Gamification and Customer Experience:
The Mediating Role of Customer Brand Engagement in Shopee

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ABSTRACT

This study aims to determine the effect of gamification to customer experience mediated by customer brand engagement. The object used in the study is Shopee application user. The analysis in this study used Structural Equation Modeling (SEM) to explain the relationship among several variables. The results of this study indicate that Gamification has a significant influence on Customer Experience, Gamification has a significant influence on Customer Brand Engagement. Customer Brand Engagement has a significant influence on Customer Experience and Gamification has a significant influence on Customer Experience mediated by Customer Brand Engagement. The result of this study implicates that gamification implemented by Shopee makes a unique and pleasant experience for the customers. Gamification can make purchasing experience more enjoyable, and customers are more likely to be actively engaged and amused when Shopee combines games with business or shopping experiences. The game features and the entertainment can be combined so it can embrace a wider market and more consumers. When customer brand engagement is created through gamification, it can affect the interest in buying products from consumers. The more customers have a good experience with Shopee, the customers will be more active to engage with it. The repetitive engagement between Shopee and its customers can build customer loyalty and increase re-purchase intention.

Keywords: Gamification, Customer Brand Engagement, Customer Experience, E-Commerce

1. INTRODUCTION

Burhan (2020) that there was a surge in the use of online shopping applications during the implementation of physical distancing to prevent the spread of the Covid-19 pandemic. The use of online shopping applications surged by 300% when social distancing was implemented, to cope with the spread of the coronavirus or Covid-19 were one of the contributing factors was the closure of the majority of shopping centers making online shopping become the main choice for meeting daily needs during the Covid-19 pandemic.

In Indonesia, there are several e-commerce options that people can use to shop, such as Shopee, Tokopedia, Bukalapak, Lazada, and Blibli. Based on data obtained from Iprice, it can be seen that there is one e-commerce that is most dominantly visited by the Indonesian people, namely Shopee. Since the 2nd quarter in 2020, the number of visitors at Shopee is growing rapidly (see table 1.1).

Table 1. Number of Monthly Visitors (In Million)

E-Commerce	2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Shopee	75	90,7	65,9	72,9	71,5	93,4	96,5	129,3	127,40	126,99
Tokopedia	137,2	140,4	55,9	67,9	69,8	86,1	85	114,7	135,08	147,79
Bukalapak	115,3	89,7	42,8	39,2	37,6	35,2	31,4	38,6	34,17	29,46
Lazada	52	49,6	27,9	28,3	24,4	22	22,7	36,3	30,52	27,67
Blibli	32,6	38,5	21,3	26,8	17,6	18,31	18,7	22,4	19,59	18,44

Source: https://iprice.co.id/insights/mapofecommerce/, accessed August 31, 2021

The impact of games on Shopee was stated by Husaini (2020) that Shopee was the most frequently used online shopping site for shopping during Ramadan and Eid-Mubarak 2020. Based on the survey conducted, it was also found that the features on Shopee occupy the top list of the most known online shopping features and applications (awareness) of consumers, namely Shopee Tanam (71% of respondents know this feature), Goyang Shopee (64%), Shopee Tangkap (57%), Shopee Serba 10 Ribu (56%), Shopee Lempar (51%), Shopee Capit (50%), Shopee Lucky Prize (48%), Shopee Joged (47%), Shopeepoly (34%), and Shopee Liga 1 (30%). Shopee has the highest gross transaction value or gross merchandise value or ranked first in Indonesia reaching USD 14.2 billion or 37% of market share. The second position is occupied by Tokopedia with a gross transaction value of USD 14 billion or a market share of 35%. The third position is occupied by Lazada with a gross transaction value of USD 4.5 billion or a market share of 7%. The fourth position is occupied by Bukalapak with a gross transaction value of USD 3 billion (Burhan, 2021).

Gamification is defined as the use of games in non-game contexts (Eisingerich et al., 2019). Gamification has the potential to enhance people's engagement, but few researchers have addressed it in applied research, especially in the field of marketing (Yang et al., 2017). The top list of Shopee features and applications that are known by consumers are games that exist on Shopee. It shows that the gamification in Shopee has a strong influence on creating engagement with consumers with a brand. Customer engagement is a marketing activity that is oriented toward consumer behavior and psychology (So et al., 2014). Harwood and Garry (2015), in their research, confirmed a positive impact of gamification on customer engagement with a brand.

Gamification itself not only creates customer engagement but is also able to build customer experience. Today, customer experience is considered as an important factor of business success and competitive advantage (Bueno et al., 2019). Customer experience is the experience felt by customers when customers try to shop at a company where the experience felt by the customer can be pleasant or unpleasant (Gentile et al., 2007). Customer experience can be created through a game. The elements in the game, individually or together, can cause special emotions in the user that can provide the desired results from the user's gaming experience when using the gamification (Mullins and Sabherwal, 2018). The experience gained from this game is directly or indirectly embedded in people's memories, influencing their buying behavior (McLean & Wilson, 2016).

Pour (2021) researched the effect of gamification on customer engagement and also on customer experience. Based on research by Pour (2021), it is known that gamification has a significant positive effect on customer engagement and customer experience, customer engagement has a significant positive effect on customer experience and gamification has a significant positive effect on customer experience with customer engagement as an intervening variable.

There is a research gap from several previous studies and the present study investigates the impact of gamification on the customer experience by mediating customer brand engagement in Shopee.

Table 2 Research Gap

Variables		Pour (2021)	Lee (2019)	Yang et al. (2017)	Xi and Hamari (2020)
Independent Variable	Dependent Variable				
Gamification	Customer Brand Engagement	Supported	N/A	Not Supported	Not Supported
Gamification	Customer Experience	Supported	Not Supported	N/A	N/A

Source: Pour (2021), Lee (2019), Yang et al. (2017), Xi and Hamari (2020)

The research problem in this study are as follows: (1) Does gamification affect customer brand engagement on Shopee application users?; (2) Does gamification affect customer experience on Shopee application users?; (3) Does customer engagement affect customer experience on Shopee application users?; (4) Does customer brand engagement mediate the relationship between gamification and customer experience on Shopee application users?

2. RESEARCH METHOD

This research is considered as basic research that is aimed at expanding current base of scientific knowledge and gaining a better understanding of gamification that can influence customer experienceand customer brand engagement and the mediating role of customer brand engagement in Shopee user application.Relevant and measurable data, a quantitative research approach was adopted in this study. The data was collected through online survey method using Google Forms. Numerical data is gathered using 5-point Likert-type scale, the close-ended questionnaire was constructed using a 5-point numerical scale that ranges from 1 = strongly disagree to 5 = strongly agree. The respondents of this study were chosen based on four criteria: (1) Male/Female whose aged is above 18 years old; (2) Have purchased in Shopee morethan three times in a month; (3) Have played the same games in Shopee minimum three times in a month; (4) Spending minimum 2-3 minutes using Shopee application.

This research uses Structural Equation Modeling (SEM) to explain the relationship among several variables (Hair, Black, Babin, & Anderson, 2018). In general, using SEM needs a huge sample to process the data. Ideally, the sample size should be a ratio of at least five cases for each of the variables (Pallant, 2010). Therefore, the author needs a sample size 5*25 indicators = 125 respondents minimal. The author uses AMOS software. Testing hypothesis can be done by p-value ≤ 0.05 and Critical Ratio (CR) ≥ 1.96.

3. RESULTS AND DISCUSSION

Validity test and reliability test were carried out on 30 respondents. The survey questionnaire was continued distributing to more respondents until meeting the sample size requirement.In total, 150 respondents participated in this study. However, only 133 responses out of the 150 responses are complete and usable for data analysis.

The measurement model of this research uses the help of AMOS 22 software. The confirmatory factor analysis (CFA) method is carried out on all variables and indicators. If this measurement model has a Goodness-of-Fit index value, which consists of 5 indices, namely CMIN/DF, RMSEA, GFI, CFI, and TLI, then the model can be processed further. The following are the results of processing the measurement model index. The standardized loading value on the indicator has shown a good value by the criteria, which is above 0,5. So that no indicators are discarded and it is not necessary to screen respondents' data.

The results of AVE and CR on each measured variable. AVE value criteria must be > 0,5 and CR > 0,7. Data processed and show that the Gamification, Customer Brand Engagement, and Customer Experience variables have AVE and CR values more than the specified criteria. After testing the validity and reliability of the measurement model so that structural model testing and hypothesis testing can be carried out. Goodness-Of-Fit in the structural model is used to test the quality of the model and its suitability with empirical data that has been described in table 1.3 below.

Table 3. Testing Goodness of Fit Full Model Structural Modification

Goodness-Of-Fit Index	Cut-off value	Model results	Description
CMIN/DF	< 2.00	1,579	Good Fit
RMSEA	≤ 0.08	0,066	Good Fit
GFI	≥ 0.90	0,805	Marginal Fit
TLI	≥ 0.95	0,929	Good Fit
CFI	≥ 0.95	0,922	Good Fit

Hypothesis testing is done by looking at the C.R value in the relationship between one variable and another. Value |C.R| declared significant if 1,96 means the hypothesis can be accepted. And vice versa, if the value of |C.R| 1,96, then it is declared not significant and the hypothesis is not supported or rejected.

Table 4. Standardized Regression Weight Full Model Structural Modification

Hypothesis	Variable Relationship	Estimate	C.R.	P	Description
H1	GAM→ CE	0.295	3,564	***	Significant
H2	GAM→CBENG	0.697	6,068	***	Significant
H3	CBENG → CE	0.681	6,078	***	Significant

*GAM = Gamification; CE = Customer Experience; CBENG = Customer Brand Engagement

For the first hypothesis, it shows that the test results are significant, with a CR value of 3,564, an estimated value of 0,295, and a p-value is 0,000. It can be concluded that gamification has a positive effect on customer experience. The findings of this study are consistent with the studies of Pour (2021). Based on Pour (2021), gamification can lead to enjoyable experiences for users, and the results of such enjoyable experiences are "empowerment", "loyalty and satisfaction", "trust and involvement", and "communication and emotional attachment".

The results of the hypothesis testing for the second hypothesis are also significant. It means that gamification has a positive effect on customer engagement. This result is significant to the previous studies conducted by Pour (2021) that gamification has a significant relationship with customer brand engagement. Furthermore, the gamification factor improves customer brand engagement by offering potential rewards during the purchase process (Lounis et al. (2013). Games on Shopee also have clear instructions and goals. This can affect the behavior of consumers, who will later put their focus on the game, and exert their best efforts and abilities so that the goals they want can be achieved. After consumers go through the processes and stages in the game, while exerting the abilities that consumers have, customers will achieve their goals successfully.

The third hypothesis test results show "significant" results. The p-value is 0,000, CR value is 6,078, and the estimate is at level 0,681. It means customer brand engagement has a positive effect on the customer experience. When a consumer is increasingly attached to the Shopee application, such as using the Shopee application for a longer time because it is not only limited to shopping but also trying the features that exist in the Shopee application, then this fosters a feeling of pleasure and comfort in consumers when using the Shopee application because there is a fun, interesting, and new experience.

For the last hypothesis (H4), it is done by calculating it using the Sobel Test, because there is an alleged customer brand engagement variable as an intervening variable. The test results show that customer brand engagement has a significant influence in bridging or mediating the gamification and customer experience, since the Sobel test statistic value is 4,421 (CR $\geq$ 1,96), with a one-tailed probability of 0,000, and the two-tailed probability is at a level 0,000. The effect of mediation that occurs is partially mediating because the independent variable (Gamification) has a significant influence on Y (Customer Experience).This result is significant to the previous studies conducted by Pour (2021) that customer brand engagement mediates the relationship between gamification and customer experience. Gamification through game mechanisms and the creation of entertainment in a non-gaming environment leads to increased customer brand engagement, which may lead to a pleasant and entertaining user experience and eventually boost user loyalty and satisfaction. The concept of customer brand engagement mediating the effect of gamification on customer experience can be seen in its implementation in games in the Shopee application. One example of the game is Shopee Candy, users can also share Shopee Candy with other users via a link to ask for live assistance. When their lives are full, usually users will get a notification to invite them to play again. This is what helps increase the level of engagement on the Shopee application.
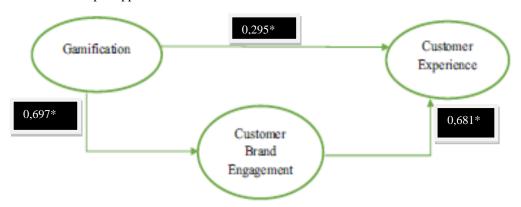

Figure 1 Research Result Model

4. RECOMMENDATION

Based on the results of hypothesis testing, the following conclusions can be written as follows: (1) Gamification implemented by Shopee has a significant influence on Customer Experience; (2) Gamification has a significant influence on Customer Brand Engagement with Shopee; (3) Customer Brand Engagement with Shopee has a significant influence on Customer Experience; (4) Customer Brand Engagement with Shopee partially mediated the relationship between Gamification and Customer Experience on Shopee application users.

There are several recommendations to Shopee as the e-commerce or application users, first to maintain gamification implemented by Shopee, Shopee can be more open to their customers when announcing the results or rankings of the games they have held, finished sending prizes to the winners, then Shopee can post them on their social media so that more people can know about it. This could be even better if Shopee could ask the prize winners to also post it via their social media while tagging Shopee, so that people would be more convinced that the prize given by Shopee is true. Second for Customer Brand Engagement with Shopee, this can be maintained by improving

Shopee's digital marketing, and briefly detailing what advantages they offer compared to other e-commerce applications, it can be in terms of having the lowest prices for goods, adding new games, as well as by giving shopping vouchers, such as extra discount coupons, and extra cashback coupons to game-winners, maintaining consumer privacy and better customer service. Third, Shopee improve the Customer Experience by adding new games that will create a more unique and new experience for consumers who use Shopee. Shopee should provide the best service for their customers such as more stable applications, and ease of use Shopee application.

Further researchers to develop this study by considering other variables such as safety and product quality. Future studies can be conducted by using additional forms of e-commerce in different sectors, in a specific country or city, and on different occasions. In addition, future studies might look at a more particular age range because of this study the age of the respondents who dominate is between 18 and 21 years old. It is hoped that future studies would be more varied to get new insights.

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