# *Analysis Of The Packaging House Program In Batu Bara Regency: Enhancing The Competitiveness Of Msme Products For Regional Economic Development In Batu Bara Regency*

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**Abstract** – **This study aims to analyze the influence of several factors on the competitiveness of Micro, Small, and Medium Enterprises (UMKM) products in Rumah Kemasan, Batu Bara Regency, and its impact on the regional economy. Employing the method of multiple linear regression analysis, this research explores the relationships between independent variables such as packaging, branding, product legality, marketing strategy, and market digitalization with the dependent variables of product competitiveness and regional economy. The research findings reveal that all independent variables exert a significant influence on the competitiveness of UMKM products. Specifically, packaging exhibits a stronger impact compared to other variables. Furthermore, all independent variables also significantly affect the regional economy, with product legality and branding standing out as primary factors. Based on these findings, the study recommends UMKM stakeholders enhance online promotion, maintain product quality, develop packaging design, and uphold consumer trust. These efforts are anticipated to enhance product competitiveness and contribute to the regional economic growth.**

**Keywords** – **Competitiveness, Regional Economy, Packaging, Branding, Digitalization, Batubara.**

## I. INTRODUCTION

The development of the regional economy still faces significant challenges in improving the well-being of the community. These difficulties arise from the lack of systematicity and alignment in the pattern of regional economic development with its potential. This misalignment results in the low competitiveness of the regional economy, leading to unequal levels of welfare and economic growth among regions. Regional autonomy encourages local governments to be self-reliant in developing their economic potential, with a focus on developing flagship products of micro, small, and medium enterprises (UMKM). This strategy is considered effective in enhancing the self-sufficiency of regional economic development, but its implementation involves policies and active roles of the local government.

In Batu Bara Regency, the competitiveness of UMKM products is still low, necessitating an analysis of the Rumah Kemasan program. The existence of Rumah Kemasan is expected to provide solutions to the challenges faced by UMKM, such as the low added value of products, insufficient legality, inadequate marketing strategies, and unprofessional business management. Therefore, this study aims to fill the knowledge gap by investigating the extent to which the Rumah Kemasan program can contribute to improving the competitiveness of UMKM products in Batu Bara Regency and its impact on the regional economy.

Additionally, the research also examines the main challenges faced by UMKM actors in Batu Bara Regency. The low added value of UMKM products is the primary focus, resulting from a lack of skills, creativity, innovation, and technological

input in producing products that attract consumers. In this context, the Rumah Kemasan program is expected to provide solutions by offering technical consultation facilities, design services, and packaging that not only meet standards but also enhance the aesthetics of the products.

In the context of globalization, the study also considers the impact of market digitalization on the competitiveness of UMKM products. The presence of Rumah Kemasan is expected to help UMKM actors better understand and adopt digital marketing strategies. Digitalization can create new opportunities for marketing UMKM products, not only in the local market but also in the national and international markets. However, digitalization also brings new challenges, such as the need for training to optimize the use of social media and online platforms, as well as addressing security and privacy aspects in online transactions.

## II. LITERATURE

Micro, Small, and Medium Enterprises (UMKM) are regulated by the Republic of Indonesia Law No. 20 of 2008 concerning UMKM (Tambunan, 2009). According to Law No. 20 of 2008, UMKM is a business owned by individuals or individual business entities that are productive and meet the criteria specified by the law (Tanjung, 2018). The packaging sector is a globally significant industry. The importance of packaging is evident in the field, where it is almost impossible to find products sold in the market without packaging. Packaging techniques and the selection of appropriate packaging require careful consideration, including consumer health factors, communication factors, and aesthetic factors, so that the packaging can appear attractive and unique to convey its message.

According to Metcalf & Ramlogan and Uyarra (Bismala Lila et al., 2018:10), the efficiency and effectiveness of resource use, investment in capacity growth, and innovation capability are key factors influencing the competitiveness of UMKM products. Siahainenia et al. (2021) found that online promotion, pricing, and product packaging influence the competitiveness of culinary products during the pandemic. Churiyah et al. (2021) highlight the importance of strengthening product quality, labeling, and marketing diversification as efforts to improve UMKM competitiveness amid the COVID-19 pandemic. Muchayatin et al. (2021) emphasize that information technology and innovation play a significant role in enhancing the competitiveness of culinary UMKM.

Nella Ayu Novia; Nadya Berlianti; Aulia Rahmi Anasril; Intan Putri Azhari, 2022 found that the planning carried out by the management of Rattan Handmade Ratatia is effective, implementing a system in managing control, such as offering a more comprehensive product range, providing discounts to consumers, ensuring product quality, friendly service, and marketing products online. In line with this, Asfan Muqtadir; Fitroh Amaluddin; Amaludin Arifia, 2022 found that the design of an information system with the implementation of the FAST method will help SMEs submit or order, monitor the process and status of packaging results more easily, including assisting the management of packaging data for the personnel of Rumah Kemasan in managing existing and pending packaging data.

Laurensius Tri Andy; Poppy Ruliana, 2022, the owner of Pernah Trendy Store, uses marketing communication through Instagram, WhatsApp, and Line as effective and efficient media to promote Pernah Trendy Store, and Tokopedia as a platform to increase sales in the new normal era. Meanwhile, Shenda Aprilia Christanti's study in 2022 revealed that the company's strategy for developing SMEs includes offering lower prices than competitors, easier payment systems, and efficient delivery systems. As an alternative, additional capital is invested to develop the business, increase the fleet, and add competent human resources/employees.

## III. RESEARCH METHOD

This research adopts a quantitative approach, following a systematic scientific method to collect and analyze numerical or data-based information, in line with the concepts proposed by Creswell (2014). The correlational method is employed, where the relationship or correlation between two or more variables is measured and statistically analyzed to determine the strength and direction of the relationship, aligning with the concepts put forth by Creswell (2014). The research subjects consist of UMKM participants in Batu Bara Regency, while the research objects involve indicators from Porter's five forces, namely packaging, branding, product legality, marketing strategy, and market digitalization.

The research population comprises 93 UMKM participants affiliated with Rumah Kemasan Batu Bara Regency. A sample of 48 respondents is selected using purposive sampling methods. Data collection techniques include questionnaires, semi-

structured interviews, and documentary studies. Likert scales are employed in the questionnaire to convert qualitative data into quantitative data.

## IV. RESULT

Batu Bara region is recognized as one of the high-achieving districts in the Province of North Sumatra due to the innovative initiatives of local government agencies in facilitating public services. One of the public service innovations included in these efforts is the establishment of Rumah Kemasan located in Indrapura, Air Putih District, a result of the innovation led by the Department of Cooperatives and Small and Medium Enterprises.

Established in early 2021, Rumah Kemasan Regency Batu Bara is built on the foundation of legal regulations and the existing needs of the community to support the sales of Micro, Small, and Medium Enterprises (UMKM) products in the region. Rumah Kemasan Batu Bara Regency is designed to provide branding and packaging facilities for UMKM products, enabling them to penetrate both offline and online markets through local supermarkets and national marketplaces.

The guiding principle "Product is King, Packaging is Queen" serves as a strong foundation for the Department of Cooperatives and Small and Medium Enterprises in Batu Bara Regency to establish Rumah Kemasan in accordance with existing regulations and governmental systems. This initiative enhances the marketing of UMKM products through attractive packaging. The benefits of establishing Rumah Kemasan Batu Bara include:

a. Being the first packaging service provider for UMKM and affiliated UMKM from other districts in North Sumatra.

b. Making UMKM products more visually appealing.

c. Providing space/consultation for UMKM to seek advice in the fields of branding, design, and packaging suitable for their respective products.

d. Allowing UMKM products to reach a broader market, thereby increasing sales potential and the economic value of UMKM, leading to the creation of new job opportunities.

e. Empowering local youth by providing opportunities to work at Rumah Kemasan Batu Bara Regency.

f. Facilitating easier collaboration between the local government and stakeholders to support UMKM practitioners and collectively provide services and assistance for the improvement of UMKM quality.

Based on the Multiple Linear Regression Analysis, examining the influence of variables such as packaging ($x_1$), branding ($x_2$), product legality ($x_3$), marketing strategy ($x_4$), and market digitalization ($x_5$) on product competitiveness ($z$) at Rumah Kemasan Batu Bara Regency, the following results were obtained:

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. | Collinearity Statistics Tolerance | Collinearity Statistics VIF |
|---|---|---|---|---|---|---|---|---|
| 1 | (Constant) | 1.543 | .846 | | 1.823 | .075 | | |
| | Packaging | .534 | .164 | .440 | 3.264 | .002 | .833 | 1.200 |
| | Branding | .355 | .122 | .492 | 2.903 | .006 | .527 | 1.897 |
| | LegalitasProduk | -.323 | .139 | -.383 | -2.333 | .025 | .561 | 1.781 |
| | StrategiPemasaran | -.378 | .156 | -.364 | -2.430 | .019 | .675 | 1.481 |
| | DigitalisasiPasar | .379 | .151 | .365 | 2.513 | .016 | .718 | 1.393 |

a. Dependent Variable: DayaSaingProduk

The results of the Multiple Linear Regression indicate that the Multiple Linear Regression equation can be formulated as follows:

$$Z = 0,440x_1 + 0,492x_2 - 0,383x_3 - 0,364x_4 + 0,365x_5 + \varepsilon_1$$

From the results of the multiple linear regression analysis, it can be concluded that the variables packaging, branding, and market digitalization have a positive and significant impact on product competitiveness. In contrast, the variables product

legality and marketing strategy show a negative and significant influence. The constant coefficient of 1.543 indicates that if all independent variables are equal to zero, the product competitiveness at the Packaging House of Batu Bara Regency will have a value of 1.543. The statistical significance test shows that all independent variables have a significant influence on product competitiveness, with a p-value < 0.05. The implications of these findings can assist in formulating more effective strategies to enhance the competitiveness of MSME products in Batu Bara Regency.

**Coefficients$^a$**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 1.722 | .638 | | 2.699 | .010 | | |
| | Packaging | .725 | .133 | .596 | 5.456 | .000 | .665 | 1.504 |
| | Branding | -.241 | .097 | -.334 | -2.482 | .017 | .439 | 2.278 |
| | LegalitasProduk | .324 | .107 | .384 | 3.033 | .004 | .497 | 2.012 |
| | StrategiPemasaran | -.245 | .121 | -.236 | -2.036 | .048 | .592 | 1.689 |
| | DigitalisasiPasar | -.305 | .117 | -.293 | -2.596 | .013 | .624 | 1.603 |
| | DayaSaingProduk | .351 | .112 | .350 | 3.131 | .003 | .635 | 1.574 |

a. Dependent Variable: PerekonomianWilayah

The Multiple Linear Regression results above lead to the formulation of the Multiple Linear Regression equation as follows:

$$Y = 0{,}596x_1 - 0{,}334x_2 + 0{,}384x_3 - 0{,}236x_4 - 0{,}293x_5 + 0{,}350z + \varepsilon_2$$

From the results of the multiple linear regression analysis, it can be concluded that the variables packaging, branding, product legality, marketing strategy, and market digitalization have diverse effects on the competitiveness of UMKM products at Rumah Kemasan Batu Bara Regency. The regression coefficient for packaging (0.596) indicates that an improvement in the quality of UMKM product packaging will have a positive impact on the regional economy, increasing the value by 0.596 units, assuming other variables remain constant.
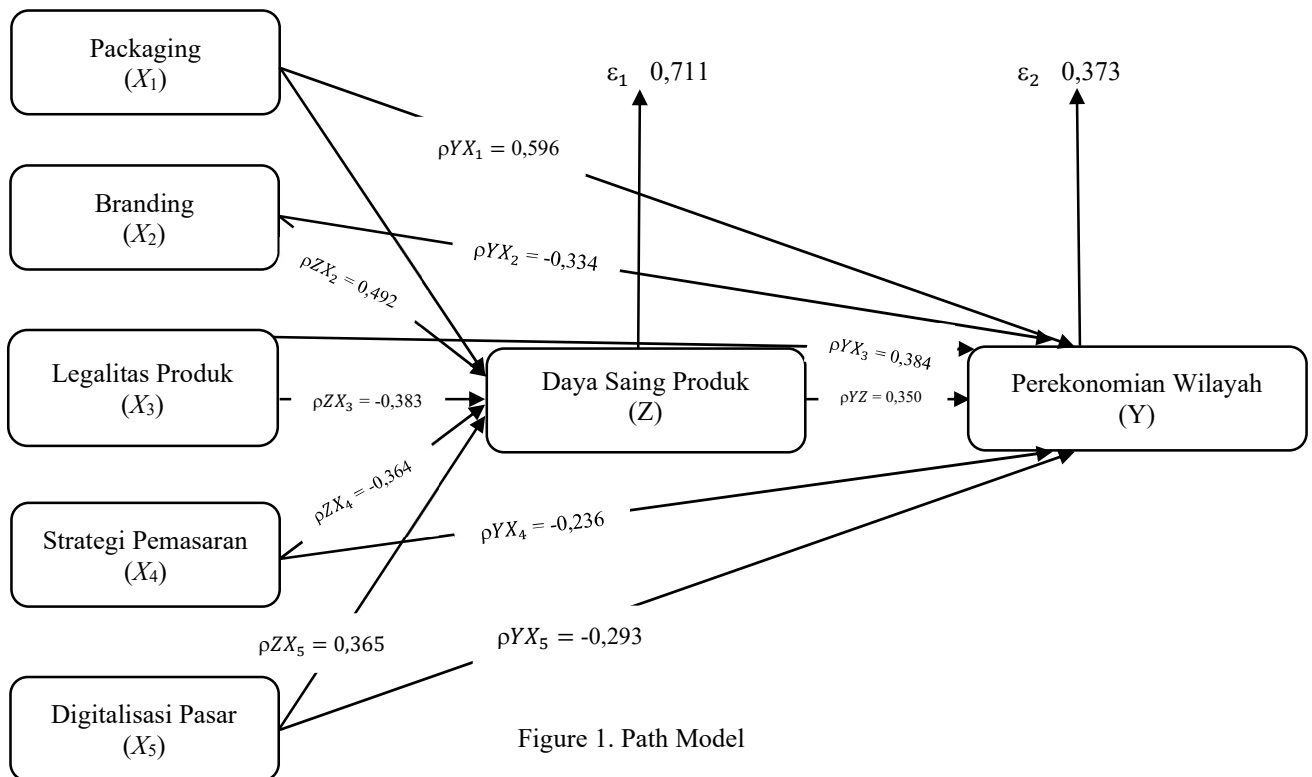


Figure 1. Path Model

On the flip side, the branding variable (-0.334) indicates that an increase in branding perception can contribute negatively to the competitiveness of UMKM products. If the branding perception increases by one unit, the product competitiveness will decrease by -0.334 units. Furthermore, the product legality variable (0.384) signifies that an improvement in the legality of UMKM products will have a positive impact on the regional economy, increasing the value by 0.384 units.

However, the marketing strategy variable (-0.236) and the market digitalization variable (-0.293) suggest that an increase in perception related to marketing strategy and market digitalization can have a negative impact on the competitiveness of UMKM products. With an increase in the perception of marketing strategy or market digitalization by one unit, product competitiveness will decrease by -0.236 and -0.293 units, respectively. Regarding product competitiveness (0.350), it indicates that an increase in the competitiveness of UMKM products directly contributes positively to the regional economy, increasing the value by 0.350 units.

The findings of this research demonstrate that the success of UMKM Rumah Kemasan in Batu Bara Regency is significantly determined by the legality of products, marketing strategy, market digitalization, packaging, branding, and product competitiveness, all of which have a significant impact on regional economic growth. Product legality, marketing strategy, and branding, both directly and indirectly, provide a positive impact on the regional economy through the enhancement of the competitiveness of UMKM products at Rumah Kemasan. Meanwhile, other factors such as market digitalization, packaging, and product competitiveness also contribute positively to economic growth in Batu Bara Regency. The results of this research indicate that Rumah Kemasan has successfully created an ecosystem supporting the development of UMKM, generating employment opportunities, and increasing the Regional Original Income (PAD). Therefore, strategic measures to strengthen these aspects are expected to serve as a foundation for local economic development policies, fostering growth in the UMKM sector, and ultimately improving the well-being of the community in Batu Bara Regency.

## V. CONCLUSION

Packaging, branding, product legality, marketing strategy, and market digitalization have a significantly positive influence on the competitiveness of UMKM products at Rumah Kemasan in Batu Bara Regency. Packaging emerges as the most dominant factor, with the largest direct influence coefficient in enhancing the competitiveness of UMKM in the region.

Additionally, the packaging variable also provides a significantly positive impact on the regional economy, and the branding, product legality, marketing strategy, and market digitalization variables, all of these variables have the potential to support economic growth in Batu Bara Regency.

## RECOMMENDATIONS

To enhance product competitiveness and contribute to the regional economy, it is crucial to maintain consistency in promoting products through sustained online marketing efforts, utilizing social media and other online marketing platforms. Additionally, continuous improvement in product competitiveness requires the preservation of product quality, development of packaging design, building consumer trust, ensuring timely order fulfillment, and promoting a message of nationalism to encourage consumers to choose local products.

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