The Influence of The Implementation of Radical and Incremental Innovation on Business Competitiveness in Food and Beverage MSMEs in Cirebon City

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Abstract

Dynamic business developments, especially in the MSME sector, encourage business actors to continue to create competitive advantages through innovation. This study aims to determine the effect of radical and incremental innovation on the competitiveness of food and beverage MSMEs in Cirebon City. The study used a quantitative descriptive method with data collection through online questionnaires to MSME actors, and analyzed using SEM through Smart PLS. The results of the study showed that both types of innovation have an effect on competitiveness, where radical innovation includes fundamental changes, while incremental innovation focuses on gradual improvements. Implementation of the right innovation strategy can strengthen the competitiveness of MSMEs in the midst of dynamic market competition.

Keywords: MSME, Food and Beverage, Radical Innovation, Incremental Innovation, Business Competitiveness.

1   Introduction

The need for information is very important in everyday life, so marketing strategies must be adaptive to technological advances. Companies need to adjust their marketing strategies to target customers and competitors in the same market. In this fast-moving era, technological advances allow activities to be carried out from home or office. The internet, for example, allows various activities, including UMKM businesses, to be carried out efficiently without having to be in the field. In 2021, the number of MSMEs in Indonesia reached around 65.46 million units, much more than neighboring countries. These MSMEs absorb 97% of the workforce, contribute 60.3% to GDP, and contribute 14.4% to the national export value. This data shows that MSMEs have a major role in the Indonesian economy but also face challenges and opportunities to improve sustainability (Gunawan et al. 2022). West Java shows positive growth in the MSME sector every year, supported by its high population and large market potential. Training programs, access to capital, and digitalization initiatives run by the local government have also contributed to the development of MSMEs in this region (Wahyuningtyas, Disastra, and Rismayani 2021). In Cirebon City, MSMEs in the food and beverage sector are growing rapidly with more than 1,000 business actors. Based on data from the BPS of Cirebon City, Harjamukti District has the highest level of competition for food and beverage MSMEs compared to other districts, with 49.40% of the total MSMEs in Cirebon City.
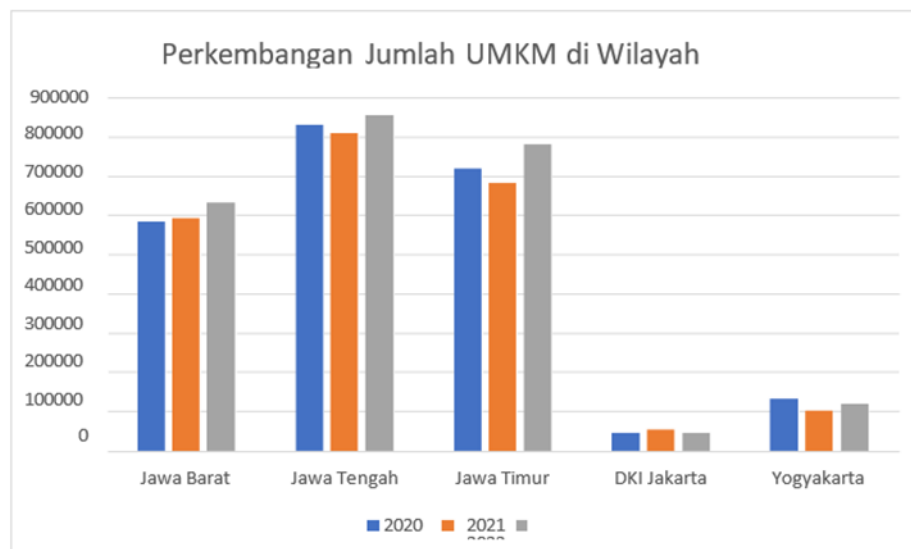
Analysis using Porter's Five Forces shows significant development of MSMEs in the food and beverage sector in Cirebon City. In terms of the threat of new entrants, the threat level is quite high because of low entry barriers, such as low initial costs and easy business permits. However, MSMEs that have been established for a long time have advantages in customer loyalty and relationships with suppliers, which are barriers to new entrants. In terms of supplier power, the food and beverage sector of MSMEs in Cirebon is at a moderate to low level. The large number of raw material suppliers gives MSMEs the flexibility to choose suppliers with competitive prices and quality. However, for specific or high-quality raw materials, suppliers are limited, which can increase their bargaining power. Buyers in the food and beverage sector have considerable power because business actors have many choices. The high level of competition between MSMEs encourages entrepreneurs to offer high-quality products at competitive prices. Customer satisfaction is very important because reviews and word-of-mouth recommendations have a significant impact on business success. In food and beverage UMKM in Cirebon City, product pricing strategies do not show significant differences compared to other similar products. Success in competition is highly dependent on product quality, marketing strategy, market demand level, and available resources. Product quality is a key factor in attracting consumer interest, with each company trying to provide the best. In addition, an effective marketing strategy also plays an important role in determining the competitiveness of a company, because the way a product is sold and promoted greatly influences its acceptance in the market.

Adequate resources play an important role in the success of production and the quality of the company's results. Resources such as skilled labor, the latest technology, and reliable infrastructure are the foundation for achieving maximum production. In addition, the company's strategy greatly determines the direction and achievement of business goals. Choosing the right strategy requires active involvement and awareness from the owners and stakeholders. With a clear competitive strategy, businesses can identify the market in a more structured way, understand customer needs, and follow market trends. This allows companies to create products or services that match customer preferences. By understanding and responding effectively to market desires, companies can build sustainable competitive advantages, strengthen their position in the hearts of consumers, and secure a larger market share.

2   Literature Review

2.1   Entrepreneurship

Entrepreneurship is an important component of a country's economy because it drives innovation,

increases employment, and improves people's welfare. Entrepreneurs not only build businesses to make a profit, but also often pioneer change in industry through innovative ideas and creative solutions to existing problems (Kusnadi and Utama 2023). According to Puspitasari (2022), entrepreneurship is a discipline that studies aspects of strengthening and growing innovation in running a business. Then according to Susanto and Soelaiman (2020), The concept of entrepreneurship refers to the characteristics, personality, and special traits possessed by individuals who are strongly driven to apply innovative ideas to real business activities. Based on the several definitions above, it can be concluded that the process of starting, developing, and running a new company with the aim of generating profit and added value is known as entrepreneurship.

2.2 MSMEs

According to Dwi, Yunus, and Ulum (2023), Micro, Small, and Medium Enterprises (MSMEs) include various commercial entities that play an important role in economic growth (Wahyuningtyas, Astuti, and Anggadwita 2018). The main characteristics of MSMEs are a smaller operational scale compared to large companies or corporations, as well as a relatively limited workforce. The size and definition of MSMEs can vary between countries and specific economic sectors, but usually a business is distinguished based on parameters such as annual turnover, number of assets, or number of employees. There are regulations According to PP No. 7/2021 concerning Ease, Protection, and Empowerment of Cooperatives and MSMEs, the Indonesian government pays special attention to supporting and developing the MSME sector. These regulations cover various aspects ranging from simplifying business licensing, access to financing, to facilitating exports. The government through PP No. 7 of 2021 regulates various financing schemes, including interest subsidies, credit guarantees, and partnerships with financial institutions. The government also provides support for the digitalization of MSMEs, increasing human resource capacity, and opening wider market access.

2.3 Innovation

Basically, innovation refers to changes or updates that bring increased value to users. This increase in value can occur in products, equipment, or services, and is referred to as the object of innovation. This innovation process occurs due to the application of modifications to the product. The key to the success of innovation, basically, lies in its ability to increase the value perceived by users, creating positive changes in the experience or benefits provided (Ulpah, Sunarya, and Ramdan 2022). Innovation can be explained as an effort to create new ideas or raise something innovative to provide additional benefits to products and services that customers expect. From the various definitions of innovation above, it can be stated that innovation has a crucial role in supporting business growth and success, helping companies to adapt and grow in the market. Innovation has uniqueness or distinctiveness, innovation reflects the existence of distinctive characteristics in every concept, strategy, guideline, and framework, along with the desired opportunities. Innovation is not just creating something new, but also highlighting elements that give a unique identity to each aspect. (Somohano-Rodríguez, Madrid-Guijarro, and López-Fernández 2022).

2.4 Radical Innovation

Radical innovation is defined as a new product that includes fundamental technology that is completely different from its predecessors and provides higher benefits to customers than previous products. Radical innovation consists of innovations that lead to major leaps in technology and manufacturing methods and significantly change the performance and price of products and services. According to Le

(2020) Radical innovation refers to efforts to acquire and apply completely new knowledge to create products or services that have never existed before. This innovation not only introduces new products or services, but also has the potential to replace existing products and disrupt established market orders (Thi, Lei, and Vu 2019). From the definition above, it can be stated that radical innovation is a form of innovation that involves the application of new knowledge, gradual improvements in products or processes that are completely different and have a high level of novelty.

2.5   Incremental Innovation

Incremental innovation refers to the process of incremental improvement of existing products or services, by leveraging the company's knowledge to make small improvements. According to Thi, Lei, and Vu (2019) Incremental innovation focuses on incremental improvements and minor changes in technology and refinement of existing products. According to Sufyan and Novák (2024) Incremental innovation is considered a relatively low-risk form of innovation, because it focuses on improving or refining the efficiency of existing products or services. Meanwhile, Nguyen (2018) explains that incremental innovation involves minor adjustments in existing technology or product design, providing limited but significant improvements in benefits to customers. From the definition above, it can be stated that incremental innovation is a process of incremental improvement that involves minor changes in existing technology or product design, with the aim of improving the efficiency or benefits of the product without changing the overall basic structure.

2.6   Competitivenes

Al According to the Organisation for Economic Co-operation and Development (OECD), the concept of competitiveness refers to the capacity of various entities, from companies to countries, to create income and employment at relatively high and sustainable levels. In the context of current economic globalization, competitiveness is key for economic entities to maintain their position in the international market and improve overall economic welfare (Haug, Stentoft, and Philipsen 2023). Then according to Helmi and Heriwibowo (2022), Competitiveness is not only limited to the ability to produce goods and services that meet international requirements, but also includes the ability to maintain high and sustainable income.

3   Research Methods

This type of research is quantitative research using Structural Equation Modeling (SEM) analysis. Quantitative methods refer to a research approach based on the philosophy of positivism, which aims to investigate phenomena by obtaining data from certain populations or samples (Sekaran and Bougie 2016). This study aims to show that radical and incremental innovations have a positive influence on the competitiveness of food and beverage MSMEs in Cirebon City. This study uses a problem formulation technique with descriptive analysis. The number of individuals who are this population are food and beverage MSME actors in Cirebon City in 2022, as many as 1075 culinary sector MSMEs. The sampling method used is non-probability sampling using the Convenience Sampling approach, so this study only involved 170 samples. The data in this study were collected through questionnaires sent to previously selected respondents, namely MSME actors in the Food and Beverage Industry in Cirebon City. Data analysis was carried out using Data Validity Test, Inner Model Evaluation, Outer Model Test.

4   Result and Discussion

In this study, the analysis of the characteristics of respondents includes grouping respondents based on gender, age, and business time. As an initial step in identifying characteristics, the first is the characteristic of gender, the gender of the results of the questionnaire, the majority of respondents are male, 54.8% and the rest are female, 45.2%. This reflects the trend that many men are actively involved in the food and beverage MSME industry in Cirebon City. The second characteristic is based on age, the majority of respondents from the questionnaire results are between the ages of 26 and 30 years, 45.2%. Then the third characteristic is business time, from the results of the respondents, it was found that they were divided into three categories of business time, namely 1-5 years, 5-10 years, and more than 10 years. The results of the respondents showed that there were various levels of experience in running a business. Most respondents have been running a business for more than one year, indicating stability and resilience in facing business challenges.
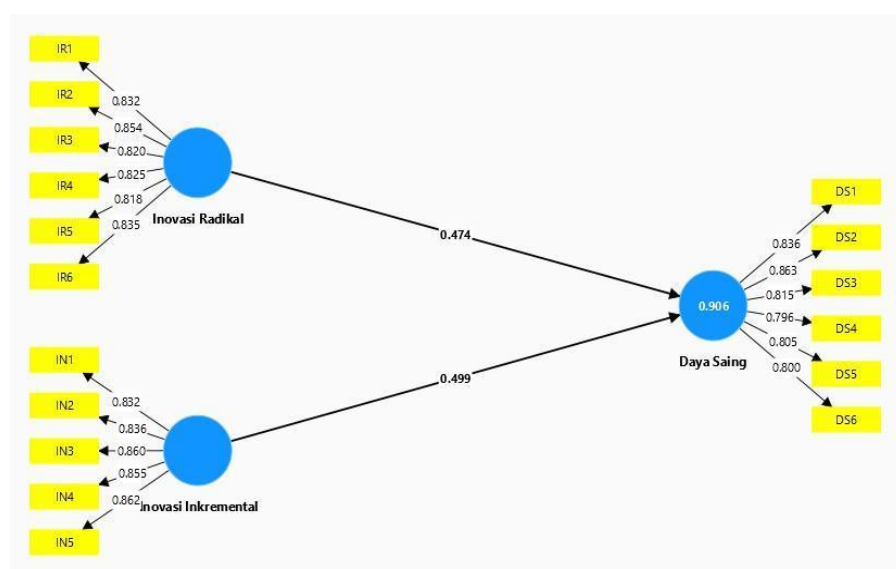

Figure 2. Partial Least Square Model

Source: SmartPLS Data Processing (2024)

The results of the analysis of each variable indicator in the study showed an outer loading value of more than 0.70. This indicates that the variables used have met the criteria for adequate convergent validity. To be considered valid in a good model, the standard AVE value must be more than 0.50. The AVE values of each variable are presented in the following table:

Table 1. Average Variance Extracted (AVE) Value

	Average variance extracted (AVE)
Daya Saing	0.671
Inovasi Inkremental	0.721
Inovasi Radikal	0.690

Discriminant validity testing focuses on cross loading between indicators and relevant constructs. An indicator is considered valid in this context if it has a cross loading value of more than 0.70 and exceeds the loading value on other constructs. In this way, the latent construct can project indicators in its block better than indicators in other blocks.

Table 2. Cross Loading Test

	Daya Saing	Inovasi Inkremental	Inovasi Radikal
DS1	0.836	0.759	0.785
DS2	0.863	0.776	0.816
DS3	0.815	0.757	0.765
DS4	0.796	0.771	0.724
DS5	0.805	0.769	0.711
DS6	0.800	0.749	0.763
IN1	0.794	0.832	0.755
IN2	0.765	0.836	0.717
IN3	0.792	0.860	0.766
IN4	0.798	0.855	0.820
IN5	0.804	0.862	0.810
IR1	0.784	0.810	0.832
IR2	0.780	0.775	0.854
IR3	0.773	0.769	0.820
IR4	0.755	0.722	0.825
IR5	0.750	0.712	0.818
IR6	0.790	0.752	0.835

Based on the test table displayed, it can be seen that all correlations between variable constructs in the study have a value of > 0.70 and are higher than the correlations between other variables. This indicates that each variable item has met the requirements for discriminant validity. The expected value of the Composite Reliability and Cronbach's Alpha indicators is above 0.60. If all latent variables show Composite Reliability and Cronbach's Alpha values ≥ 0.70, then the construct can be considered to have good reliability. This indicates that the questionnaire used in this study has proven to be reliable and consistent in measuring the intended construct.

Table 3. Composite Reliability Test

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Daya Saing	0.902	0.902	0.924
Inovasi Inkremental	0.903	0.903	0.928
Inovasi Radikal	0.910	0.911	0.930

The test table shown above shows that the results of the Composite Reliability and Cronbach's Alpha tests produce good values. All latent variables have values above 0.70 for both tests, indicating that each variable is reliable.

Table 4. R-Square Test Results

	R-square	R-square adjusted
Daya Saing	0.906	0.904

Based on the results of the R-Square test, it can be seen that the value obtained from the competitiveness variable shows the number 0.906 or 90.6%. This shows that the competitiveness of food and beverage UMKM businesses in Cirebon City has an effect of 90.6% in the study.

Table 5. Results of Hypothesis Testing H1 and H2

	Original sample (O)	*Sample mean (M)*	*Standard deviation (STDEV)*	*T statistics (|O/STDEV|)*	*P values*
Inovasi Inkremental -> Daya Saing	0.499	0.499	0.060	8,306	**0.000**
Inovasi Radikal -> Daya Saing	0.474	0.474	0.060	7,856	**0.000**

From Table 4.13 above, it shows that hypothesis 1 and hypothesis 2 in the study can be accepted. The t-value of the radical innovation variable is 7.856 and the t-value for the incremental innovation variable is 8.306. This explains that radical innovation has an influence on the competitiveness of MSMEs and incremental innovation has an influence on the competitiveness of MSMEs.

5   Conclusion

From the findings of data analysis regarding the influence of product innovation on increasing the competitiveness of UMKM food and beverage businesses in Cirebon City, it can be concluded that the results of data analysis state that radical innovation has a significant effect on the competitiveness of UMKM in the UMKM Food and Beverage sector in Cirebon City. UMKM that successfully implement radical innovation such as developing revolutionary new products or implementing advanced technology can gain substantial competitive advantages compared to competitors. Then the results of data analysis also show that incremental innovation has a significant effect on the competitiveness of UMKM in the UMKM Food and Beverage sector in Cirebon City. Incremental innovation, which includes gradual improvements and modifications to existing products or services, allows UMKM to adapt and improve their performance sustainably without requiring large investments or high risks.

For business actors, it is advisable to continue to innovate in the products offered. The form of innovation that can be done is by carrying out radical innovation such as creating unique new products, creating new products that completely replace products and restructuring the current market because this can create competitiveness for the business. Then business actors can also carry out incremental innovation by modifying and building an existing product. Incremental innovation can perfect existing products, services, or technologies and strengthen the potential of product/service design and technology so that it can create business competitiveness against other competitors. For academics, it can be further developed by exploring specific factors that encourage or inhibit innovation in this sector, including the role of technology, capital, and government policies. Further studies with a comparative approach between regions or other sectors can also provide a broader understanding of the effectiveness of innovation in increasing business competitiveness. In addition, longitudinal research can be conducted to assess the long-term impact of innovation on the sustainability of MSME businesses.

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