

Open Peer Review on Qeios

Application of Business Model at PT. ABC – A Learning Case from a Construction Service Company

Maradel Sijabat¹, Adhi Setyo Santoso¹

1 President University

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.

Abstract

PT ABC's performance until December 2022 has been supported by several projects. Development projects in Indonesia are of significant scale, as evidenced by the large number of works, such as the railroad and toll road improvement projects, among others. To meet the specific needs of this activity, PT ABC has risen to the challenge by building several precast concrete plants in various locations in Java. Considering various aspects, including uncertain conditions such as price volatility, demand trends, and other factors that affect the production process, as well as potential operational losses, the Canvas Business Model analysis method has been used to test the shape and business model of PT ABC. Currently, the precast concrete industry is facing increasing external and internal threats, emphasizing the need for more cost-effective production systems and production schedules. One emerging threat is the practice of renting formwork kits instead of selling precast concrete, allowing contractors to produce it on-site at a lower cost with no distribution costs. The purpose of this research is to find out whether the applied business model allows the company to grow in the long term and whether there are any current challenges that must be faced. The designed Canvas Business Model can function as a decision support and guideline, guiding operations to ensure proper implementation and control. In addition, it helps in managing strengths and weaknesses by complementing analysis with SWOT to minimize potential losses and maximize productivity from emerging business opportunities. The findings of this study highlight the need for a business model for a company to achieve its vision, fulfill its mission, and survive in the present and the future.

Keywords: Uncertain conditions, Precast concrete, Economical production system, Business model, SWOT.

1. Introduction

The demand for precast concrete in construction projects in Indonesia is significantly high due to the increasing infrastructure development, which drives the demand in the construction industry. Economic growth serves as a crucial indicator of a government's ability to develop the state and the nation. Infrastructure is not only seen as physical structures



but also plays a vital role in boosting the economy and improving people's living standards (Bunkharisma, 2019; Citradi, 2021; Haris, 2009; Hidayah, 2020; Kelen, 2019).

Development is a planned process of growth and change. Infrastructure serves as a crucial investment factor as it reflects the strength, weakness, or efficiency of a country's economy (BKPM, 2020; KPPIP, 2020). Since 2014, the Indonesian government has prioritized infrastructure as the main focus of national development. Consequently, there has been a significant increase in construction projects, including buildings, bridges, housing, transportation infrastructure, ports, reservoirs, and toll roads (Lumanauw, 2015). The rise in construction volume not only leads to an increase in the number of projects and employment opportunities but also contributes to the growing demand for raw materials in construction projects (Supriyatna, 2017). Currently, precast or precast concrete is one of the essential raw materials experiencing a surge in demand in construction projects.

Production Capacity of Concrete Segment in 2018-2022 (In million tonnage)

Production Capacity	2022	2021	2020	2019	2018
Precast Concrete	5,40	4,70	4,40	4,10	3,60
Readymix Concrete	4,70	3,30	3,10	2,80	2,00
Total	10,10	7,90	7,50	6,80	5,70

Figure 1. Production Results PT ABC

Among various concepts, the canvas business model is widely popular as it describes how a company operates and generates revenue within its operating environment. The Canvas Business Model showcases the relationship between a company's resources and advantages and the activities that are undertaken to acquire and create value, ultimately driving profit generation.

To foster the growth of the precast concrete industry, PT. ABC requires an appropriate business model that addresses the challenges faced by the industry in future development. This model should encompass the significance of customers to the company, the offerings provided by the company, the production process, profit generation, the creation of added value for customers, and strategic differentiation from competitors. The business model serves as a fundamental framework to elucidate the company's endeavors in generating profits (Adieb, 2021; Warni, 2016).

PT. ABC's performance until December 2022 has been supported by several projects. These projects encompass a wide range of endeavors in Indonesia, including the Toll Road project, Electricity Distribution Network, Railway Line Improvement, Jatiluhur SPAM Pipe Installation, and various others. The project acquisition composition based on the business sector consists of the infrastructure sector at 65.98%, the property sector at 16.58%, and contributions from the energy, industry, and mining sectors at 11.95%, 3.11%, and 2.38% respectively.

The design of a business model significantly impacts a company's performance. The advantages gained through the creation of a business model for a company include (Warni, 2016): facilitating access to necessary information, weakening



competitors' positions, and transforming competitors into allies. A well-designed business model can enhance a company's reputation, competitiveness, and ability to succeed in the marketplace. Business models play a pivotal role in determining the success or failure of a business and can even supersede a company's business strategy. Understanding business models can be categorized into three groups: business models as methods or approaches, components (elements), and strategies. The business model can also be perceived as an illustration of the correlation between a company's strengths and resources, as well as the activities conducted to acquire and create value, ultimately enabling profit generation. The benefits of business models for companies encompass facilitating decision-making, evaluating the consistency of relationships between components, examining assumptions in market and business development, and outlining the implications of implementing radical changes (PPM Management Team, 2012).

To capitalize on opportunities and prospects for developing a highly profitable precast concrete business in the future, PT. ABC requires an appropriate business model that takes into account market changes, demand trends for precast concrete products, and other factors that can impact the production process and potential operational losses. A business model encompasses nine essential elements, including customer segments, value propositions, channels to customers, customer relationships, revenue streams, resources, operations, partnerships, and cost structure (Agustiadi et al., 2018; Fitriani & Sultan, 2019). Business models provide avenues for innovation and alternative strategies. With the right business model, companies can establish collaborations with external partners and cultivate ideas that merge expertise and innovation. (Fitriani & Sultan, 2019). Based on this description, the objective of this study is to analyze the appropriate business model for PT. ABC uses the canvas business model (CBM) method.

The business model consists of nine blocks and encompasses four key areas of the business: customers, supply, infrastructure, and affordability. The concept of the business model offers possibilities for innovation and alternative strategies. By adopting a business model, PT. ABC can forge collaborations with external partners, explore new ideas, and integrate their knowledge and innovation. This research must be carried out because the results of the analysis will greatly determine the long-term plan for determining the optimal strategy for facing the challenges ahead.

2. Analysis of Uncertainties

PT ABC (the Company) possesses the strength to forge ahead despite encountering fluctuations in macroeconomic conditions that require high vigilance. The Company successfully navigated through 2022, which was marked by various significant issues, and effectively managed their implications.

While the Company constantly strives to maximize benefits for shareholders and stakeholders, the reality of business practice entails facing uncertainties arising from both internal and external environments that can impact the achievement of company goals. These uncertainties are amplified by the rapid and intricate changes in the business climate.

Uncertainty represents an unavoidable business risk that must be managed through a mechanism known as "risk management". In this case, the internal factor includes HR performance and productivity as a determinant of target achievement as stated in the Work Plan and Corporate Budget. The external factors disrupt the stability domestic



economy and affect the price of raw materials and distribution.

To establish robust risk management practices, PT. ABC regularly and continuously enhances the framework of an integrated and comprehensive risk management system and internal control structure. This enables the company to obtain early information regarding potential risks that may affect its outcomes and subsequently take appropriate steps to mitigate those risks.

To assess the company's performance in each completed project undertaken by PT. ABC, a survey was conducted. The survey results indicated that customers acknowledged PT. ABC's favorable reputation in the construction sector, noting the company's commitment to delivering quality and maintaining well-controlled implementation schedules.

PT. ABC is determined to sustain product development efforts in anticipation of future planning and upcoming infrastructure projects. Over time, the precast concrete industry faces increasing external and internal threats, emphasizing the need for a more cost-effective production system and production schedule. An emerging threat involves companies opting to rent formwork tools instead of selling precast concrete, allowing contractors to produce them on-site at a lower cost without incurring distribution expenses. Given the emergence of small competitors for PT. ABC's products, it is imperative to analyze each competitor type for every product category and devise effective strategies accordingly.

Considering various market changes, the development of demand for precast concrete products, and other factors that may affect the production process, as well as possible operational losses from the production process, PT ABC needed the right business model to take advantage of the opportunity. This study analyzes the format and business model used by PT ABC through the Canvas Business Model (CBM) method. CBM is a company's business model consisting of nine main elements, including customer segments, value proposition, channels to customers, customer relationships, revenue streams, resources, operations, partnerships, and cost structures (Agustiadi et al., 2018; Fitriani & Sultan, 2019). Business models can offer innovation and new alternatives. With the right business model, companies can collaborate with partners outside the company and prepare ideas to combine their expertise and innovation (Fitriani & Sultan, 2019). Based on this description, the purpose of this study is to analyze the right business model for PT ABC through the Canvas Business Model (CBM) method.

The efficiency strategy serves as the overarching strategy that encompasses other initiatives. The Board of Directors has also undertaken a restructuring of the organization and personnel composition to enhance effectiveness and enable the company to be more agile in addressing challenges.

The company's commitment to expanding its market share is evident through significant steps taken in 2022, including the establishment of a foreign sales area (WPLN). This WPLN will support PT ABC's expansion efforts by targeting international project opportunities and positioning the company in the global competitive landscape.

Through the development and strengthening of its human resources, the company possesses valuable assets to seize various opportunities and achieve sustainable growth. By maintaining its market share and making progress toward its vision, the company can further solidify its position.



Corporate governance is a key focus of the Board of Commissioners' oversight. We are dedicated to ensuring the implementation of high-standard governance practices at PT. ABC, guided by the principles of good corporate governance (GCG) and upholding the core values of AKHLAK (the abbreviation of Amanah, Kompeten, Harmonis, Loyal, Adaptif, and Kolaboratif), which means trustworthy, competent, harmonious, loyal, adaptive, and collaborative. Throughout 2022, the Board of Commissioners actively supervised and guided various aspects of management, including risk management.

One effective governance practice that has been implemented and continues to be encouraged for improvement within the company is the whistleblowing system (WBS). This mechanism enables the company to identify and minimize the potential for fraud, policy deviations, or internal violations.

The research methodology is limited by a literature review to identify the company's current business model and which information can be analyzed based on the interconnected data elements in the BMC model.

The goal is to contribute to the survival of the company in the short and long term by creating and formulating strategic plans.

3. Analysis of Impact from Uncertainties

One of the critical challenges affecting the global community is the state of the world economy, which has been impacted by Russia's military invasion of Ukraine. This event has triggered a chain reaction, leading to increased commodity prices, difficulties in global food distribution, and inevitable global inflation. Indonesia, having trade relations with both countries involved in the conflict, will also experience the repercussions. Importing crude palm oil (CPO) and its derivatives has become more challenging, energy tariffs have risen, and the prices of other commodities have increased. As a result, the government has raised fuel prices, leading to a rise in transportation costs, logistics expenses, and other commodity prices.

The economic conditions throughout 2021 remain uncertain due to the ongoing COVID-19 pandemic. While global and national economies continue to face numerous challenges and pressures, efforts to combat the pandemic through various policy measures implemented by each country have gradually started to have a positive impact on economic conditions. There is growing optimism, as reflected in the higher-than-expected global Gross Domestic Product (GDP) growth in the first half of 2021. However, the outbreak of the Delta variant of the COVID-19 virus in the second half of 2021 has slowed down economic growth again, given its faster transmission rate.

The COVID-19 pandemic has had a direct impact on achieving the following goals: company performance. Sectors hit hardest: new contract sales, net sales, and earnings results. The slowdown in economic sales will severely impact the company's cash flow. The implementation of the investment plan to increase production capacity for RJP 2020-2024 has caused a delay in achieving the targets.

- 1. 90.16% audited new contract realization rate since 2021.
- 2. Revenue recognition rate from the audit year 2021 is 90.29%.



3. Net Realized Income (Before Minority Interests) Audited Perspective 64.46% in 2021

In October 2022, the International Monetary Fund (IMF) reported in its World Economic Outlook that global economic growth was only 3.4%, a significant decrease compared to the 6.2% growth in the previous year. Within the construction industry, higher raw material prices and disruptions in the supply chain in the first quarter of 2022 have posed challenges to its performance. According to the Indonesian Economic Growth Report for the fourth quarter of 2022, released by the Central Statistics Agency (BPS), the construction industry recorded a growth rate of only 2.01%, lower than the previous year's growth rate of 2.81%

4. Design of the Changes

The objective of enhancing the business model across these nine elements is to support the company's goals. The improvements in the business model can be observed from the following data:

- 1. 1 Customer Segments: Business diversification is necessary, not limited to machine services and product manufacturing, but also involves the development of innovative business types. Utilizing marketing strategies to attract customers from abroad, Southeast Asia, and other countries that require PT. ABC's services. Properly targeting customers from BUMD or BUMN (regional or national government-owned enterprises) as well as the private sector by leveraging existing networking associations.
- 2. Value Proposition: The improvement of this canvas business model offers added value for customers, including the potential addition of new, modern, and high-quality machines to demonstrate that PT. ABC possesses a comprehensive range of machines catering to various customer needs. Consistently maintaining and enhancing quality standards to minimize product defects, ensuring customer satisfaction and loyalty without complaints or the risk of customers switching to competitors.
- 3. Channels: The renewed business model for distribution channels involves conducting roadshows to introduce PT. ABC products to promising areas with large populations, particularly in major cities in Indonesia. If feasible, expand these efforts to international markets to attract new and large-scale customers. Reviving partnerships with third-party entities to promote and distribute PT. ABC's products and services.
- 4. Customer Relationship: Engaging with customers by providing personalized attention and care from PT. ABC. Offering discounts, special offers, or additional facilities such as airport lounge access, convenient services, meal benefits, etc., to enhance customer satisfaction and strengthen relationships.
- 5. Revenue Streams: PT. ABC can generate revenue through training services offered to customers on machine operation and technology usage, for which fees or charges can be collected. Efforts should be made to reduce product defects to avoid any potential legal actions from customers. Additionally, the company can consider selling non-product assets such as old vehicles and unproductive machinery to obtain funds that can be reinvested.
- 6. Key Resources: It is important to evaluate the existing resources of PT. ABC and identify areas for development. The improvement of the business model presents opportunities for resource development, including the construction or expansion of plants using funds from an initial public offering (IPO) to increase renewable resources. Another



possibility is to establish a long-term machine rental service, which can provide a consistent source of funds.

- 7. Key Activities: With the new Canvas Business Model, PT. ABC should focus on various key activities. These activities include the continuous operation and maintenance of all plants and machines to ensure smooth production processes without significant disruptions. Maintaining and strengthening the internet network is crucial to ensure the optimal functioning of production systems. Providing warehouse rental services for customers who lack storage facilities can also be considered. Additionally, emphasis should be placed on product innovation to enhance the company's reputation, attract buyers, and uphold its image. Efficiency and effectiveness should be pursued in technology development, human resources management, transportation, and raw material procurement.
- 8. Key Partnerships: The aim of partnerships within the improved business model is for PT. ABC to collaborate with domestic and international banks, as well as renewable technology partners. Expanding partnerships with suppliers of raw materials and supporting materials, particularly those directly related to production, is also important.
- 9. Cost Structure: The cost structure in PT. ABC's improved business model involves reducing fixed costs for raw materials and exploring investment opportunities using funds from the IPO for plant construction and other needs. Soft loans from domestic and international sources can strengthen working capital and provide additional capital for operational expenses.

5. Project of Change Execution Plan

At the beginning of the year, the Board of Directors and the entire management of the Company, based on a thorough analysis, made assumptions and projections to determine the 2022 Corporate Strategy. This strategy includes meticulously formulated operational and financial performance plans and targets.

During its implementation, PT. ABC emphasizes the strategic policy for 2022 by adjusting to existing external and internal conditions, as follows:

- 1. Develop the market by implementing cost leadership, creating projects, increasing synergy with the ABC Group, maximizing digital marketing, and penetrating the ASEAN market.
- 2. Optimize factory production capacity and ready-mix concrete, strengthen sales of non-precast products, and accelerate product delivery to customers.
- 3. Realign and develop the business by advancing mobile plants, optimizing existing plants, and realigning subsidiaries' businesses.
- 4. Optimize working capital, including accelerating the disbursement and settlement of problematic receivables.
- 5. Increase competence and optimize the number of Human Resources (HR) by integrating Information Technology (IT) systems and applying supply chain management.

The Board of Directors exercises strict control over the implementation of these strategies, based on the duties, authorities, and responsibilities associated with each position. Additionally, the Board of Directors regularly evaluates the implemented strategies through intensive meetings and discussions.



Program, Implementation, Control, and Evaluation: For PT. ABC to achieve its targets and realize its predetermined strategy, it is necessary to follow through with action. Implementation without prior planning is ineffective. PT. ABC's planning process includes principles that aim to achieve realistic, reasonable, efficient, and reflective goals aligned with the corporation's strategies and policies. Planning is further detailed through work programs that include the necessary resources, enabling the commencement of work implementation. To ensure that all activities align with agreed plans and stay within tolerance limits, PT. ABC carries out control and supervision. This is achieved through various committees, including Audit, GCG (Good Corporate Governance), Financial Planning and Business Risk, and Remuneration and Nomination. Performance measurement is also conducted.

Firstly, building human resources to increase competitiveness is crucial. For PT. ABC, human resources are valuable assets that require maintenance and development as they play a significant role in shaping the company's future. Consequently, PT. ABC prioritizes the development of its human capital as part of its short and medium-term strategies. The Human Capital section of PT. ABC has initiated three new programs since 2018. These programs include the Advanced Leadership Program, the improvement of the Work Management System, and the development of Career Paths. These initiatives aim to provide every PT. ABC employees with opportunities to secure positions that align with their competencies.

Secondly, the development of information technology implementation as a support for the company's business is crucial. In line with the era of Construction 4.0, PT. ABC has initiated the development of information technology implementation through digitalization. The implementation of information technology through digitalization is not a new concept. Since 2006, PT. ABC has been a pioneer in this area, specifically through the implementation of Enterprise Resource Planning (ERP) systems encompassing OS, Finance, and HRMS. Furthermore, PT. ABC's IT team has established a private cloud network that connects all work units, aiming to enhance efficiency, optimize production, and improve overall business operations. More recently, in 2019, PT. ABC has also been developing Android-based applications such as ABCON Mobile, Audit Application, e-QC Application, Online Mail Numbering, and the Board of Directors Calendar for the Head Office, among others.

Thirdly, PT. ABC is focused on strengthening synergy with the ABC Group and State-Owned Enterprises (SOEs). PT. ABC has maintained a synergistic relationship with the ABC Group for a considerable period. However, PT. ABC also aims to strengthen its collaborative ties with State-Owned Enterprises (SOEs). This synergy is pursued to expand market penetration in the Southeast Asian region, as PT. ABC is increasingly recognized as a #Concrete Expert there. Particularly in 2019, PT. ABC secured contracts with the Philippines and Singapore. The contract with the Philippines is currently in the testing phase for track work, and if successful, PT. ABC will undertake a 150 km project there.

These three short and medium-term strategies are expected to drive PT. ABC to further innovate in anticipation of future competition. Additionally, PT. ABC is committed to maintaining and enhancing its achievements.

6. Conclusion



The internal situation regarding PT. ABC's strengths include having regular customers, both state-owned and private companies, particularly in the majority of industrial sectors. Additionally, the company possesses active machinery and integrated IT systems across all divisions. PT. ABC has also established collaborations with partners for the supply of raw materials and supporting materials, including cooperation with the government as a regulator. Furthermore, the company actively participates in associations, collaborates with banks, and secures capital support for its operations.

On the other hand, the internal situation reveals weaknesses for PT. ABC, particularly in marketing, where there is still a need to improve market share, especially internationally. Additionally, the administration aspect requires attention, particularly in terms of optimizing the inventory system and addressing the issue of remaining production outputs from previous processes. Reactivating the risk management committee is necessary to identify potential risks associated with activities and ensure effective audit management.

Externally, the company faces threats from foreign competitors offering similar products as well as competition from local players with strong capital. Moreover, the fluctuation of prices and the impact of inflation pose challenges to the pricing of PT. ABC's products and services.

This study adopts international and national articles published on various platforms. This study is limited to only a few sources of literature. Realizing the limitations of the data obtained, the authors hope that the next study will be accompanied by more complete information to obtain more accurate conclusions.

Since this study investigated the need for a business model that allows the company to realize its vision, fulfill its mission, and survive now and in the future, it is expected that future studies will be more in-depth, covering all personal aspects of the company. Research can be repeated in more than one construction service industry, and further analysis can be carried out on the best canvas business model.

Acknowledgments

This work is a part of Erasmus+ CBHE Building Universities in Leading Disaster Resilience (BUiLD) project activities from Work Package 2.3. Enhancing Disaster Management Curricula during 2019 – 2023.

References

- Adieb, M. (2021). Hendak Mulai Bisnis? Cari Tahu Berbagai Macam Modelnya di Sini[Planning to Start a Business?
 Find Out Various Models Here]. Retrieved May 28, 2021, from https://glints.com/id/lowongan/business-model/#.YLDr-kzblU
- Agustiadi, A., Syarief, R., & Nurrochmat, D. R. (2018). Strategi Pengembangan Bisnis Rental Mobil Wiralodra 27
 dengan Pendekatan Model Bisnis Kanvas [Business Development Strategy of Wiralodra 27 Car Rental with Canvas
 Business Model Approach]. Jurnal Aplikasi Bisnis Dan Manajemen [Journal of Business and Management
 Applications], 4(1), 138–150. https://doi.org/10.17358/jabm.4.1.138



- BKPM. (2020). *Pentingnya Pembangunan Infrastruktur Indonesia Untuk Investasi*[The Importance of Infrastructure Development in Indonesia for Investment]. Retrieved April 14, 2021, from https://www.investindonesia.go.id/id/artikel-investasi/detail/pentingnya-pembangunan-infrastruktur-indonesia-untuk-investasi
- Bunkharisma, W. (2019). Pentingnya Infrastruktur untuk Kemajuan Sebuah Bangsa[The Importance of Infrastructure for the Progress of a Nation]. Retrieved April 14, 2021, from https://www.kompasiana.com/williambunkharisma9953/5d7dcd05097f3672286745d2/pentingnya-infrastruktur-untuk-kemajuan-sebuah-bangsa?page=all
- Citradi, T. (2021). Kunci Kebangkitan RI dari Petaka Pandemi: Infrastruktur! [The Key to Indonesia's Recovery from the Pandemic Disaster: Infrastructure!]. Retrieved April 14, 2021, from https://www.cnbcindonesia.com/news/20210107131759-4-214190/kunci-kebangkitan-ri-dari-petaka-pandemi-infrastruktur
- Fitriani, R., & Sultan, M. A. (2019). *Model Bisnis Kanvas Sebagai Solusi Inovasi Bagi Yang Kecil Bisnis* [Canvas Business Model as an Innovation Solution for Small Businesses]. *Jurnal Ilmu Manajemen & Bisnis* [Journal of Management and Business Sciences], 10(2), 197–203.
- Haris, A. (2009). Pengaruh Penatagunaan Tanah terhadap Keberhasilan Pembangunan Infrastruktur dan Ekonomi
 [The Influence of Land Utilization on the Success of Infrastructure and Economic Development] (Artikel Majalah
 Perencanaan) [Planning Magazine Article]. Makalah Bappenas [Bappenas Paper]. Jakarta. Retrieved from
 https://www.bappenas.go.id/id/data-dan-informasi-utama/makalah/artikel-majalah-perencanaan/januari-tahun-2005/pengaruh-penatagunaan-tanah-terhadap-keberhasilan-pembangunan-infrastruktur-dan-ekonomi-oleh--abdul-haris/
- Kelen, Y. A. (2019). Pembangunan Infrastruktur Harus Menunjang Kesejahteraan Masyarakat [Infrastructure
 Development Must Support the Welfare of Society]. Retrieved April 14, 2021, from
 https://www.beritasatu.com/nasional/589083/pembangunan-infrastruktur-harus-menunjang-kesejahteraan-masyarakat
- KPPIP. (2020). Perkembangan Pembangunan Infrastruktur di Indonesia[The Development of Infrastructure Development in Indonesia]. Retrieved April 14, 2021, from https://kppip.go.id/tentang-kppip/perkembangan-pembangunan-infrastruktur-di-indonesia/
- Lumanauw, N. (2015). Jokowi: Pemerintah Fokus Pembangunan Infrastruktur [Jokowi: Government Focuses on Infrastructure Development]. Retrieved April 10, 2021, from https://www.beritasatu.com/nasional/299017/jokowi-pemerintah-fokus-pembangunan-infrastruktur
- Ompusunggu, V. M. (2018). Dampak Pembangunan Infrastruktur Jalan Terhadap Pertumbuhan Ekonomi Masyarakat
 Di Desa Semangat Gunung, Kabupaten Karo, Sumatera Utara [The Impact of Road Infrastructure Development on the
 Economic Growth of the Community in Semangat Gunung Village, Karo Regency, North Sumatra]. Jurnal Pendidikan
 Ekonomi [Journal of Economics Education] (JUPEKO), 3(2), 18–26.
- Supriyatna, I. (2017). Infrastruktur Jadi Katalisator Utama Permintaan Beton "Precast" [Infrastructure Becomes the
 Main Catalyst for "Precast" Concrete Demand]. Retrieved April 14, 2021, from
 https://money.kompas.com/read/2017/02/22/151532326/infrastruktur.jadi.katalisator.utama.permintaan.beton.precast.?



- Tim PPM Manajemen. (2014). Canvas Business Model. Penerbit PPM.
- Warni, S. (2016). Apa Itu Model Bisnis dan Seberapa Pentingnya? [What Is a Business Model and How Important Is It?]. Retrieved May 28, 2021, from https://zahiraccounting.com/id/blog/apa-itu-model-bisnis-dan-seberapa-pentingnya/#:~:text=Keuntungan%20dengan%20menerapkan%20model%20bisnis.
 proses%20simulasi%20terhadap%20produk%20tersebut

Qeios ID: 4CRQ11.2 · https://doi.org/10.32388/4CRQ11.2