



Strategies for Creating Competitive Advantage: A Case Study of Kading Xay Engineering Construction in Oudomxay Province

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Abstract

This study aims to 1) examine the competitive strategies of Kading Xay Engineering Construction and Architecture Survey-Design Sole Co., Ltd.; and 2) explore strategic approaches to further enhance the company's competitive advantage. Through SWOT analysis based on in-depth interviews with four key company personnel, the research identifies the firm's strategic position within the growing construction sector.

1) The research findings revealed that: Key strengths include proficient project management systems and technical expertise, though challenges exist in standardizing certain operational procedures. The company operates in a favorable environment characterized by infrastructure expansion and government investment policies, while facing threats from increasing market competition and economic volatility.

2) Strategic recommendations emphasize quality enhancement, technological adoption (AI-BIM-Drone integration), service differentiation, and sustainable business expansion. The study contributes practical insights for construction firms in emerging markets seeking to establish competitive advantages.

Keywords: *Competitive Advantage, Case Study, Construction Industry, SWOT Analysis, Oudomxay Province*

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Article Info:

Submitted: March 25, 2026

Revised: April 15, 2026

Accepted: April 30, 2026

1. Introduction

Porter's competitive strategy framework identifies two fundamental paths to competitive advantage: cost leadership and differentiation (Porter, 1998). Cost leadership requires operational efficiency enabling firms to offer lower prices while maintaining profitability. Differentiation involves creating unique value through superior quality, service, or innovation that justifies premium pricing.

First, competitive advantage enables organizations to differentiate themselves from competitors. According to Porter (1985), firms can achieve competitive advantage through cost leadership, differentiation, or focus strategies. These strategic positions allow organizations to offer unique value or lower costs, which attract and retain customers. Second, it plays a crucial role in enhancing organizational performance. Firms with strong competitive strategies are more likely to improve profitability, market share, and operational

efficiency. As noted by Barney (1991), sustainable competitive advantage arises from valuable, rare, inimitable, and non-substitutable (VRIN) resources, which directly contribute to superior firm performance. Third, competitive strategies help organizations adapt to environmental changes. In dynamic markets, businesses must respond to technological advancements, customer preferences, and competitive pressures. Strategic management allows firms to anticipate changes and maintain their competitive position (Johnson & Whittington, 2008). Moreover, creating competitive advantage is vital for customer satisfaction and loyalty. Organizations that provide superior value, quality, or innovation are more likely to build long-term relationships with customers, which leads to repeat purchases and positive word-of-mouth (Kotler & Keller, 2016).

In construction industries, competitive advantage often derives from project management capabilities, technical expertise, quality reputation,

and client relationships (Robbins & Coulter, 2002). Firms must align their strategic choices with market requirements and organizational capabilities to achieve sustainable performance advantages.

Research on construction contractor competitiveness emphasizes the importance of differentiation strategies. Kunudom (2021) found that aluminum glass contractors in Bangkok achieved competitive advantages through product differentiation (structural design quality, performance standards, warranty terms) and service differentiation (online ordering, guaranteed delivery schedules, technical consultation). These findings suggest that construction firms can compete effectively by offering distinctive value propositions rather than competing solely on price.

SWOT analysis provides a systematic framework for evaluating organizational capabilities and environmental conditions (Hill & Jones, 2004). The technique examines internal strengths and weaknesses alongside external opportunities and threats, enabling managers to identify critical strategic issues and formulate appropriate responses. In the construction industry, SWOT analysis helps firms assess their competitive position relative to project requirements, market demands, and competitor capabilities.

Internal analysis examines organizational resources, capabilities, and limitations. Strengths may include technical expertise, financial stability, management systems, and reputation, while weaknesses encompass operational inefficiencies, resource constraints, or capability gaps. External analysis considers market opportunities arising from industry growth, technological advances, or policy changes, along with threats from competition, economic conditions, or regulatory shifts (Wheelen & Hunger, 2008).

Rapid economic development in the region particularly in the People's Republic of China, Vietnam, and Thailand has significantly stimulated production, investment, trade, and the emergence of modern service sectors. This growth has led to an increase in the volume of goods and passenger flows, creating important opportunities for Oudomxay Province, which possesses strong geographic potential as a central hub surrounded by major regional markets and the northern provinces of Lao

PDR. Leveraging this potential, efforts to compete for both domestic and international investment including financial assistance from international financial institutions and private sector investment have been directed toward the protection and development of infrastructure. This includes upgrading road networks to meet ASEAN standards. Notable projects include the development of National Road No. 2 (2E–2W), the Phase IV expressway (Muang Xay to Boten), the urban flood risk reduction project in Muang Xay Municipality, and several rural road development initiatives. These projects emphasize the enhancement of transport services to strengthen connectivity and transit functions, ensuring convenience and safety along transportation corridors. Infrastructure improvements and construction over the past five years have established a solid foundation for advancing development in line with broader strategic directions. These efforts aim to enhance the quality and efficiency of transport and logistics services in Oudomxay Province. In particular, the Laos - China Railway serves as a key driver for attracting investment along the Laos–China economic corridor, as well as the North–South and East–West economic corridors linking Laos with Vietnam and Thailand, thereby maximizing benefits for the province. Such developments have facilitated investment across various sectors, including industrial manufacturing, agro-processing, tourism development, public services, and the promotion of commercialized agriculture. Collectively, these factors have contributed to improved economic performance in the province and enhanced the livelihoods of local residents. They have also created favorable conditions for the successful implementation of the most recent five-year development plan of the Department of Public Works and Transport. Furthermore, Oudomxay Province has recorded 632 approved residential construction permits issued by local government authorities (Department of Public Works and Transport of Oudomxay Province, 2024).

In recent years, Kading Xay Engineering Construction in Oudomxay Province has encountered increasing competition from both domestic and international firms entering the market to secure construction projects. This intensifying competition has made the creation of competitive advantage

critically important. However, the company's strategic direction has, in some aspects, remained unclear, particularly in relation to quality development, service enhancement, and the effective adoption of technology to outperform competitors. Moreover, many firms within the industry continue to offer similar service models, making it challenging to establish clear differentiation and unique market positioning. Finally, fluctuations in investment policies and broader economic conditions may also pose significant risks, potentially affecting business opportunities and long-term sustainability (Kading Xay Engineering Construction in Oudomxay Province, 2025).

Research purpose aim to 1) examine the competitive strategies of Kading Xay Engineering Construction and Architecture Survey-Design Sole Co., Ltd.; and 2) Strategic Approaches for Competitive Advantage.

2. Materials and Methods

2.1 Research Design

This qualitative case study employs in-depth interviews and document analysis to examine competitive strategies at Kading Xay Engineering Construction. The research design follows established protocols for qualitative business research (Cresswell, 2009), using structured interviews to gather detailed insights from key organizational decision-makers.

The statistical model, classes, blocks, and experimental unit must be designated. Any restrictions used in estimating parameters should be defined (Porter, 1980).

2.2 Participants and Sampling

Four key informants participated in this study, selected through purposive sampling based on their strategic roles and comprehensive knowledge of company operations:

- Company Owner (strategic oversight and business development)
- Head of Administration Department (organizational management)
- Head of Marketing Department (market analysis and client relations)
- Head of Design and Construction Department (technical operations)

2.3 Data Collection

Semi-structured interviews ranging from 30 to 45 minutes explored three main themes:

1. Current competitive position (strengths, weaknesses, opportunities, threats)
2. Strategic approaches for future competitive advantage
3. Implementation recommendations

Interviews were audio-recorded and transcribed for analysis. Document review included company reports, project records, and industry statistics to triangulate interview findings.

2.4 Data Analysis

Analysis followed systematic qualitative procedures:

1. Transcription of recorded interviews
2. Coding and categorization using SWOT framework
3. Identification of themes and patterns across informant responses
4. Triangulation with documentary evidence
5. Synthesis of strategic recommendations

Where informants provided differing assessments of organizational capabilities, the analysis examined contextual factors explaining these perspectives rather than treating them as contradictions. For instance, assessments of project management effectiveness varied between strategic and operational viewpoints, reflecting different performance criteria (Porter, 2008).

3. Results

3.1 Examine the competitive strategies

The SWOT analysis revealed the following examine the competitive strategies for Kading Xay Engineering Construction:

1). Strengths

Technical and Management Capabilities.

The company possesses experienced engineers, architects, and project managers with proven expertise in construction execution. Technology adoption includes Building Information Modeling (BIM) and digital progress tracking systems. Project planning incorporates risk assessment, scheduling, and continuous monitoring protocols.

Quality and Safety Standards. Quality management emphasizes work inspection, material warranties, and construction standard compliance. Safety protocols follow industry standards for

accident prevention. These systems contribute to the company's reputation for reliable project delivery.

Stakeholder Relationships. Strong coordination exists with clients, suppliers, and subcontractors. The company maintains good communication channels and provides after-sales service. Market analysis capabilities enable adaptation to customer needs and emerging trends.

Financial Position. While the company maintains adequate working capital and bank credit access for project participation, financial management systems show some implementation gaps between policy and practice at operational levels.

2). Weaknesses

Operational Consistency. Although the company has established management systems, their consistent application across all project sites remains a challenge. This creates variation in project control effectiveness, particularly in coordinating subcontractor activities.

Information Systems. Current information technology infrastructure requires modernization to support growing operations and data-driven decision-making.

Quality Standardization. While quality systems exist, ensuring uniform standards across diverse project types and locations requires continued attention, particularly regarding material specifications and construction techniques.

3). Opportunities

Market Expansion. Infrastructure development continues throughout the region, creating sustained project demand. Government investment policies support construction sector growth. Opportunities exist for international partnerships with foreign companies and development organizations.

Service Evolution. Client expectations increasingly favor comprehensive project management covering the entire construction lifecycle. This preference aligns with the company's integrated service capabilities.

Technology Integration. Emerging construction technologies (AI, advanced BIM, drone surveying) present opportunities for differentiation and efficiency improvements. Early adoption could

establish competitive advantages before market saturation.

4). Threats

Competitive Pressure. Market entry by new competitors, including foreign contractors with substantial resources, intensifies competition. Product and service commoditization reduces differentiation opportunities.

Economic Volatility. Economic fluctuations affect project funding and material costs. Policy changes in trade or construction regulations may impact operations.

Resource Constraints. Skilled labor shortages present ongoing challenges. Technological advances require continuous adaptation and investment.

Market Dynamics. Evolving customer preferences and service delivery expectations require responsive organizational adaptation.

3.2 Strategic Approaches for Competitive Advantage

Based on the competitive analysis, informants identified seven strategic priorities for developing sustainable competitive advantages:

1). Strategic Vision Refinement. Articulate a clear organizational vision aligned with market opportunities and capabilities. Develop strategic management processes linking vision to operational decisions.

2). Quality and Technical Standards Enhancement. Establish comprehensive quality management systems ensuring consistent standards across all projects. Invest in technical training and certification for engineering staff.

3). Service Differentiation. Develop distinctive service offerings that competitors cannot easily replicate. This may include specialized construction methods, extended warranties, comprehensive maintenance programs, or innovative project delivery models.

4). Technology Investment. Adopt advanced construction technologies including AI-integrated BIM systems, drone surveying for site management, and digital project monitoring platforms. Technology adoption should enhance both operational efficiency and service quality.

5). Human Resource Development. Implement systematic training programs building

technical and management capabilities. Create career development pathways retaining skilled personnel.

6). Reputation Building. Cultivate trust and credibility through consistent project delivery, transparent communication, and ethical business practices. Develop relationships with both public and private sector clients.

7). Sustainable Business Expansion. Pursue growth opportunities aligned with organizational capabilities and market demand. Expansion should balance risk management with strategic positioning.

Emerging Market Opportunities

Informants identified several emerging market opportunities warranting strategic consideration:

Smart Building Integration. Growing demand exists for intelligent building systems (automated security, energy management, integrated sensors). This market segment shows strong growth potential with limited current competition.

Sustainable Construction. Environmental consciousness drives demand for energy-efficient, environmentally responsible construction. Green building expertise could differentiate the company and appeal to sustainability-focused clients.

Renovation and Retrofit Services. The existing building stock requires upgrading and modernization. Renovation projects represent a substantial market segment complementing new construction activities.

Lifecycle Services. Comprehensive building maintenance, inspection, and repair services create ongoing client relationships and recurring revenue streams beyond initial construction projects.

Modular Construction Methods. Prefabricated and modular construction techniques offer faster project completion, controlled quality, and reduced on-site costs. Early adoption could establish competitive advantages.

4. Discussion

4.1 Examine the competitive strategies

The SWOT analysis reveals a construction firm with substantial capabilities operating in a favorable but increasingly competitive market environment. The company's technical expertise, project management systems, and established reputation provide a foundation for competitive positioning. However, operational consistency challenges and

technology infrastructure limitations represent areas requiring strategic attention.

The apparent contradictions in assessments of project management and financial systems reflect differing evaluative perspectives rather than inconsistent findings. Strategic-level informants emphasized the existence of formal systems and overall organizational capabilities, while operational-level informants noted implementation variations across diverse project contexts. This pattern suggests that while Kading Xay has established strong foundational systems, ensuring their consistent application across all operational settings remains a developmental priority. Such implementation gaps are common in growing construction firms managing multiple concurrent projects with varying requirements. These research findings are consistent with Mintzberg (1994), who explained that strategy implementation often involves gaps between strategic-level planning and operational-level execution. They also align with Kerzner (2017), who noted that managing multiple concurrent projects in construction organizations often results in variations in system implementation due to differences in project contexts, teams, and requirements.

4.2 Strategic Approaches for Competitive Advantage

1) Strategic Vision Refinement focuses on articulate a clear organizational vision aligned with market opportunities and capabilities. Develop strategic management processes linking vision to operational decisions. 2) Quality and Technical Standards Enhancement focuses on establish comprehensive quality management systems ensuring consistent standards across all projects. Invest in technical training and certification for engineering staff. 3) Service Differentiation focuses on develop distinctive service offerings that competitors cannot easily replicate. This may include specialized construction methods, extended warranties, comprehensive maintenance programs, or innovative project delivery models. 4) Technology Investment focuses on adopt advanced construction technologies including AI-integrated BIM systems, drone surveying for site management, and digital project monitoring platforms. Technology adoption should enhance both operational efficiency and service quality. 5) Human Resource Development

focuses on implement systematic training programs building technical and management capabilities. Create career development pathways retaining skilled personnel. 6) Reputation Building focuses on cultivate trust and credibility through consistent project delivery, transparent communication, and ethical business practices. Develop relationships with both public and private sector clients, and 7) Sustainable Business Expansion focuses on pursue growth opportunities aligned with organizational capabilities and market demand. Expansion should balance risk management with strategic positioning.

Emerging Market Opportunities focuses on Informants identified several emerging market opportunities warranting strategic consideration: 1) Smart Building Integration. Growing demand exists for intelligent building systems (automated security, energy management, integrated sensors). This market segment shows strong growth potential with limited current competition. 2) Sustainable Construction. Environmental consciousness drives demand for energy-efficient, environmentally responsible construction. Green building expertise could differentiate the company and appeal to sustainability-focused clients. 3) Renovation and Retrofit Services. The existing building stock requires upgrading and modernization. Renovation projects represent a substantial market segment complementing new construction activities. 4) Lifecycle Services. Comprehensive building maintenance, inspection, and repair services create ongoing client relationships and recurring revenue streams beyond initial construction projects, and 5) Modular Construction Methods. Prefabricated and modular construction techniques offer faster project completion, controlled quality, and reduced on-site costs. Early adoption could establish competitive advantages. The strategic recommendations emphasize differentiation over cost leadership, consistent with Porter (1998) framework for sustainable competitive advantage. Rather than competing primarily on price, the proposed strategies focus on creating distinctive value through quality, technology, specialized services, and comprehensive client support. This approach aligns with findings from Kunudom (2021), whose study of Bangkok contractors demonstrated that differentiation strategies based on product quality, service

excellence, and technical capability enabled successful market positioning.

Technology as Strategic Differentiator: The emphasis on technology adoption reflects broader industry trends toward digital construction management. Technologies such as AI-enhanced BIM, drone surveying, and integrated project management platforms offer multiple benefits: enhanced planning accuracy, improved error detection, accelerated project timelines, and superior quality control. Firms adopting these technologies early may establish significant competitive advantages before market saturation occurs. However, technology investment requires complementary investments in staff training and process redesign to realize full benefits. This is consistent with the research of Eastman et al. (2011), which shows that Building Information Modeling (BIM) improves planning accuracy, reduces errors, and enhances quality control in construction projects. It also aligns with Succar (2009), who emphasizes that adopting BIM and digital technologies can improve efficiency, collaboration, and competitive advantage in the construction industry.

Market Opportunity Evaluation: The identified emerging opportunities smart buildings, sustainable construction, renovation services, lifecycle support, and modular methods represent diversification prospects aligned with evolving market demands. These opportunities share common characteristics: growing market demand, limited local competition, and alignment with the company's technical capabilities. Strategic pursuit of selected opportunities could reduce dependence on traditional new construction while creating distinctive market positions. However, diversification requires careful capability assessment and may necessitate partnerships or acquisitions to acquire specialized expertise. These research findings are also consistent with the work of Ansoff (1957) on diversification strategy, which suggests that organizations can reduce risk from reliance on a single market by expanding into new products or markets. They also align with Porter (1998), who emphasizes that differentiation and strategic market positioning are central to achieving sustainable competitive advantage.

5. Conclusion

Kading Xay Engineering Construction occupies a solid competitive position characterized by technical expertise, established client relationships, and operational capabilities, while facing challenges in standardizing procedures and modernizing systems. The favorable market environment created by infrastructure investment and economic development presents growth opportunities, though intensifying competition and economic volatility pose significant threats. Strategic success requires systematic enhancement of quality systems, technology adoption, service differentiation, and human resource development. The identified emerging opportunities in smart buildings, sustainable construction, renovation services, and lifecycle support offer promising diversification paths aligned with evolving market demands.

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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