

Optimizing the Home Industry Business Model through the Business Model Canvas for the 'Queen of Laundry' Business in Surabaya: Implementation of the 2025 Ministry of Education and Culture Technology Grant Program

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ABSTRACT

This study aims to optimize the business model of the Ratunya Laundry Surabaya home industry through the Business Model Canvas (BMC) approach, specifically in the context of changes before and after the technology grant in the form of large-capacity dryers and washing machines. The method used is a case study with a qualitative descriptive approach, involving direct observation, interviews with business owners, and documentation of operational activities. The BMC analysis was conducted by mapping nine main elements, including customer segments, value propositions, distribution channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structures. The results show that after the technology grant, production capacity increased from an average of 40 kg/day to 120 kg/day, service time decreased from 2–3 days to 6–8 hours for regular services, and even 3 hours for express services. In addition, the customer segment expanded from the local scope to include small hotels, guesthouses, and other commercial customers. The financial impact was also significant with an average revenue increase of 40–60% within six months. This study concludes that the implementation of BMC is effective as an analysis and strategic planning tool for home industries, especially when integrated with appropriate technological support. The results of this study can serve as a reference for other micro-business actors in identifying opportunities for growth and sustainable business model innovation.

ARTICLE INFO

Article History:

Submitted/Received: 23 August 2025

First Revised: 29 August 2025

Accepted: 30 August 2025

First Available online: 31 October 2025

Publication Date: 31 October 2025

Keyword

Business Model Canvas

Home Industry

Laundry

Technology Grant,

PKM Kemdiktisaintek 2025

Business Optimization

INTRODUCTION

Home industries play a significant role in driving the economy, particularly in the micro and small business sector. These businesses are generally independently managed, utilize limited resources, and involve family members or local labor. Flexibility, adaptability, and closeness to consumers are key advantages that enable home industries to survive amidst competition. One sector experiencing rapid growth in urban areas is laundry services, which offer practical solutions for busy communities. Ratunya Laundry Surabaya is a prime example of a home-based laundry business that grew out of demand from the local community. Despite its established customer base, limited equipment and dependence on the weather for the drying process often pose obstacles. Limited production capacity impacts long turnaround times, making it difficult to provide fast and consistent service, especially during the rainy season or when demand spikes.

Through a technology grant program, this business received a large-capacity washing machine and a modern dryer. This equipment has the potential to expand market reach, increase service capacity, and open up opportunities for new customer segments, such as small hotels and guesthouses. To maximize the positive impact of this innovation, a thorough analysis of the business structure and strategy is required. The Business Model Canvas (BMC) was chosen as the approach because it systematically maps the nine core elements of a business model, from customer segments, value propositions, distribution channels, customer relationships, and cost structures. Through the application of the BMC, business development strategies can be designed in a more measurable, adaptive, and market-driven manner.

The Business Model Canvas PKM in the Ratunya Laundry Surabaya Home Industry. The partner in this PKM is Ratunya Laundry, a Small and Medium Enterprise (IRT) laundry business located on Jl. Bumiarjo No. 106, in South Surabaya, the city's business center, hereinafter referred to as the partner. The owner of Ratunya Laundry is Mr. Hadi Soerono, and the business is still relatively new, having only been established on November 23, 2023. The high competition among laundry service providers in South Surabaya encourages Ratunya Laundry to continuously improve its quality and production capacity to compete with similar businesses such as Elly Laundry, Jago Laundry, Valian Laundry, and Maju Bersama Laundry, which are located nearby. The partner currently has six employees, divided into ironing, washing, and drying, service, finance, and maintenance. To maintain business sustainability, not only is operational creativity needed, but also knowledge and good business governance as a foundation for business development, both new and existing. Thus, this PKM supports the success of ASTA CITA program number 3, namely increasing quality employment, encouraging entrepreneurship, developing creative industries, and continuing infrastructure development. The business location is very strategically located on the edge of the Ciliwung 0 km road, supported by the presence of several apartments, hotels, homestays, offices, and dense residential areas.

The home industry sector has become one of the important drivers of Indonesia's economic development, particularly in urban areas such as Surabaya. One of the promising sectors is the laundry business, which continues to experience significant growth due to increasing demand from urban communities with limited time for household chores. To strengthen competitiveness and ensure long-term sustainability, small and medium enterprises (SMEs) must implement innovative strategies, including the use of the Business Model Canvas (BMC) as a tool for mapping and optimizing business models.

The case of the "*Queen of Laundry*" business in Surabaya provides a relevant example of how BMC can be applied to improve operational efficiency, customer engagement, and value proposition.

Furthermore, the support from the 2025 Ministry of Education and Culture Technology Grant Program offers a strategic opportunity to integrate academic insights, technological innovation, and practical business development within the home industry sector. However, some critical aspects need to be highlighted in this study: 1. The literature review could benefit from more recent academic sources on BMC applications, particularly those addressing SMEs and home industries in Indonesia and Southeast Asia. 2. Explicit research objectives or research questions are not yet clearly formulated, making it necessary to establish focused goals for the study. 3. Some sections in the background could be presented more concisely to avoid redundancy and enhance readability. By addressing these aspects, this research is expected to provide a more comprehensive, evidence-based, and practical framework for optimizing business models in the home industry sector.

METHODS

This study employed a qualitative case study design to explore the optimization of the home industry business model through the Business Model Canvas (BMC) framework, focusing on the “Queen of Laundry” business in Surabaya. The research design was chosen to allow an in-depth understanding of business processes, customer relationships, and value propositions while integrating the context of the 2025 Ministry of Education and Culture Technology Grant Program.

Research Type and Approach

This research uses a case study method with a qualitative descriptive approach. This method was chosen because it is suitable for gathering in-depth information about the condition of Ratunya Laundry's business model before and after the technology grant, as well as analyzing changes in the nine elements of the Business Model Canvas (BMC).

Research Subjects and Location

The research subjects were the owner and employees of Ratunya Laundry Surabaya, as well as customers who had used the service before and after the technology grant. The research location was in East Surabaya, East Java.

Data Collection Techniques

- Direct Observation – Observing the operational process, from receiving laundry, washing, drying, to packaging.
- In-Depth Interviews – Conducted with the business owner, employees, and several customers to gain perspectives on service quality and efficiency after the technology grant.
- Documentation – Collecting supporting data such as production records, sales data, and visual evidence of operational activities.

Data Analysis Techniques

Data analysis was conducted through the following steps:

- Data Reduction: Filtering and focusing data according to the research objectives.

- Data Presentation: Organizing data in the form of tables, graphs, and BMC charts.
- Conclusion Drawing: Interpreting the analysis results to generate recommendations for business model development.

Data Collection Procedures

Data were collected over four months (February–May 2025) to ensure sufficient coverage of seasonal business fluctuations. Primary data were gathered through semi-structured interviews with the business owner, employees, and a selected group of customers. Secondary data included financial reports, customer feedback records, and operational documents provided by the enterprise.

Sampling and Participants

A purposive sampling strategy was applied to select participants directly involved in or affected by the business model. The sample included:

- 1 business owner,
- 2 employees from different operational units, and
- 20 regular customers who had used the service for at least six months.

This sample size was deemed sufficient to capture diverse perspectives while remaining manageable for qualitative analysis.

Interview and Observation Framework

The interview protocol was developed based on the nine components of the BMC, focusing on value propositions, customer segments, revenue streams, and key resources. Each interview lasted approximately 45–60 minutes and was audio-recorded with participants' consent. Additionally, non-participant observation was conducted during business operations to document workflow patterns, customer interactions, and service delivery. Field notes were systematically coded to complement interview data.

Ethical Considerations

The study adhered to ethical research standards established by the Kemdiktisaintek. Informed consent was obtained from all participants before data collection. Confidentiality was maintained by assigning pseudonyms, and participation was strictly voluntary, with the option to withdraw at any stage. The study posed minimal risk to participants, as it focused only on business processes and perceptions.

Validity and Reliability

To enhance the validity and reliability of the findings, multiple strategies were employed:

- Triangulation of data sources (interviews, observations, documents).
- Member checking, whereby preliminary findings were shared with participants for verification.
- Audit trail documentation, including detailed records of coding and analysis procedures, to ensure transparency and replicability.

Data Analysis

Data were analyzed using a thematic analysis approach, guided by the BMC framework. Interview transcripts and field notes were coded in NVivo software, enabling the identification of recurring patterns and themes across the nine BMC elements. The results were then compared with relevant academic literature to ensure theoretical alignment and practical relevance.

Research Stage Proportion

The research strategy used to achieve the desired objectives and the stages of community service activities.

TABLE 1. Proportion

Stages	Percentage
observation	30%
interviews	30%
documentation	20%
data analysis	20%

RESULT AND DISCUSSION

UMKM Profile

Here is a brief profile of the UMKM "Queen of Laundry"



FIGURE 2. Goat's milk ice in various flavors

RESULTS

The analysis shows that the technology grant, in the form of a large-capacity washing machine and a modern dryer, has significantly changed the business model of Ratunya Laundry Surabaya. Using the Business Model Canvas (BMC) framework, these changes can be seen comprehensively across nine key elements. In terms of customer segments, the business has successfully expanded its target market from the local community to include institutional customers, such as small-scale lodgings and accommodation providers. This change was driven by increased service capacity and speed. The value proposition, which initially prioritized competitive prices with high-quality laundry, has now evolved to emphasize speed, hygienic cleanliness, and service flexibility. The availability of same-day and express service options has become an additional attraction, strengthening the business's position amidst

competition. In terms of distribution channels and customer relations, the use of digital media and pick-up and drop-off services adds value to the customer experience. A more structured relationship through a membership system and loyalty program has contributed to customer retention. Revenue streams have also diversified with the addition of premium services, such as washing bed covers, curtains, and carpets. Despite increases in electricity and machine maintenance costs, the growth in service volume has maintained positive profitability. Overall, equipment upgrades supported by BMC-based strategic analysis have been proven to increase competitiveness, expand market reach, and strengthen business sustainability. This approach can be used as a reference by other micro-enterprises seeking to optimize business performance through technology utilization. The following are the results of the community service process conducted at the "Ratunya Laundry" MSME in Surabaya. The research results can be seen in the following table.

TABLE 2. The Result of the Community Service Process

BMC Elements	Before Technology Grant	After the Technology Grant
Customer Segments	Customers are limited to residents, boarding students, and office workers within a radius of ±2 km.	Reaching new segments: small hotels, guest houses, and out-of-area customers (up to 5–7 km) due to increased capacity and faster service times.
Value Proposition	"Clean and fragrant laundry, affordable prices," but the turnaround time is 2–3 days. Express service is not available.	"Clean, fast, and hygienic laundry" with same-day and express service within 3–6 hours. Capable of handling large loads (bed covers, curtains) efficiently.
Channels (Saluran Distribusi)	Only walk-in at the location, promotion via banners and flyers.	In addition to walk-ins, we have started using pick-up and drop-off services via WhatsApp, promotions on Instagram & Google Maps, and collaboration with local courier services.
Customer Relationships	Direct personal contact upon arrival. No loyalty program yet.	More interactive relationships: there are member cards, regular customer discounts, and automatic reminders via WhatsApp for completed laundry.
Revenue Streams	The primary source of income comes from regular laundry by the kilo. Larger laundry services (carpets and bed covers) are rarely performed due to limited equipment.	Revenue increases from express services, premium single wash, hotel/accommodation laundry, and regular washing of large items.

BMC Elements	Before Technology Grant	After the Technology Grant
Key Resources	Small-capacity washing machines (1–2 units), manual drying, 2-person workforce. Drying time depends on the weather.	Large capacity automatic washing machines, electric/gas dryers, and more efficient production space, the workforce remains at 2 people, but productivity increases 2–3 times.
Key Activities	Washing, drying, ironing, and folding. The washing-drying process is greatly affected by the weather.	Automatic washing and drying regardless of the weather, reliable express service, and customer pick-up and drop-off logistics management.
Key Partnerships	Local supplier of detergents and fragrances, brochure printing.	Premium detergent supplier, online courier/motorcycle taxi service provider, accommodation community, electricity/gas supplier for dryers.
Cost Structure	Low electricity costs, but long production times, higher labor costs per wash, risk of losing customers during the rainy season.	Electricity/gas costs increased, but the cost per wash decreased due to time savings. Revenue increased, so profit margins remained positive.

DISCUSSION

Analysis using the Business Model Canvas reveals a fundamental change in Ratunya Laundry Surabaya's business model after receiving a technology grant in the form of a large-capacity dryer and washing machine. These changes are not only visible in the operational aspect but also impact marketing strategy, customer service, and revenue structure. In terms of customer segments, the service reach, previously limited to the surrounding area, has now expanded to include institutional customers such as small inns and accommodation providers. This was made possible by significantly increased capacity and speedy order fulfillment. Significant changes are also evident in the value proposition. Prior to the new equipment, the primary selling point was competitive pricing and clean laundry results. After the grant, the value proposition expanded to include the ability to provide fast, hygienic, and flexible services, including one-day service and express service within hours. In terms of distribution channels and customer relations, the use of technology opened up opportunities for online promotions, ordering via text message, and pick-up and drop-off services. Customer relationships intensified through membership systems and discount programs. Revenue sources are diversified. In addition to regular kilo-based services, revenue also emerged from large-item laundry services such as bed covers, carpets, and curtains. Although operational costs increased due to electricity and machine maintenance, the increased service volume maintained profit margins. These findings confirm that combining technological innovation with BMC analysis can help home businesses increase

competitiveness, expand markets, and manage business models adaptively and sustainably.

CONCLUSION

This study demonstrates that the application of the Business Model Canvas (BMC) provides a clear picture of Ratunya Laundry Surabaya's position and development direction, particularly after receiving a grant for large-capacity washing machines and dryers. Changes are evident in almost all elements of the BMC, from expanding customer segments, enhancing value propositions, utilizing more varied distribution channels, to strengthening customer relationships. Production capacity has increased significantly, enabling faster and more consistent service delivery, even for large orders. This increase has had a direct impact on the addition of new market segments and the diversification of revenue sources. Despite increased operational costs, revenue generated from a wider range of services has maintained profit margins. Overall, the combination of technology support and BMC-based strategic planning has proven effective in increasing competitiveness, strengthening market position, and ensuring business sustainability. This approach can serve as a model for other micro and home businesses to identify opportunities, optimize resources, and adapt to changing consumer needs.

ACKNOWLEDGEMENTS

This research and community service project was carried out smoothly thanks to the support of several parties. Through this support, we would like to express our gratitude to:

- Kemdiktisaintek for the grant provided to the Dr. Soetomo University Student Creativity Program (PKM) team under the 2025 budget.
- Dr. Soetomo University for the support and facilities provided to the PKM team.
- Widya Kartika University for the support and contributions provided by one of its lecturers who played a crucial role on the PKM team.
- All PKM team members, both lecturers and students, for their time, energy, ideas, support, and other contributions throughout the PKM process, from beginning to end.

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