

ASSESSMENT OF BUSINESS MODEL TRANSFORMATION TOWARD A PRODUCT-SERVICE SYSTEM AT TOKO ROTI ENAK, SOUTH TANGERANG

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Abstract

This study examines the transformation of Toko Roti Enak, South Tangerang branch, toward a Product-Service System (PSS) based business model by analysing the opportunities offered through Quadrant 2 (Product Related Service) and Quadrant 4 (Product Related Software). The research employs a qualitative-descriptive approach supported by interviews and direct observations to understand the bakery's current conditions and its potential to integrate service and digital innovations. The findings show that implementing Product Related Service can enhance customer experience through additional offerings such as delivery services, pre-order systems, loyalty programmes, and product consultation. These service enhancements are expected to strengthen customer engagement, improve convenience, and support long-term loyalty. Meanwhile, the application of Product Related Software provides opportunities to modernise operational processes through the use of ordering applications, CRM systems, digital stock management, and integrated cashier databases. These technological tools contribute to more efficient workflows, reduced operational errors, and data-driven decision-making. The combined implementation of both quadrants indicates that Toko Roti Enak can create a more integrated, customer-focused, and digitally adaptive business model. The adoption of the PSS approach not only improves service quality and operational performance but also strengthens the bakery's competitiveness and supports sustainable growth in the increasingly digitalised F&B sector.

Keywords: Product-Service System, Bakery Business Development, Product Related Service, Product Related Software, Digital Transformation

Introduction

In recent years, the food and beverage (F&B) sector in Indonesia has shown rapid growth and has proven to be one of the most resilient industries in the national economy. This industry contributes significantly to employment, the growth of MSMEs, and increased productivity in various regions. Changes in digital consumption patterns, increased activity on online platforms, and urban lifestyles have encouraged businesses to provide more practical, personalised, and high-quality services (Nugroho, 2021). However, amid this growth, small-scale bakeries such as Toko Roti Enak still struggle to remain competitive. The branch located in South Tangerang, which is the focus of this study, is still lagging behind in keeping up with changes in consumer preferences and digital trends, especially when competitors have begun to maximise online marketing and digital service integration (Santoso et al., 2023). Dependence on conventional product sales also hinders the formation of customer loyalty and long-term revenue sustainability.

To address these challenges, the Product-Service System (PSS) approach can be a relevant strategy for Toko Roti Enak in updating its business model. The integration of bakery products with supporting services such as online ordering, delivery, and loyalty programmes can improve convenience, service consistency, and customer satisfaction. This transformation is increasingly important given technological developments that continue to drive the modernisation of bakery operations, including the use of Industry 4.0 technology to improve efficiency, accuracy, and responsiveness to market needs (Melesse & Orrù, 2025).

Conceptually, PSS is understood as a sustainable business model that combines physical products with value-added services to create higher value for customers. Tukker (2004) explains that PSS is a shift from ownership-based value creation to a model that emphasises the benefits of use and related services. This approach has been applied in various industries and has proven to be flexible and effective in supporting service innovation and customer-oriented business development (Baines et al., 2007). Furthermore, PSS is aligned with the principle of sustainability through more efficient use of resources and waste reduction through mechanisms such as service subscriptions, reusable packaging, and pay-per-use systems (Vezzoli et al., 2015; Mont, 2002).

In the context of the F&B industry, PSS enables businesses to create a more integrated and meaningful customer experience, as it is able to meet functional, emotional, and social needs through a combination of products and services (Manzini & Vezzoli, 2003). For Toko Roti Enak, implementing PSS-based strategies, particularly through strengthening services and utilising digital technology, can be a step towards increasing competitiveness, operational efficiency, and supporting sustainable business growth in an increasingly digital and customer-centric market.

Methods

This study uses a descriptive qualitative approach to gain a comprehensive understanding of the current business model of Toko Roti Enak and its potential transition to a Product Service System (PSS). This approach allows researchers to capture the actual conditions of the business based on verbal information, written responses, and direct observation at the research location.

Primary data was collected through questionnaires, semi-structured interviews, and direct observation. The data collection process began with the distribution of questionnaires designed to help the owner of Toko Roti Enak, South Tangerang branch, identify the company's position in the PSS framework. The questionnaire consisted of several guiding questions and a three-quadrant assessment, namely the existing quadrant, the quadrant desired by the owner, and the quadrant recommended by the researcher. This instrument ensured that important aspects such as product offerings, service practices, resource availability, and development potential could be evaluated systematically.

After the questionnaire was completed, an interview was conducted on 29 September 2025 with the business owner to gain a deeper understanding of operational challenges, customer needs, and opportunities to integrate product and service-based values. The interviews were conducted with reference to the questionnaire results so that the researchers could clarify answers and further explore the factors that influence the company's suitability for a particular quadrant in the PSS. Conducting face-to-face interviews also allowed the researchers to obtain contextual information that is not usually found in written documents.

In addition to interviews and questionnaires, direct observations were conducted at Toko Roti Enak to observe daily operational activities, interactions with customers, service processes, and the overall business environment. These observations provided concrete evidence of how the shop operates and how products and services are delivered to customers in practice.

The data obtained through questionnaires, interviews, and observations were analysed using triangulation techniques. Triangulation allows researchers to compare findings from various data sources, minimise bias, and increase the reliability and validity of conclusions. Through a combination of these methods, this study is able to present a comprehensive analysis of Toko Roti Enak's current business model and the shop's readiness to transform through the Product Service System approach.

Results and Discussion

This research begins by distributing a questionnaire that includes several quadrant analyses and supporting questions. The questionnaire consists of four main components: the existing quadrant, the desired quadrant as expressed by the business owner, the proposed quadrant from the researcher, and several guiding questions to identify the company's products and assess its current position. The existing quadrant represents the current or status quo condition of the business, categorized as product-oriented, use-oriented, or service-oriented within the Product-Service System (PSS) framework. The proposed quadrant, on the other hand, reflects the researcher's recommendation for the most suitable quadrant to be implemented in the future to support business development. In addition, several questions were asked to the owner of Toko Roti Enak – South Tangerang branch to help determine the most relevant quadrant based on the company's characteristics, customer preferences, and operational focus. The following table presents the questions used and the resulting quadrant analysis.

Table 1. Questionnaire Questions

No.	Questions	Yes/No
1.	Does your institution offer products in the form of goods or services only (no combination)?	No
2.	Does your institution offer products in the form of goods and services (simultaneously)?	Yes
3.	Does your institution have specialised human resources who are members of a team of experts in the field of the products you offer?	No
4.	Does your institution have dedicated human resources for software development?	Yes
5.	Does your institution have sufficient financial resources to offer instalments/rentals? For example, if offering 6 instalments per period, then the institution must have reserve funds available equal to 6x cash flow per period.	No
6.	Can the products/services provided to customers be enjoyed by different customers at the same time?	No
7.	Does your institution have partners who can help distribute the products/services provided?	No
7a.	Is the business partner willing to distribute the products/services provided using a payment method per unit of service?	No

7b.	Is the business partner willing to distribute products/services that are tailored/customised (to suit customer needs/desires)?	No
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Table 2. PSS Quadrant Existing

Product Oriented	Use Oriented	Result Oriented
<i>Product Related Service</i>	<i>Product Lease</i>	<i>Outsourcing</i>
Quadrant 2		
<i>Advice & Consulting</i>	<i>Product Renting/Sharing</i>	<i>Pay Per Service Unit</i>
<i>Product Related Software</i>	<i>Product Pooling</i>	<i>Functional Result</i>

Table 3. PSS Quadrant Wishlist

Product Oriented	Use Oriented	Result Oriented
<i>Product Related Service</i>	<i>Product Lease</i>	<i>Outsourcing</i>
Quadrant 4		
<i>Advice & Consulting</i>	<i>Product Renting/Sharing</i>	<i>Pay Per Service Unit</i>
<i>Product Related Software</i>	<i>Product Pooling</i>	<i>Functional Result</i>

Table 4. PSS Quadrant Eligible

Product Oriented	Use Oriented	Result Oriented
<i>Product Related Service</i>	<i>Product Lease</i>	<i>Outsourcing</i>
Quadrant 2		
<i>Advice & Consulting</i>	<i>Product Renting/Sharing</i>	<i>Pay Per Service Unit</i>
<i>Product Related Software</i>	<i>Product Pooling</i>	<i>Functional Result</i>
Quadrant 4		

This section highlights three quadrants considered most suitable for further business development at Toko Roti Enak, South Tangerang branch using the Product-Service System (PSS) framework. The selected quadrants are Quadrant 2 (Product Related Service) and Quadrant 4 (Product Related Software). Each of these quadrants offers unique possibilities to refine the company's business model, enhance operational performance, and strengthen customer engagement. Through the adoption of these PSS-oriented strategies, the company is expected to optimize its resource utilization, expand its range of integrated services, and build a more sustainable and competitive position within the bakery industry.

Quadrant 2: Product Related Service

This quadrant represents a business development strategy that focuses on providing additional services that directly support or complement the main product. The approach aims to deliver added value to customers through an experience that is not only product-oriented but also emphasizes the quality of the accompanying services. Within the Product-Service System (PSS) framework, this model enables companies to build stronger customer relationships while creating a competitive advantage that is difficult for competitors to replicate.

The South Tangerang branch of Toko Roti Enak can implement this strategy by developing various additional services that enhance customer convenience and loyalty. These may include offering a bread ordering and home delivery service, a pre-order system for seasonal or custom-made products, and a loyalty program that provides points, discounts, or gifts for regular customers. Furthermore, the company could introduce a product consultation service to assist customers in selecting the type of bread or cake that best suits their preferences or needs.

Implementing this strategy will enable Toko Roti Enak's South Tangerang branch to build a more personalized and value-added customer experience. By providing responsive, accessible, and consistently high-quality services, the company can strengthen long-term customer relationships, improve retention rates, and expand its market reach. Overall, this approach has the potential not only to increase customer satisfaction but also to create revenue stability through sustained consumer loyalty and trust.

Quadrant 4: Product Related Software

This quadrant represents a business development strategy that focuses on utilising software to support, complement, and enhance the value of the main product. Within the context of Product-Service Systems (PSS), this model emphasises the integration of physical products with digital technologies to create a more efficient, interactive, and personalised customer experience. Such an approach is particularly relevant in the

digital era, as it strengthens the relationship between businesses and customers through more connected and responsive systems.

The South Tangerang branch of Toko Roti Enak can optimise this quadrant by developing or adopting various types of software that support its sales and service operations. For instance, the shop could introduce a mobile-based ordering application that allows customers to conveniently place orders, schedule pick-up times, and make digital payments. In addition, the use of a customer relationship management (CRM) system would enable the store to track customer preferences and purchasing behaviour, thereby providing more personalised promotions and product recommendations.

Software implementation can also be directed toward improving operational efficiency. For example, a digital stock management system could help monitor the availability of raw materials and finished products in real time, reducing the risk of shortages or waste. Furthermore, integrating the cashier system with customer databases could support data-driven decision-making by identifying purchasing patterns and informing more targeted marketing strategies.

Overall, adopting this strategy will help the South Tangerang branch of Toko Roti Enak transform into a more modern, efficient, and customer-centric business. With the right digital solutions, the shop can not only enhance customer convenience but also strengthen its competitiveness and ensure long-term business sustainability in the increasingly digitalised F&B industry.

Conclusion

The use of the Product-Service System (PSS) approach through Quadrant 2 and Quadrant 4 provides a great opportunity for Toko Roti Enak's South Tangerang branch to improve service quality while strengthening its business operations. The strategy in Quadrant 2, namely Product Related Service, helps the shop add a variety of additional services that directly support its main products. Examples include delivery services, pre-order systems for seasonal products or special orders, consultations for choosing bread or cakes, and loyalty programmes for loyal customers. These services not only make the purchasing process easier, but also make customers feel more valued. With a more personalised and convenient experience, the shop can build long-term relationships with customers and increase the chances of repeat purchases.

On the other hand, Quadrant 4, which focuses on Product Related Software, provides an opportunity for Toko Roti Enak to utilise technology to manage work processes more efficiently. The use of ordering applications, digital payment systems, CRM to record customer preferences, and digital-based stock management systems allows the shop to work faster and in a more organised manner. With this technology, the shop can minimise errors in recording, monitor raw material needs in real time, and tailor promotions to customer shopping habits. This makes operations more stable and business decisions can be made based on more accurate data.

If both strategies are implemented simultaneously, Toko Roti Enak can create a more comprehensive customer experience, from helpful and responsive service to a more modern and integrated ordering and operational process. This approach also makes the shop more competitive with other businesses in the F&B industry, which is currently shifting towards digitalisation. By providing added value that comes not only from products, but also from services and technology, Toko Roti Enak has the opportunity to expand its market, retain customers in the long term, and maintain business sustainability.

In summary, the implementation of PSS through Quadrant 2 and Quadrant 4 helps Toko Roti Enak become a more innovative, customer-friendly, and efficient bakery. This step can strengthen the shop's position in the market and support business growth amid changing consumer trends and technological developments.

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