



Customer's Decision-Making in Selecting Construction Contractors in Oudomxay Province

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Abstract

The research objectives were to 1) determine the relative importance of contractor procurement factors, 2) examine the stages of the customer decision-making process, and 3) analyze the statistical correlation between these variables. A structured questionnaire was administered with 120 customers, selected using a convenience sampling method. Data were analyzed using SPSS version 25, employing descriptive statistics such as: frequency, percentage, mean, standard deviation, and inferential statistics through Pearson's correlation coefficient.

The findings indicate that 1) contractor procurement factors including experience, project management expertise, volume of work under responsibility, education of key personnel, and technical construction expertise were rated at a good level. 2) The customer decision-making process was rated from good to excellent, with "defining the problem" identified as the most critical stage. 3) Pearson correlation analysis showed a statistically significant high-level correlation ($r = 0.611-0.800$, $p < 0.01$) between contractor procurement factors and customer decision-making, confirming that improvements in contractor capability positively influence customer selection decisions. The use of a non-probability sampling method limits the generalizability of these results. **Keywords:** *Customer Decision-Making, Contractor Procurement, Construction Contractors, Oudomxay Province Lao PDR*

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1. Introduction

The construction contracting industry plays a vital role in national and local economic development by generating employment, stimulating related business activities, and contributing to

improvements in living standards. In residential construction, the selection of an appropriate construction contractor is a critical decision for homeowners and private clients, as it directly affects construction quality, cost efficiency, project

duration, and overall customer satisfaction. Inappropriate contractor selection often results in project delays, cost overruns, safety issues, non-compliance with technical standards, and the use of substandard materials (Pilcher, 1992; Watt et al., 2009).

In recent years, Oudomxay Province has experienced rapid growth in residential construction driven by population growth, urban expansion, and increasing household income levels. Provincial records indicate that 632 residential buildings were constructed in 2024, while only 99 projects obtained official construction permits. This rapid expansion reflects the growing demand for construction services but also raises concerns regarding contractor performance and service quality. Similar service-related problems, including contractor irresponsibility, delays, and failure to comply with agreed standards, have been reported in previous studies conducted in the Lao context (Manevong et al., 2020; Sisomephone et al., 2025).

Contractor selection is not solely a price-based decision. Previous research highlights that customers consider multiple factors such as technical expertise, project management capability, work experience, workload capacity, and the qualifications of key personnel when selecting contractors (Jennings & Holt, 1998; Watt et al., 2009; Pinkaew et al., 2012). These factors influence customers' perceptions of contractor reliability, competence, and construction risk. Furthermore, decision-making theory suggests that customers follow a structured process that

includes problem recognition, evaluation of alternatives, and final selection based on perceived benefits and constraints (Plunkett & Attner, 1996; Kulcholee, 2010 and Fleishman & Bartlett, 1969).

Although contractor selection has been widely studied in international contexts, empirical research focusing on customer decision-making in residential construction at the provincial level in Lao PDR remains limited. Existing studies published in the Souphanouvong University Journal of Multidisciplinary Research and Development have mainly emphasized consumer decision-making in service and marketing sectors, such as financial services and hospitality (Sisomephone et al., 2025; Vannathy et al., 2025), while studies related to construction contractor selection remain scarce.

Therefore, this study aims to investigate customer decision-making in selecting construction contractors in Oudomxay Province.

Specifically, the objectives of the study are to 1) examine the level of factors influencing contractor procurement, 2) examine the stages of the customer decision-making process, and 3) analyze the statistical correlation between these variables.

2. Materials and Methods

2.1 Research Methods

This study employed a survey research design using a quantitative approach to customer's decision-making in selecting construction contractors in Oudomxay Province, Lao PDR, Based on the theory of Sisomephone et al. (2025) & Vannathy et al. (2025).

2.2 Sampling

The study Sampling consisted of individuals who received construction permits from the Department of Public Works and Transport of Oudomxay Province in 2024. Due to accessibility constraints, convenience sampling was applied, consistent with previous studies in Lao and regional contexts (Sisomephone et al., 2025). Therefore, the sample size for this study consisted of 120 participants.

2.3 Research instrument

Primary data were collected through structured questionnaires distributed to individuals who received construction permits from the Department of Public Works and Transport, Oudomxay Province, in 2024. The questionnaire consisted of four parts: general demographic information, factors related to contractor selection, decision-making processes, and open-ended questions (Manevong et al., 2020; Kulcholee, 2010).

Secondary data were obtained from relevant textbooks, academic journals, previous research studies, and online sources related to construction management and consumer decision-making (Alarcón & Mourgues, 2002; Jennings & Holt, 1998; Manevong et al., 2020). These sources were used to support the conceptual framework and interpretation of results.

The research instrument was tested for content validity by experts and for reliability using Cronbach's Alpha coefficient, which yielded a value of 0.871, indicating a high level of internal

consistency (Sisomephone et al., 2025; Vannathy et al., 2025).

2.4 Data Analysis

Data were analyzed using SPSS Program to descriptive statistics to explain respondents' characteristics by calculating the mean and standard deviation and inferential statistics to using multiple regression analysis to examine the influence of contractor-related factors such as experience, expertise, human resources, technical capability, and management on customers' selection decisions (Piharn, 2018; Watt et al., 2009).

3. Results

3.1 To examine the level of factors influencing contractor procurement

The mean scores and standard deviations for five contractor procurement factors as perceived by respondents. Overall, respondents rated contractor procurement at a good level (Mean = 3.93, SD = 0.74), reflecting that multiple contractor attributes are important in residential construction decision-making.

Among the factors, Technical Construction Expertise received the highest rating (Mean = 4.03, SD = 0.87), indicating that respondents prioritize contractors' technical proficiency, ability to meet construction standards, and familiarity with modern tools and methods. Education of Key Personnel received the lowest rating (Mean = 3.85), though it was still considered good, suggesting that while professional qualifications are important, practical skills and experience are more influential.

3.2 To Study Customer Decision-Making Process

Summarizes respondents' evaluations of the customer decision-making process. Overall, the process was rated at a good level (Mean = 3.98, SD = 0.63), suggesting that respondents follow a structured and deliberate approach when selecting contractors.

The highest-rated stage was Define the Problem (Mean = 4.26, SD = 0.51), highlighting that customers emphasize the importance of clearly identifying construction needs, project scope, and constraints before evaluating contractors. The lowest-rated stages were Analyze the Alternatives and Select the Best Alternative (Mean = 3.81, SD = 0.72), indicating that while respondents consider multiple options, they tend to rely more heavily on initial problem definition and contractor capabilities.

3.3 Correlation Analysis

Pearson's correlation analysis was conducted to examine the relationships between the five contractor procurement factors and customer decision-making in selecting construction contractors in Oudomxay Province. The results indicate that all five factors were positively and significantly correlated with customer decision-making, with correlation coefficients ranging from 0.611 to 0.800 ($p < 0.01$).

These results demonstrate strong positive relationships between contractor procurement factors such as experience, project management expertise, technical capability, and workload management and the decision-making process. In other words,

improvements in contractor competence, experience, and technical proficiency are directly associated with higher customer confidence and more informed selection decisions.

4. Discussion

The findings of this study indicate that customers in Oudomxay Province consistently assign high importance to contractor procurement factors, with technical construction expertise receiving the highest rating. This result aligns with prior research emphasizing Phiharn (2018) the critical role of technical competency in ensuring construction quality, minimizing project errors, and enhancing overall project performance. These findings are consistent with previous research emphasizing that technical skills, prior experience, and managerial competence are key determinants in contractor selection (Alarcón & Mourgues, 2002; Phiharn, 2018; Pinkaew et al., 2012).

The customer decision-making process was also rated at a good level, with "Defining the Problem" emerging as the most important stage. This finding confirms that customers initiate contractor selection by clearly identifying construction needs, project constraints, and expectations, which is consistent with models of rational decision-making in residential construction (Kotler & Keller, 2016). This pattern is consistent with structured decision-making models, which underscore problem identification as a critical determinant of effective customer decision-making (Kulcholee, 2010; Jennings & Holt, 1998).

Inconsistency with Previous Studies the current study observed strong positive correlations between contractor procurement factors and customer decision-making ($r = 0.64-0.80, p < 0.01$). In contrast, Phiharn (2018) reported low-level correlations in a similar study conducted in Songkhla Province, Thailand. Several factors may account for this discrepancy: Different populations: This study focuses on Oudomxay Province, Lao PDR, whereas Phiharn (2018) examined a population in Songkhla Province, Thailand, where customer behavior and contractor markets differ. Economic and construction context differences: Oudomxay is experiencing rapid development, which may increase the perceived importance of technical expertise and project management capabilities. Measurement tools and variable definitions: Contractor procurement factors may have been conceptualized or operationalized differently across studies. Cultural and market structure differences: Lao homeowners may rely more heavily on contractor attributes due to fewer formal regulatory systems or quality assurance mechanisms. Given these contextual differences, it is reasonable that the current study finds stronger relationships between contractor procurement factors and customer decision-making. This finding aligns with previous studies highlighting the significant influence of contractor experience, technical expertise, and management capability on customer selection behavior (Watt, 2009; Alarcón & Mourgues, 2002; Kosol & Jungsuwaree, 2008).

5. Conclusion

Overall, respondents rated contractor procurement at a good level, reflecting that multiple contractor attributes are important in residential construction decision-making.

Summarizes respondents' evaluations of the customer decision-making process. Overall, the process was rated at a good level, suggesting that respondents follow a structured and deliberate approach when selecting contractors.

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6. Conflict of Interest

We certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

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Table 1. Mean and Standard Deviation of Contractor Procurement Factors

No.	Contractor Procurement	(N)	Mean	Standard Deviation	Level importance
1	Experience	120	3.86	0.81	good
2	Expertise in Project Management	120	3.89	0.75	good
3	Volume of Work Under Responsibility	120	4.01	0.80	good
4	Education of Key Personnel	120	3.85	0.75	good
5	Technical Construction Expertise	120	4.03	0.87	good
	Average	120	3.93	0.74	good

Table 2. Mean and Standard Deviation of Customer Decision-Making Process

No.	The process of decision-making	(N)	Mean	Standard Deviation	Level importance
1	Define the problem	120	4.26	0.74	Excellent
2	Identify limiting factors	120	4.05	0.77	good
3	Analyze the alternatives	120	3.81	0.73	good
4	Select the best alternative	120	3.81	0.73	good
	Average	120	3.98	0.63	good

Table 3. Pearson Correlation between Contractor Procurement Factors and Customer Decision-Making

Pearson Correlations						
	X1	X2	X3	X4	X5	Y
X1	1.00	0.800**	0.600**	0.770**	0.644**	
X2		1.00	0.748**	0.738**	0.740**	
X3			1.00	0.710**	0.778**	
X4				1.00	0.789**	
X5					1.00	0.611**
Y						1.00

Notes:

- **X1** = Experience, **X2** = Project Management Expertise, **X3** = Volume of Work Responsibility, **X4** = Education of Key Personnel, **X5** = Technical Construction Expertise, **Y** = Customer Decision-Making
- **p < 0.01 (2-tailed)** indicates statistical significance

Table 4. Policy and Practical Implications for Contractor Procurement Factors

Contractor Procurement Factor	Practical Implications for Contractors	Implications for Customers	Implications for Authorities / Policy
Experience	Highlight previous project experience in marketing and client communication; provide case studies of successfully completed projects	Consider contractors' prior project experience when selecting contractors	Encourage transparency in contractor portfolios and verification of completed projects
Project Management Expertise	Strengthen planning, scheduling, cost control, and supervision; provide project management training	Evaluate contractors' planning and management capabilities	Support training programs and certification in construction project management
Volume of Work Under Responsibility	Avoid overcommitting to multiple projects; ensure adequate resources are available	Assess contractors' workload before hiring	Monitor contractor capacity to prevent overloading and ensure quality standards
Education of Key Personnel	Ensure engineers, technicians, and supervisors have relevant qualifications; provide continuous professional development	Consider staff qualifications as a supporting factor	Promote professional certification programs and educational standards for key personnel
Technical Construction Expertise	Invest in technical skills development; adopt modern tools, machinery, and construction methods; demonstrate quality standards	Prioritize contractors with strong technical skills for quality assurance	Facilitate technical training and certification programs; establish guidelines for construction quality