

New Business Model for Furniture Manufacturing Companies Using the Concept of Design Thinking (Case Study of PT Multi Suplai International)

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Abstract

The implementation of made-to-order systems in business can pose problems in the future, especially when companies rely on intermediaries such as distributors and e-commerce platforms to sell their products. PT Multi Suplai International, a furniture manufacturer that implements a made-to-order system as a production strategy, experienced a negative impact due to changes in e-commerce platform policies in 2022. The new policy accelerates the delivery time limit of products from sellers to shipping companies, which has had an impact on declining sales profits and production quality. This research aims to identify a new business model that is suitable for PT Multi Suplai International with the Indonesian market conditions using a design thinking process that emphasizes *empathy* to consumers, *defining* consumer needs, making business model ideas, making business model prototypes, and testing new business models. Through this approach, a new business model—which is made-to-stock—was chosen. The detailed implementation plan was developed using a new business model canvas for PT Multi Suplai International. The results demonstrate that this shift addresses key customer pain points, such as long waiting times and product unavailability, while improving operational efficiency. The study concludes that adopting a made-to-stock strategy can enhance PT Multi Suplai International's competitiveness and revenue stability. These findings have practical implications for similar SMEs facing e-commerce policy disruptions, highlighting the importance of adaptable production models in dynamic markets.

Keywords: furniture company, made to order, made to stock, design thinking process

INTRODUCTION

The business trend of using online sales channels in Indonesia is increasing every year. Based on data from the Indonesian Chamber of Commerce and Industry in 2023, there are around 66 million micro/small/medium enterprises (MSMEs) who sell their products in e-commerce. The contribution of MSMEs reaches 61% of Indonesia's Gross Domestic Product (GDP), equivalent to Rp 9,580 trillion. MSMEs absorb around 117 million workers (97%) of the total workforce. However, this trend is not comparable to the number of small and medium-sized businesses that are still surviving year after year. In fact, many registered MSME businesses are in a bad position and have a hard time moving up to the next level. In 2023, nearly 80% of registered businesses entered a stagnant phase.

PT Multi Suplai Internasional is a furniture manufacturing company located in Bandung. The company manufactures and sells different types of furniture for customers. PT Multi Suplai Internasional was founded by Arif as the founder, who initially had the idea to start a furniture company because during the Covid-19 pandemic, many people had to work from home and needed furniture to set up a comfortable workspace in their homes.

The growing adoption of e-commerce among MSMEs in Indonesia has been shown to improve business performance and financial inclusion. Digital commerce allows small businesses to gain broader market access and utilize data analytics to better understand customer behavior (Wirdiyanti et al., 2022). The ecosystem supporting MSMEs' digital transformation is shaped by factors such as digital human capital, sociotechnical adaptation, and continuous government support (Aminullah et al., 2022). Furthermore, e-commerce transformation fosters innovation and disrupts conventional business models, especially in creative industries like furniture (Dewi & Lusikooy, 2023). Dynamic capabilities, such as the ability to manage omnichannel strategies, have been found to help MSMEs stay competitive in rapidly changing markets (Febriani, 2025). Moreover, qualitative case studies on MSMEs in

the furniture sector highlight that leveraging local materials and affordable labor are key strengths in enhancing global competitiveness (Susanty et al., 2025).

In recent studies, the adoption of e-commerce by Indonesian MSMEs is driven by factors framed within the Technology Organization Environment (TOE) model, such as organizational readiness, perceived benefits, and environmental pressure (Ausat & Peirisal, 2021; Firstly & Dachyar, 2022). Systematic reviews of MSME digital transformation reveal that while digitalization supports operational efficiency and market expansion, challenges like infrastructure limitations and digital literacy remain prevalent (Purnomo et al., 2024; IJEFM, 2022). In the context of furniture MSMEs, trust and competitive pressure are key to sustaining long-term e-commerce use (Miftahurrohman et al., 2022).

Entrepreneurial orientation proactiveness, innovation, and aggressiveness also boosts competitiveness in furniture-based MSMEs (Paulus & Hermanto, 2022). Market reports further show consistent growth in Indonesia's online furniture sales revenue since 2018, with forecasts indicating continued growth (Statista, 2023). In addition, financial authorities emphasize that e-commerce adoption contributes significantly to MSME financial inclusion and business performance (Yusgiantoro et al., 2021), and further studies in Malang and Jambi highlight how individual attitudes and environmental pressure affect digital adoption (Yacob et al., 2021; Sutrisno et al., 2024).

A critical review of previous research reveals gaps that this study aims to address. First, Lin et al. (2012) examined logistics and supply chain challenges in manufacturing but focused primarily on large-scale industries, neglecting the unique constraints of small and medium-sized enterprises (SMEs) like PT Multi Suplai Internasional. Second, Osterwalder and Pigneur (2010) proposed the Business Model Canvas as a tool for innovation, yet their framework lacks specific guidance for SMEs transitioning from made-to-order to made-to-stock systems. This study bridges these gaps by applying the *design thinking* process to develop a tailored business model for PT Multi Suplai Internasional, combining empirical data from customer surveys and internal analyses to address practical challenges in production and distribution.

The objectives of this research are twofold: (1) to identify a sustainable business model for PT Multi Suplai Internasional by transitioning from made-to-order to made-to-stock, and (2) to demonstrate how *design thinking* can mitigate risks associated with e-commerce dependency. The findings will benefit SMEs facing similar challenges by providing a replicable framework for adapting to market changes while maintaining operational efficiency and customer satisfaction.

RESEARCH METHOD

This research uses qualitative and quantitative approaches. The quantitative data collection technique involved distributing questionnaires in a market survey to 97 respondents, while the qualitative method involved interviews with 3 leaders from the management division, 3 leaders from the production division, and 12 customers of PT Multi Suplai Internasional.

The data collection process is divided into questionnaires and interviews. The purpose of the questionnaire is to gather information regarding consumer perceptions of ideas to solve market problems and preferences in the furniture industry.

The analysis for this study is divided into two parts: quantitative analysis of questionnaires and qualitative analysis of interviews and design thinking processes. With the help of Microsoft Excel, interviews will be analyzed to find out customer preferences about PT Multi Suplai Internasional products and new business models.

RESULTS AND DISCUSSION

Internal Analysis

Analysis of VRIO PT Multi Suplai Internasional

The VRIO analysis is carried out to identify the resources that the company has by determining the strengths and weaknesses it has to generate objectivity in identifying competitive advantages and developing the right business strategy for the sustainability of the company's business.

The findings revealed that PT Multi Suplai International's intangible resources include skills and knowledge related to furniture and services, while tangible resources consist of the company's physical office and financial situation. Skills and knowledge in furniture are invaluable to companies, but they are common and easy to replicate.

External Analysis

PESTEL Analysis

The political situation in Indonesia presents various challenges that can have an impact on business activities. For example, PT Multi Suplai Internasional experienced a significant setback when the government temporarily closed the TikTok Shop on November 17, 2023.

From an economic perspective, the level of economic stability of a country is closely related to the development of its business sector. In 2017, Indonesia experienced an economic growth rate of 5.1%.

Competitor Analysis

Competitor analysis shows that PT Multi Suplai Internasional has a more limited selection compared to its competitors. In terms of price, PT Multi Suplai Internasional remains competitive relative to other businesses. However, the company only operates in one major city, Bandung, while its competitors enjoy a more favorable geographical presence.

Consumer Analysis

Empathize

The development of a product or service starts with understanding the customer. In this study, the researcher aims to empathize with PT Multi Suplai Internasional customers by utilizing questionnaires distributed through Google Forms and conducting in-depth interviews with respondents.

The empathy stage is divided into two parts. The first part involved a questionnaire completed by 97 respondents during November and December 2024, focusing on identifying customers based on their profiles and behaviors.

Customer Profile

Around 65% of customers at PT Multi Suplai Internasional are women. This is in line with Indonesian customs where women usually buy home and living products for their households. Around 35% of PT Multi Suplai Internasional customers are between 25 and 35 years old.

Customer Behavior

PT Multi Suplai Internasional customers usually buy home and living products every 1-2 years, depending on the product category they buy. The average expenditure of PT Multi Suplai Internasional customers to buy products ranges from IDR 300,000 to IDR 700,000.

Define

In the Define stage, the researcher will analyze the customer's pain points in the current situation and the benefits obtained from buying products from PT Multi Suplai International.

Customer Pains:

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1. Products out of stock
2. Waiting times for pre-order products are too long
3. Delivery time exceeds 3 days
4. Limited discounts and promotions available
5. Shipping costs for large furniture are very expensive
6. The instruction manual for assembling the product at home is unclear
7. The product description is not informative enough
8. Product availability is unclear

Customer Gains:

1. Products are always available
2. No more pre-order/made-to-order products
3. Same day delivery time
4. More discounts and promotions are offered
5. Reduced shipping costs for large furniture
6. Clear and comprehensive instruction manual
7. A clear description of the product describing the item
8. Clear information about product availability

Business Solutions

Ideate

This study uses SCAMPER (Substitute, Combine, Adapt, Modify, Put to other uses, Eliminate, Rearrange). The most significant changes needed at PT Multi Suplai Internasional are those that effectively address external factors that are currently impacting sales.

Two alternative business solutions that can be offered at PT Multi Suplai Internasional are:

1. **PT Multi Suplai's International Made to Stock Production Model** currently uses a made-to-order production strategy. The author proposes a solution that turns to a made-to-stock production strategy. This approach will involve PT Multi Suplai producing products first and storing them in the company's warehouse.
2. **PT Multi Suplai International's Online to Offline Business Model** currently only relies on online sales. To improve its sales strategy, the author proposes that PT Multi Suplai Internasional form an offline sales channel by adopting an Online to Offline (O2O) model.

After analyzing and comparing the two business solutions using the results of pain and gain, external and internal analysis, this study has chosen to prioritize a made to stock production model for the current needs of PT Multi Suplai International.

Prototype

Based on the analysis and solutions that have been created for PT Multi Suplai International, the business model canvas was created to describe the Made to Stock production strategy.

Test

The test results showed that the Made to Stock model can address 5 out of 8 customer pain points, while the Online to Offline model can address 6 out of 8 pain points.

Implementation Plan

Business Model Canvas

A business model canvas has been created for PT Multi Suplai Internasional which adopts a Made to Stock production strategy, where products are designed and manufactured in advance based on estimated demand. This model allows companies to maintain inventory of best-selling products and standard furniture, ensuring faster delivery times and greater convenience for customers.

Implementation Timeline

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The implementation timeline includes:

1. Create sales forecasts based on historical sales data
2. Compile a list of required inventories based on sales forecasts
3. Generate a list of materials needed to produce a planned inventory
4. Securing funding from investors
5. Negotiate with suppliers for required materials
6. Develop a production schedule
7. Involved in product development
8. Update product stock levels based on actual inventory data
9. Conducting regular business activities
10. Implement customer stratification surveys

CONCLUSION

Based on the analysis of the situation using various conceptual frameworks, two main conclusions can be drawn. First, PT Multi Suplai Internasional needs to change its production strategy from "made to order" to "made to stock" using the concept of design thinking. This conclusion was reached after conducting a thorough internal and external analysis and evaluating the pain points and benefits experienced by the company's customers. Second, to facilitate the transition to this "made to stock" production model, a new business model and implementation plan has been developed, in line with the company's current conditions. A significant challenge of this new production strategy is determining inventory levels based on historical sales data and the company's financial condition. Future research could explore the scalability of this model across different industries or regions, as well as the integration of advanced technologies like AI for demand forecasting, to further enhance operational efficiency and competitive advantage.

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