

## The Effectiveness of Business Model Canvas (BMC) to Increase the Competitiveness of MSMEs in the Culinary Sector in Palopo City

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### Abstract

Micro, Small, and Medium Enterprises (MSMEs) in the culinary sector contribute significantly to local economic growth in Palopo City. However, many MSME actors face challenges in sustaining their businesses due to the lack of systematic business strategies. This study aims to analyze the effectiveness of implementing the Business Model Canvas (BMC) in improving the performance of culinary MSMEs in Palopo. The research employed a quantitative approach by distributing questionnaires to 80 culinary MSME respondents, complemented by in-depth interviews to enrich the qualitative data. Data analysis was conducted using the Structural Equation Modeling (SEM) method to examine the influence of the nine BMC elements on competitiveness and business sustainability. The results indicate that Value Proposition, Customer Relationship, and Key Activities have a significant impact on revenue growth and customer loyalty. Meanwhile, Channels and Revenue Streams play an important role in expanding market access and enhancing profitability. These findings confirm that BMC is an effective strategic framework for strengthening the competitiveness of culinary MSMEs in Palopo and can serve as a reference for local governments and supporting institutions in formulating sustainable MSME development programs.

**Keywords:** Business Model Canvas, MSMEs, culinary, effectiveness, Palopo City

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### INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy. According to data from the Ministry of Cooperatives and SMEs (2022), MSMEs contribute 60.6% to the national Gross Domestic Product (GDP) and employ approximately 97% of the total workforce. This demonstrates that MSMEs not only play a key role as drivers of economic growth but also play a key role in equitable development and job creation.

However, despite their significant contribution, the sustainability of MSMEs still faces serious challenges. According to Tambunan (2019), the failure rate for MSMEs ranges from 50-70% within the first three years. This failure is generally caused by weak management capacity, limited access to financing, minimal innovation, and a lack of strategic planning. Another study by Churchill & Lewis (1983) in their book, *\*Five Stages of Small Business Growth\**, also emphasized that

MSMEs are vulnerable to failure due to their inability to adapt to changes in the business environment, particularly in the early stages of growth.

This phenomenon is also evident in the regional context, particularly in Palopo City, South Sulawesi. The culinary sector is a key driver of the regional economy, with annual growth of 12.3%, exceeding the national average of 8.5%. Data from the Palopo City Cooperatives and MSMEs Office (2023) recorded 724 culinary MSMEs, contributing 23.7% to the regional regional revenue (PAD). However, the competitiveness of Palopo's culinary MSMEs remains low, with a business sustainability rate of only 38% over five years.

The problem of low competitiveness of culinary MSMEs is caused by: Lack of understanding of strategic business models, Weak adaptation to changes in consumer preferences, Limited distribution and marketing networks, and Inefficiency in managing cost structures.

Kotler & Keller (2016) state that a business's success is determined by the company's ability to formulate marketing strategies that are in line with changes in consumer behavior. Meanwhile, the Dynamic Capabilities theory by Teece, Pisano, & Shuen (1997) emphasizes that sustainable competitiveness can only be achieved if an organization is able to integrate, build, and configure internal competencies in response to changes in the external environment.

In an effort to increase the competitiveness of MSMEs, one relevant approach is the application of the Business Model Canvas (BMC). Osterwalder & Pigneur (2010) define BMC as a strategic visual framework consisting of nine main elements: customer segments, value propositions, distribution channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structures. With this framework, MSMEs can develop a more holistic business picture, understand the relationships between business components, and design innovative strategies.

According to Zott & Amit (2010), appropriate business model design can be a source of competitive advantage. Meanwhile, Wirtz et al. (2016) emphasized that BMC can help small businesses identify opportunities, minimize risks, and develop sustainable growth strategies. This also aligns with Barney's (1991) view of the Resource-Based View (RBV) theory, which emphasizes that competitive advantage can be achieved if a business is able to utilize valuable, rare, non-imitable, and difficult-to-substitute internal resources.

Furthermore, Drucker (1994) emphasized that innovation and entrepreneurship are key factors for MSMEs to survive and thrive. Through systematic business strategy mapping, such as the BMC, MSMEs can create value propositions that better align with consumer needs while increasing operational cost efficiency.

However, BMC implementation cannot be generic. Local socio-economic characteristics, culture, and consumer behavior must be primary considerations. Therefore, an in-depth study is needed to determine the effectiveness of BMC use in the culinary sector of MSMEs in Palopo City to develop an adaptive, innovative, and contextual business development model. Therefore, this research is expected to make a significant contribution to increasing the competitiveness of culinary MSMEs while strengthening the regional economy.

## METHODOLOGY

This research was conducted in Palopo City. The variables of this study are the business model canvas which consists of 9 dimensions, namely Customer Segments, Value Propositions, Distribution Channels, Customer Relationships, Revenue Streams,

Key Resources, Key Activities, Key Partnerships, and Cost Structure. Competitiveness consists of 6 dimensions, namely: Product Quality, Product Price, Promotion and Marketing, Technology and Digitalization, Human Resources, and Business Management. The data collection method in this study used a questionnaire. The questionnaire was distributed by meeting directly with respondents. In addition to the questionnaire, data collection was also carried out through interviews. The sample in this study amounted to 80 MSMEs in the culinary sector in Palopo City. The sampling technique used was incidental/accidental sampling, namely sampling by chance and suitable as respondents in the study. In this study, to obtain research results, descriptive analysis was used, namely an analysis that describes or describes a situation. Descriptive analysis was conducted to examine the distribution of respondents' responses to the effectiveness of the Business Model Canvas (BMC) in increasing the competitiveness of MSMEs in the culinary sector in Palopo City. The following is the descriptive analysis formula for this study, with the following range:

Table 1. Range of respondents' perceptions

<i>Range</i>	<i>Information</i>
1.00 – 1.80	Strongly Disagree/Very Dissatisfy/Very Unsuitable
1.81 – 2.60	Disagree/Not Good/Not Appropriate
2.61 – 3.40	Quite Agree/Quite Good/Quite Appropriate
3.41 – 4.20	Agree/Good/Appropriate
4.21 – 5.00	Strongly Agree/Very Good/Very Appropriate

## RESULTS AND DISCUSSION

### Analysis of respondents' perceptions of the Business Model Canvas (BMC) variables

The effectiveness of the Business Model Canvas to increase the competitiveness of MSMEs in the culinary sector in Palopo City uses nine dimensions which are then used as indicators in this study. The nine dimensions are Customer Segments, Value Propositions, Distribution Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure. Each indicator in this study consists of three questions. The results of the analysis of respondents' perceptions for each indicator can be seen in the following table:

Table 1. Analysis of respondents' perceptions of the Business Model Canvas

<b>No</b>	<b>Statement</b>	<b>Average Score</b>	<b>Information</b>
1	<i>Customer Segments</i>	4.13	Agree
2	<i>Value Propositions</i>	4.20	Agree
3	<i>Channels</i>	4.33	Strongly agree

4	<i>Customer Relationship</i>	4.38	Strongly agree
5	<i>Revenue Streams</i>	4.38	Strongly agree
6	<i>Key Resources</i>	4.33	Strongly agree
7	<i>Key Activities</i>	4.33	Strongly agree
8	<i>Key Partnership</i>	4.10	Agree
9	<i>Cost Structure</i>	4.25	Strongly agree
<b>Average</b>		<b>4.23</b>	<b>Strongly agree</b>

Source: Processed Data (2025)

Based on Table 1, the average score was 4.23, categorized as Strongly Agree. The indicator with the lowest average score was Revenue Streams. Meanwhile, the indicator with the highest score was the fourth indicator, Customer Relationship. Based on Table 1, the average score was 4.23, categorized as Strongly Agree. The indicator with the lowest average score was Revenue Streams. Meanwhile, the indicator with the highest score was the fourth indicator, Customer Relationship.

### **Analysis of respondents' perceptions of competitiveness**

The competitiveness of MSMEs in the culinary sector in Palopo City uses six dimensions, which are then used as indicators in this study. The results of the analysis for each indicator can be seen in the following table:

Table 2. Analysis of respondents' perceptions of competitiveness

<b>No</b>	<b>Statement</b>	<b>Average Score</b>	<b>Information</b>
1	Product Quality	4.44	Strongly agree
2	Product Price	4.23	Strongly agree
3	Promotion and Marketing	4.09	Agree
4	Technology and Digitalization	4.31	Strongly agree
5	Human Resources	4.25	Strongly agree
6	Business Management	4.53	Strongly agree
<b>Average</b>		<b>4.30</b>	<b>Strongly agree</b>

Source: Processed Data (2025)

Based on Table 2, the average score was 4.30, categorized as strongly agree. The indicator with the lowest average score was Promotion and Marketing. Meanwhile, the indicator with the highest score was the sixth indicator, Business Management.

### **The Effectiveness of *Business Model Canvas* (BMC) to Increase Competitiveness**

Analysis of the Effectiveness of Business Model Canvas (BMC) to Increase the Competitiveness of MSMEs in the Culinary Sector in Palopo City using Structural Equation Modeling

Outer Model Submission

Validity Test

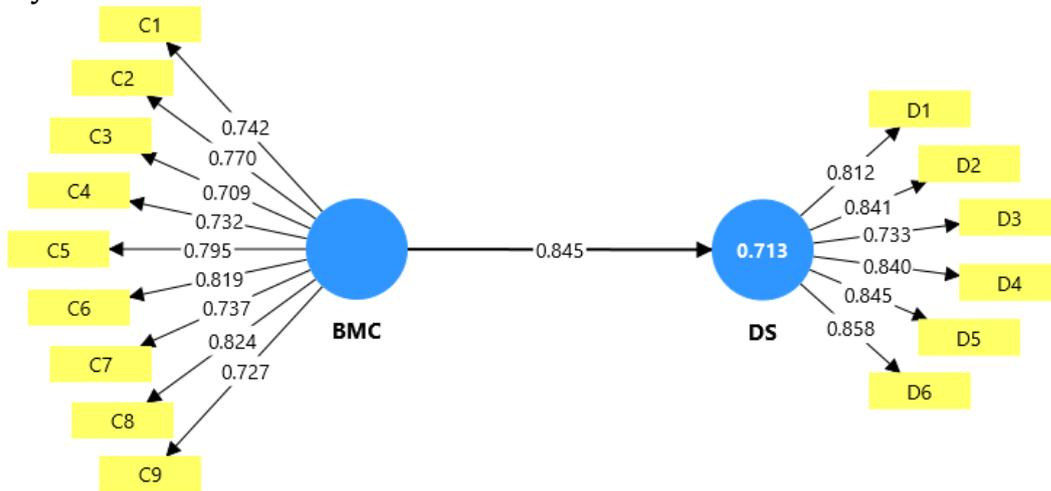


Figure 1. Path Analysis

From the image above, it can be seen that all *factor loading values* are above 0.70, as stated by Hair et al. (2016) and Sarwono (2014) who considers values above 0.70 to indicate a strong correlation and good validity.

Reliability Test

Data reliability testing (reliability testing) is conducted to measure the consistency and stability of an instrument's scores (measurement scale) in measuring a particular concept and to help determine the *goodness of fit of a measurement instrument*. Data quality testing is conducted by examining the composite reliability value generated by PLS calculations of the existing variables: WH, JS, IWB, and WP. To determine the composite reliability value, the following criteria are used: reliability, if the composite reliability value  $\rho_c > 0.8$  it can be said that the construct has high reliability or is reliable and  $\rho_c > 0.6$  is said to be quite reliable (Ghozali, 2011) and Average Variance Extracted (AVE)  $> 0.50$ .

Table 3. Reliability Test

Variables	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)	Conclusion
Business Model Canvas	0.910	0.913	0.582	Reliable
Competitiveness	0.904	0.906	0.677	Reliable

Source: Processed Data (2025)

The reliability test results above show that all research variables have been shown to be fit measures, where the values of Cronbach's Alpha, Composite Reliability, and Average Variance Extracted have met the required values. The Composite reliability results for each construct are very good because they are valued above 0.80, in addition, it can also be seen from the Cronbach's alpha value which is above 0.70. And the Average Variance Extracted (AVE) value, a construct with good validity because it is valued above 0.50 (Ghozali.2015).

### R Square

One important measure used to assess model quality is the R-Square ( $R^2$ ). According to Hair et al. (2019), R-Square ( $R^2$ ), or the coefficient of determination, is a measure that indicates how well the independent variables are able to explain the variation of the dependent variable in a structural model.  $R^2$  is the main indicator for assessing the predictive power of the constructed model. Hair also provides guidelines for categorizing R-Square values in PLS-SEM-based research, namely:

- 0.75 = substantial (strong)
- 0.50 = moderate
- 0.25 = weak

Table 4. R Square Test

	R-square	R-square adjusted
DS	0.713	0.710

Source: Processed Data (2025)

Thus, if the  $R^2$  value in the study is 0.713, then based on Hair's criteria it can be categorized as strong, meaning the model has a high ability to explain the dependent variable.

### Hypothesis testing

In the context of SEM-PLS, hypothesis testing aims to assess whether the relationship between latent variables in a structural model is significant or not, using the bootstrapping method to generate t-statistics and p-values. (Hair et al. (2019).

Table 5. Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
BMC -> DS	0.845	0.850	0.029	28,861	0.000

Source: Processed Data (2025)

Based on the table, the path coefficient value (Original Sample) is 0.845. This value indicates that the Business Model Canvas (BMC) has a positive effect on Competitiveness (DS). This means that the better the implementation of BMC, the higher the competitiveness of MSMEs. Furthermore, the t-statistics value of 28.861,

which is much greater than the critical limit of 1.96 at a significance level of 5% ( $\alpha = 0.05$ ), and the p-value = 0.000 ( $<0.05$ ), confirms that the effect is very significant. Thus, the hypothesis stating that the Business Model Canvas has a positive and significant effect on Competitiveness is accepted. This result is in line with the opinion of Hair et al. (2019) that in SEM-PLS, the effect is said to be significant if the t-statistics  $\geq 1.96$  or p-values  $\leq 0.05$ . Therefore, it can be concluded that the research model has strong empirical support.

The application of the Business Model Canvas (BMC) to culinary MSMEs in Palopo City demonstrates its potential as a strategic tool for strengthening the competitiveness of local businesses. As Osterwalder & Pigneur (2010) emphasize, the BMC provides a comprehensive overview of nine interconnected key business elements. In Palopo, the use of the BMC is not only theoretically relevant but also practically relevant, as the culinary sector is a driving force of the local economy with heterogeneous market characteristics.

The dimensions of Customer Segments and Value Propositions have proven to be the basis for developing competitive strategies for MSMEs. Culinary consumers in Palopo range from students to workers to tourists, thus demanding varied product adjustments. Teece (2018) emphasized that value propositions are only effective when customer segments are accurately understood. Palopo MSMEs, which prioritize local flavors, affordable prices, and friendly service, have built differentiation in line with the concept of a unique selling proposition.

Customer Relationships and Channels are also key strengths of Palopo's culinary MSMEs. The community's communal social culture fosters customer loyalty through personal interactions. Kotler & Keller (2016) emphasize that customer loyalty is a strategic asset, while Grönroos (2019) adds that relationship marketing plays a role in strengthening long-term market position. With digital advancements, the use of delivery apps has become a new distribution channel. Laudon & Traver (2022) cite channel digitization as a catalyst for efficiency and expanded market access.

From a financial perspective, revenue streams and cost structures remain challenges. Most Palopo MSMEs still rely on traditional sales with limited diversification. Chen et al. (2022) warn that a single revenue model risks weakening business resilience, while Drucker (2007) emphasizes the importance of balancing revenue and cost streams. Furthermore, family involvement in the operations of Palopo MSMEs is a unique efficiency strategy, although it can potentially limit management professionalization.

Key Resources, Key Activities, and Key Partnerships are key strengths for Palopo's MSMEs, supported by the abundant and fresh availability of local raw materials. Barney (2020), using the Resource-Based View theory, emphasizes that valuable, unique, and difficult-to-imitate resources are the basis of competitive advantage. Collaboration with local suppliers, culinary communities, and digital platforms strengthens the value chain of Palopo's MSMEs, in line with Priyono et al.'s (2020) findings that technology-based strategic partnerships increase the adaptability of small businesses.

MSME Competitiveness Indicators show that product quality, price, promotion, technology, human resources, and business management are closely interrelated with the implementation of BMC. Porter (1990) emphasized that competitive advantage is determined by the combination of quality and cost efficiency. In Palopo, MSMEs that rely on distinctive flavors and affordable prices are able to survive in the local market.

However, weaknesses in promotion are still apparent, necessitating a more aggressive marketing communications strategy, particularly through digital channels.

Strengthening technology, human resources, and business management is an urgent agenda for Palopo's MSMEs. Wright et al. (2001) emphasize that competency-based human resources are a source of sustainable competitive advantage. Kaplan & Norton (2004) add that good business management through strategic approaches such as the balanced scorecard will increase competitiveness. In the Palopo context, simple managerial capacity needs to be improved to make MSMEs more professional, adaptive, and oriented towards long-term growth.

Thus, this discussion confirms that the competitiveness of culinary MSMEs in Palopo City is formed through the synergy between the nine dimensions of the BMC and six competitiveness indicators. The main strengths of MSMEs lie in customer relationships, local value-based differentiation, and support for local raw materials. However, weaknesses still emerge in the aspects of revenue diversification, promotion, and management professionalization. Consequently, the development strategy for MSMEs in Palopo City needs to emphasize digitalization, strengthening partnerships, and improving managerial capacity to enable them to compete not only in the local market but also at the national and even international levels.

## CONCLUSION

The application of the Business Model Canvas (BMC) to culinary MSMEs in Palopo City shows that local business competitiveness is built through understanding customer segments, value differentiation based on distinctive flavors, strong customer relationships, and the use of digital channels. The availability of local raw materials and strategic partnerships are advantages, but challenges remain in revenue diversification, promotion, and management professionalization. Therefore, strengthening technology, increasing human resource capacity, and adopting more modern managerial strategies are needed for Palopo culinary MSMEs to grow sustainably and compete on a broader level.

## References :

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. (2020). *Gaining and sustaining competitive advantage* (5th ed.). Pearson Education.
- Chen, J., Wang, Y., & Xie, K. L. (2022). Business model innovation and resilience: Evidence from small businesses. *Journal of Business Research*, 142, 112-125.
- Churchill, N. C., & Lewis, V. L. (1983). The five stages of small business growth. *Harvard Business Review*, 61(3), 30-50.
- Palopo City Cooperatives and MSMEs Service. (2023). *Palopo City MSME sector performance report 2023*. Palopo City Government.
- Drucker, P. F. (1994). *Innovation and entrepreneurship: Practice and principles*. Harper Business.
- Drucker, P. F. (2007). *Management challenges for the 21st century*. Routledge.
- Ghozali, I. (2011). *Multivariate analysis application with IBM SPSS 19 program* (5th ed.). Diponegoro University Publishing Agency.
- Grönroos, C. (2019). Relationship marketing: The Nordic school perspective. *Journal of Services Marketing*, 33(4), 422-425.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Kaplan, R. S., & Norton, D. P. (2004). *Strategy maps: Converting intangible assets into tangible*

- outcomes. Harvard Business School Press.
- Ministry of Cooperatives and SMEs of the Republic of Indonesia. (2022). 2022 MSME Statistics. Ministry of Cooperatives and SMEs.
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.
- Laudon, K. C., & Traver, C. G. (2022). *E-commerce 2022: Business, technology, society* (16th ed.). Pearson.
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. John Wiley & Sons.
- Porter, M. E. (1990). *The competitive advantage of nations*. Free Press.
- Priyono, A., Moin, A., & Putri, VNAO (2020). Identifying digital transformation paths in the business model of SMEs during the COVID-19 pandemic. *Journal of Open Innovation: Technology, Markets, and Complexity*, 6(4), 104.
- Sarwono, J. (2014). *A practical guide to partial least squares (PLS) for social and business research*. ANDI.
- Tambunan, T. (2019). *Micro, small, and medium enterprises in Indonesia: Key issues*. LP3ES.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Teece, D.J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49.
- Wirtz, B. W., Pistoia, A., Ullrich, S., & Göttel, V. (2016). Business models: Origin, development and future research perspectives. *Long Range Planning*, 49(1), 36-54.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource-based view of the firm. *Journal of Management*, 27(6), 701-721.
- Zott, C., & Amit, R. (2010). Business model design: An activity system perspective. *Long Range Planning*, 43(2-3), 216-226. <https://doi.org/10.1016/j.lrp.2009.07.004>