The Relationship Below 80% of the Owner Estimate Price on Construction Projects to Project Performance

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Abstract

This study aims to analyze the causes of price quotes below 80% of the owner estimate price and how the relationship between the variable price quotes below 80% of the owner estimate price with project performance. This research was conducted by distributing questionnaires to service users involved in the implementation of projects with price quotes below 80% of the owner estimate price in Bali Province in the 2020-2022 fiscal year. The data from the distribution of questionnaires will be analyzed using the RII and SEM-PLS methods. Based on the RII data analysis, it is found that the dominant factors causing projects with price quotes below 80% of the owner estimate price are high competitiveness between service providers, service providers looking for small profits, service providers do not understand the basis of regulations related to the cost of taxes and required guarantees, service providers are unable to identify the risk of additional costs arising from the mismatch between the planned schedule and the realization and the factor that service providers are able to understand waste construction so that service providers can submit low bid prices. The relationship between price quotes below 80% of the owner estimate price and project performance has a positive and significant relationship. Price quotes as an independent variable are able to influence the dependent variable, namely project performance. Because price quotes below 80% of the owner estimate price and project performance have a positive and significant relationship, to improve project performance, namely in a way for service providers to think more about and take into account in detail before submitting a price quote so that during the implementation of project performance can be done optimally.

Keywords: Price, Owner Estimate Price, Project Performance

Introduction

The occurrence of the COVID-19 pandemic in various parts of the world including Indonesia has had an effect on the construction sector. COVID-19 is an infectious disease caused by the recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. COVID-19 is now a pandemic affecting many countries globally (Lu et al., 2020). All budget postures that have been allocated to each budget item have to be re-evaluated with the term re-focusing. Budget re-focusing is centralizing or refocusing the budget for activities that were not previously budgeted through budget changes (Indriyani and Sulistiyawati, 2021). The construction sector, which previously received a large budget posture, has experienced a drastic decline, which has an impact on the limited number of construction projects budgeted by the government sourced

from the State Budget (APBN) or Regional Budget (APBD), as a result the government is extra sorting out strategic and priority projects to be implemented.

The amount of DIPA budget value of the Ministry of PUPR in 2020 worth Rp. 120,200,000,000,000.00 (One Hundred Twenty Trillion Two Hundred Billion Rupiah) experienced a budget relocation of Rp. 44,580,000,000,000.00 (Forty Four Trillion Five Hundred Eighty Billion Rupiah) so that the DIPA Budget of the Ministry of PUPR became Rp. 75,630,000,000,000.00 (Seventy Five Trillion Six Hundred Thirty Billion Rupiah), with a remaining budget of \pm 62.92% of the initial budget causing many construction projects that are approaching the auction stage or already in the auction stage to be canceled (Kementrian PUPR RI, 2020). As an example of a case, it can be seen in the 2020 Badung Regency LPSE data that in Badung Regency out of 8 (eight) construction projects that have been auctioned, 6 (six) construction projects have been canceled.

LPSE is an electronic procurement service which is a real time system, this LPSE system is expected that the principles of LPSE can run and the main goal is to reduce the number of KKN (corruption, collusion, nepotism) can run properly (Pangaribuan et al., 2022). Limited construction projects organized by the government, resulting in increased competition between construction service providers in winning the auction. The phenomenon that occurs throughout Indonesia is that many construction service providers submit bids with a value below 80% of the owner estimate price in order to pursue the lowest price ranking at an auction. Owner Estimate Price is a calculation of the cost of goods / services in accordance with the conditions specified in the selection document for goods / services providers, calculated with expertise and based on data that can be accounted for (Agung et al., 2019).

In the period 2015 - 2019, the average percentage of the number of service providers who provided bids with a value < 80% of the owner estimate price was around 8.71% (Supriyatna et al., 2021). In 2020, this number rose sharply to 32% (Supriyatna and Sibuea, 2021). In this case, in accordance with Institutional Regulation Number 12 of 2021 concerning Guidelines for the Implementation of Government Procurement of Goods / Services Through Providers, if there is a price offers below 80% of the owner estimate price, a price reasonableness evaluation will be carried out provided that the service provider has passed the administrative and technical evaluation. With this provision, it is indirectly stated that offers below 80% of the owner estimate price show 80% of the owner estimate price will face greater risks to the work implementation stage, one of which affects how the construction project will perform (Pemerintah Republik Indonesia, 2021).

The limited cost budget will affect project performance related to cost management, quality accuracy and implementation time, if the service provider does not take good account of the project implementation, many risks arise resulting in poor project performance and the biggest risk is the termination of the contract. Project performance is an activity that can be defined as an activity that cannot be repeated, done in a certain period of time to get the results as expected. According to Junaidi (2012) in (Rochman and Wahyuni, 2017) control in construction projects generally involves three main aspects, namely, cost, quality and time. In the implementation of a construction project, a Cost Enggineer is needed, namely someone who is in charge of managing costs in the project.

The work done in the cost performance of construction projects is cost estimation, construction cost budgeting, cost control and construction cost accounting. To support cost performance in construction projects, these four things are things that must be fulfilled to run a construction project smoothly (Susanto, 2009). Quality performance is synonymous with the quality of the project, the Construction Industry Institute's (CII) in (Fandopa, 2012) defines quality in a narrow and limited sense meaning "conformance to specified

requirements". Quality is not defined as a degree of goodness. All requirements are set by the client in terms of budget, scope, schedule, and specifications. In time performance a project manager controls various activities at the project site, one important aspect that is monitored is time performance is the process of comparing actual work with the planned schedule (Istimawan Dipuhusodo, 1996 in (Susanto, 2009)). One of the problems that arose in the price offers below 80% of the owner estimate price was in the 2021 fiscal year in Buleleng Regency on the SP3 Road Improvement project. Tigawasa - Uma Sendi - Bingin Banjah there are problems, there the quality of quality complained about by the community and the non-completion of the construction project resulting in contract termination.

Based on these problems, this research will discuss the factors of price offers below 80% of the owner estimate which will be related to project performance. So that the results obtained in the future can anticipate the occurrence of price offers below 80% of the owner estimate. In accordance with the Regulation of the Minister of PUPR No.14 of 2020, the price offers below 80% of the owner estimate is an unreasonable price so that it is necessary to evaluate the reasonableness of the price during the auction (Kementerian PUPR RI, 2020).

Method

In this research using the RII (Relative Importance Index) method which is used to analyze the dominant factors of projects with price offers below 80% of the owner estimate and using the SEM-PLS method which is used to analyze how the relationship between the three variables. The variables in question are the independent variable, namely the price offers below 80% of the owner estimate price, the dependent variable, namely project performance.

RII (Relative Importance Index)

RII (Relative Importance Index) is a method of analyzing the most influential factors in the research object (Husin and Sustiawan, 2021). In addition, this analysis method is processed by statistical calculations with the results of the questionnaire as input which will later be processed into influential factors. RII determines the most influential factors with a ranking system based on the weight of the values given from respondents after filling out the questionnaire. The formula used is as follows:

$$RII = \Sigma W / (A \times N)$$

Details :

- RII = Relative Importance Index
- W = Weight (Range 1 until 5)
- A = High Weight
- N = Total of respondents

SEM-PLS (Structural Equation Model – Partial Least Square)

Partial Least Square or in short PLS is a component or variant-based Structural Equation Modeling (SEM) equation model. PLS was first publicly introduced by Herman Wold in 1974. According to Ghozali (2021) PLS is an alternative approach that shifts the covariance-based SEM approach to variant-based. Covariance-based SEM generally tests causality or theory models, while PLS is more of a predictive model. Partial Least Square (PLS) is a method based on the regression family introduced by Herman O.A Wold for the creation and construction of models and methods for the social sciences with a prediction-oriented approach. PLS assumes distribution-free research data, meaning that the research data does

not refer to one particular distribution (e.g. normal distribution). PLS is an alternative method to (SEM) that can be used to overcome the problem of the relationship between complex variables but the data sample size is small (30 to 100), considering that SEM has a minimum data sample size of 100 (Hair et al., 2010).

Results and Discussion

Research Hypothesis

In this study there are two variables that will be tested for the relationship. In this study there is an independent variable, namely the bid price below 80% OF THE OWNER ESTIMATE PRICE and the dependent variable, namely Project Performance. So the hypothesis of this research is that the hypotheses to be tested are offers below 80% of the owner's estimate price, which has a positive and significant effect on project performance. For the detail can be seen in the Figure 1.

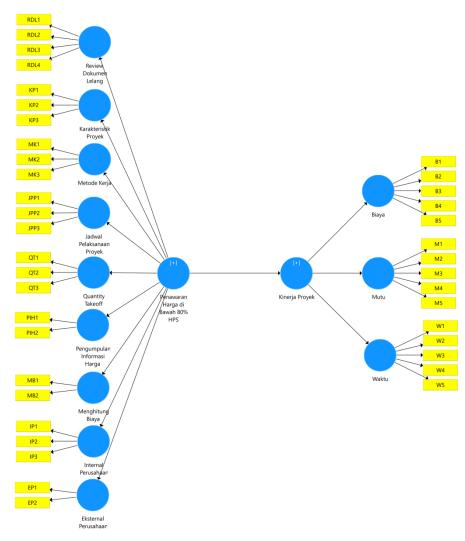


Figure 1. Hypotesis of Research

Validity

The validity test in this study uses a construct validity test with degree of feedom (df), namely 50 respondents minus 2 to 48, with a significant level (α) used is 5% (five percent), then the r (correlation) table is 0.284. The r (correlation) calculated value was obtained using

the IBM SPSS V.26 program. The results of the validity test can be seen in Table 1 and Table 2.

| | Offers Below 80% of The Owner Estimate Price | | | | | | | | |
|-----------|---|---------|-------|-----------|-------------|---------|-------|--|--|
| Statement | r Calculate | r Table | Desc. | Statement | r Calculate | r Table | Desc. | | |
| RDL1 | 0.784 | 0.284 | Valid | QT1 | 0.792 | 0.284 | Valid | | |
| RDL2 | 0.813 | 0.284 | Valid | QT2 | 0.828 | 0.284 | Valid | | |
| RDL3 | 0.789 | 0.284 | Valid | QT3 | 0.771 | 0.284 | Valid | | |
| RDL4 | 0.800 | 0.284 | Valid | PIH1 | 0.772 | 0.284 | Valid | | |
| KP1 | 0.680 | 0.284 | Valid | PIH2 | 0.648 | 0.284 | Valid | | |
| KP2 | 0.781 | 0.284 | Valid | MB1 | 0.798 | 0.284 | Valid | | |
| KP3 | 0.757 | 0.284 | Valid | MB2 | 0.699 | 0.284 | Valid | | |
| MK1 | 0.714 | 0.284 | Valid | IP1 | 0.784 | 0.284 | Valid | | |
| MK2 | 0.753 | 0.284 | Valid | IP2 | 0.791 | 0.284 | Valid | | |
| MK3 | 0.798 | 0.284 | Valid | IP3 | 0.795 | 0.284 | Valid | | |
| JPP1 | 0.686 | 0.284 | Valid | EP1 | 0.739 | 0.284 | Valid | | |
| JPP2 | 0.768 | 0.284 | Valid | EP2 | 0.733 | 0.284 | Valid | | |
| JPP3 | 0.805 | 0.284 | Valid | | | | | | |

Table 1. Indicator Validity Test of Offers Below 80% of The Owner Estimate Price

Source: Based on the outputs of the SPSS program.

Table 2. Indicator Validity Test of Project Performance

| Project Performance | | | | | | | | |
|---------------------|-------------|---------|-------|-----------|-------------|---------|-------|--|
| Statement | r Calculate | r Table | Desc. | Statement | r Calculate | r Table | Desc. | |
| B1 | 0.698 | 0.284 | Valid | M4 | 0.781 | 0.284 | Valid | |
| B2 | 0.717 | 0.284 | Valid | M5 | 0.778 | 0.284 | Valid | |
| B3 | 0.698 | 0.284 | Valid | W1 | 0.803 | 0.284 | Valid | |
| B4 | 0.730 | 0.284 | Valid | W2 | 0.795 | 0.284 | Valid | |
| B5 | 0.749 | 0.284 | Valid | W3 | 0.765 | 0.284 | Valid | |
| M1 | 0.772 | 0.284 | Valid | W4 | 0.789 | 0.284 | Valid | |
| M2 | 0.753 | 0.284 | Valid | W5 | 0.788 | 0.284 | Valid | |
| M3 | 0.773 | 0.284 | Valid | | | | | |

Source: Based on the outputs of the SPSS program.

In Table 1, Indicator Validity Test of Offers Below 80% of The Owner Estimate Price from 25 statements, the results for all 25 statements are valid. The results of the Project Performance Validity Test can be seen in Table 2 for the entire Statement of 15 Statements can be said to be valid, so that the whole can be used to the next stage, namely the Reliability Test.

Reliability

The reliability test on this questionnaire is used with the one shot method or measurement once and the results are compared with other statements or measure the correlation between answers. This test uses the Cronbach alpha (α) statistical test. A construct or variable is said to be reliable if it provides a Cronbach alpha (α) value> 0.70. The results of reliability testing using the IBM SPSS V.26 program can be seen in Table. 3.

| Offers Below 80% of The Price | Owner Estimate | Project Perform | nance | |
|----------------------------------|----------------|------------------|------------|--|
| Reliability | | Reliability | | |
| Cronbach's Alpha N of Items | | Cronbach's Alpha | N of Items | |
| 0.970 | 0.970 25 | | 15 | |

Table 3. Variable Reliability Test

Source: Based on the outputs of the SPSS program.

Based on the results of the Reliability Test which can be seen in Table 3, all variables have a value above 0.70, so the test results can be said to be reliable and can be continued for the analysis stages according to the method applied.

Dominant factors affecting Offers Below 80% of The Owner Estimate Price

The results of the research sourced from questionnaires after the RII (Relative Importance Index) analysis, it can be seen that the dominant factors affecting the Offers Below 80% of The Owner Estimate Price as in Table 4.

| Offers Below 80% of The Owner Estimate Price | | | | | | | | | | |
|--|-------------------------|----|----|---|---|-------------------|------|---|-------------|----|
| Statement | Respondent Score | | ΣW | Ν | Α | RII | Rank | | | |
| | 5 | 4 | 3 | 2 | 1 | 5n5+4n4+3 | | | $\Sigma W/$ | |
| | | | | | | $n_3 + 2n_2 + 1n$ | | | (AxN) | |
| EP1 | 5 | 30 | 12 | 3 | 0 | 187 | 50 | 5 | 0.748 | 1 |
| IP1 | 8 | 25 | 12 | 5 | 0 | 186 | 50 | 5 | 0.744 | 2 |
| RDL1 | 7 | 25 | 13 | 5 | 0 | 184 | 50 | 5 | 0.736 | 3 |
| JPP2 | 3 | 30 | 13 | 4 | 0 | 182 | 50 | 5 | 0.728 | 4 |
| QT3 | 4 | 25 | 18 | 3 | 0 | 180 | 50 | 5 | 0.720 | 5 |
| MK2 | 6 | 21 | 19 | 4 | 0 | 179 | 50 | 5 | 0.716 | 6 |
| MK1 | 7 | 23 | 11 | 9 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| EP2 | 4 | 23 | 20 | 3 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| PIH1 | 4 | 26 | 14 | 6 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| MK3 | 4 | 26 | 14 | 6 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| IP2 | 3 | 26 | 17 | 4 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| RDL4 | 1 | 33 | 9 | 7 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| KP1 | 5 | 24 | 15 | 6 | 0 | 178 | 50 | 5 | 0.712 | 7 |
| IP3 | 3 | 26 | 16 | 5 | 0 | 177 | 50 | 5 | 0.708 | 14 |
| MB2 | 3 | 24 | 20 | 3 | 0 | 177 | 50 | 5 | 0.708 | 14 |
| RDL2 | 2 | 30 | 11 | 7 | 0 | 177 | 50 | 5 | 0.708 | 14 |
| QT2 | 4 | 27 | 11 | 8 | 0 | 177 | 50 | 5 | 0.708 | 14 |
| JPK1 | 5 | 23 | 16 | 6 | 0 | 177 | 50 | 5 | 0.708 | 14 |
| PIH2 | 1 | 28 | 17 | 4 | 0 | 176 | 50 | 5 | 0.704 | 19 |
| KP3 | 3 | 26 | 14 | 7 | 0 | 175 | 50 | 5 | 0.700 | 20 |
| QT1 | 2 | 25 | 18 | 5 | 0 | 174 | 50 | 5 | 0.696 | 21 |
| RDL3 | 1 | 26 | 18 | 5 | 0 | 173 | 50 | 5 | 0.692 | 22 |
| MB1 | 2 | 26 | 14 | 8 | 0 | 172 | 50 | 5 | 0.688 | 23 |
| JPK3 | 1 | 22 | 21 | 6 | 0 | 168 | 50 | 5 | 0.672 | 24 |
| KP2 | 5 | 16 | 20 | 9 | 0 | 167 | 50 | 5 | 0.668 | 25 |

Table 4. RII Analysis of Factors affecting Offers Below 80% of The Owner Estimate Price

Source: Prepared by researchers based on the above sources

The dominant factor based on these results is the code EP1, IP1, RDL1, JPP2, and QT3 The description of the code in question can be seen in Table 6. Based on the level of importance in RII with the determination of $0.6 \le \text{RII} \le 0.8$ is categorized as High, and in the results obtained as a whole has an RII value above 0.6 and below 0.8 so that it is included in the High category.

Table 5. Results of RRI Analysis Based on the 5 Highest Rankings for Factors AffectingOffers Below 80% of the Owner Estimate Price.

| Code | Description |
|------|--|
| EP1 | The amount of construction projects is not proportional to the amount of service providers so the competitiveness is high. |
| IP1 | Service Providers seek a small profit to cover their operational costs. |
| RDL1 | The Service Provider is unable to describe the basic mechanism of |
| | government regulations related to costs such as taxes and required Bank |
| JPP2 | Service Providers are unable to identify risks that affect the duration of |
| | project work so that they are unable to calculate the costs incurred due to the |
| | duration of the work not in accordance with the plan schedule. |
| QT3 | Service Providers are able to understand waste construction |

Source: Prepared by researchers based on the above sources

The relationship of Offers Below 80% of The Owner Estimate Price to Project Performance

Indicator Reliability

The indicator reliability value is the correlation between each measurement item and the variable. This measure describes how well the item describes the variable measurement. According to Hair et al., (2021) and Henseler et al. (2009) the indicator reliability value \geq 0.708 is acceptable, and after testing the indicator reliability value, all variable tests have a value above 0.708 so that this research can proceed to the next stage. The results of testing the reliability value can be seen in Table 6.

| Offers Below 80% | Value | | Proje | | Value |
|-------------------|-------|-------|----------|----|-------|
| of The Owner | | | Perform | | |
| Review of Tender | RDL1 | 0.821 | Cost | B1 | 0.734 |
| Documents | RDL2 | 0.859 | | B2 | 0.725 |
| | RDL3 | 0.835 | | B3 | 0.746 |
| | RDL4 | 0.852 | | B4 | 0.786 |
| Project | KP1 | 0.736 | | B5 | 0.797 |
| Characteristics | KP2 | 0.889 | Quality | M1 | 0.796 |
| | KP3 | 0.832 | | M2 | 0.781 |
| Working Method | MK1 | 0.847 | | M3 | 0.837 |
| | MK2 | 0.824 | | M4 | 0.829 |
| | MK3 | 0.887 | | M5 | 0.803 |
| Project Execution | JPK1 | 0.778 | Schedule | W1 | 0.824 |
| Schedule | JPK2 | 0.860 | | W2 | 0.813 |
| | JPK3 | 0.873 | | W3 | 0.834 |
| Quantity Takeoff | QT1 | 0.885 | | W4 | 0.859 |
| | QT2 | 0.866 | | W5 | 0.819 |
| | QT3 | 0.867 | | | |

Table 6. Indicator Reliability Testing Results

| Price Information | PIH1 | 0.871 |
|-------------------|------|-------|
| Collecting | PIH2 | 0.814 |
| Calculating Costs | MB1 | 0.875 |
| | MB2 | 0.837 |
| Company Internal | IP1 | 0.836 |
| | IP2 | 0.844 |
| | IP3 | 0.893 |
| Company External | EP1 | 0.846 |
| | EP2 | 0.848 |

Source: Based on the outputs of the PLS program.

Internal Consistency Reliability and Convergent Validity

The value used to measure internal consistency reliability is the rhoA reliability coefficient value with a minimum value of 0.70 (or 0.60 in exploratory research) and the maximum is 0.95 (Hair et al., 2021). Testing the value of convergent validity can be seen from the AVE (average variance extracted) value, which is the average variation of each measurement item contained by the variable. How far the overall variable can explain the variation in measurement items. According to Hair et al. (2021) the AVE value ≥ 0.50 indicates that the average variance of the measurement items contained by the variable is above 50%. The results of the internal consistency reliability value and convergent validity can be seen in Table 7.

Table 7. Composite Reliability and Average Variance Extracted (AVE) Value

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|--|---------------------|-------|--------------------------|---|
| OFFERS BELOW 80% OF THE OWNER ESTIMATE PRICE | 0.940 | 0.941 | 0.942 | 0.585 |
| PROJECT PERFORMANCE | 0.948 | 0.949 | 0.953 | 0.578 |

Source : Based on the outputs of the PLS program.

Discriminant Validity

According to Hair et al. (2021) in a research it is more recommended to report discriminant validity using the HTMT method because it has a higher level of sensitivity than cross loading and square root AVE or Fornell Lacker Criterion. Based on this, this research uses the HTMT method which can be seen in Table 8. The recommended value is a value below 0.90. HTMT is the ratio of Heterotrait (average correlation between items measuring different variables) to the root of the geometric multiplication of Monotrait (correlation between items measuring the same variable).

| | OFFERS BELOW 80% OF THE OWNER ESTIMATE PRICE | PROJECT PERFORMANCE |
|-------------------------|---|------------------------|
| Offers Below 80% Of The | | |
| Owner Estimate Price | | |
| Project Performance | 0.630 | |

Structural Model Evaluation

Collinearity

The Inner Collinearity value in Table 10. obtained the results of the collinearity value between variables with a VIF value <3, so it can be concluded that there is no multicollinearity or low collinearity.

| | PROJECT PERFORMANCE |
|--|------------------------|
| Offers Below 80% Of The Owner Estimate Price | 1.000 |

Source: Based on the outputs of the PLS program.

Signifikansi (Two-Tailed) / Direct Effect Testing and Hypotesis Testing

To determine a hypothesis can be accepted or rejected, it can be done by observing the significance value between constructs t-statistics and p-values. If the p-value <0.05 and the t-statistic value> 1.96, the hypothesis is accepted (Hair et al., 2014). Of the three hypotheses, each relationship between variables has a p value <0.05 and a t-statistic value> 1.96 so that the hypothesis can be accepted. The results of direct effect testing can be seen in Table 10.

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/SYDEV) | P Values |
|--|---------------------------|--------------------|----------------------------------|-----------------------------|----------|
| Offers Below 80% of The Owner Estimate Price -> Project Performance | 0.606 | 0.596 | 0.097 | 6.279 | 0.000 |

Source: Based on the outputs of the PLS program.

R-Square

The R Square value is used to measure the level of variation in changes in the independent variable on the dependent variable. The higher the R^2 value, the better the prediction model of the proposed research model. According to Hair et al., (2021) this R Square value is in three classifications, namely R Square 0.75 (substantial influence), 0.50 (moderate influence), and 0.25 (weak influence). The R Square value of the research results can be seen in Table 11.

| | R square | R Square Adjusted |
|---------------------|----------|--------------------------|
| PROJECT PERFORMANCE | 0.367 | 0.354 |

Source: Based on the outputs of the PLS program.

In Table 11. it can be seen that the R Square Project Performance value is 0.367, which means that the variation in Project Performance can be explained by cost, quality and time by 36.7% while the remaining 63.3% is affected by other variables not included in this research. So it can be stated that the variation of Project Performance has a moderate impact because it is in the value range of 0.25 to 0.50.

Effect Size f²

The F square value illustrates how much the effect of the variables in the structural model is. Hair et al. (2021) interpret the f square value (0.02 =low effect), (0.15 = medium effect, and (0.35 = high effect). The results of the F Square value in this research is shown in Table 12.

| | PROJECT PERFORMANCE |
|---|------------------------|
| OFFERS BELOW 80% OF THE OWNER ESTIMATE PRICE | 0.581 |

Table 12. f² Value

Source: Based on the outputs of the PLS program.

In Table 12. it can be seen that the f square value of Offers Below 80% of the Owner Estimate Price to Project Performance worth 0.581 has a high effect in affecting Project Performance

Q^2 predictive relevance

Q Square is a measure that describes how well the model has predictive relevance. If Q square> 0 indicates that exogenous variables have predictive relevance to endogenous variables. Hair et al (2019) state that Q Square is worth 0.0.25, 0.50, then the Q square value is low, moderate and high in predictive accuracy. The results of the Q square predict value can be seen in Table. 13

Table 13. Q-Square Predict Value

| | SSO | SSE | Q ² (=1-SSE/SSO) |
|---------------------|---------|---------|-----------------------------|
| PROJECT PERFORMANCE | 750.000 | 596.698 | 0.204 |

Source : Based on the outputs of the PLS program.

The Q square value of Project Performance has a value> 0, indicating that the model has predictive relevance. Project Performance has a Q square value of 0.204, indicating a low predictive accuracy value category.

PLS Predict

The results of PLS Predict as in Table 14 can be seen that the RMSE value of the PLS model with indicator measurement items B1, B2, B3, B4, B5, M1, M2, M3, M4, M5, W1, W2, W3, W4, and W5, is lower than the LM model

Table 14 Comparison of RMSE and MAE of PLS Model with LM Model

| PLS Model | | | LM Model | | |
|-----------|-------|-------|----------|-------|-------|
| | RMSE | MAE | | RMSE | MAE |
| RDL1 | 0.537 | 0.389 | RDL1 | 0.000 | 0.000 |
| RDL2 | 0.468 | 0.373 | RDL2 | 0.000 | 0.000 |
| RDL3 | 0.440 | 0.376 | RDL3 | 0.000 | 0.000 |
| RDL4 | 0.467 | 0.375 | RDL4 | 0.000 | 0.000 |
| KP1 | 0.636 | 0.514 | KP1 | 0.000 | 0.000 |
| KP2 | 0.575 | 0.462 | KP2 | 0.000 | 0.000 |
| KP3 | 0.541 | 0.451 | KP3 | 0.000 | 0.000 |
| MK1 | 0.702 | 0.539 | MK1 | 0.000 | 0.000 |
| MK2 | 0.548 | 0.429 | MK2 | 0.000 | 0.000 |
| MK3 | 0.498 | 0.388 | MK3 | 0.000 | 0.000 |
| JPP1 | 0.632 | 0.513 | JPP1 | 0.000 | 0.000 |
| JPP2 | 0.470 | 0.356 | JPP2 | 0.000 | 0.000 |

| JPP3 | 0.438 | 0.402 | JPP3 | 0.000 | 0.000 |
|------|-------|-------|------|-------|-------|
| OT1 | 0.448 | 0.384 | OT1 | 0.000 | 0.000 |
| OT2 | 0.500 | 0.386 | OT2 | 0.000 | 0.000 |
| OT3 | 0.471 | 0.360 | OT3 | 0.000 | 0.000 |
| PIH1 | 0.534 | 0.423 | PIH1 | 0.000 | 0.000 |
| PIH2 | 0.533 | 0.448 | PIH2 | 0.000 | 0.000 |
| MB1 | 0.502 | 0.419 | MB1 | 0.000 | 0.000 |
| MB2 | 0.517 | 0.439 | MB2 | 0.000 | 0.000 |
| IP1 | 0.503 | 0.420 | IP1 | 0.000 | 0.000 |
| IP2 | 0.454 | 0.361 | IP2 | 0.000 | 0.000 |
| IP3 | 0.469 | 0.369 | IP3 | 0.000 | 0.000 |
| EP1 | 0.503 | 0.365 | EP1 | 0.000 | 0.000 |
| EP2 | 0.511 | 0.395 | EP2 | 0.000 | 0.000 |
| B1 | 0.737 | 0.576 | B1 | 1.440 | 1.060 |
| B2 | 0.755 | 0.597 | B2 | 1.181 | 0.946 |
| B3 | 0.679 | 0.543 | B3 | 1.288 | 1.018 |
| B4 | 0.658 | 0.475 | B4 | 1.217 | 0.937 |
| B5 | 0.778 | 0.623 | B5 | 1.478 | 1.125 |
| M1 | 0.796 | 0.579 | M1 | 1.384 | 1.059 |
| M2 | 0.731 | 0.587 | M2 | 1.286 | 1.029 |
| M3 | 0.843 | 0.654 | M3 | 1.374 | 1.041 |
| M4 | 0.819 | 0.649 | M4 | 1.483 | 1.149 |
| M5 | 0.672 | 0.507 | M5 | 1.108 | 0.876 |
| W1 | 0.775 | 0.603 | W1 | 1.512 | 1.215 |
| W2 | 0.651 | 0.484 | W2 | 1.372 | 0.983 |
| W3 | 0.539 | 0.391 | W3 | 0.999 | 0.747 |
| W4 | 0.748 | 0.559 | W4 | 1.369 | 1.104 |
| W5 | 0.733 | 0.517 | W5 | 1.338 | 1.035 |

Source: Based on the outputs of the PLS program.

In the results of the MAE value of the PLS model with indicator measurement items B1, B2, B3, B4, B5, M1, M2, M3, M4, M5, W1, W2, W3, W4, and W5 are lower than the LM model.

Based on this, most indicators (25 out of 40 indicators) the RMSE and MAE values in the PLS model are lower than the liner regression model (LM), so the model in this study shows that it has low predictive power.

Conclusion

Based on the results of the analysis of research data in accordance with the methods used, the conclusions that can be obtained are the dominant factors that affect Offers Below 80% of the Owner Estimate Price, which are from the factor that the total amount of construction projects is not proportional to the amount of service providers so that competitiveness becomes high, the service provider factor seeks small profits to cover company operating costs, the service provider is unable to describe the basic mechanisms of government regulations related to tax costs and required Bank / Insurance guarantees, the service provider unable to identify the risk of the relationship between time and cost effects and also factor the service provider is able to understand waste construction. The relationship between Offers Below 80% of the Owner Estimate Price and Project Performance, the relationship has a positive and significant effect. This means that the higher the effect variable, the higher the value of the affected variable, and vice versa. In the end the main focus is seeks to prevent construction projects with offers below 80% of the owner estiamte price, that way the project performance of existing projects will be better and doesn't have many problems.

Suggestions

The suggestions that can be conveyed based on the conclusions in this research are for readers, the general public with this research is expected to help the government to supervise projects and support informally to service providers so that the results of the project can be properly used by the community in accordance with the specified output. For academics, it is advisable to review in more detail in collaboration with the government related to Offers Below 80% of the Owner Estimate Price so that the quality of projects specifically in Bali Province has good quality. For the Government, in order to be able to review related to the procurement of goods and services regulations because the existence of Offers Below 80% of the Owner Estimate Price can damage market prices and project quality. Even though the price reasonableness evaluation has been implemented related to Offers Below 80% of the Owner Estimate Price, in reality many service providers have passed this stage so that it needs to be re-evaluated regarding the SOP for evaluating the reasonableness of the price. For Service Providers, it is hoped that this research can be the main concentration before submitting a low price offer, because this will have an impact on the sustainability of the construction project, many problems arise and can reduce the level of Project Performance. Another suggestion is that service providers are also expected not to depend on projects organized by the government, but can also move in the private sector such as the development of tourism areas, housing and others.

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