The Effect of Innovation and Marketing Mix Toward Brand Image and Usage Decision in Online Food Delivery Services Industry

Putri Dhika Savitri\textsuperscript{a*}  
Diah Krisnatuti\textsuperscript{b}  
Sufrin Hannan\textsuperscript{c}

\textsuperscript{a}School of Business, IPB University, Bogor, Indonesia; \textsuperscript{b}Department of Family and Consumer Science, IPB University, Bogor, Indonesia; \textsuperscript{c}Faculty of Management, Pakuan University, Bogor, Indonesia

Abstract

Online food delivery service (OFD) is created as a service innovation that combines the usage of technology and electronic systems. Many brand present caused increasingly fierce competition between similar companies in one industry due to wider customers alternative selection. OFD companies need to implement innovation and a marketing mix to create a strong brand image. This study aims to analyze the effect of innovation and marketing mix on usage decisions through brand image through the development of five hypotheses. Data were collected by distributed online questionnaires to 292 respondents with 15 brands of OFD services that have been used in the last three months. Data analysis used the Structural Equation Modeling (SEM) method with Lisrel 8.80 software and descriptive analysis with SPSS ver 25. The results showed that the marketing mix had a significant effect on brand image, and the innovation and marketing mix had a significant effect on usage decisions. Meanwhile, innovation has no significant effect on brand image and brand image has no significant effect on the decision to use an online food delivery service. The implication of this study is to improve marketing strategies by expanding the coverage area and developing innovations by creating a different uniqueness from the competitors.

Keywords

Brand Image; Innovation; Marketing Mix; Services; Usage Decision

Introduction

The development of technology is followed by an increase in internet users, including in Indonesia. Where 64.8% of Indonesia's population uses the internet and 41.2% of these users have made online transactions. The development of technology and information affects people's lifestyle behavior that requires practicality in the fulfillment of basic human needs, such as food. At this time, the consumption pattern in Indonesia is changing due to the use of technology as a new form of conventional activity into an action that combines the use of technology and electronic systems. Changes in consumer preferences and tastes require innovation and creativity in
improving products or services to maintain the continuity and profitability of the company. Therefore, the perception of product or service innovation to consumers is needed to achieve a company's competitive advantage. Innovation reflects the ability to develop brand awareness because consumers tend to have a positive perception of a brand that emphasizes innovation (Hanaysha and Abdullah, 2015).

Based on Nielsen's research (Lee, 2019) with respondents aged 18-45 years, it shows that around 58% of Indonesian are order food using an online food delivery service with an average of buying more than 3 times a week. So that the presence of online food delivery service in Indonesia can make it easier for consumers to get food and beverage without coming to the place, and save more time. This indicates that online food delivery services have the potential to develop in Indonesia.

Changes in the consumption pattern of Indonesian are an opportunity for several companies to provide online food delivery services. In Indonesia, the first online food delivery service released is GoFood in 2015 through innovation on online transportation. Then online food delivery services developed and competitors began to emerge through online transportation, such as GrabFood, GoFood, GetFood, OkeFood, Bungkus, SheFood, NuFood, and Lumajang Go. Then, F&B companies also offer online order and delivery systems, such as Pizza Hut Delivery, McDelivery Indonesia, Domino’s Pizza Indonesia, KFC Home Delivery, and Hokben Delivery. Also, there are application programs in the services sector by providing and delivering food orders in specific areas, such as Kulina and Yummy Box.

Thus, the increasing number of brands in one industry causes increasingly fierce competition so that the best company services are needed, one of which is through the implementation of the right marketing mix. The marketing mix can be used as a marketing strategy in delivering information on goods and/or services that will trigger consumers to create their preferences for brand image and consumer decisions (Sitio, 2019). Moreover, increasingly tighter competition between similar companies causes the community to face several choices in their usage decision. The decision process varies widely so that innovation and marketing mix can be used as consideration for consumers in deciding which products or services to use.

Based on the explanation above, this problem becomes interesting to research so that it can be useful and become a solution for companies that are developing or are lagging by their competitors to create a perfect competition. Also, this research aims to analyze the influence of innovation factors and marketing mix on brand image and usage decisions, especially in the online food delivery services industry.

**Literature Review**

Online food delivery service has the potential to develop because it can offer convenience in obtaining various food and beverage variants. Statista (2019) survey shows that there was an increase in revenue from the online food delivery service industry from 2017 to 2018, both through platform-to-customer delivery services of US$74.8 million and through restaurant-to-customer delivery services of US$13.3 million, so the total revenue of online food delivery services industry increased by US$88.1 million.

The existence of an online food delivery service can help culinary businesses to increase their income, maximize business potential, help in promotion activities, and expand the coverage area (Tyas, et al., 2019). Also, most of the Small and Medium Enterprise (SME) provide delivery services in collaboration with the online food
delivery service by offering various conveniences in placing orders, such as many payment methods. This causes service to become a necessity and a lifestyle for Indonesian.

Innovation can be implemented in the form of a new product in the market or a modification to an existing product. Innovations are classified into four categories i.e product and/or service innovation, process innovation, marketing innovation, and organizational or management innovation (Ganzer, et al., 2017). There are three indicators used in innovation viz product quality, variance, and style and design (Kotler and Armstrong, 2004). Research by Hanaysha and Abdullah (2015) shows that there is a relationship between innovation and brand image. When the perception of innovation is good, consumers will feel the superiority of the product and create a positive brand image.

\[ H_1 = \text{Innovation has a significant effect on brand image.} \]

According to Kushwaha and Agrawal (2015), the service marketing mix consists of 7P dimensions of (1) Product, everything that is offered to fulfill consumer needs, (2) Price, how much consumers spend their money to fulfill their needs and wants, (3) Place, as a location in obtaining company services, (4) Promotion, activities that introduce goods and/or services to markets, (5) People, as a person's role in delivering goods and/or services that can influence consumer perceptions, (6) Process, how the company serves consumer demand, and (7) Physical evidence, someone's experience in using the services. If the company applies a good marketing mix, it will build and create a positive brand image and increase brand equity (Chandra, 2015).

\[ H_2 = \text{Marketing mix services has a significant effect on brand image.} \]

A brand is defined as a sign, symbol, and term that can differentiate goods and/or services from competitors and will create a brand image. The brand image reflects a brand that is in the memory of customers and appears when the brand is in front of them. Brand image is composed of three dimensions viz (1) strength or how strong a brand can be identified, (2) favorability or how valuable a brand is, and (3) uniqueness or how distinctive a brand is (Aulia and Briliana, 2017). Stronger the brand image in the minds of consumers will lead loyal consumers in using the brand (Yundari and Wardana, 2019).

Usage decision is an integration process that evaluates two or more alternatives and selects one of them. According to Stankevich (2017), the decision-making process consists of five stages. These stages are need recognition, information search, evaluation of alternatives, purchase, and postpurchase behavior. More innovations offered by implementing a great services marketing mix will affect consumer decisions (Lahindah, et al., 2018; Parmana, et al., 2019). Then if the positive brand image of a company, will encourage consumers to decide to buy or use the brand, and vice versa if the image of a brand is negative, it will prevent consumers from making decisions (Mubarok, 2018; Sitio, 2019).

\[ H_3 = \text{Innovation has a significant effect on the usage decision.} \]

\[ H_4 = \text{Marketing mix services has a significant effect on the usage decision.} \]

\[ H_5 = \text{Brand image has a significant effect on the usage decision.} \]
Research Methods

This research is quantitative. The data used by primary data includes a questionnaire containing statements used a Likert Scale that is related to research instruments and distributed online. Then supported by secondary data in the form of literature related to the research topic.

The population in this research are users of online food delivery services in Indonesia. Three sample criteria: (1) services users, (2) having ordered through an application, and (3) having used the services at least the last three months. The sample selection by non-probability based on purposive sampling. The sample size in this research was 5 x 53 = 265 respondents. But to avoid the questionnaire drop out, there was an increase of 10% from the total sample to 292 respondents.

Validity is used to determine whether the data is valid or not and reliability is used to measure the questionnaire. The data is valid if r-value > r-table, while reliable if the value of Cronbach Alpha (α) ≥ to .70 (Cho and Kim, 2015). Then a descriptive analysis is to convert data into more concise information. Furthermore, the statistical analysis used by the Structural Equation Modeling (SEM) method by testing model suitability and evaluating the level of model suitability through the Lisrel 8.80 software.

The Goodness of Fit (GOF) test is used to evaluate whether the data has fulfilled the SEM assumptions. Four indicators were used to test the Goodness of Fit from the model including The Root Mean Square Error of Approximation (RMSEA), Tucker Lewis Index (TLI), Normed Fit Index (NFI), and Comparative Fit Index (CFI).

Results and Discussion

Demographic Characteristics

Distributing questionnaires are used to find out the relevant information about respondents who can represent users of online food delivery services. The questionnaire was distributed online to 292 respondents in several regions of Indonesia as shown in Table 1 below.
Gender is used to distinguish the activities that a person does. Most of the respondents were women (74%) compared to men (26%). Women tend to make purchases that are more impulsive than men, where they make purchases spontaneously and without prior planning (Pradhan, 2016). Based on the age group of respondents divided into four groups and dominated by a millennial generation with the range of 21 to 30 years (77%).

Currently, online food delivery services have spread in several regions of Indonesia, where the largest users are in Java (87%) which consists of Banten, DKI Jakarta, West Java, Central Java, and East Java. This is because the majority are GoFood and GrabFood users, which is they operated mostly on Java. Moreover, Java has the highest level of consumption and the highest average per capita expenditure on food compared to the other islands. Furthermore, most users are students (35%) and private employees (33%). This indicated that they only have short rest periods and a lack of menu variation causes them to think and looking for alternatives to get the food in quickly that by using online food delivery services.

There are 15 brands of online food delivery services that have been used by respondents in the last three months. The three frequently used are GoFood (96.9%), GrabFood (86%), and Pizza Hut Delivery (43.2%). This is because they have been operating earlier so their expansion and deployment to several regions in Indonesia have been carried out. Besides, the intensity of users who use online food delivery services is one to three times a week.

**Validity and Reliability Tests**
A level of validity is measured by using Pearson's bivariate. Data valid if \( r \)-value \( > r \)-table, for \( n = 292 \) then the \( r \)-table is .115. The reliability test by comparing the Cronbach Alpha (\( \alpha \)) value with the minimum acceptable reliability coefficient, data reliable if \( \alpha > .70 \).
Table 2. Validity and Reliability Tests

| Variables         | r-value | r-table | α   | α-coefficient |
|-------------------|---------|---------|-----|---------------|
| Innovation        | .695    |         | .912|               |
| Marketing mix     | .578    | .115    | .918| .70           |
| Brand image       | .594    |         | .864|               |
| Usage decision    | .673    |         | .932|               |

The results of the validity and reliability tests in Table 2 show that all four variables have an $r$-value greater than $r$-table (.115) and a value of $\alpha$ is greater than the $\alpha$-coefficient (.70). It can be concluded that overall the exogenous and endogenous construct forming indicators are valid and feasible to use in the model.

**Evaluation of Model Fit**

Evaluation of Goodness of Fit indices in the Structural Equation Model to evaluate whether the hypothesis used is to represent the research results. However, SEM assumptions on the first model are not fulfilled so that model needs respecification. The Goodness of Fit indices evaluation is measured by three methods, namely the overall model fit, structural model fit, and measurement model fit.

**Overall Model Fit**

This stage is based on the Goodness of Fit (GOF) indicators between the data and the model using four indicators including RMSEA, TLI, NFI, and CFI. Then an evaluation of the overall model fit is shown in Table 3, which is overall four GOF indicators that have a good fit. So that the research model used is appropriate.

Table 3. The Results of the Evaluation GOF

| Indicators | Cut-Off Value | Results | Level of GOF |
|------------|---------------|---------|--------------|
| RMSEA      | < .08         | .032    | Good Fit     |
| TLI        | ≥ .95         | .99     | Good Fit     |
| NFI        | ≥ .90         | .97     | Good Fit     |
| CFI        | ≥ .95         | .99     | Good Fit     |

**Structural Model Fit**

This method is used to ascertain whether there is a relationship between latent variables and latent variables with their indicators through a path diagram. Also, the path diagram can predict the value of the dependent variable based on the independent variable, so that if the Standardized Loading Factor (SLF) value is < .5 then this indicator needs to be removed from the model. The results of the structural model fit test are shown in Figure 2. All indicators have SLF value > .5, so the model has the most acceptable or close fit based on the empirical factors obtained and the model is feasible to use to analyze decision usage.

Innovations are formed in three dimensions i.e. quality, variance, and style and design. Based on Figure 2 shows that the style and design dimensions have the largest SLF value contribution, which is equal to .99. This shows that an attractive application design with additional features can make it easier for consumers, such as a chat feature that makes it easier for consumers to communicate with service drivers in making order transactions.
The marketing mix services are formed by seven dimensions i.e product, price, place, promotion, people, process, and physical evidence. Based on Fig 2, it shows that the people dimension has the largest SLF value (.85) so that the service can be influenced by the availability of drivers in the ordering process through the application and the driver’s attention to consumers by providing information if an order is not available.

Brand image is formed by three dimensions i.e strength, favorability, and uniqueness. Fig 2 shows that the strength dimension has the largest SLF value contribution (1.00). This shows how strong a brand image of online food delivery service is remembered by consumers when they are starving. Also, the services have a good reputation and service credibility.

Service usage decisions are formed by five dimensions of five steps on the decision-making process i.e (1) problem recognition of needs, (2) search process on information retrieval, (3) evaluating alternatives by comparing brands in similar companies, (4) deciding what to buy or use, (5) post-purchase evaluation. Based on Fig 2, it shows that the evaluating alternatives dimension has the largest SLF value of .94. In this case, consumers often make comparisons of service brands that will be used before they decide, includes the service facilities offered.

Measurement Model Fit
This method is evaluated the fittest of the measurement model for each construct and aims to describe how well the aspects and indicators used. Evaluation is determined by two values, namely the value of Construct Reliability (CR) ≥ .7 and the value of Variance Extracted (VE) ≥ .5 which is calculated using the loading factor value and measurement error (Shakuna, et al., 2016).

CR value is calculated using the square of the total loading factor value ((∑ SLF)^2) then divided by the square of the total loading factor value plus the total measurement error value (∑ error). While
the VE value is calculated using the total value of the squared loading factor (∑ SLF^2) then divided by the total value squared of the loading factor plus the total measurement error value.

Table 4. Evaluation Results of the Measurement Model

| Variables         | ∑ SLF | ∑ SLF^2 | ∑ error | CR   | VE   |
|-------------------|-------|---------|---------|------|------|
| Innovation        | 19.80 | 3.47    | 2.53    | .887 | .578 |
| Marketing mix     | 132.48| 9.52    | 4.48    | .967 | .680 |
| Brand image       | 23.23 | 3.93    | 2.07    | .918 | .655 |
| Usage decision    | 67.57 | 6.84    | 3.16    | .955 | .684 |

Based on Table 4 shows that all variables research has an average CR value of .932 and an average VE value of .649. Then it can be concluded that CR and VE values are more than their critical values, so the reliability value of all variables is good.

**Hypothesis Testing**

Based on the results by testing five research hypotheses (H1, H2, H3, H4, and H5) and statistical hypotheses (H0) measurement through the t-value shown in Table 5, there are three hypotheses were accepted i.e the marketing mix to brand image (H2), innovation and marketing mix to usage decisions (H3, H4). Meanwhile, two other hypotheses were rejected i.e innovation to brand image (H1) and brand image to usage decisions (H5).

Table 5. The Results of the SEM Model Regression Estimation

| Pathway | SLF | t-value | Conclusion       |
|---------|-----|---------|------------------|
| H1      | Innovation → Brand Image | .03 | 1.05 | Not Significant |
| H2      | Marketing Mix → Brand Image | .72 | 8.08 | Significant |
| H3      | Innovation → Usage Decision | .14 | 3.49 | Significant |
| H4      | Marketing Mix → Usage Decision | .72 | 6.42 | Significant |
| H5      | Brand Image → Usage Decision | .10 | 1.19 | Not Significant |

H1 was rejected and H0 was accepted stated that innovation has no significant effect on brand image based on SLF = 0.03 and t-value = 1.05 which is less than the critical value. This result is supported by research by Atashfaraz and Abadi (2016).

H2 was accepted stated that the marketing mix service has a significant effect on brand image based on SLF = .72 and t-value = 8.08 which is more than the critical value. The marketing mix is one of the most important drivers that create a strong brand image (Kim and Jahye, 2018).

H3 was accepted stated that innovation has a significant effect on the usage decision based on SLF = .14 and t-value = 3.49 which is more than the critical value. The results of this study are supported by Lahindah, et al., (2018) research, a company that creates innovation in the services industry will construct a competitive advantage and that is superior to its competitors.

H4 was accepted stated that the marketing mix has a significant effect on the usage decision based on SLF = .72 and t-value = 6.42 which is more than the critical value. Research by Bastaman and Mufti (2017) stated that the marketing mix can directly affect the image of a brand so that has a direct impact and lead to a person's decision.
to be loyal and repeating usage of the services.

H₅ was rejected and H₀ was accepted which states that brand image has no significant effect on the usage decision based on SLF = 0.10 and t-value = 1.19 which is less than the critical value. Rahman, et al., (2019) stated that in certain cases, consumers prefer to use a brand according to their preferences. This is such as service users were dominated by students and private employees, where they only had a short rest period and a lack of variety menu causes them to use online food delivery services to efficient their time.

Conclusion

This study contributes to complementing the existing literature regarding innovation and marketing mix on brand image and usage decisions, particularly for the online food delivery service industry. Results showed that innovation has no significant effect on brand image, while has a significant effect on usage decisions in online food delivery services. The innovation made by a brand with other brands in one industry is relatively the same so that innovation cannot be a benchmark for consumers in creating an image of a brand (Atashfaraz and Abadi, 2016; Yao, et al., 2019). However, the innovations can be used as a reference for consumers in choosing and decide on what the services they will use through application design, regular system updates, and chat features between consumers and drivers.

Results showed that the marketing mix had a significant effect on the brand image and the decision to use online food delivery services. The marketing mix is carried out through attractive advertisements, drivers use company attributes and offer attention to consumers. If the company applies the marketing mix properly and correctly it will raise trust and positive impression in the minds of consumers (Anjani, et al., 2018) so that consumers will choose and use online food delivery services.

Results showed that the brand image has no significant effect on usage decisions in online food delivery services. Brand image cannot be an additional reference for consumers in deciding what services will use. If the condition of consumer needs must be fulfilled, then they will not attach importance to brand image.

There are managerial implications that need to be applied by similar companies in the online food delivery service industry, including (1) developing target markets by promotional activities using social media, (2) expanding the coverage of service areas to fulfill all the wants and needs of consumers, (3) paying attention to quality service through company Standard Operating Procedure (SOP) in delivering food and beverage, (4) developing innovations in creating distinctive features to make it different from competitors, and (5) implementing marketing strategies and activities through attractive advertising content.

Notes on Contributors

Putri Dhika Savitri is a student in Magister Management, School of Business, IPB University. Her research interests are Marketing and Consumer Behavior.

Diah Krisnatuti is a senior lecturer in Department of Family and Consumer Science, Faculty of Human Ecology, IPB University. Her research interests are Consumer Satisfaction, Family Interaction, Family Communication, and Family Counseling.

Sufrin Hannan is a senior lecturer in Faculty of Economics, School of Pascasarjana, Pakuan University. His research interests are Consumer Behavior, Marketing and Business Management. He
used Qualitative Analysis and some methods using statistics such as PLS-SEM, descriptive and inferential statistics.

References

Atashfaraz, M., & Abadi, M.H.H. (2016). Impact of E-Service Innovation on Brand Equality and Customer Loyalty in Samsung International Corporation. Procedia Economics and Finance, 36, 327-335.

Anjani, H.D., Irham. Waluyati, L.R. (2018). Relationship of 7P Marketing Mix and Consumers Loyalty in Traditional Markets. Agro Ekonomi, 29(2), 261-273.

Aulia, D., & Briliana, V. (2017). Brand Equity Dimension and Consumer Behavior in Social Media. South East Asia Journal of Contemporary Business, Economics, And Law, 13(2), 15-24.

Bastaman, A., & Mufti, R. (2017). The Influence of Marketing Mix and Service Quality on Corporate Reputation and its Impact on Repurchase Decision. Management Scientific Journal, 7(2), 183-197.

Cho, E., & Kim, S. (2015). Cronbach’s Coefficient Alpha: Well Known but Poorly Understood. Organizational Research Methods, 18(2), 207-230.

Chandra, I.R. (2015). The Impact of Marketing Mix Elements toward Brand Equity through Brand Awareness and Brand Image as Mediators in Bakery Industry in Indonesia. iBuss Management, 3(2), 341-350.

Ganzer, P.P., Chais, C., & Olea, P. M. (2017). Product, Process, Marketing and Organizational Innovation in Industries of the Flat Knitting Sector. Innovation and Management Review, 14(4), 321-332.

Hanaysha, J., & Abdullah, H.H. (2015). Product Innovation as A Key Success Factor to Build Sustainable Brand Equity. Management Science Letters, 5(6), 567-576.

Kim, M.S., & Jahye, K. (2018). Linking Marketing Mix Elements to Passion-Driven Behavior Toward a Brand: Evidence from the Foodservice Industry. International Journal of Contemporary Hospitality Management, 30(10), 3040-3058.

Kotler, P., & Armstrong, G. (2004). Principles of Marketing 10th ed. New Jersey: Pearson Prentice Hall.

Kushwaha, G.S., & Agrawal, S.R. (2015). An Indian Customer Surrounding 7P's of Service Marketing. Journal of Retailing and Consumer Services, 22, 85-95.

Lahindah, L., Merisa, & Siahaan, R.A. (2018). The Influence of Product Innovation and Service Quality to Buying Decision and the Impact to Repeat Buying at Progo Road Bandung. The Asian Journal of Technology Management, 11(2), 118-124.

Lee, T. (2019). Gojek Says Its Leading in Indonesia’s Food Delivery Market. Retrieved from https://techinasia.com/gojek-leading-indonesias-online-food-delivery-market.

Mubarok, M.M (2018). The Effect of Brand Image and Consumer Attitudes on the Decision to Purchase Batik Jetis Sidoarjo Mediated by Intent to Buy. Journal of Economics, Business, and Accountancy Ventura, 21(1), 105-116.

Parmana, Fahmi, I., & Nurrohmat, D.R. (2019). The Influence of Marketing Mix Factors in Purchasing Decision for Wooden Furniture Case of Furnimart Bogor Indonesia. Journal of Business and Entrepreneurship, 5(1), 54-64.

Pradhan, V. (2016). Study on Impulsive Buying Behavior Among Consumers in Supermarket in Kathmandu Valley. Journal of Business and Social Sciences Research, 1(2), 215-233.
Rahman, F.Y., Yuliati, L.N., & Simanjuntak, M. (2019). The Influence of Marketing Mix and Word of Mouth Towards Brand Image and Usage of Online Bike Usage. Indonesian Journal of Business and Entrepreneurship, 5(3), 287-298.

Shakuna, et al., (2016). Modelling Professional Performance of Teachers' Scales in Libyan Schools. International Journal of Management and Applied Research, 3(3), 120-129. https://doi.org/10.18646/2056.33.16-010.

Sitio, V.S.S. (2019). The Influence of Service Quality and Brand Image on Purchasing Decisions at PT TIKI Shipping Services. M-Progress Scientific Journal, 9(1), 21-31.

Stankevich, A. (2017). Explaining the Consumer Decision-Making Process: Critical Literature Review. Journal of International Business Research and Marketing, 2(6), 7-14.

Statista. (2019). Online Food Delivery. Retrieved from https://statista.com/outline/374/120/online-food-delivery/indonesia#market-globalRevenue.

Tyas, W.P., Damayanti, M., Hutama, J.K., & Saragih, D.D. (2019). The Role of Food Delivery Services by Online Motorcycle Taxi on the Development of Culinary Home-Based Enterprises. IOP Conference Series: Earth and Environmental Science, 396, 1-10.

Yao, Q., Huang, L., & Li, M. (2019). The Effects of Tech and Non-Tech Innovation on Brand Equity in China: The Role of Institutional Environments. Journal PLOS ONE, 14(5), 1-24.

Yundari, N.P.S., & Wardana, I.M. (2019). The Influence of Brand Image, Consumer Satisfaction, Electronic Word of Mouth on Intention to Reuse. Management E-Journal, 8(7), 4647-4675.
