

DETERMINATION OF COMPETITIVENESS OF LEADING CULINARY PRODUCTS IN MATARAM CITY USING AHP AND DRCCR METHODS

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Abstract: This study aims to identify the leading culinary products in Mataram City and to evaluate their competitiveness using the Analytic Hierarchy Process (AHP) and Domestic Resource Cost Ratio (DRCCR) methods. Five traditional culinary products—Ayam Taliwang, Sate Rembiga, Salted Egg, Lombok Coffee, and Beef Skin Crackers—were assessed based on five criteria: availability of raw materials, regional uniqueness, market potential, labor, and capital.

The AHP results indicate that Ayam Taliwang ranks first with a priority weight of 47%, followed by Sate Rembiga (26%), Lombok Coffee (13%), Salted Egg (8%), and Beef Skin Crackers (6%). Abundant local raw materials, a strong cultural identity, high market demand, and adequate labor availability support Ayam Taliwang's superior position. Furthermore, the DRCCR analysis conducted on 11 Ayam Taliwang MSMEs produced an average value of 0.6889, which is below one, indicating strong competitiveness and high economic efficiency. Although most MSMEs show competitive performance, one enterprise remains inefficient due to high non-tradable costs. The integration of AHP and DRCCR confirms that Ayam Taliwang is the most competitive culinary product and is feasible for sustainable development. These findings are expected to support policy formulation and improve the competitiveness of culinary MSMEs in Mataram City.

Keywords: Leading Culinary Product, MSMEs, AHP, DRCCR, Competitiveness, Mataram.

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in national and regional economic development by creating employment opportunities, distributing income, and enhancing economic resilience [1], [2]. In Indonesia, MSMEs contribute more than 60% to the national Gross Domestic Product (GDP) and absorb over 97% of the total workforce, highlighting their crucial role in sustaining economic growth [10]. Among various business sectors, the culinary industry has experienced the most rapid growth due to its close relationship with daily consumption patterns and tourism activities [3].

Mataram City, as the capital of West Nusa Tenggara Province, functions as a center of government, education, trade, and tourism. This strategic position drives continuous growth in demand for food and beverage products. Official data indicate that more than 33,000 MSMEs actively operate in the city, with the culinary sector dominating local economic activities [4][5]. Several traditional culinary products, such as Ayam Taliwang, Sate Rembiga, Lombok coffee, salted egg, and beef skin crackers, have been widely recognized as regional icons that represent local cultural identity and economic strength [6][7].

Despite this strong potential, the development of culinary MSMEs in Mataram City still faces various challenges, including limited access to capital, fluctuations in raw material prices, low labor productivity, and restricted market access [9]. These

constraints directly affect business sustainability and competitiveness. Limited access to capital, technology, and markets has been widely identified as the main cause of weak MSME performance in developing regions [10]. In the context of West Nusa Tenggara, studies conducted by lecturers of the Faculty of Agriculture, University of Mataram emphasize that the competitiveness of agro-based MSMEs is strongly influenced by efficient utilization of local resources, value-added creation, and integration within local agribusiness value chains [48][49].

Furthermore, internal efficiency, particularly labor productivity and managerial capability, plays a significant role in determining MSME competitiveness. Research by Usman et al. shows that labor efficiency and cost management significantly affect the performance and competitiveness of small-scale agroindustries in Mataram City [50]. These findings suggest that competitiveness analysis should not only rely on qualitative assessments but also incorporate quantitative economic efficiency measurements.

Therefore, an objective and systematic analytical framework is required to identify leading culinary products and accurately measure their competitiveness. This study applies the Analytic Hierarchy Process (AHP) to prioritize culinary products based on multiple criteria [11][13][14]. At the same time, the Domestic Resource Cost Ratio (DRCR) method is used to evaluate economic efficiency and comparative advantage of the selected product [12][15][16].

II. METHODS

This research was conducted in Mataram City, West Nusa Tenggara Province, Indonesia, using a quantitative descriptive approach. The study utilized both primary and secondary data. Primary data were collected through interviews and structured questionnaires administered to culinary MSME actors and expert respondents. Secondary data were obtained from the Central Bureau of Statistics (BPS), the Department of Industry and Trade, and relevant scientific publications [2][4].

Three expert respondents were involved in the AHP analysis to determine the priority ranking of leading culinary products based on five criteria: raw materials, regional uniqueness, market, labor, and capital [11][13][14]. Furthermore, the competitiveness of the selected product was analyzed using the Domestic Resource Cost Ratio (DRCR) method [12][15].

Samples for the DRCR analysis were selected from the population of leading MSMEs identified through the AHP results. The number of samples was determined using the Slovin formula, with a 15% margin of error. Competitiveness was classified using the following criteria: $DRCR < 1$ indicates competitive performance, $DRCR = 1$ indicates normal efficiency, and $DRCR > 1$ indicates non-competitive conditions [16].

Table 2.1 Sample of Leading Culinary MSMEs in Mataram City

No	Culinary MSME Product	Population	Sample (n)
1	Ayam Taliwang	30	11
2	Sate Rembiga	6	2
3	Salted Egg	8	3
4	Lombok Coffee	4	2
5	Beef Skin Crackers	23	9
Total		71	27

Source: Primary Data, 2024

III. RESULTS AND DISCUSSION

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in strengthening Mataram City's local economy, particularly in the agro-food and culinary sectors [17]. As the administrative, educational, and economic center of West Nusa Tenggara Province, Mataram City is characterized by high population mobility, dynamic economic activities, and rapid tourism development [18]. These conditions create strong market opportunities for culinary MSMEs to grow and compete. Several traditional culinary products, such as Ayam Taliwang, Sate Rembiga, Salted Egg, Lombok Coffee, and Beef Skin Crackers, have been officially recognized as leading regional products for their cultural identity and economic contributions [6][7]. However, the level of competitiveness among these products varies depending on several internal and external factors.

Table 3.1 AHP Priority Results of Leading Culinary Products in Mataram City

No	Culinary Product	Priority Weight	Rank
1	Ayam Taliwang	0.47	1
2	Sate Rembiga	0.26	2
3	Lombok Coffee	0.13	3
4	Salted Egg	0.08	4
5	Beef Skin Crackers	0.06	5
Total		1.00	

The results of the Analytic Hierarchy Process (AHP) show that Ayam Taliwang holds the highest priority weight of 0.47, followed by Sate Rembiga at 0.26, Lombok Coffee at 0.13, Salted Egg at 0.08, and Beef Skin Crackers at 0.06. The total value of 1.00 indicates that the normalization process was conducted correctly and that the results are statistically valid and reliable [11][33]. These findings confirm that expert respondents perceive Ayam Taliwang as the most superior culinary product among the five alternatives evaluated.

The dominant position of Ayam Taliwang is strongly influenced by the availability of local raw materials, strong regional identity, extensive market demand, and sufficient labor availability [20][21]. Raw materials such as chicken, chili, garlic, shrimp paste, and traditional Lombok spices are widely available in Mataram City and its surrounding areas. The stability of this supply chain ensures production continuity and reduces dependency on imported inputs. Compared with other culinary products that rely on seasonal or fluctuating raw materials, Ayam Taliwang demonstrates greater resilience in terms of production sustainability.

From a cultural perspective, Ayam Taliwang represents a strong regional identity of Lombok and has become a culinary icon recognized at both national and international levels [20]. This cultural uniqueness gives Ayam Taliwang a distinctive competitive advantage that is difficult for other products to imitate. According to the theory of competitive advantage, unique local characteristics and cultural values can significantly enhance the competitiveness of regional products [23]. In the context of tourism development, traditional culinary products serve not only as food but also as cultural attractions that strengthen destination branding [22].

From the market aspect, demand for Ayam Taliwang remains consistently high among both local consumers and tourists. Tourists visiting Lombok often consider Ayam Taliwang as a must-try local specialty [19]. The rapid growth of the tourism sector in Mataram City has directly increased demand for local culinary products, particularly those with a strong traditional identity. This high and stable demand strengthens the market position of Ayam Taliwang MSMEs and reduces the risk of demand fluctuations.

Sate Rembiga ranks second, with a priority weight of 0.26, indicating strong competitiveness. The main strength of Sate Rembiga lies in its distinctive flavor created from traditional Lombok spices and the use of beef as its primary ingredient [24][25]. However, the competitiveness of Sate Rembiga is constrained by the volatility of beef prices and relatively higher production costs compared to those of chicken-based products. Price fluctuations in beef directly affect production costs and selling prices, thereby reducing profit margins and weakening competitiveness relative to Ayam Taliwang.

Lombok Coffee ranks third with a priority weight of 0.13. This product originates from the highlands around Mount Rinjani and is known for its distinctive aroma and flavor profile [26]. From a resource perspective, Lombok Coffee has strong potential as a specialty coffee with comparative advantages in the global market. However, weaknesses in branding, limited market penetration, and inadequate access to modern processing technology have reduced its competitiveness at the MSME level [27]. Without sufficient technological innovation, quality standardization, and digital marketing support, Lombok Coffee MSMEs face difficulties in expanding their market reach.

Salted Egg ranks fourth with a priority weight of 0.08. As a processed food product with a relatively long shelf life, Salted Egg offers advantages in storage and distribution [28]. However, limited product innovation and weak differentiation strategies reduce its competitive strength in an increasingly competitive food market [29][30]. In addition, the similarity of salted egg products across regions weakens Salted Egg's regional uniqueness, an important criterion in the AHP assessment.

Beef Skin Crackers is ranked lowest, with a priority weight of 0.06. The main weakness of this product is its reliance on seasonal raw materials, particularly animal skin, which limits production continuity [31]. Compared with main dishes such

as Ayam Taliwang and Sate Rembiga, Beef Skin Crackers also generates lower added value. Limited scalability, narrow market segmentation, and low technological application further weaken its competitive position [32].

Table 3.2 DRCR Results of 11 Ayam Taliwang MSMEs in Mataram City

No	MSME	DRCR Value	Competitiveness
1	RM. Nada Alam Nyaman Bintaro	0.62	Competitive
2	RM. Bintaro Jaya Taliwang	0.65	Competitive
3	RM. Taliwang Airlangga (Beca Bero)	0.71	Competitive
4	RM. Taliwang Harapan	0.69	Competitive
5	RM. Taliwang H. Moerad	0.74	Competitive
6	RM. Taliwang Restu 1 Pak Arie	0.68	Competitive
7	RM. Citra Rasa Ayam Taliwang	0.60	Competitive
8	RM. Taliwang Khas Lombok Tanjung Karang	0.66	Competitive
9	Lesehan Taliwang Nada	0.70	Competitive
10	Lesehan Taliwang Dalam Kampoeng Hj. Salmah M. 1.12		Not Competitive
11	RM. Kania 2	0.64	Competitive
Average			Competitive

Based on the AHP results, Ayam Taliwang was selected as the principal object for further competitiveness analysis using the Domestic Resource Cost Ratio (DRCR) method. The DRCR analysis involved 11 Ayam Taliwang MSMEs in Mataram City. The results show that 10 out of 11 MSMEs recorded DRCR values below 1, indicating strong competitiveness and economic efficiency. In contrast, 1 MSME recorded a DRCR value above one and was classified as non-competitive [12][16].

The average DRCR value of 0.64 confirms that, in general, Ayam Taliwang MSMEs possess a strong comparative advantage. A DRCR value below one indicates that domestic resources are utilized efficiently to produce outputs at a lower cost than international benchmarks [12]. This means that Ayam Taliwang production in Mataram City is economically feasible and able to compete with similar products from other regions or imported substitutes.

The lowest DRCR value was recorded by RM. Citra Rasa Ayam Taliwang at 0.60, followed by RM. Nada alam Nyaman Bintaro at 0.62 and RM. Kania 2 at 0.64. These MSMEs demonstrate superior efficiency in converting domestic inputs such as labor, chicken, spices, and capital into marketable products. This efficiency is supported by stable access to raw materials, simple production technology, and optimal labor utilization. In many cases, family-based labor and inherited culinary skills also contribute to lower training costs and higher production efficiency [39][41].

In contrast, Lesehan Taliwang Dalam Kampoeng Hj. Salmah M. recorded the highest DRCR value of 1.12 and is therefore classified as not competitive. This indicates that the domestic cost required to generate one unit of output exceeds the international reference cost. Several factors contribute to this inefficiency, including high non-tradable costs, low production scale, weak managerial capacity, and poor cost control mechanisms [41]. MSMEs with weak financial management are more vulnerable to market fluctuations and competitive pressures.

The overall strong DRCR performance of Ayam Taliwang MSMEs is closely related to the abundance of local raw materials in West Nusa Tenggara. The availability of chicken and traditional spices reduces dependency on imported inputs and significantly lowers production costs [21]. Moreover, efficient labor utilization and relatively simple production technology further enhance production efficiency. These conditions collectively strengthen the comparative advantage of Ayam Taliwang MSMEs.

From a regional economic development perspective, integrating AHP and DRCR provides a comprehensive evaluation framework that combines qualitative prioritization with quantitative economic efficiency measurement [43]. The consistency between the AHP and DRCR results confirms that Ayam Taliwang is not only perceived as the leading culinary product but is also highly competitive from an economic standpoint [40, 42]. This integrated approach ensures that strong economic fundamentals and empirical evidence support policy recommendations.

IV. CONCLUSION AND RECOMMENDATION

Conclusion

1. Ayam Taliwang is confirmed as the leading culinary product in Mataram City based on the AHP analysis.
2. The DRCCR analysis indicates that Ayam Taliwang MSMEs are highly competitive, as reflected by an average DRCCR value below one.
3. The integration of AHP and DRCCR demonstrates that Ayam Taliwang is economically efficient and suitable for sustainable development.

Recommendation

1. The local government is advised to prioritize Ayam Taliwang as the flagship culinary product in regional development programs.
2. Culinary MSMEs should enhance production efficiency, product quality, and marketing strategies to strengthen their competitiveness.

Future studies are recommended to expand the analysis to other culinary products and additional competitiveness indicators.

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