)	0.702	0.700	0.112	6.247	0.000	Subtract H0
X1.4 <- Technical Characteristics of the Work (X1)	0.781	0.777	0.067	11.685	0.000	Subtract H0
X1.5 <- Technical Characteristics of	0.868	0.865	0.036	24.390	0.000	Subtract

Indicator	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Results
the Work (X1)						H0
X1.6 <- Technical Characteristics of the Work (X1)	0.785	0.780	0.069	11.339	0.000	Subtract H0
X1.7 <- Technical Characteristics of the Work (X1)	0.859	0.861	0.038	22.885	0.000	Subtract H0
Y1.1 <- Low Bid Price (Y)	0.889	0.883	0.040	22.002	0.000	Subtract H0
Y1.2 <- Low Bid Price (Y)	0.868	0.857	0.060	14.483	0.000	Subtract H0
Y1.3 <- Low Bid Price (Y)	0.896	0.894	0.037	23.983	0.000	Subtract H0

Based on the Outer Loading Test Results on the Model of the Effect of Technical Characteristics of Work (X1) on Low Bid Prices (Y), the outer loading value of all indicators that is more than 0.7 indicates that all indicators of the observed variables have been declared valid and can measure the variable to be measured. The results of the path coefficient on the technical characteristics of the work (X1) with a low bid price (Y) and the Test Results of the Line Coefficient on the Model of the Effect of Technical Characteristics of the Work (X1) on the Low Bid Price (Y) obtained a value of 0.868 which shows that the effect of the technical characteristics of the work on the low bid price (Y) separately is very large and has a positive relationship. The P-Value value in the result of this path coefficient is 0.000 which is smaller than the real level of 0.05 which indicates the decision of the statistical hypothesis in the form of H0 rejection. The decision of this statistical hypothesis concludes that there is a significant influence on the technical characteristics of the work (X1) on the low bid price (Y).

Based on the Table of Path Coefficient Test Results on the Model of the Effect of Financial Characteristics of Work (X2) on Low Bid Prices (Y), the outer loading value of all indicators that is more than 0.7 indicates that all indicators of the observed variables have been declared valid and can measure the variable to be measured. The results of the path coefficient on the financial characteristics of the work (X2) with a low bid price (Y) based on a value of 0.864 indicate that the catacteristic effect of job finance (X2) on the low bid price (Y) separately is very large and has a positive relationship.

In the context of the effect of the internal conditions of the executing company (X3) on the low bid price (Y), the resulting path coefficient of 0.924, indicates that the influence of the internal conditions of the executing company separately is very large and positive on the low bid price. This assessment is reinforced by a P-Value of 0.000, which is lower than the significance level of 0.05, resulting in a decision to reject the null hypothesis. The conclusion of the hypothesis test states that the internal conditions of the executing company (X3) have a significant influence on the formation of a low bid price (Y). Furthermore, testing the model for the company's external condition variable (X4) against the low bid price (Y), using SmartPLS software, produced valid data. All indicators of the company's external condition variables show outer loading values above 0.7, indicating validity in measuring the desired variable. The X4 path coefficient to Y of 0.865 gives an indication of a very large and positive influence. With a P-Value of 0.000, which is smaller than the significance level of 0.05, results in a decision to reject the null hypothesis. Therefore, it can be concluded that the external conditions of the company (X4) significantly affect the formation of a low bid price (Y).

CONCLUSION

In this study, it can be concluded that the internal condition factor of the implementing company has a significant influence on the low bid price, with the indicator of the implementing company's need to achieve the minimum sales/profit target in one year being the most dominant factor. Furthermore, factors of financial characteristics of work also exert a significant influence on low offer prices, where advances on work up to 30% are the most dominant indicator. Technical characteristics of work also contribute significantly to the low bid price, with clarity and completeness of technical documents for job tenders being the most dominant factor. In addition, the company's external conditions also have a significant influence on the low offer price, with socio-economic, cultural, community and officials around the job site as the most dominant factor even though it has the smallest influence compared to other factors.

BIBLIOGRAFI

AUTHORITY, I. R. (2021). *TENDER NAME: PROVISION OF ASSET VALUATION AND TAGGING SERVICES*.

Bradley, M. (1980). Interfirm tender offers and the market for corporate control. *Journal of Business*, 345–376.

Del Río, P., & Kiefer, C. P. (2023). Academic research on renewable electricity auctions: Taking stock and looking forward. *Energy Policy*, *173*, 113305.

Dewi, K. P., & Susetyo, B. (2022). ANALISIS PENGARUH PENAWARAN HARGA KONTRAKTOR TERHADAP HASIL KEWAJARAN HARGA METODE SEM-PLS PADA TENDER KONSTRUKSI PROYEK PEMERINTAH. *Journal of Syntax Literate*, *7*(7).

Fairley, N., Fernandez, V., Richard-Plouet, M., Guillot-Deudon, C., Walton, J., Smith, E., Flahaut, D., Greiner, M., Biesinger, M., & Tougaard, S. (2021). Systematic and collaborative approach to problem solving using X-ray photoelectron spectroscopy. *Applied Surface Science Advances*, *5*,

100112.

Jenkins, D. (2022). *Nature and Bureaucracy: The Wildness of Managed Landscapes*. Taylor & Francis.

Kou, P., & Shi, J. (2024). Dynamic evolution of China's government environmental regulation capability and its impact on the coupling coordinated development of the economy-environment. *Socio-Economic Planning Sciences*, *91*, 101785.

Kurniati, A., & Supriyatna, A. (2022). Efektivitas Konseling Kelompok Realitas Teknik Want, Direction, Evaluation dan Plant (WDEP) untuk Meningkatkan Tanggung Jawab Menyelesaikan Skripsi. *Jurnal Basicedu*, *6*(2), 1938–1946.

Mengist, W., Soromessa, T., & Legese, G. (2020). Method for conducting systematic literature review and meta-analysis for environmental science research. *MethodsX*, *7*, 100777.

Negara, D. S. (2022). Legal Protection Of Limited Liability Company To Reduced Price In The Procurement Law. *Baltic Journal of Law & Politics*, *15*(7), 7–13.

Oetomo[a], W., Moetriono[a], H., Witjaksana[a], B., & Reboono[a], S. (2015). *Factor analysis of delay project MERR-IIC road construction at Surabaya Indonesia*.

Olatunji, O. A., Ramanayaka, C. D. E., Rotimi, F. E., & Rotimi, J. O. B. (2023). Analysis of contractors' administrative characteristics in bid decision factors. *Engineering, Construction and Architectural Management*, *30*(6), 2420–2435.

Pakasi, N. C. (2019). Inspectorate Supervision in Applying Competitive Principles in Managing Procurement of Goods/Services in Government of North Sulawesi Province. *ACCOUNTABILITY*, *7*(02), 1–15.

Panayides, P. M., Lambertides, N., & Andreou, C. (2017). Reforming public port authorities through multiple concession agreements: The case of Cyprus. *Research in Transportation Business & Management*, *22*, 58–66.

Shaw, G., & Coles, T. (2004). Disability, holiday making and the tourism industry in the UK: a preliminary survey. *Tourism Management*, *25*(3), 397–403.

Shelton, B. (2018). Qualifications-Based Selection (QBS): best practice for architecture, engineering and construction management/general contractor procurement in Canada. *QBS, Canada*.

Smith, C. (2002). Auctions: The social construction of value. *Readings in Economic Sociology*, 112–132.

Subekan, A., & Iskandar, A. (2021). Philosophical Overview of the Relationship between Budget Users and the State General Treasurer in the Management of Financial State (Indonesia Experience). *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *4*(3), 4127–4137.

Sugianto, S., & Siagian, S. B. U. (2023). Governance Budget of The APBN Source Village in Order to Make a Rural Development in Nawa Cita Perspective. *Asian Journal of Engineering, Social and Health*, *2*(4), 289–300.

Tjan, I., Basalamah, M. S. A., & Sirat, A. H. (2023). Assessment of E-Procurement of Construction Products and Services. *Jurnal Manajemen Bisnis*, *10*(1), 206–220.

UNTOROYONO, U. U. N. T. R. I. (2012). *STUDI MENGENAI KOMPETISI PENAWARAN HARGA BORONGAN TIDAK WAJAR PADA BIDANG JASA KONTRUKSI*. UAJY.

Wu, Y., & Tham, J. (2023). The impact of environmental regulation, Environment, Social and Government Performance, and technological innovation on enterprise resilience under a green recovery. *Heliyon*, *9*(10).