

SCARCITY MARKETING TO PERCEIVED UNIQUENESS AND DESIRABILITY USERS OF THE FOOD DELIVERY SERVICE INDONESIA APPLICATION

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Abstract: The number of online applications users of food and beverage delivery services in Indonesia is growing every year. That is also followed by many culinary entrepreneurs who have established partnerships with online applications. One of the major online food and beverage delivery service applications in Indonesia is Grabfood. Through Grabfood, products ordered online by users will be delivered to their homes in a relatively short time. Ordering food and drinks through Grabfood is also very beneficial for users because they can enjoy a variety of attractive promotions, both in the form of food and beverage discounts, cashback, shipping cost discounts, and so on. One of the promotional strategies carried out by Grabfood is to do scarcity marketing. This study aims to observe whether the scarcity marketing carried out by Grabfood can affect the desirability of Grabfood users and at the same time examine the role of perceived uniqueness as an intervening variable in the model developed by this study. Scarcity marketing in the study is divided into two types, namely limited-quantity scarcity and limited-time scarcity. The sample in this study involved one hundred and thirteen active users of the Grabfood application who have filled out a complete online questionnaire. The data processing results show that limited-quantity scarcity and limited-time scarcity can directly have a positive and significant effect on perceived uniqueness and desirability. Furthermore, perceived uniqueness also has a direct positive and significant effect on desirability. In its position as an intervening variable, the construct of perceived uniqueness can partially mediate the relationship between limited-quantity scarcity and limited-time scarcity on desirability. Further research focused on another intervening variable that partially mediates the relationship between limited-quantity scarcity and limited-time scarcity to desirabilities, such as perceived value or social status.



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The rise of the culinary business in Indonesia has prompted many entrepreneurs engaged in the culinary sector to think of strategies to increase sales of their products. One strategy that can be done is to join and register their businesses in an online application often used by many consumers today. In the online application, food and beverage delivery service features can be found, which are currently starting to appear. This online food and beverage delivery service application can also be downloaded for free on each consumer's smartphone. In Indonesia, the number of users of this online food and beverage delivery service application increases yearly. The impact is that the number of food and beverage purchases through online applications has also increased (Eloksari, 2020). Especially during the Covid-19 pandemic, when the government implemented a social restriction policy, the number of online food and beverage purchases is also higher (Arbi, 2020). There are so many food delivery service applications in Indonesia. Marketers need some strategy and an effort to affect consumers to use their online food service application. In Indonesia, one of the food and beverage delivery service applications with many users is Grabfood application (Cahyani et al., 2020). Through Grabfood, users can order a varied menu of foods or drinks, and their orders will be delivered to their houses in a relatively short time.

Grabfood, as one of the largest food and beverage delivery service applications, also often pampers its users with various kinds of promotions such as discounts on food and beverage prices, cashback, discounts on shipping costs and sometimes even free, etc., with the only goal in increasing the desirability of its users. Desirability is an essential driving factor in influencing consumer behavior (Han et al., 2010; Ivanic et al., 2011). Desirability is more to the level of possibility in making a purchase (buying interest). Desirability refers to the final act of buying related to the various stages of the possibility to buy. The possibility of buying or buying interest arises after going through a viewing process, so as desirability of buying and owning the product appears (Hidayat et al., 2012). In the end, desirability is the main key in achieving a company's profit (Lee et al., 2018).

So far, Grabfood has often implemented promotional strategies in scarcity marketing by collaborating with food and beverage sellers who have become Grabfood partners. Scarcity marketing emphasizes offering promos for a product (Lynn, 1992). Promo offers through scarcity marketing can be divided into two types, namely limited quantity scarcity (LQS) and limited time scarcity (LTS). The marketing system for LQS is a system in which consumers have to compete with other consumers because this promo offer limits its product inventory. Usually, this promo can only be valid at specified outlets.

In contrast, the LTS marketing system is a marketing system where consumers can only buy during a predetermined period (Aggarwal et al., 2011). Therefore, this promo offers from Grabfood can limit the supply of the number of a product (LQS), and this promo will also end according to a predetermined period (LTS). There are restrictions during this promo, and it can give a good impression and effect compared to other products that are easier to get without any promo offers (Lee et al., 2016).

Scarcity marketing can also make consumers have a perceived uniqueness and have more value for a product that is being promoted. Consumers feel that these products are in great demand or favor (Ward and Broniarczyk, 2016). Perceived uniqueness is a condition where individuals need the uniqueness of a product that differentiates them from others (Knight and Kim, 2007). The theory of needs for uniqueness can show that there are differences in terms of the need for uniqueness of each individual (Abosag et al., 2020). That is because each individual can find their uniqueness in several ways. One of them is seen from the need for the uniqueness of a product. Unique products can increase the value of a product to make it look more exclusive so that, in the end, consumers will also have the desirability to buy that product (H. J. Chen and Sun, 2014). According to theory, consumers will have negative feelings if they have the same product as other people have (Snyder and Fromkin, 1977). That means that consumers do not want to have the same product as others. Consumers prefer products that are unique, innovative, and differ-

ent from others. Consumers will then look for other products that are unique and different from others (Simonson and Nowlis, 2000). For example, a company will give its consumers gifts or make an innovation in a product to differentiate the product from others. Amaldoss and Jain (2005) state that consumers will find the product popular, and it can be attractive to consumers in a situation like this. That can make consumers need a higher need for uniqueness where having a unique product is one way to meet the intended needs (Snyder and Fromkin, 1977). This study can be used for marketers to adopt marketing strategies to increase the desirability of consumers for the unique and limited product. Moreover, this study also can be used for marketers to reach maximum sales.

Previous research has mentioned the impact of scarcity and product uniqueness on purchasing limited quantities of products by buyers (H. J. Chen and Sun, 2014), such as Wu et al. (2012), discussing the effect of scarcity and consumer needs for uniqueness on purchase intention. However, the above study did not discuss the various types of scarcity message, such as LQS and LTS. T. Y. Chen et al. Research. (2020) then comes to fill the gap from Wu et al. (2012) research. T. Y. In their study, Chen et al. (2020) attempted to modify the causal relationship of two types of scarcity, namely LQS and LTS, three sub-items of expansion and desirability. However, research by T. Y. Chen et al. (2020) still open room for some improvements for further research. One of them is the need to examine the relationship between marketing scarcity, uniqueness, and desirability, especially for daily necessities. The study by T. Y. Chen et al. (2020) only validate the relationship of the three constructs to the type of luxury goods. Scarcity marketing can increase sales promotion (Biraglia, Usrey, and Ulqinaku, 2021). Thus, further studies investigating the relationships of different types of products are also needed. Therefore, this study examines food and beverages as daily necessities which are promoted on a limited basis so that they are perceived as unique items and lead to the emergence of desirability in consumers, especially the consumers of Grabfood, as one of the online applications for food and bever-

ages delivery services and an application that has quite a several users.

HYPOTHESIS DEVELOPMENT

Promos offered via LQS messages make the number of products limited during the promo. That makes the product tighter and unique. Therefore, perceived uniqueness can appear in the minds of consumers (H. J. Chen and Sun, 2014). Promos that offer a limited number of product supplies will be the right choice in realizing consumer perceived uniqueness (Tian et al., 2001). When a consumer's self-image is the same as another, consumers feel that their self-image is threatened, so that consumers will pursue differences from others (Asshidin et al., 2016). So, promos offered through this LQS strategy can help consumers improve their self-image and self-achievement that is different (unique) compared to other consumers when they succeed in getting the products offered through LQS messages (Miremadi et al., 2011).

H₁. LQS affects perceived uniqueness

Consumers will think of themselves as different from others through the high uniqueness of a product, which at the time of purchase can get a promo that is limited by time (Tian et al., 2001). Therefore, the LTS strategy is expected to make consumers feel more confident and satisfied because they are considered unique when they get the product with a predetermined promo (Asshidin et al., 2016). When consumers want to get a promo from a product through an LTS message, consumers will feel a perceived uniqueness in that consumer (Knight and Kim, 2007).

H₂. LTS affects perceived uniqueness

Promotion of a limited number of products is considered more attractive and exclusive because the limited number of products complies with the available promo quota (Gierl et al., 2008). Usually, these promo offers can create high consumer desirability to own the product. In fulfilling consumer desirability, consumers need to compete with other consumers to get promo offers that limit the number of sold products. Products that have been suc-

cessfully purchased from this LQS promo can show different achievements that other consumers cannot get (Miremadi et al., 2011). That can increase desirability in consumers.

H₃. LQS affects desirability

Promo offer for a product that is limited by time can make consumers feel worried about not being able to get it on time (Chiang et al., 2011). That leads to the desirability of consumers in getting the product (Trobe and Liberman, 2010). The consumer’s need to get a time-limited promo offer for a product can make a special meaning and affect consumer desirability (H. J. Chen and Sun, 2014).

H₄. LTS affects desirability

Consumers want to own and get a unique product and innovation in satisfying consumer desirability (Mazali and Rodrigues-Neto, 2013). Observing from the theory of perceived uniqueness shows that people will be motivated to maintain privileges in achieving a goal (Tian et al., 2001). For consumers, a product that emphasizes uniqueness can be an attraction to show others that they are special (Mazali and Rodrigues-Neto, 2013).

H₅. Perceived uniqueness affects the desirability

Promo offers limited by their quantity make the number of products limited to buy during the promo

period, so consumers will feel that there are perceived uniqueness that can increase their self-image and self-achievement. Those are different from other consumers when they manage to get the products offered through the LQS message. (Miremadi et al., 2011). Through this perceived uniqueness, consumers want to have the desirability to buy a product. So, this LQS promo offer will make consumers maintain consumer privilege (perceived uniqueness). A sense of desirability will emerge in consumers, which is the attraction for obtaining and owning the product (Mazali and Rodrigues-Neto, 2013; Tian et al., 2001).

H₆. Perceived uniqueness mediates the relationship between LQS and desirability

The LTS strategy can make consumers feel more confident and satisfied because they are considered unique when they succeed in getting the product with a predetermined time limit (Asshidin et al., 2016). When consumers succeed in getting limited products at that time, consumers will feel a perceived uniqueness within them (Knight and Kim, 2007). The need of consumers to get a promo offer for a product that is limited by time and a sense of perceived uniqueness in consumers is expected to make consumers have the desirability of buying products offered with limited promos at that time.

H₇. Perceived uniqueness mediates the relationship between LTS and desirability

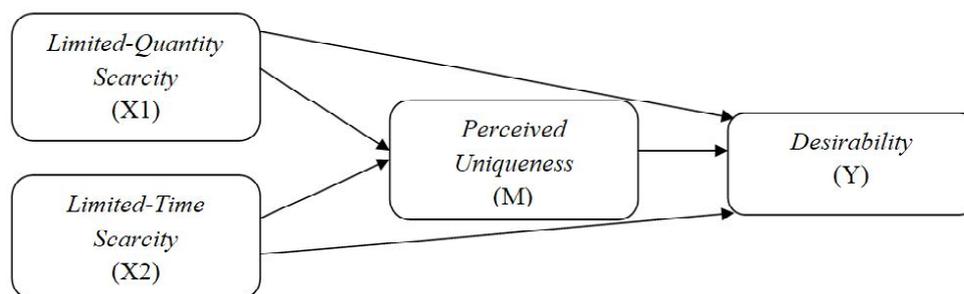


Figure 1. Research Model

METHOD

This study uses a quantitative approach because it aims to test the correctness of the hypotheses that have been built by this study through structural equation modeling (SEM), where the proposed research model will be assessed and designed to identify the relationship between two or more variables (Zikmund et al., 2013).

Sampling Design and Data Collection

The sampling technique used in this study is purposive sampling, which includes non-probability sampling with the sample criteria of minimum age of 17 years and has an active Grabfood account. That indicates that the sample is a member or user of the Grabfood application and has seen or received Grabfood promo offers limited by quantity (limited quantity scarcity) and limited by time (limited time scarcity) in the last six months. The minimum number of samples required for this study refers to Hair et al. (2012) study, where the minimum number of samples is five to ten times the inner model path that leads to latent variables. Data collection is carried out through a cross-sectional survey conducted from October 2020 to March 2021 by distributing questionnaires online using the Google Forms tool. The google form link is then distributed through several online platforms such as email and social media (Line, WhatsApp Group, Facebook, and Instagram). This study chooses the PLS-SEM analysis technique to process the data obtained from distributing the questionnaire.

From the results of the questionnaire distribution, it is found that 139 respondents have participated voluntarily. However, after the examination and identification process is carried out, including the completeness of filling out the questionnaire, it turns out that only 113 respondents (81.3%) provided complete data entries so that it is feasible for further processing. The respondents who all have accounts on the Grabfood application consist of 40 men (35.4%) and 73 women (64.6%). The age range of 26-35 years is slightly dominating (34.5%), followed by respondents with an age range of 17-25

(27.4%), then 36-45 years (20.4%), and the rest are over 46 years old. Nearly half of the respondents have a work background as employees (42.5%). Concerning the accounts owned on the Grabfood application, all respondents are always actively using them to order food and drinks even though the frequency of transactions varies in one month. Respondents also claim to have received promotional advertisements from the Grabfood application, especially for advertisements limited to the number of products and the length of the promotional period.

Measures

There are four variables for this study, which consist of two exogenous variables (LQS and LTS); one endogenous variable (Desirability); and one endogenous intervening variable (Perceived Uniqueness). The data measurement uses a five Likert-scale to measure the level of agreement ranging from strongly disagree to agree strongly. The measurement for the LQS variable is adapted from Gupta (2014) with a total of 3-item indicators. An example of a statement is "Grabfood promos (whether food or drinks) that are offered in limited quantities are often to my liking". The measurement for the LTS variable includes two indicator items adapted from a study by Gierl and Huettl (2010). The two indicator items are stated in the form of a statement "Grabfood promos (whether food or drinks) that are offered for a limited time often catch my eye" and "Grabfood promos (whether food or drinks) that are offered for a limited time often make me want to immediately do purchase transaction". The measurement for the perceived uniqueness variable is adopted from Asshidin et al. (2016) with total of 3-item indicators. "When going to buy, I am very creative in choosing the food or drink that Grabfood promotes." is one example of a statement used in this study. Finally, the desirability variable is adapted from T. Y. Chen et al. (2020) with 2-item indicators with an example statement: "I have a positive impression of food or beverages that Grabfood promotes".

RESULTS

Validity and Reliability Analysis

Convergent validity and discriminant validity are used as validity testing methods for all indicators in this study. Convergent validity can be seen from the loading factor value and Average Variance Ex-

tracted (AVE), each of which must be more than 0.5. In Table 1, it can be seen that the loading factor value is above 0.5. Thus, the loading factor test results follow the required criteria, and all indicators are declared to meet the good convergent validity rules.

Table 1. Loading Factor

Indicator	Desirability	LQS	LTS	Perceived Uniqueness
Des1	0.940			
Des2	0.942			
LQS1		0.880		
LQS2		0.796		
LQS3		0.809		
LTS1			0.922	
LTS2			0.890	
PU1				0.909
PU2				0.887
PU3				0.908

Notes: Des = Desirability; LQS = Limited Quantity Scarcity; LTS = Limited Time Scarcity; PU = Perceived Uniqueness

The AVE value is shown in Table 2, where all values are also above 0.5. That further strengthens the previous loading factor test results, which states

that all indicators have met the requirements of convergent validity.

Table 2. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Desirability	0.885
LQS	0.687
LTS	0.822
Perceived Uniqueness	0.813

Validity testing can also be seen from discriminant validity testing by analyzing the Fornell Larcker Criterion test results and cross loading. When testing the Fornell Larcker Criterion, the value of a variable cannot be less than any other variable. Whereas the cross loading test, the indicator value with the variable itself must be greater than the others. The results of the Fornell Larcker Criterion test and cross

loading can be seen in Table 3 and Table 4, which show that all indicators also meet the requirements for discriminant validity.

In addition to the validity test, a reliability test by looking at the composite reliability value and Cronbach's alpha is also needed. A variable measured by its respective indicators will be declared reliable and meet the criteria if the composite reli-

Table 3. Fornell Larcker Criterion

Variable	Desirability	LQS	LTS	Perceived Uniqueness
Desirability	0.941			
LQS	0.672	0.829		
LTS	0.645	0.581	0.907	
Perceived Uniqueness	0.657	0.668	0.658	0.901

Table 4. Cross Loading

Indicator	Desirability	LQS	LTS	Perceived Uniqueness
Des1	0.940	0.618	0.609	0.610
Des2	0.942	0.646	0.605	0.626
LQS1	0.633	0.880	0.562	0.569
LQS2	0.452	0.796	0.376	0.515
LQS3	0.570	0.809	0.489	0.573
LTS1	0.599	0.558	0.922	0.671
LTS2	0.569	0.490	0.890	0.510
PU1	0.570	0.617	0.574	0.909
PU2	0.531	0.528	0.525	0.887
PU3	0.662	0.649	0.666	0.908

ability and Cronbach’s alpha value is above 0.7. In Table 5, it can be seen that the composite reliability and Cronbach’s alpha value of each variable are

indeed greater than 0.7 so that all indicators in this study are appropriate to measure the existing variables.

Table 5. Composite Reliability

Variable	Composite Reliability	Cronbach’s Alpha
Desirability	0.939	0.871
LQS	0.868	0.772
LTS	0.902	0.784
Perceived Uniqueness	0.929	0.885

Table 6. Hypothesis Test

Hypothesis	Original Sample (O)	t-statistics (O/STERR)	p-values	Remark
LQS → PU	0.431	6.331	0.000	Supported
LTS → PU	0.408	5.537	0.000	Supported
LQS → Des	0.347	3.780	0.000	Supported
LTS → Des	0.289	3.434	0.001	Supported
PU → D	0,235	2,506	0.013	Supported

Hypothesis Test

After going through the validity and reliability testing stages, the next step is to test the hypothesis. The hypothesis will be accepted if the t-statistic value is greater than 1.96 or the p-value is smaller than 0.05., and vice versa. Meanwhile, the direction of the relationship can be seen by looking at the original sample value, whether positive or negative.

The overall t-statistic value in Table 6 is greater than 1.96, and the p-value is below 0.05 and has a positive relationship direction. Therefore, the first hypothesis to the fifth hypothesis in this study can be supported. It can be concluded that LQS affects desirability and perceived uniqueness. Likewise, LTS also affects desirability and perceived uniqueness. Perceived uniqueness also affects desirability.

Mediation Test

Mediation testing is carried out to prove whether the sixth hypothesis and the seventh hypothesis can be supported or not.

The sixth and seventh hypotheses observe the role of the variable perceived uniqueness as an intervening variable in the research model. In Table 7, the results can be seen that the perceived uniqueness can act as an intervening variable that can partially mediate the relationship between LQS to desirability and LTS to desirability. That can be seen from the t-statistic value greater than 1.96, and the p-value is smaller than 0.05.

DISCUSSION

Limited Quantity Scarcity and Limited Time Scarcity Affect Perceived Uniqueness

The results of this study show that LQS and LTS as a form of scarcity marketing can have a positive effect on perceived uniqueness and be supported by previous studies such as H. J. Chen and Sun (2014) and T. Y. Chen et al. (2020). Promotions in LQS or LTS often attract consumers to buy

Table 7. Indirect Effects

Hypothesis	Original Sample (O)	t-statistics (O/STERR)	p-values	Remark
LQS → PU → Des	0.096	2.286	0,023	Supported
LQS → PU → Des	0.101	2.286	0,023	Supported

certain products because they are considered unique or have different innovations from products in general (Aggarwal et al., 2011). Promotional offers via LQS messages make the quantity of promoted products very limited, like LTS, which limits time. In such a context, the product being promoted is unique and creates a competitive situation among consumers to own it or buy it. Promos that limit product quantity or time will be the right choice in realizing consumer perceived uniqueness (Tian et al., 2001). Promotional offers through LQS and LTS strategies can help consumers improve their self-image and different self-achievement compared to other consumers who buy without promotions in the form of LQS or LTS (Miremadi et al., 2011).

In addition, there is a difference between previous studies and this study. H. J. Chen and Sun

(2014) discussed the impact of product scarcity, perceived uniqueness, and perceived value that attract consumers to buy intangible goods such as games. Moreover, this study also discusses for strategic operation and marketing of the game industry. T. Y. Chen et al. (2020) showed that scarcity marketing impacts perceived social status and perceived uniqueness that dominates most effects on attracting consumers, especially for luxury goods.

In the Grabfood application, consumers can enjoy a variety of attractive promos offered. Every day Grabfood often offers attractive promos, including promos in the form of LQS and LTS. The promo most often found and used by most Grabfood users is a combination promo between LQS and LTS. That is part of the Grabfood strategy to make consumers use Grabfood's food delivery services and attract

consumers to order food or drinks from the Grabfood application. Even Grabfood has a special promo feature category in its application, making it easier for users to find food or drink menus that are currently on promotion. That raises the perception in consumers that scarcity marketing promos can attract consumers' attention to want to buy these products with a limited quantity of products. With this perception, LQS can positively and significantly affect the perceived uniqueness of Grabfood users when purchasing promoted products. Some Grabfood users will tend to buy unique food or beverage products or have new variants that are more innovative than those in general, especially for menus offered with a limited quantity of products or only valid at certain outlets.

Limited Quantity Scarcity and Limited Time Scarcity Affect on Desirability

The results of this study are in line with the results of the study of Lynn (1992) and Trope and Liberman (2010) regarding LQS and LTS, which can increase consumer desirability. Promotional offers in the form of LQS that emphasize the limited quantity of offered products will look more attractive and sometimes even exclusive (Gierl et al., 2008). Likewise, if the promotion of a product is limited by time, it can make consumers feel worried about not getting it quickly and on time (Chiang et al., 2011). Thus, in the consumer, there will be strong desirability to own the offered product immediately.

In addition, there is a difference between previous studies and this study. Lynn (1992) discussed scarcity mediated by assumed expensiveness that can affect the desirability of consumers. Trope and Liberman (2010) discussed that limited-quantity scarcity and limited-time scarcity messages could affect their perception of the product, increasing consumer desirability based on construal-level theory.

When linked with promotions in the Grabfood application, promos in scarcity marketing are often carried out to Grabfood users. When LQS or LTS promos appear, they can increase desirability and attract consumers to buy the product. This perception can make consumers feel benefited by the ex-

istence of attractive promos that encourage desirability in consumers. The more attractive the promo that is launched, the more desirability of consumers will increase to buy the offered products.

Perceived Uniqueness Affect on Desirability

The results of this study support studies by Simonson and Nowlis (2000) and Mazali and Rodrigues-Neto (2013). In the theory of perceived uniqueness, people will be motivated to maintain privileges in achieving a goal (Tian et al., 2001). In the context of marketing, it means that a consumer will be motivated to own or get a unique product in satisfying his desirability (Mazali and Rodrigues-Neto, 2013). For a consumer, a product that emphasizes uniqueness can be an attraction to show others that he is special (Mazali and Rodrigues-Neto, 2013).

In addition, there is a difference between previous studies and this study. Simonson and Nowlis (2000) discussed the interaction effect from the need uniqueness of consumers to decide to buy. That focuses the choice options to the choice of reasons. Mazali and Rodrigues-Neto (2013) discussed that perceived uniqueness was more symbolic than an attributed quality because uniqueness focuses on one aspect, while quality attributes are more general.

Grabfood has collaborated with various food and beverage merchants, including very well-known and global brands. There are two kinds of promos offered by Grabfood: promos that Grabfood holds to attract Grabfood users to use this application, and merchants to increase turnover. Through Grabfood, merchants can promote food or beverage products more efficiently. The need for the uniqueness of each consumer is different. In fulfilling the perceived uniqueness of each consumer, it is necessary to have a unique or innovative product that is different from any general food or beverage product (Snyder and Fromkin, 1977). The products are food or beverage products with new menus or variants; and menus that people rarely buy. Through such food or beverage products, it can cause perceived uniqueness in consumers, so that it can increase consumers' desirability to buy.

Perceived Uniqueness as a Partially Mediating Variable

The research model of this study places perceived uniqueness as an intervening variable. The mediation testing results show that perceived uniqueness can act as a bridge between LQS and LTS toward the desirability of Grabfood application users. However, the mediation role shown by perceived uniqueness is only limited to partial mediation because LQS and LTS can also directly affect desirability.

The Grabfood strategy to implement scarcity marketing to bring out strongly perceived uniqueness in users and lead to solid desirability is also a positive step. However, the results of this study show that without perceived uniqueness, users still have the desirability to buy products offered by Grabfood, especially when accompanied by promotions in the form of LQS and LTS. That means that for some users, especially those who are new to the Grabfood application, promotions in the form of LQS and LTS can create a unique impression for themselves so that they are influenced to buy the offered products. However, for users who transact quite often through the Grabfood application, especially if the frequency is high enough per month, promotions in the form of LQS and LTS are common things or are considered not unique anymore. However, LQS and LTS are still important in increasing the desirability of Grabfood application users.

CONCLUSIONS

All of the hypotheses developed in this study can be supported. This study also supports previous studies, which strengthens the important role of LQS and LTS in causing perceived uniqueness and desirability in consumers, including users of the Grabfood application, who are the research objects of this study. Scarcity marketing can be used as an excellent strategy for Grabfood marketers in promoting products from Grabfood partners. The promotions in the form of LQS need to be improved to be more balanced with promos in the form of LTS. Various promotions in the form of LQS and LTS can further increase the desirability of Grabfood users.

There are some room for improvement from the results of this study so that it provides opportunities for further research. First, the 113 respondents who have contributed to this study are still unable to represent all the opinions of millions of Grabfood application users. It is hoped that more respondents will be more involved in increasing the confidence interval and reducing statistical bias. Second, this study collects data only from users who, in this case, are positioned as consumers to assess the role of scarcity marketing. It is quite interesting if further research can explore the opinions of merchants who are partners of Grabfood in assessing the scarcity marketing program that has been carried out by Grabfood management. That can be useful to improve the integrity of data collection further and better understand these merchants' needs and self-image.

IMPLICATIONS

This study indicates that scarcity marketing promo can affect perceived uniqueness and encourage the desirability of Grabfood users. Grabfood marketers can use this strategy to improve their promotion relate to scarcity marketing, especially for limited-quantity scarcity promo. Many Grabfood users are usually using limited-time scarcity promos. If the promotion between limited-quantity scarcity and limited-time scarcity is more diverse and balanced, it can be some opportunity to increase and encourage the desirability of Grabfood users. Information about some promotions offers by Grabfood, easier to find directly from the Grabfood application. Thus, Grabfood users can be more interested in making purchases with the promo offered.

The result of the descriptive analysis shows the low-value indicators of scarcity marketing. Therefore, Grabfood can increase limited quantity scarcity promotion in terms of signaling conformity to exclusive social groups, regarding the promo from Grabfood offered in limited quantities or often according to consumer desires. Then, Grabfood can also increase the limited time scarcity promotion in terms of time pressure, regarding the promo from Grabfood offered for a limited time, so that it can

make consumers want to make a purchase transaction immediately.

LIMITATIONS

Services are intangible products. The validation of connection from LQS, LTS, and perceived uniqueness to desirability about intangible goods could not be established based on a single empirical study. Hence, this study needed to be cautious when generalizing the findings. For example, larger samples from different food delivery service applications could be gathered to revalidate the perceptual connection.

RECOMMENDATIONS

The suggestion for future research is to delve into other variables relate to scarcity marketing. Other variables for future research are perceived value (Tynan et al., 2010) or perceived social status (Jang et al., 2015) as an intervening variable that can be able to partially mediate the relationship between scarcity marketing (limited quantity scarcity and limited time scarcity) to desirability. In addition, future research can delve into scarcity marketing for the promo that offers to purchase food and beverage products.

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