Customer Decision Making Analysis in Choosing the e-Marketplace which Provide Food Products

Fathan Nahar Azali[1*], Moh. Wahyudin[1], Atris Suyantohadi[1]

[1]Department of Agroindustrial Technology, Faculty of Agricultural Technology
Universitas Gadjah Mada, Jl. Flora No.1 Bulaksumur 55281, Indonesia.
Email: fathan.nahar.a@ugm.ac.id[*]

Abstract

Entering the digital era, shopping activities no longer have to go directly to the seller to get the desired product, including food products such as fast food, beverages, and various cooking needs. Currently customers can meet all their needs just simply by accessing an e-marketplace application developed by the company to order the desired product and then the product will be delivered to the courier to the home or where the customer is located. Until 2018 there are at least 10 e-marketplaces in Indonesia that are growing rapidly and have the most users, of which 6 of them provide food products. The process of developing e-marketplace applications has also become interesting to watch as an effort to optimize the marketing of agroindustry products in the digital age. This study wants to find out what attributes on the e-marketplace application platform that affect customers in the decision-making process to choose certain e-marketplace applications. To achieve these goals, the writer uses the Analytical Hierarchy Process (AHP) approach. And the results show that in the decision-making process customers consider 11 attributes contained in the e-marketplace application platform. Some of them are product search attributes, seller reputation information, payment methods offered, protection of customer data, and location maps.

Keywords: *analytic hierarchy process, customer decision making, e-marketplace application,*

1. INTRODUCTION

Digital technology is developing rapidly and spread in various aspects of life. Starting from the use for daily life, education, news and entertainment, even to shopping activities. Currently shopping activities no longer have to go to the seller directly to get the desired product. But they just sit at home or office then the desired product is ordered online via their mobile phone or computer. According to data reported by KOMINFO, in 2016 there were around 19.5 million Indonesian people using e-commerce.

One reason why many people migrate from conventional shopping habits to online shopping is because shopping online can provide convenience and flexibility for customers. Customers can order products anytime and anywhere, there is clarity of information because customers can obtain a variety of comparative information about the company, products and competitors without leaving the work done by customers and fewer levels of compulsion because customers do not need to face or serve persuasion from emotional factors (Ollie, 2008).

According to Brunn, et al (2002), e-marketplaces are electronic interactive business community platforms that provide markets where companies can take part in B2B (business to business) e-commerce and or other e-business activities. E-marketplace is a virtual market where buyers and sellers meet to make transactions (Hutauruk et al, 2017). E-marketplace applications are technological solutions with software that make it possible to build storefronts. Storefronts are business schemes relating to the sale of products or services (Sirclo, 2017).

The impact of developing marketplaces for organizations implementing marketplaces for their businesses according to Suyanto (2003) includes expanding markets to national and international markets; reduce the cost of making, processing, distributing, storing and searching for information using paper; enable inventory and overhead reduction by simplifying supply chain and pull type management; reduce the time between capital

outlay and receipt of products and services; support business process, reengineering efforts; minimize telecommunications costs. That is what triggers the development of a very massive e-marketplace application in Indonesia. According to data released by comScore MMX Multi-Platform, in June 2017 there were 10 of the best e-marketplace developers and had the most users in Indonesia. Of the 10 lists of the best e-marketplaces, 6 of them provide food-based products. They are shopee, tokopedia, lazada, bukalapak, blibli, and elevenia.

To be able to attract many users, e-marketplace applications must develop attractive features and attributes that are in accordance with user (customer) preferences. According to Muzdalifah (2012), customer preferences for an item can be known by determining the attributes attached to the product that can influence a person as a consideration for choosing the item.

And in that context, this research was conducted, to find out what attributes contained in the e-marketplace application platform were considered by users so that they would decide to use a particular e-marketplace application. Customer preferences can be interpreted as preferences, choices, or something that is preferred by customers. Knowing these attributes will make it easier for developers to make improvements to the e-marketplace application platform. The hope is to be able to increase user satisfaction and be able to optimize sales of products offered, especially food-based products.

2. MATERIALS AND METHODS

This research was conducted in August 2018 - February 2019 with 165 respondents. Respondents were selected using a purposive random sampling technique. Selected respondents were those who said they had shopped through e-marketplace applications.

Analysis of customer decision making in selecting e-marketplaces is done using the Analytical Hierarchy Process (AHP) approach integrated in the Super Decision 2.6.0-RC1 software. The advantage of AHP analysis is that it presents logical consistency in the judgments used to determine priorities. This can facilitate the author in interpreting the results obtained.

In this study the attributes used refer to 4 important factors which are the results of research from Szymanski & Hise (2000) and Wolfgang & Gilly (2003). The four factors are as follows:
1. Application design.

Describe the importance of a design on the marketplace platform for customer preferences the attributes included in this factor are:
   a. Easy to operate.
   b. Attractive appearance.
2. Products sold

Explain how the product should be in the eyes of customers. The attributes included in this factor are:
   a. Product quality.
   b. Product price.
   c. Product variations.
3. Ease of shopping.

Describe what facilities are available on the marketplace platform so that customers are comfortable shopping. The attributes included in this factor are:
   a. Ease of payment
   b. Product search
   c. Store search
4. Safety and comfort.

Define what security and service models can attract customers' interests so they want to use the marketplace platform that was created. The attributes included in this factor are:
   a. Data protection
   b. Seller and product reputation
   c. Location Settings
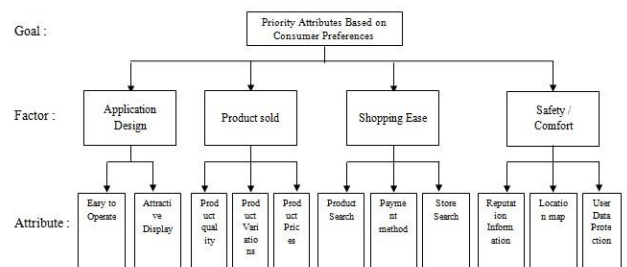

Figure 1. AHP Model Structure

3. RESULT AND DISCUSSIONS

3.1 User's Characteristics

In this study, the authors preceded it by conducting a survey of the 6 best and largest applications in Indonesia that provide food products such as fast food, drinks, and various cooking needs. And the results revealed that the

first and most frequent e-marketpace applications used by respondents were Shopee 35.19%, then followed by Tokopedia 24.54%, Lazada 20.37%, Bukalapak 17.13%, Blibli 1.85 % and Elevenia 0.93%.
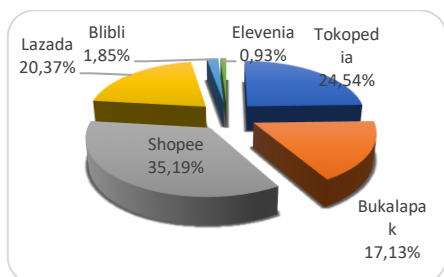

Figure 2. e-marketplaces that also provide food products

The above results are in line with the results of a survey reported by comScore MMX Multi-Platform in June 2017 which states that Shopee and Tokopedia are the two e-marketplaces most frequently used by users in Indonesia, both to simply look at the products being marketed and to shop.

Furthermore, the authors conducted a more in-depth analysis of user respondents' stages in order to find out who and how the characteristics of the e-marketplace application users are. The result, it was found that the majority of e-marketplace application users were dominated by women (62.42%) compared to men (37.68%). Then, based on the age group category, the majority of users come from the age group of 18-25 years, which is as much as 60.61%, followed by the age group of 26-30 years as much as 16.97% and ages 31-36 as many as 15.15%. This is consistent with the results of a survey by research institute Snapcart in January 2018 which revealed that the millennial generation, with the vulnerable age of 25-34 years, is the most users in the e-commerce field as many as 50% (Tashandra, 2018).

While in terms of employment, the majority of users do not have jobs and are still students (as many as 38.79%) and the rest work as private employees, civil servants, and entrepreneurs. In terms of income, e-marketplace application users who are respondents are almost evenly distributed ranging from lower economic groups (those earning under 1 million) to upper-level economic groups.

3.2 Priority Factors and Attributes in e-Marketplace

According to Szymanski & Hise (2000) and Wolfgang & Gilly (2003), in terms of developing e-marketplace platforms there are 4 important factors that must be considered, namely application design, products sold, shopping processes, and security and user services. In this study, the authors analyze the priority levels of the 4 factors on the decision making process by customers in choosing e-marketplaces that sell food products.

Based on the research, it was found that the most influential factor on customers in choosing e-marketplaces was easy, safety and security in shopping. This is reflected in the priority weights presented in Table 1. Priority weight values illustrate the level of importance rather than e-marketplace attributes that influence customers' decisions in choosing a particular e-marketplace.

Table 1. Priority Factors

No.	Factor	Priority Weight
1	Shopping Ease	0,37
2	Safety and security	0,33
3	Product sold	0,21
4	Application Design	0,09

Each of the factors above has different attributes. The total number of attribute attributes in the e-marketplace is 11, namely product search compatibility, seller reputation information, payment methods offered, protection of customer data, location maps, product quality offered, seller search features, product prices, ease of operating applications, diversity of products offered, and application visualization/appearance.

To get a more in-depth picture of the decision-making process by customers towards the selection of certain e-marketplace applications, an analysis of each of the above attributes is then performed. The results showed that the most important attribute considered by customers in choosing e-marketplace applications that will be used to buy agroindustry products is that product search attributes are the first priority for users.

The product search feature is rated as the most important attribute on the e-marketplace platform. So that almost every online

marketplace platform all presents a product search on the initial display. This aims to make it easier for users to find the desired product quickly and precisely. According to Putra (2015), practical customer desires encourage these features so that customers can immediately search for the desired product without having to open every menu.

In detail the priority attributes on e-marketplaces can be seen in Table 1. The value of priority weights reflects the importance of e-marketplace attributes that influence customers' decisions in choosing a particular e-marketplace.

Table 2. Attribute Priority

No.	E-Marketplace Attribute	Priority Weight
1	Product Search	0,17
2	Reputation Information	0,13
3	Payment method	0,12
4	User Data Protection	0,11
5	Location map	0,10
6	Product quality	0,09
7	Store Search	0,08
8	Product Prices	0,07
9	Easy to Operate	0,06
10	Product Variations	0,04
11	Attractive Display	0,03

The second priority e-marketplace attribute is the seller's reputation information. This can be understood because in buying and selling products the product cannot be directly accessed physically by customer so it is necessary to present accurate information about the seller's reputation and the product details it offers. Product guarantees to customers in accordance with what was ordered and promised so that customers can calmly shop online (Shidarta, 2015). Then the third priority attribute is the payment method offered. Attribute of ease of payment is the main attraction in shopping online. The availability of alternative methods of payment is an advantage in developing e-marketplace platforms (Grace & Chia-Chi, 2009; Yusra, 2017).

The fifth priority e-marketplace attribute is user data protection. Protection of customer's personal data or information is very important for internet-based services. The guarantee of the safety of personal data of users and sellers in e-marketplaces must be strictly protected so

that data leakage does not occur that could harm either party (Wolfgang & Gilly, 2003). The following, the fifth priority list is location map. The location map provided on the e-marketplace can make it easier for users to access the seller's address and share the shipping address for the product ordered. This location map is a service that helps users to provide access to the seller's address for the benefit of shipping the product so that the product can reach its destination without obstacles (Zeithaml et al, 2002; Collier & Bienstock, 2006).

CONCLUSIONS

The most influential factor on customers in choosing e-marketplaces are easy, safety and security in shopping. And the most important attribute considered by customers in choosing e-marketplace applications that provide food-based products is the product search attribute. Then followed in a sequence that is seller reputation information, payment methods offered, protection of customer data, location maps, product quality offered, seller search features, product prices, ease of operating applications, offered product diversity, and visualization or application display.

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