

Product Development Assessment to Measure The Accuracy in Realizing Customer Expectations: Case Study in Ricebowl Small Business Hongmiao

David Iskandar, Kevin, Reinhart Jason Darmawan

Entrepreneurship Department, BINUS Business School Undergraduate Program
Bina Nusantara University,
Jakarta, Indonesia 11480

David.iskandar001@binus.ac.id, Kevin059@binus.ac.id, Reinhart.darmawan@binus.ac.id

Mulyani Karmagatri*

Entrepreneurship Department, BINUS Business School Undergraduate Program
Bina Nusantara University,
Jakarta, Indonesia 11480

Mulyani001@binus.ac.id

Abstract

Building a new business and becoming a successful entrepreneur are attractive dreams. Still, without having something valuable to offer to customers, we absolutely cannot run the business. Starting a new entrepreneurial business, always deal with new product development. This new product could meet the customer's expectations has a significant role in leading a successful business. This study aims to measure the product development capability of culinary creative startups, Hongmiao-rice box. This research uses the action research method by prototyping the product and applying market testing. Data analysis of customer feedback and product sales was used to validate the product's ability to fulfill customer expectations. This research concluded that the existing product development by Hongmiao Ricebox had received a positive response and was acceptable to the market. This research contributes to business and entrepreneurship in product development areas, recommending that other small businesses manage their product development process to meet customer expectations. This research gives a new perspective on product development research by implementing action research methods to develop new products and assess product development capability.

Keywords:

Culinary industry, Product development, Customer satisfaction, and Creativepreneurship

1. Introduction

One of the essential factors in developing a business is seeing the needs of consumers or problems that occur in the market. The creativity possessed by every business actor must be an essential aspect to answer the needs or desires of the market. However, the existing ideas do not always answer all the current needs correctly. So a deeper understanding of the problem to be solved is needed. A business must have a value offered to the market in goods or services. Products and business are two elements that cannot be separated. Therefore, fulfilling customer expectations through new products has a vital role in gaining business success. Without a clear understanding, the value that the company will convey will not meet the target market's expectations. To understand, business actors must conduct an in-depth analysis of the desired expectations.

The culinary industry is one industry that requires business owners always to carry out product development. Product development needs to be done by business owners to maintain business in intense competition (Alvin et al., 2021; Arvianto et al., 2021; Megawan et al., 2021). The development of the culinary business in Bandung itself shows rapid growth due to the support provided by the local government (Utama & Ratnapuri, 2018). Based on the Statistics

Management Agency (BPS), the increase in the culinary business development in Bandung is the impact of the development of the technology and information sector, coupled with positive support from the rapidly growing tourism sector in the city of Bandung. To achieve this, the owner founded the Hongmiao Rice box business.

Hongmiao Ricebox is a culinary startup business established in 2018. It sells rice boxes that can be ordered via pre-order or go-food. The menu provided consists of Gyudon Bulgogi, Gyudon Original, and Karaage Don. The advantage of Hongmiao Ricebox is that it sells practical, delicious, cheap Food using premium raw materials and a Hygienic serving process.

1.1 Objectives

The author will clarify that this research aims to assess whether the goods provided by the Hongmiao Ricebox company meet customer expectations. The evidence in the product development carried out by Hongmiao Ricebox consistently delivers goods that meet consumer expectations. The next sub-chapter will discuss the findings of our study.

2. Literature Review

Research & development

Research and development are research conducted by business people to develop products and services useful for advancing a company's business (Desai & Potter, 2012). To get a more competitive advantage than competitors' advantages, a company must research innovative movement strategies. This research and development also focus on product research and development processes created and used. The goal, among others, is for a company to launch its products or services that are innovative and maximally useful (Prasetyo & Sutopo, 2018).

New product development also consists of several activities. The activities produce new results or a redesign of products already on the market; this process consists of remaking, selecting existing opportunities, and implementing concrete products offered to consumers (Loch & Kavadias, 2007). Product development can be defined as a process of useful market information to create useful products for commercial purposes (Kuwashima & Fujimoto, 2013). The authors can define a new product development with a more effective organization. The management process that uses time and costs can be minimized to make product sales to the market. Meanwhile, local experts (Simamora, 2018) said that new product development is a formal process with clear decision-making criteria. A series of activities begins with market research and ends with the production and sale of market products.

Lean startup

Lean startup is a method for developing products and processes for developing a business. However, it only takes a short time (Ries, 2011). It should be noted that every business certainly wants development in the form of a new business development and preparation process to survive and thrive. Of course, in the early stages of building a new business, you must have difficulty with limited resources, including human resources, capital, or other things.

The purpose of creating the lean startup method written in (Ries, 2011) is to minimize the risks that exist when setting up a new business. Some of the ways that can be done to minimize these risks are by creating products that customers, of course, like. The first phase is:

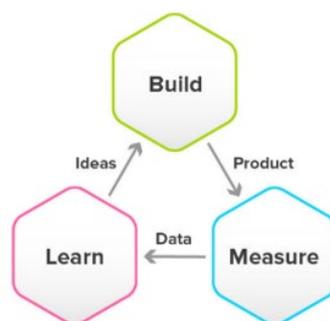


Figure 1. Lean Startup Process

- Build

The build is the first phase of the lean startup method; a company aims to create and develop a simple or MVP (Minimum Viable Product) brand product. Before starting the product development stage, of course, the company already has an idea to distribute and make products that suit customer needs. The developed product will be tested directly on the market to determine whether the product is indeed suitable or not by the customer.

- Measure

In the measure phase itself, what must be considered is what kind of feedback customers give when they try to use the product formed earlier. This response is very useful for improving the product to meet the needs of customers. However, suppose the customer gives an unfavorable response. In that case, the company must decide whether to stop the product manufacturing process or think about other innovations. And if the response is very bad, the last option is to eliminate it and start making new products.

- Learn

In the last phase of lean startup, the data obtained from the measurement process will be analyzed further. In this stage, the conclusions will be drawn from the measurement process results. The next step is to determine the steps to be taken by the company. Next, the results from this learning phase will be used to determine whether the company needs to improve its products or continue developing its old products. In addition, this phase can also determine whether the company will make changes to its business strategy or what is often called a pivot.

Hongmiao Ricebox

Hongmiao is a company that sells Rice boxes. The company plans to sell the product in malls/event stands/via online orders Go-Jek, Grab Food, etc. Hongmiao is derived from the Chinese word. Hong (Red) and Miao (Cat), so the meaning of Hongmiao is Red cat. The owner chose a brand with Hongmiao because the pronunciation is easy to read. The rice box products will be sold in several variants, such as the US Beef Shortplate, served with rice and sunny-side-up eggs. This variant consists of 2 flavors: original (salty), bulgogi (sweet), and sells Chicken Karaage. served with rice and sunny side up eggs, the advantage of Hongmiao Ricebox is that it serves a simple, delicious, cheap, and premium Ricebox menu in its class (Kevin et al., 2021).

3. Methods

This paper will focus on action research described by (McDaniel & Gates, 2015). Action research is described as a method that solves a specific problem. In addition, this research can provide a clear and specific understanding of market conditions, evaluate the results (outcomes) of the strategies used, and reduce the risk of uncertain situations in making decisions. Action research connects theory and practice in the research process. It occurs as research progresses by combining "finding" with the "action learning" process. The qualitative descriptive method will analyze, describe and briefly explain the data collected regarding the problem being studied (Winartha, 2006). In addition, the data collection tool used is a questionnaire that includes open questions and closed questions. The respondent criteria for this study were male and female, 15-60 years old, with an income above IDR 1,000,000 per month.

The research variables will focus on customer satisfaction to evaluate product development. The customer satisfaction variable will determine whether the development process is successful or not. The research will implement lean startup methods, which include the build-measure-learn stages.

4. Data Collection

The following will explain the criteria of respondents who are the targets of this questionnaire, distributing questionnaires and processing data from the questionnaire results. The authors collected data by distributing questionnaires to the target respondents with the criteria described twice with different questions in this study. The first questionnaire is intended to validate consumer satisfaction with the products and values offered by Hongmiao Rice box. The second questionnaire was to validate the further development of Hongmiao Ricebox's products.

The data collection process is carried out by distributing questionnaires to target respondents that have been adjusted to the Hongmiao Ricebox business's target market. There were 35 consumers whose data was taken through a quantitative questionnaire. Data from consumers are then processed through weighting and averaging values.

- Respondent's occupation graph

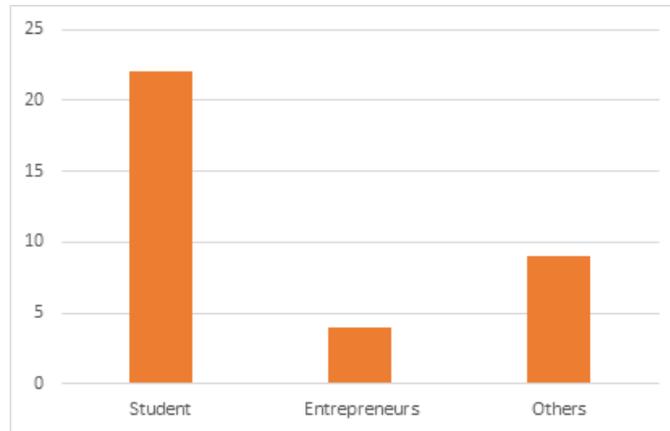


Figure 1. Respondent's Occupation Graph

According to the total data from 35 respondents, 22 people are students, four are entrepreneurs, and nine answered others. In conclusion, a student dominates this research.

- Respondent Income Diagram

According to the data above from 35 respondents, 11 people, or 31%, have income less than Rp. 1,500,000 per month, 10 people or 29% with an income of Rp. 1,500,000 - Rp. 3,000,000 per month, eight people or 23% with an income of Rp. 3,000,000 - Rp. 5,000,000 per month, and six people or 17% with income above Rp. 5,000,000 per month, the conclusion is income with income less than Rp. 1,500,000 dominate the results of this study.

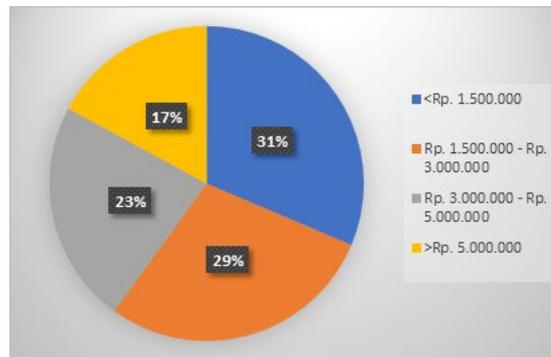


Figure 2. Respondent's Income Diagram

- Respondent's Age Graphs

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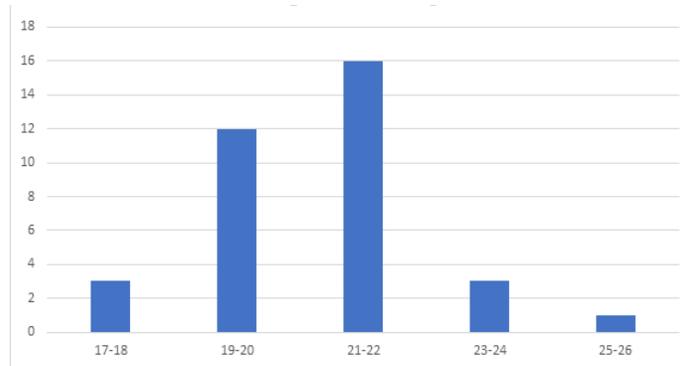


Figure 3. Respondent's Age Graphs

According to the data above, three people aged 17-18 years. There are 12 people aged 19-20 years, there are 16 people aged 21-22 years, there are three people aged 23-24 years, and there is one person aged 25-26 years, the conclusion is that the age of 21-22 years dominates the results of this study.

- Respondent's gender diagram

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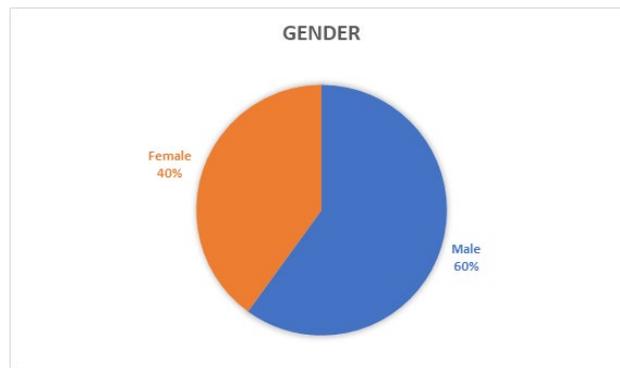
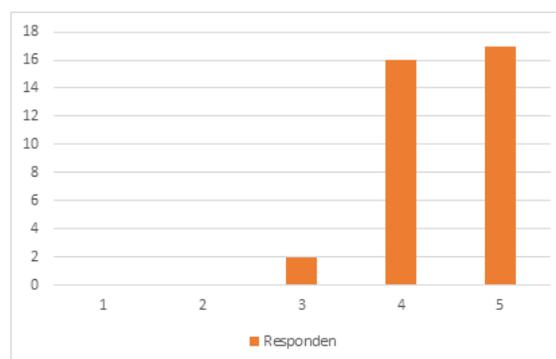


Figure 4. Respondent's Gender Diagram

The graph above shows the comparison of male and female gender respondents recorded. The total respondents are 35 respondents, there are 21 people, or 60% are male, and 14 people or 40% are female. The results obtained are that male respondent dominate the results of this study.

5. Results and Discussion

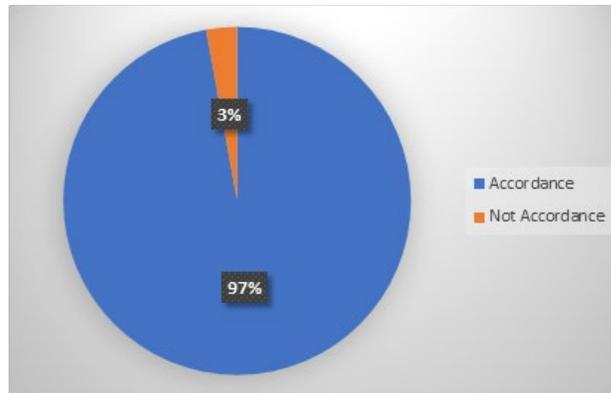
- graph of menu preferences



Figures 5. graph of menu preferences

- Scale 1: Very dislike/never/dislike very much
- Scale 2: Dislike/rarely/not interested
- Scale 3: Like it enough / often enough / quite interested
- Scale 4: Like/often/interested
- Scale 5: Very much like / very often / very interested

The result shows the data collected through the answers of the Thirty-five respondents who have been interviewed. The results obtained are two people answered quite interested, as many as 16 people answered interested. As many as 17 people answered very interestedly. It can be concluded that consumer enthusiasm for new products is relatively high.



Figures 5. Opinion Chart Price to Value Product

The data above shows the value offered by Hongmiao Ricebox. The price offered by Hongmiao is certainly not expensive enough for the market. The evidence from 34 respondents chose appropriate, and one respondent did not. From the respondents' answers, it can be validated that the problem of high prices has been answered with the value that Hongmiao Ricebox provides and following the price.

- Diagram of consumer expectations for Hongmiao Ricebox products



Figures 6. Diagram of consumer's expectations for Hongmiao Ricebox products

The data above shows customer expectations for Hongmiao Ricebox goods. According to the statistics, respondents had a range of preferences for Hongmiao's products. The ricebox items bundled with beverages and sweets get the greatest attention. By showcasing these goods, you may draw attention to them.

Costumer's Satisfaction of Hongmiao Ricebox Products

At the next research stage, by distributing questionnaires. Questionnaires were distributed to consumers who had bought Hongmiao Ricebox products. It was found that there were 35 consumers targeted to evaluate whether the product could meet consumer expectations. The questionnaire was distributed to the respondents and recorded; then, a frequency was made to assess the results in an average value. As a result, there are three measurement indicators with the result data attached in Table 1.

Table 1. Survey Score by Scale

Indicators	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	Score Survey
level of customer satisfaction towards the products	0	0	1	16	18	4.48
level of preference for rice box products	0	6	13	13	3	3.37
The level of taste variant of ricebox products	0	0	3	9	23	4.57

- Scale 1: Very dislike/never/dislike very much
- Scale 2: Dislike/rarely/not interested
- Scale 3: Like it enough / often enough / quite interested
- Scale 4: Like/often/interested
- Scale 5: Very much like / very often / very interested

$$\text{Scale score} = \frac{\sum_{i=1}^5 (f_i \times y_i)}{n}$$

Notes: Σ = Total Amount

f_i = Frequency of the i grade scale score

y_i = Scale value to $-i$

n = Total respondents

i = Index

Based on the results of table 1, the three survey results from the assessment focused on consumer ratings of the satisfaction of the prototype product made by Hongmiao Ricebox. The survey scores show that the consumers like the product most. They will be interested in buying the product and even consuming it and trying it. Based on the average value of the results, the consumers can receive this prototype product. The products are suitable for their expectations. The finding shows that the average satisfaction with Hongmiao Ricebox products gets a value of 4.48, which explains that consumers are satisfied with the products they receive. The opportunity to develop a taste variant of the product, with an average value of 4.57, can affect the creation of new products that Hongmiao Ricebox always carries out in the future according to consumer desires. The research result explains the importance of value proposition canvas and product validation. The business owner could innovate new products through the value calculations to fulfill market desires.

The author also surveyed consumer expectations on food products, namely:

- There is a package with a drink product (product food and beverage)
- Many various flavors on offer
- Great taste with high quality
- Strong and simple packaging

The data can be used as a reference for further product development, which must be changed or added to the Hongmiao Ricebox product.

6. Conclusion

This research studies and evaluates the rice box product development that Hongmiao Ricebox has done. The research was carried out by implementing the lean startup method, which consists build-measure-learn cycle. Once the research

and development process has been done, Hongmiao Ricebox creates and tests the product by focusing on the consumer satisfaction index as the business goes on. The new products created by Hongmiao Ricebox, are beef short plate bulgogi rice box (Gyudon) and chicken kara-age rice box, were acceptable to consumers based on quantitative assessments. This research also benefits culinary business people, especially in paying attention to the benefits of prototyping and testing new products. However, this research has limitations. Product studies on consumers are limited in scope. They do not examine other factors that can deeply determine consumer interest. It becomes a suggestion for further research in assessing new products through evaluation based on a wider scale of respondents and other factors supporting consumer interest.

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Biographies

David is an entrepreneur in the creative industry and a student of the entrepreneurship department. He has a focus and interest in developing the culinary business product. Active in the business organization, sports organization, and religious organization. Like to organize Organizations since Junior High School.

Kevin is an entrepreneur in the creative industry and a student of the entrepreneurship department. He has a focus and interest in the development of culinary business products. He is active in business organizations and sports organizations, and he also has many works experience internships in companies.

Reinhart Jason Darmawan is an entrepreneur in the creative industry and a student of the entrepreneurship department. He focuses and is interested in business development, especially on culinary business products and business strategy. Is active in business organizations, also has internship and working experiences.

Mulyani is a Lecturer of the Entrepreneurship Program at Bina Nusantara University. She graduated from the Doctoral of the economic program. She has a passion for research about Entrepreneurship and Leadership. Scopus ID: 57210743902, Orchid ID:0000-0001-9730-1499. She is a Dance Entrepreneur with twenty years of experience in dance education and performance.