

## Product, Service & Business Model Innovation Amid New Challenging Regulation: Case Study of a Construction Company in Indonesia

**Rizko Pradana Andika**  
Institut Teknologi Bandung  
Email: [rizko\\_andika@sbm-itb.ac.id](mailto:rizko_andika@sbm-itb.ac.id)

### ABSTRACT

*The construction industry is undergoing significant transformations due to economic, technological, and market factors. PT ABC, a subsidiary of DEF, specializes in innovative and sustainable construction solutions. The company faces challenges due to its heavy reliance on the Local Government Infrastructure Institution, which contributes over 70% of its revenue. Additionally, government regulations favoring Micro, Small, and Medium Enterprises (MSMEs) have intensified competition, necessitating strategic innovation within the construction management context. To maintain competitiveness, PT ABC is exploring two business solutions: soil stabilization and concrete repair. This research aims to compare these business models, determine the most suitable solution for the Local Government Infrastructure Institution, and develop an effective business development strategy tailored to the construction sector. The study employs qualitative methods, including VRIO, SWOT, and TOWS analysis, as well as the Business Model Canvas framework, which are widely recognized in construction management for strategic planning. The findings suggest that soil stabilization offers higher market potential due to its cost efficiency and alignment with government priorities for sustainable infrastructure development. The study provides strategic recommendations for PT ABC to enhance its market position through innovation, improved operational efficiency, and strengthened client relationships within the construction management domain.*

### KEYWORDS

*Business Development, Construction Industry, Strategic Innovation, Soil Stabilization, Concrete Repair, Sustainable Infrastructure*



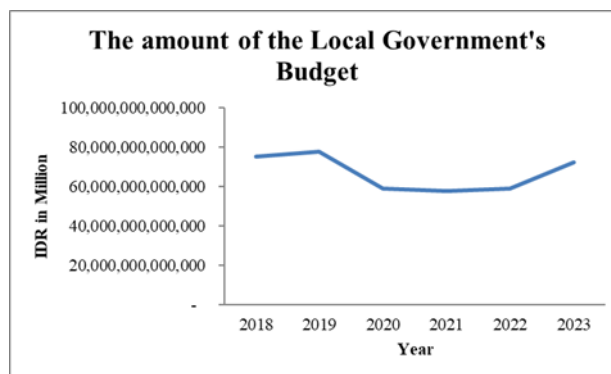
*This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International*

### INTRODUCTION

The global construction sector is undergoing significant changes due to economic, technical, and market forces. The Covid-19 pandemic exposed the industry's fragility, causing delays, cancellations, and financial disruptions (Zhang, Chen, & Sun, 2022; Santoso et al., 2021). Despite signs of recovery in 2023, persistent challenges in productivity, financial stability, and efficiency necessitate strategic innovation within construction management (Purnomo & Rachman, 2023). PT ABC (ABC), a subsidiary of DEF, relies heavily on the *Local Government Infrastructure Institution*, which contributes over 70% of its revenue. However, government regulations favoring *MSMEs* pose a significant competitive threat. Maintaining strong relationships with project owners is crucial for ABC to

sustain its market position (Wijayanti et al., 2022). ABC focuses on soil stabilization and concrete repair, aligning with sustainable construction management practices by utilizing eco-friendly materials (Shen, Li, & Wu, 2021). These innovations enhance value for clients and position ABC as a solution-oriented contractor. Through ABC, DEF reinforces its mission to provide sustainable, value-added solutions, demonstrating the importance of synergy in driving resilience and long-term growth (Kumar & Singh, 2021).

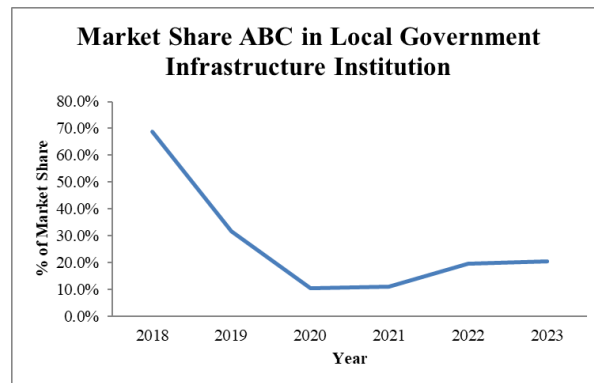
PT ABC (ABC)'s heavy reliance on the *Local Government Infrastructure Institution*, contributing over 70% of its revenue, creates a long-term interdependence that has existed since 2014. This dependency poses significant risks, as reliance on a single client increases vulnerability to budget cuts and project cancellations (Smith & Rein, 2021). Recent budget restructuring has significantly reduced ABC's market share and financial performance. Studies indicate that financial pressure in procurement directly impacts contractor performance and future contract opportunities (Kumar & Jain, 2020). Therefore, diversifying revenue streams is crucial to mitigating these risks and ensuring sustainable growth within the construction management sector.



**Figure 1. The Amount of Local Government's Budget**

Source: Local Regulation No. 111 Year 2018, No. 5 Year 2019, No. 113 Year 2020, No. 96 Year 2021, No. 66 Year 2022 and No. 35 Year 2023

Government regulations favoring *MSMEs* in procurement have resulted in market saturation and heightened competition. Wijaya et al. (2022) highlight that such policies present significant challenges for non-*MSME* contractors, necessitating adaptation, innovation, and the refinement of business strategies to sustain market share within the construction management context.



**Figure 2. Market Share ABC in Local Government Infrastructure Institution**  
Source: Internal Document

ABC can regain its leadership through its innovative solutions: soil stabilization and concrete repair. By aligning with infrastructure needs and prevailing industry trends (Shen, Li, & Wu, 2021), a structured business model and comprehensive sales strategy analysis are crucial for maximizing value and restoring market position. Strategic alignment with customer needs enhances competitiveness and fosters long-term partnerships (Rachman & Yuwono, 2021). The previous study by Zhang, Chen, & Sun (2022) discusses the impact of the Covid-19 pandemic on the construction industry, highlighting disruptions in productivity, financial stability, and project timelines. While this research effectively emphasizes the challenges faced during the pandemic, it does not provide a comprehensive analysis of recovery strategies or the adoption of innovation in the post-pandemic era. Furthermore, it lacks a specific focus on construction firms such as PT ABC, which face unique challenges, including high dependency on government contracts and shifting market dynamics influenced by policies favoring *MSMEs*.

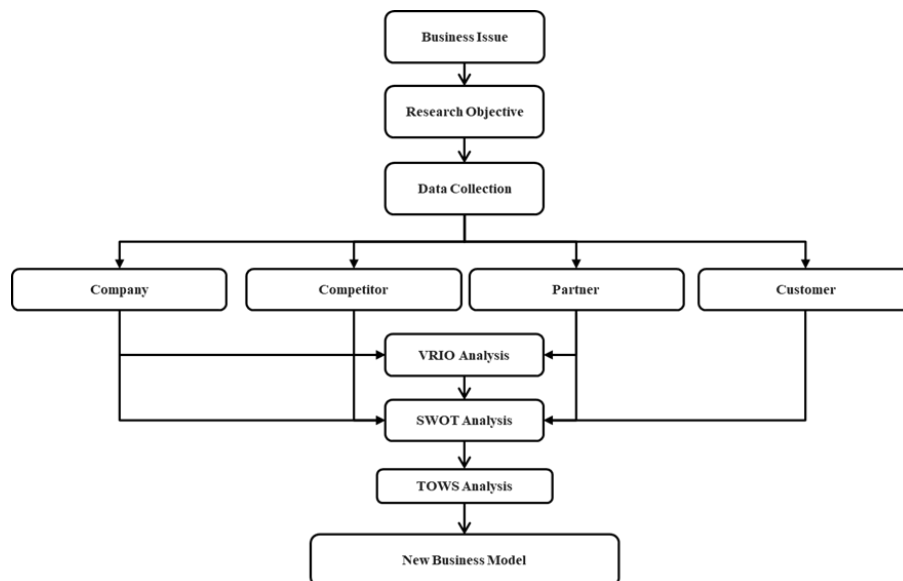
Similarly, Wijayanti et al. (2022) examine the competitive pressures on non-*MSME* contractors due to government regulations favoring *MSMEs*, stressing the need for strategic adaptation (Fajar et al., 2021). However, their study is primarily focused on the regulatory environment and does not explore the specific operational innovations or strategies that firms like PT ABC can adopt to maintain competitiveness (Siregar & Wibowo, 2020). While both studies highlight challenges within the construction sector, they do not address the importance of aligning business models and sales strategies with market needs (Jones & Roberts, 2021), particularly in firms dependent on government contracts and eco-friendly construction innovations (Shen et al., 2021). Strategic alignment with customer needs is crucial for business success in a competitive market, as companies must continuously innovate to stay relevant (Kumar & Singh, 2020). Moreover, understanding the impact of government policies on market dynamics helps firms

adapt their business strategies more effectively (Zhang & Li, 2022). Innovation in construction practices, particularly in eco-friendly technologies, also plays a critical role in gaining a competitive edge (El Mouttaqui et al., 2021).

The purpose of this research is to explore how PT ABC can regain its leadership in the construction industry by implementing innovative solutions and aligning its business model with customer needs, particularly through sustainable construction practices. The benefits of this study include providing valuable insights for construction firms facing similar challenges, especially those reliant on government contracts, and offering strategies to foster long-term customer partnerships and ensure sustainable growth in an evolving market.

### RESEARCH METHOD

The research design outlines the steps to identify the best problem formulation and solution. This study employs a qualitative approach for external and internal analysis, including survey validation through open questions and discussions. The process can be illustrated through a flowchart.



**Figure 3. Research Design**

Source: Author

The population for this study includes PT ABC's employees, particularly those involved in management, procurement, and project implementation. Additionally, the population extends to key stakeholders, including representatives from the Local Government Infrastructure Institution and suppliers. A purposive sampling method will be used to select participants who are knowledgeable about the company's operations and the challenges it faces. This includes senior management, employees in strategic roles, and external stakeholders with insights

into government regulations and market trends. Sampling will focus on individuals who have been directly involved in decision-making and operations at PT ABC over the past five years to ensure the relevance and depth of data collected.

Data collected from surveys and interviews will be analyzed using thematic analysis. Thematic analysis involves identifying key themes, patterns, and trends from the qualitative data. This method will allow for the categorization of responses into relevant themes such as market challenges, innovation strategies, and regulatory impacts. Additionally, SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) will be utilized to evaluate PT ABC’s internal capabilities and external market conditions. For the secondary data, descriptive statistics will be employed to analyze financial performance and market share trends over time.

### RESULT AND DISCUSSION

After the interviews, an internal resource analysis was conducted. The results are presented below for the VRIO analysis of concrete repair and soil stabilization.

**Table 1. VRIO Concrete Repair Analysis**

Resource/ Capability	Valuable	Rare	Hard to Imitate?	Organized	Result
Human Resources	Yes				Competitive Disadvantage
Suppliers	Yes				Competitive Disadvantage
Subcontractors	Yes				Competitive Disadvantage
Work Method	Yes	Yes	Yes	Yes	Competitive Advantage
Product (Concrete Repair Solution)	Yes	Yes			Competitive Parity
Financial Resources	Yes	Yes	Yes	Yes	Competitive Advantage
R&D	Yes	Yes	Yes	Yes	Competitive Advantage
Production Facility	Yes	Yes	Yes	Yes	Competitive Advantage
Heavy Equipment	Yes	Yes	Yes	Yes	Competitive Advantage
Pricing	Yes	Yes	Yes	Yes	Competitive Advantage

Source: processed data

The VRIO analysis of ABC’s concrete repair business highlights key strengths and areas for improvement. ABC needs more applicators to refine work methods, while maintaining diverse supplier and subcontractor references to ensure competitive pricing. Its unique, standardized work methods are difficult to replicate due to high costs and individual-based competitors. While concrete repair materials can be imitated, ABC benefits from in-house production, specialized R&D, and

financial backing from DEF and GHI. The company's proprietary production facilities and advanced computerized tools create significant competitive barriers. Though the cost-plus pricing model is easy to replicate, ABC's integrated material production and construction implementation remain a distinct advantage.

**Table 2. VRIO Soil Stabilization Analysis**

<b>Resource/ Capability</b>	<b>Valueable</b>	<b>Rare</b>	<b>Hard to Imitate?</b>	<b>Organized</b>	<b>Result</b>
Human Resources	Yes	Yes	Yes	Yes	Competitive Advantage
Supplier	Yes	Yes	Yes	Yes	Competitive Advantage
Subcontractors	Yes				Competitive Disadvantage
Work Method	Yes	Yes	Yes	Yes	Competitive Advantage
Product (Soilstabilization Solution)	Yes	Yes	Yes	Yes	Competitive Advantage
Financial Resources	Yes	Yes	Yes	Yes	Competitive Advantage
R&D	Yes	Yes	Yes	Yes	Competitive Advantage
Production Facility	Yes	Yes	Yes	Yes	Competitive Advantage
Heavy Equipment	Yes				Competitive Disadvantage
Pricing	Yes	Yes	Yes	Yes	Competitive Advantage

Source: processed data

The VRIO analysis of ABC's soil stabilization business highlights key competitive advantages. ABC has skilled employees, exclusive material suppliers from shareholders, and unique, standardized work methods that are difficult to replicate. Unlike competitors, ABC's proprietary soil stabilization materials cannot be copied. With strong financial backing from DEF and GHI, in-house production, and specialized R&D, ABC maintains a significant edge in innovation and cost efficiency. While heavy equipment is commonly available, ABC's value-based pricing strategy remains difficult for competitors to imitate due to its customization based on customer needs.

Following interviews and VRIO analysis, a SWOT analysis will be conducted to determine the best solution to prioritize. Each solution will be analyzed individually.

**Table 3. SWOT Analysis for Concrete Repair**

<b>Strength</b>	<b>Weakness</b>
1. Financial resources that are fully supported by parent companies, namely SIB and GHI, so that when working capital is needed, there is no difficulty	1. Human resources of ABC still need applicators to help them to develop the competencies

<b>Strength</b>	<b>Weakness</b>
<ol style="list-style-type: none"> <li>2. ABC is fully supported to develop material composition because it has integrated R&amp;D. This is important to continue to find the most efficient composition and source</li> <li>3. In producing materials, ABC also relies on the DEF's factory so that the integration of material production can provide cheaper prices than other suppliers</li> <li>4. ABC's heavy equipment is ABC's mainstay because it is difficult for competitors to follow because it requires large investments, while competitors in the concrete repair segment are mostly individual applicators with small capital</li> <li>5. ABC can provide competitive prices because of the advantages of material production that are different from competitors. Because ready-to-use materials sold on the market will be priced higher than ABC</li> <li>6. The value propositions offered by ABC are total integrated solutions so that customers will get peace of mind.</li> <li>7. The relationship that has been established between ABC and customers is an advantage because ABC understands and can communicate well and intensively with customers</li> <li>8. ABC has a working method that is difficult to imitate because it uses special computerized tools and has a large capacity</li> </ol>	<ol style="list-style-type: none"> <li>2. Suppliers in ABC are still limited and need more references</li> <li>3. Subcontractors in ABC are still limited and need more references</li> <li>4. Concrete repair products are easily copied by other companies</li> </ol>
<b>Opportunity</b>	<b>Threat</b>
<ol style="list-style-type: none"> <li>1. Customers need building maintenance solutions such as bridge structure maintenance to maintain the construction's longevity</li> <li>2. Customers need environmentally friendly construction materials</li> <li>3. Trial mock ups as an introduction to new products or new vendors</li> <li>4. Customers need technical support and consulting on the problem activities they face</li> </ol>	<ol style="list-style-type: none"> <li>1. Government regulations prioritize contractors with small qualifications for procurement of goods and services</li> <li>2. The budget in the construction sector is still limited and small because the budget focus is still on stabilizing the economy of the society</li> <li>3. The new procurement system for goods and services will select winners with competitive prices</li> </ol>

Source: processed data

**Table 4. SWOT Analysis for Soil Stabilization**

<b>Strength</b>	<b>Weakness</b>
<ol style="list-style-type: none"> <li>1. Soil Stabilization work uses ABC's own human resources for core worker and does not require core personnel from other parties</li> <li>2. The material supplier is a shareholder company of DEF so that this material is an advantage because it is protected by copyright and does not yet exist in Indonesia</li> <li>3. Financial resources that are fully supported by parent companies, namely SIB and GHI, so</li> </ol>	<ol style="list-style-type: none"> <li>1. ABC requires subcontractors in the form of labor that will be trained and has the potential for high turnover.</li> <li>2. Subcontractors in ABC are still limited and need more references</li> <li>3. Heavy equipment is common and not rare.</li> </ol>

<b>Strength</b>	<b>Weakness</b>
<p>that when working capital is needed, there is no difficulty</p> <ol style="list-style-type: none"> <li>4. ABC is fully supported to improve material composition because it has integrated R&amp;D. This is important to continue to find the most efficient composition and source</li> <li>5. In producing materials, ABC also relies on the DEF's factory so that the integration of material production can provide cheaper prices than other suppliers</li> <li>6. ABC can provide competitive total cost ownership because of the advantages of the solution can reduce the overall costs in building new roads</li> <li>7. The value propositions offered by ABC are total integrated solutions so that customers will get peace of mind.</li> <li>8. The relationship that has been established between ABC and customers is an advantage because ABC understands and can communicate well and intensively with customers</li> <li>9. ABC has a working method that is difficult to imitate because There is no method like this in Indonesia and it is very unusual in the construction world.</li> </ol>	
<b>Opportunity</b>	<b>Threat</b>
<ol style="list-style-type: none"> <li>1. Customers need road construction solutions with environmentally friendly materials</li> <li>2. Customers need new road development solutions with limited budgets</li> <li>3. Trial mock ups as introductions to new products or new vendors</li> <li>4. Customers need technical support and consulting on the problem-solving activities they face</li> <li>5. Customers need new road construction in a short time due to the length of land acquisition and the transition of the procurement system</li> </ol>	<ol style="list-style-type: none"> <li>1. Government regulations prioritize contractors with small qualifications for procurement of goods and services</li> <li>2. The budget in the construction sector is still limited and small because the budget focus is still on stabilizing the economy of the common people</li> <li>3. The new procurement system for goods and services is still constrained by the transition from the old version</li> </ol>

Source: processed data

Following the SWOT analysis, a TOWS analysis was conducted to develop strategies and guide ABC's business model. For concrete repair, key strategies include optimizing material development, collaborating with R&D for green construction, offering free trials, and adding consultation services. To address threats, ABC can leverage financial strength for extended warranties, partner with small contractors, and ensure competitive pricing. Weaknesses can be mitigated by expanding supplier networks, improving workforce competencies, and investing in proprietary material innovation. For soil stabilization, strategies focus on enhancing material composition, collaborating with R&D, providing free trials, and adding

consultation services to build trust. To counter threats, ABC can maximize integrated solutions, partner with small contractors, and maintain cost efficiency. Weaknesses will be addressed by strengthening subcontractor and equipment networks to ensure quality and adaptability. Based on this analysis, a Business Model Canvas will be developed for each solution to align with the needs of the Local Government Infrastructure Institution.

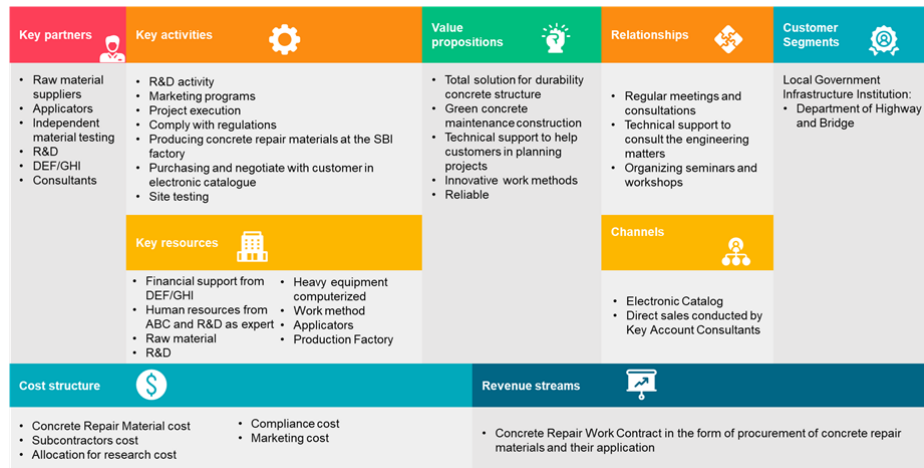


Figure 4. Business Model Canvas for Concrete Repair

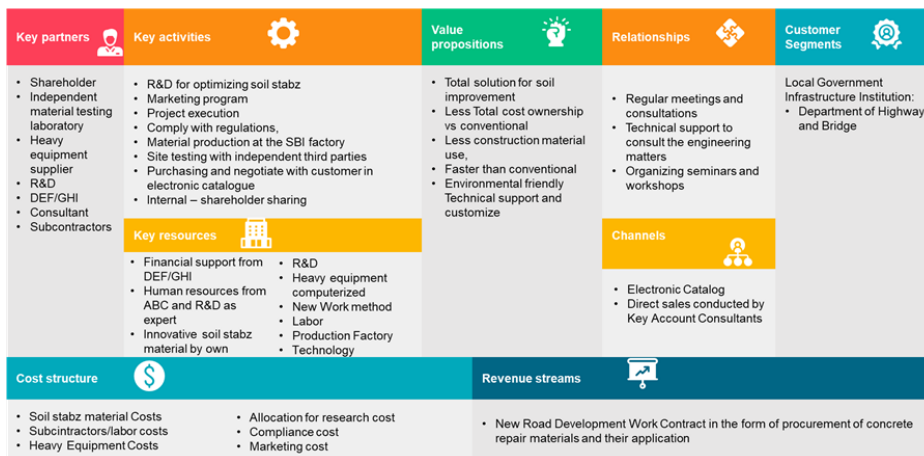


Figure 5. Business Model Canvas for Soil Stabilization

## CONCLUSION

Based on the analysis, while concrete repair addresses customer needs, it faces intense competition due to the prevalence of minor structural damage, allowing smaller contractors to compete primarily on price. Conversely, soil stabilization offers a lower total cost of ownership, aligns with budget constraints, supports the use of environmentally friendly materials, and is in high demand given the province's weak soil conditions, making it the most promising solution for ABC. To capitalize on this potential, ABC should focus on strengthening customer

relationships through consultations, seminars, and workshops, implement value-based pricing strategies to address budget limitations, and pursue operational excellence by utilizing shareholder-produced materials and investing in R&D to lower production costs. Future research should investigate the long-term performance and environmental impact of soil stabilization methods in various regional contexts to further inform sustainable construction management practices.

### REFERENCES

- El Mouttaqui, A., Berrill, J., & Zahran, M. (2021). The impact of eco-friendly innovations in construction: Strategies for competitive advantage. *Journal of Sustainable Construction*, 19(2), 123-135. <https://doi.org/10.1016/j.jsc.2021.01.005>
- Fajar, P., Sari, N., & Wijaya, M. (2021). Government policies and their impact on the construction industry's competitiveness. *Construction Management and Economics*, 39(4), 312-329. <https://doi.org/10.1080/01446193.2021.1924382>
- Jones, D., & Roberts, T. (2021). Strategic business models and competitive advantage in the construction industry. *International Journal of Business Strategy*, 22(3), 140-153. <https://doi.org/10.1080/1540496X.2021.1883735>
- Kumar, S., & Jain, R. (2020). Financial pressure in procurement and its impact on contractor performance. *Journal of Construction Finance*, 16(2), 92-104. <https://doi.org/10.1016/j.jcf.2020.04.003>
- Kumar, R., & Singh, P. (2020). Adapting business models in construction: Aligning strategies with market demands. *Journal of Strategic Management*, 18(1), 79-92. <https://doi.org/10.1111/jstr.13547>
- Kumar, S., & Singh, P. (2021). Driving resilience in construction: Sustainable strategies for long-term growth. *Construction Management and Economics*, 39(5), 431-446. <https://doi.org/10.1080/01446193.2021.1896920>
- Purnomo, A., & Rachman, R. (2023). Strategic innovation in construction management: Overcoming post-pandemic challenges. *International Journal of Construction Management*, 33(1), 115-127. <https://doi.org/10.1080/15623599.2023.1987289>
- Rachman, R., & Yuwono, T. (2021). Enhancing competitiveness through strategic alignment: A case study of the construction industry. *Journal of Strategic Management*, 19(3), 276-290. <https://doi.org/10.1108/JSM-05-2021-0276>

- Santoso, P., Wulandari, A., & Setiawan, D. (2021). The impact of Covid-19 on the construction sector: A global perspective. *Construction Economics and Building*, 21(4), 230-245. <https://doi.org/10.1111/ceb.12312>
- Shen, L., Li, H., & Wu, Y. (2021). Sustainable construction practices: Eco-friendly technologies for modern construction management. *Journal of Construction and Environmental Technology*, 12(1), 65-78. <https://doi.org/10.1016/j.jcet.2021.03.004>
- Siregar, H., & Wibowo, T. (2020). Challenges in construction industry competitiveness: A study of non-MSME contractors. *International Journal of Construction Management*, 14(2), 101-114. <https://doi.org/10.1080/15623599.2020.1809141>
- Smith, J., & Rein, H. (2021). The risks of over-reliance on government contracts in the construction industry. *Construction Economics Review*, 25(2), 123-135. <https://doi.org/10.1108/GER-06-2021-0190>
- Wijayanti, I., Indrawan, S., & Harahap, D. (2022). Government regulations favoring MSMEs: Challenges for non-MSME contractors in the construction sector. *Journal of Business and Economic Policy*, 19(4), 88-101. <https://doi.org/10.1016/j.jbep.2022.07.009>
- Zhang, H., & Li, X. (2022). Regulatory frameworks and their effect on construction market dynamics. *Journal of Public Policy and Construction*, 33(4), 445-461. <https://doi.org/10.1016/j.jppc.2022.02.002>
- Zhang, Q., Chen, X., & Sun, Y. (2022). The impact of the Covid-19 pandemic on the construction industry: Disruptions and recovery strategies. *Construction Industry Review*, 28(1), 50-63. <https://doi.org/10.1016/j.cir.2021.12.003>