Analysis of The Influence of Attribute Design On Conversion Of The Use Of Gofood And Grabfood Application Services By Muslim Consumers In Indonesia

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ABSTRACT

Research Aims: *The main objective of this study is to examine the factors that affect the conversion of food delivery application services, namely Gofood and Grabfood in Indonesia.* **Design/methodology/approach:** *Mixed method by conducting focus group discussion and distributing questionnaires. Data analysis was done by using covariance based Structural Equation Modeling (SEM).* **Research Findings:** *Based on the result of the FGD, there are other variables that are considered to have an influence on the conversion, namely payment design so that the latent variables studied in this study are visual design, information design, navigation design, payment, and collaboration design. Based on quantitative data analysis, the output shows that information design, navigation design, payment design and collaboration design affect the conversion of Gofood and Grabfood service usages. However, the visual design does not affect the conversion of the use of Gofood and Grabfood by Muslim consumers in Indonesia.* **Theoretical Contribution/ Originality:** *This study adds one variable that affects conversion, namely payment design.* **Practitioner/Policy Implication:** *For managerial who take cares of the service usage to improve halal features in the form of filter or sign that indicates halal at a restaurant or merchant, require each restaurant or merchant to explain the composition of the food ingredients used, improve the quality of navigation design and add payment alternative that will increase the collaboration of the using the services.* **Research limitation/Implications:** *Demography, number of samples, difference test on Gofood and Grabfood services*

Keywords: Conversion, visual design, informational design, navigational design, payment design, collaboration design, mixed-method, Gofood.

1. INTRODUCTION

Information and communication technology advancement has led to various social, economic, political, and cultural changes. Moreover, it affects lifestyle changes, including consumption patterns and how people do sell and or buy (BPS, 2019). Currently, the two main application that provide online food delivery service features are Gofood which developed by Gojek and Grabfood which developed by Grab (Katadata, 2020). According to the data research by Statista (2020), Gojek and Grabfood are the largest online food delivery services among other apps in Indonesia.
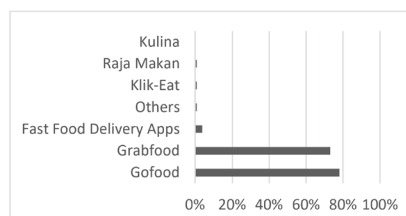

Figure 1 The Most Used Food Delivery Application by Indonesian Consumer in 2020
Source : Statista (2020)

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Based on their mobile app, Gofood and Grabfood are equipped with recommendation and rating features that are designed to measure level of customer satisfaction with the services of each merchant, which can help to determine the quality of their service, allowing consumers to consider their decision to purchase food or beverage from their business.

However, there are currently things that are not available on the application, namely information about the halal certification of food and drinks sold at restaurants or merchants registered with Gofood and Grabfood. At the same time, several restaurants or merchants are producers, presenters, and providers of food and beverages that do not necessarily have halal ingredients or halal production processing methods. One example is Lapo and Chinese Food[1]. This might be unclear for Muslim consumers because food and beverage are need to be clearly informed about its ingredient and production processing. Then, this should be considered by Gofood and Grabfood in adding about halal information features to avoid confusion for Muslim consumers. Therefore, as Muslim consumers who are obedient to religious prohibitions that require not to consume haram food and drinks, which are found in the word of Allah in QS Al-Baqarah verse 168 :

يَٰٓأَيُّهَا النَّاسُ كُلُوا مِمَّا فِى الْأَرْضِ حَلَٰلًا طَيِّبًا وَلَا تَتَّبِعُوا خُطُوَٰتِ الشَّيْطَٰنِّ إِنَّهُ لَكُمْ عَدُوٌّ مُّبِينٌ

It means: *O, people! Eat the lawful and pure things on the earth and follow not in the footsteps of Satan. For indeed he is your open enemy.*

This research also offers two substantive contributions. First, by linking the attributes of the Gofood and Grabfood apps with actual conversions, this research provides measurable evidence that shows how the attributes of the Gofood and Grabfood applications affect customer purchasing activities. Second, it discusses the mechanism of how online food delivery services led to increased customer usage using the concept of attributes on Gofood and Grabfood. The research focuses on four key attributes – visual design, navigation design, information design, and collaboration, an in-addition payment design. Then, there are some additional indicators based on input from the result of the qualitative research that has been conducted before quantitative research. Meanwhile, the fifth construct is payment design that results from a focus group discussion (FGD). Researchers added payment design as one of the additional latent variables due to the results of the FGD, which discussed the payment system. Researchers see a difference in payments with previous research, so the added variable (payment design) is expected to better reflect the influence on conversion.

2. LITERATURE REVIEW

2.1 Theory of Consumer Behavior

Consumer behavior is about understanding and explaining human behavior by looking at the causes, drivers, and antecedents that influence a person (Smith, 2019). From the Islamic point of view, consumer behavior is a consumer theory that refers to a set of ideas or principles to explain situations, facts, and events that inspired by Islamic views sourced from the Al-Quran and Al-Hadith, which are holistic covering the world and the hereafter (Amin, 2017). In this case, consumer behavior also wants to see the ability or attitude of a person in carrying out consumption activities.

2.2 Conversion

There is a relationship between consumer behavior and conversion. Namely, conversion is a variety of actions such as representing offers and making purchases. This can be shown when someone purchases a site or an application (Ghose & Todri, 2018). Food service mobile applications are software products with multi-attributes so that the combination of product and service attributes can affect the user experience, which will then affect the user's final engagement and purchase behavior (Kapoor & Vij, 2018). Then the following are some factors that affect the conversion which research will examine.

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[1] *Lapo and Chinese Food is a restaurant that serves several foods with non-halal ingredients, those containing pork, dogs, and alcohol. Lapo is a traditional restaurant typical of North Sumatra.*

2.3 Visual Design

Visual design is one of the most critical attributes of mobile apps. Visual design elaborates communication by focusing on understanding concepts and the meaning of signifiers shown in word typography or images (Silva & Stocker, 2018). The visual design of a mobile app refers to elements that include color, shape, font type, font size, and layout position (Cheng et al., 2017; Shaouf et al., 2016). The existence of such coverage is to reflect simplicity and reasonable structure and improve user responsiveness.

2.4 Information Design

Mobile app information design refers to the app's ability to deliver relevant, up-to-date, and easy-to-understand information to its users (Kapoor & Vij, 2018). The availability of sufficient and relevant information will increase trust in online shopping and purchase intentions (Kapoor & Vij, 2020). Then, the quality and structure of sufficient relevant information will impact customer satisfaction and loyalty to a particular food application. The quality of information can help consumers in the decision-making process so that it will increase trust and will result in an influence on purchase intention (Olivier, 2018). For Muslim users, information search allows user to access the information they need, such as the halal search on product descriptions (Hanum et al., 2014).

2.5 Navigation Design

Navigation design is necessary for users to use the application in terms of efficient navigation design and easy-to-use applications (Kapoor & Vij, 2018). The primary purpose of navigation design is to determine how information, displays, and other elements can be adequately operated (Mubin et al., 2020). Therefore, if an application has a good navigation design, it will satisfy consumers, increasing conversions to using Gofood and Grabfood services in Indonesia.

2.6 Payment Design

Payment design refers to the application's ability to perform transaction or payment activities on the services used (Islamiati et al., 2019). The payment design provided by Gojek and Grab provides various payment methods, including cash and e-wallet payments. Payment through e-wallets is considered one of the most prominent methods today because electronic transactions using e-wallets have advantages, convenience, flexibility, and protection (Adults, 2020). Then, payment with cash still often occurs when consumers place orders with online delivery services (Kapoor & Vij, 2020).

2.7 Collaboration Design

Mobile app collaboration design refers to the alliance of a particular food app with other companies in the industry (Kapoor & Vij, 2018). In this study, the application alliance that collaborates with Gojek and Grab is in the form of an e-wallet application. The e-wallet alliance application provides convenience services for making transactions and offers users incentives in the form of cashback (Surendhranatha & Aradhya, 2020). In this study, the Grab application in Indonesia has a bond with OVO (a payment service provider), where when users place food orders on the Grab mobile application, it is recommended to use OVO services. Therefore, a good collaboration design will satisfy consumers, thereby increasing conversion to the use of Grabfood services in Indonesia.

2.8 Online Food Delivery App Service

Food delivery applications allow consumers to order food online and deliver it to the consumer's doorstep (Atulkar & Singh, 2021). Gojek and Grab are online transportation, payment, food delivery,

logistics, daily necessities, and entertainment ticket applications (Izzati, 2020). The food delivery service on Gojek is Gofood, while on Grab is Grabfood.

3. METHODOLOGY

3.1 Research Method

This research uses a partially exploratory mixed method, combining qualitative and quantitative methods. Mixed methods research is an inquiry approach that involves collecting quantitative and qualitative data, integrating two forms of data, and using different designs (Creswell & Creswell, 2018). Researchers applied this model with objects taken from the experience of using Gofood and Grabfood application services. Therefore, this research is divided into two phases: qualitative and quantitative.

3.2 Phase 1: Qualitative Research

Research using qualitative methods aims to understand and know the experience of using Gofood and or Grabfood services. The data collection technique with a qualitative approach used in this research is focus group discussion (FGD). Focus group discussion is a technique in which a researcher gathers a group of individuals to discuss a specific topic that aims to draw from the participants' complex personal experiences, beliefs, perceptions, and attitudes (O.Nyumba et al., 2018). To avoid the spread of Covid-19, focus group discussions were conducted online using Google Meets. In addition, some participants live in distant locations (such as Aceh, Denpasar, and Kalimantan), so online FGDs are more feasible.

In this study, theoretical sampling was used to explain an effect by building another effect that is not selecting a random population to help clarify an additional effect and its relationship to the object under study. Theoretical sampling develops theory with credibility and authenticity (Urquhart, 2012). Then, thematic analysis was carried out, aiming to obtain the information obtained from the FGDs by listening back to the recordings to become more familiar with the data obtained and understand it more deeply.

3.4 Phase 2: Quantitative Research

The data previously obtained from the qualitative research is used to develop the survey. The survey used a questionnaire that contained statements and was rated based on a seven-point Likert scale of 1-7 (1 = strongly disagree; 7 = strongly agree). Researchers used Google Form to create and distribute questionnaire surveys. Quantitative data were obtained in three stages: conducting a wording test, then a pre-test, and a preliminary test.

3.5 Research Model and Hypothesis

Researchers use the same model, variables, and indicators as Kapoor and Vij (2018), only adding one variable, namely payment design obtained from FGDs, differentiated in the unit of analysis, object, and language use so that the model used is as follows:

Table 1 Research Hypothesis

Hypothesis	Description
H1	Visual design influences Muslim consumer's conversion to Gofood and Grabfood services in Indonesia
H2	Information design influences Muslim consumer's conversion to Gofood and Grabfood services in Indonesia
H3	Navigation design influences Muslim consumer's conversion to Gofood and Grabfood services in Indonesia
H4	Payment design influences Muslim consumer's conversion to Gofood and Grabfood services in Indonesia
H5	Collaboration design influences Muslim consumer's conversion to Gofood and Grabfood services in Indonesia

This research model was analyzed descriptively and statistically using Partial Least Square-Structural Equation Modeling (PLS-SEM). Structural Equation Modeling or SEM analysis, is a technique for estimating the relationship between measured variables (Birks, 2016). This technique helps researchers test the relationship between theoretical model variables for testing and extending theories. Measurement and structural models are tested using Partial Least Squares – Structural Equation Modeling (PLS-SEM) through the SmartPLS application. The model metrics considered in PLS-SEM are reliability, validity, convergent validity, and discriminant validity in the measurement model. In addition, other things that are considered are variance explained (R^2), effect size (f^2), predictive relevance (Q^2), and the size also statistical significance of the path coefficient (Hair et al., 2018).

4. RESULT AND DISCUSSION

4.1 Phase 1: Qualitative Research Results

In the qualitative phase, researchers conducted focus group discussions (FGDs) in three separate sessions based on age ranges in generation X, generation Y, and generation Z groups. Researchers selected six people in each type of mini-focus group discussion in each generation group. Based on the results of the FGD, researchers consider adding payment design variables as attributes that are thought to influence the conversion of Gofood and Grabfood usage by Muslim consumers in Indonesia. Then the researcher added indicators of questions related to rating and availability of halal information on information design. In addition, several question indicators were reduced in previous studies due to incompatibility with the research object.

4.2 Phase 2: Quantitative Research Results

In this study, the data collected were 567 respondents, but only 500 respondents were processed because there was extreme data.

The respondents who filled in this study's questionnaire are Grabfood users (51.3% of 567 respondents) and Gofood users (49.7% of 567 respondents). Most of the respondents are women (65.2% of 567 respondents). Whereas about the age category, the people of the age range of 17-24 years old are the majority of this study's respondents (88% of 567 respondents). It was discovered that the respondents experience using Gofood or Grabfood services more than 3 years (59.4% of 567 respondents). Most of the respondents' last education is senior or vocational high school (SMA/SMK), taking up to 51.8% of the respondents. Consistent with the last education categories, the majority of the respondents were still students (70.8%) by the time they filled out this study's questionnaire. Finally, in terms of their average money spent on every order, 66% spend in the range 50.000 – 100.000 IDR for it.

For measurement analysis, whether the data is within normal limits and interpretation, the author tries to review through several criteria to determine the next stage. In the convergent validity section, the authors use confirmatory research limits ≥ 0,6 or the quantification of outer loading ≥ 0,4 and the average variance extracted (AVE) (AVE) value [3] 0,5. Meanwhile, to see the internal consistency, the authors review the composite reliability value[3] 0,7.

Based on testing the outer loading value, which is a crucial component of convergent validity, two indicators are not worth 0.6, namely indicators DV01 (0.584), DI02 (0.542), and DI03 (0.324). However, the indicator is still maintained; referring to the statement of Hair et al. (2018), the indicator value of 0.4 - 0.7 is still worth considering its presence if the indicator does not worsen the current value on the average variance extracted (AVE) with a value limit of 0.5 which reflects that each variable is valid. This study's internal consistency testing found that all variables were considered reliable because they had a composite reliability value above 0.7.

Furthermore, in measuring discriminant validity, the author uses the Heterotrait-Monotrait Ratio (HTMT) with a value limit of less than 1 in each variable and a cross-loading value, the most significant correlation value compared to other latent variables. This study shows that all variables meet the valid

criteria because they have an HTMT value < 1. In addition, in testing discriminant validity, the criteria for being valid are also reviewed from the cross-loading value of the indicator, which shows the most significant value when compared to indicators on other variables.

4.3 Structural Model Test

In analyzing the relationship between the existing constructs, t-value or the critical ratio value that can be viewed on the structural model path output from Smart PLS are used. The research results can be summarized in significance testing with the path coefficient. The path coefficient stage helps know the value representing the hypothesis relationship with the construct. The method used to test significance is bootstrapping with 5000 subsamples and a significance level of 0.05 with a two-tailed type because the hypothesis is carried out for hypotheses that have differences between latent variables.

Table 2. Hypothesis Testing Results

Hypothesis	Test Statistics (t-value & z-value)	Path Coefficient	Research Results
H1	0.834	0.405	Not Supported
H2	1.972	0.048	Supported
H3	4.287	0.000	Supported
H4	2.790	0.005	Supported
H5	2.034	0.042	Supported

Based on the structural model significance test in Table 2, four hypotheses have a significant effect, namely H2, H3, H4, and H5, by having a T-statistics value ≥ 1.96.

5. CONCLUSION

From the results of data processing and research analysis conducted using mixed methods, this study found that information design, navigation design, payment design, and collaboration design can affect the conversion of using Gofood and Grabfood by Muslim consumers in Indonesia. Meanwhile, the visual design does not affect Muslim consumers' conversion to Gofood and Grabfood in Indonesia. Then the addition of halal information availability indicators to the information design and payment design variables is considered essential. They have been proven to affect conversions significantly. For Muslim users, even though the availability of halal information is not yet available, there may be a need for information regarding halal availability. For example, Tokopedia has provided additional filter options to select halal food. Not all products sold on Tokopedia are halal, so this analogy can be drawn to the context of Gofood and Grabfood to provide the availability of halal information. Muslim consumers carry out Allah's orders, as in Surah Al-Baqarah verse 163 regarding the command to consume halal food.

Several recommendations are proposed in relation to the conclusions of the relationships of the variables in this study:

- Researchers did not conduct a different test on Gofood and Grabfood services to see different influences because the proportion of respondents who used Gofood and Grabfood was nearly the same. Then, it is recommended for further research to conduct a different test on Gofood and Grabfood. Samples in the qualitative phase and quantitative phase are inconsistent.

- While researching in the quantitative phase, respondents who filled out the questionnaire were mainly from generation Z, namely 440, so the results did not reflect the target consumers of Gofood and Grabfood, which were used by all ages from generation X, generation Y, to generation Z.

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