IMPACT ANALYSIS OF EXPERIENCE ON GAMIFICATION MARKETING ACTIVITIES, SOCIAL MEDIA MARKETING, AND OTHER FACTORS TOWARD BRAND LOYALTY IN ONLINE MARKETPLACE APPLICATION

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ABSTRACT

Gamified method or well known as gamification has been adapted to enhance the primary process in many fields, such as improving lecturing processes in higher education, improving information acceptance rates in health therapy, and recently increasing consumer interaction with different brands in the e-commerce market. Online marketplace application as a popular variety of e-commerce, also following this trend to implement gamification elements in their application to create a better buying experience for their users and to increase the brand loyalty of their users towards various online marketplace applications. Aside from gamification, social media is still one of the most chosen media to be a marketing channel of an online marketplace brand by creating official account and use them to interact intimately with their customers. In this research, we assess the impact of experience on gamification marketing activities and social media marketing, mediated brand attitude, consumer brand engagement, and customer satisfaction towards brand loyalty in Indonesian online marketplace using Structural Equations Modeling (SEM) type of analysis. The finding of the study showed that the brand attitude and customer satisfaction fully mediated the impact of gamification marketing practices on brand loyalty, while social media marketing and consumer brand engagement has no significant effect on brand loyalty.

Keywords: *Brand Attitude, Brand Loyalty, Consumer Brand Engagement, Gamification Marketing Activities, Social Media Marketing, Online Marketplace*

1. INTRODUCTION

It is common nowadays to buy or sell goods across towns or even across countries, as it can be done without considering distance, this is possible as a result of information technology in the business, which is known as e-commerce; thus, anyone can market their products without needing to bother about brick and mortar store, as sales can be made by publishing their inventories through the use of the online marketplace application and seeing potential buyers. They can also make purchases without actually visiting the store physically.

The development of various kinds of marketplaces with different focal points gives users full control about which online marketplace attracts the customers. At the other hand, online marketplace providers do have the power to determine the segments of users they were targeting. Then, they can adjust strategies to retain targeted, already existing users and even acquire new users.

The intensity of competition in the marketplace environment that is being developed by interested stakeholders has forced online marketplace applications to start developing methods for sustaining the customers they have, or even attracting potential customers. The Net Promoter Score (NPS) as one of the marketplace consumer loyalty indicators measures the intention of the consumer to support a brand, which is used to calculate how loyal consumers are to an online marketplace application. NPS is used to calculate consumer loyalty to the world marketplace's two leaders, eBay and Amazon (2012), as shown in Figure 1.
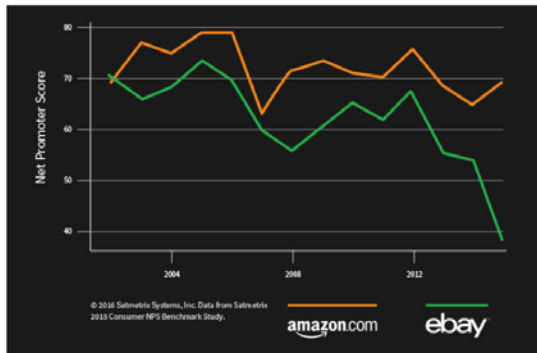
Figure 1: NPS contrast between Amazon and eBay [1]

Customer transition is immediately visible from the picture in Figure 1, which illustrates that eBay's NPS initially strongly competed with amazon.com and finally saw a major drop from eBay's NPS, while amazon.com experienced an increase. It indicates that brand loyalty can be unpredictable, depending on what patterns and tactics the online marketplace service providers are applying. With use numbers dominated by X and Y generations and considered more adaptive to technology [2], gamification adoption and social media marketing intends to strengthen a feeling of convenience and pleasure in making online marketplace applications transactions, thus encouraging emotional side consumers to continue to use such online marketplace applications.

It is normal to see, on the social media page, daily content produced by an official account of a brand or company. In general, content produced in everyday language, enabling consumers to feel more comfortable with the brand or product.
Through content aimed specifically to the targeted consumers, social media is seen as one of the effective ways to boost interaction to stimulate the emotional side of users [3], so that by interaction, consumer loyalty and marketplace applications can be built up by social media content [4] as we known by social media marketing.

Prior to social media marketing, one approach which the marketplace today widely implements is the gamified model, also known as gamification. According to [5], gamification refers to a design that intends to provide such a similar great experience as in a game, influencing user behavior and cognitive functions because of that. In diverse areas such as education [6], healthcare [7], and e-business, the philosophy of gamification has been increasingly accepted as one form of approach [8]. According to of e-commerce times, the concept

behind gamification for online marketplace or mobile device users is intended to make shopping pleasant, rewarding participation points, enabling them to engage constantly with other brands and promoting loyalty to a product brand. [8] emphasize that gamification has an effect on customer retention and loyalty, but first, customers must be involved in the gamefulness experience.

E-business has been one of the sectors where marketing services and technology are intertwined [9]. A study by [10] stated that progress in online games and social apps, when implemented to e-business, has introduced a new concept that appeals to customer experience and encourages full involvement through "gamification". The practice of gamification and its mechanics in non – game, or also known as serious gaming applications has become a fast-emerging marketing technique [11]. Furthermore, as demonstrated by [12], even though gamification is perceived to be the next step of marketing strategies, with the potential to revolutionize human-computer interaction and user experience by providing empowering, interactive interactions in order to get positive experience within gamified environment [13].

So it can be concluded that gamification in marketplace applications is needed to trigger a feeling of comfort and pleasure from users to spend time when making transactions and using an application, thus motivating the emotional side of users to continue using the online marketplace application. Gamification marketing activities are one of the concepts adopted by online marketplace organizers recently.

Discussion of the acceptance of the game concept in the non-game environment continued primarily in the field of game studies and human-computer interaction [9]. Recent studies which including gamification in their research has been concluded that experience obtained from gamified system have positive effect on another variable according to the area of each research. For instance, in context of e-business, studies conducted by [14] has implied that experience of gamification marketing activities which mediated by satisfaction and brand love, has positive impact on brand loyalty, positive word of mouth, and resistance to negative information.

While empirical research is accumulating on the application of gamification in e-business, there is still a gap in our understanding of how gamification affects consumers' attitudes and how another factors – such as consumer brand engagement,

customer satisfaction, social media marketing, and brand attitude will have effect on brand loyalty, which is considered as one of the most important things in retained consumers in this competitive climate of e-business, specifically in context of online marketplace. However, there are only few recent academic articles of experience of gamification are related to the marketing literature and brand loyalty (for example: [15],[16]). Available empirical studies are also still lacking in providing evidence gamification's effect on consumer's habit pattern in marketing context [17] [18].

In order to address the gaps mentioned, the current study in this article will concentrate on how gamification marketing activities which was conceptualized from the use of gamification mechanics and social media marketing influence brand loyalty mediated by consumer brand engagament, brand attitude, and customer satisfaction in online marketplace applications.

2. LITERATURE REVIEW

2.1 Gamification

Gamification or also known as serious games, has been regarded as a means to strengthen facilities with (motivational) advantages in order to bring on gaming experiences as well as further behavioral outcomes. In explaining gamification, [19] highlighted the significance of gamification in triggering the same psychological experiences as games (normally) do. [20], from the other hand, emphasizes that the acquisitions made in gamification should be the same as which are used in games. Like most e-commerce gamified applications, it is normal to see a group of gamification elements generally referred to as PBLs.

In particular, badges, leaderboards and public status are recommended for optimizing interaction and other user behaviors on the online retailer's website [21]. The incorporation of PBL in a business context would imply an amount of game mechanics, such as rewards, competition and collaboration. Throughout this way, points and badges are associated with rewards, because they have been considered to be profits that are based on accomplishment, while the leaderboards are largely related to competition [22]. Within e-commerce,

consumers can engage with each other by reacting on the commodities offered online. Moreover, gamification is aimed to enhance the vast coordination of individuals [23]. Users are working with others to publish their contributions to social networks in order to reach a broader amount of persons

2.2 Gamification Marketing Activities (GMA)

The potential link between gamification and marketing is important. There have been three marketing principles relevant to the gamification context: 1) engagement, which implies the psychological intervention including its consumer in the participating phase (i.e. cognitive engagement), the creation of emotional relations between the brand and the customer when undertaking activities (i.e. emotional engagement), and the participation and involvement of the customer in the game. 2) Brand loyalty, which can be divided into 2 groups; Attitudinal and conductive. Attitudinal brand loyalty is a psychological state, while behavioral brand loyalty is a crucial element [24]. In depth, attitudinal brand loyalty implies that users recommend a focal product to other consumers [25], whereas behavioral loyalty is a pattern of behavior, such as making frequent purchases. 3) brand awareness, that is the basic aspect of brand knowledge [25]. Brand Experience needs brand recognition and brand image [26]. Brand awareness correlates to the consumers' ability to recognize or identify a brand; in effect, brand image consists of customer opinions and interpretations of a brand [27]. So, we can conclude that adopting gamification concept can become a marketing and business approach which used as a tool to enhance customer engagement and loyalty, supporting the previous relevant studies [28].

Based on [14], Gamification Marketing Activities (GMA) could be seen as an attempt to convert utilitarian services into hedonistic or hedonistic services. In context of IS theory, this suits well in the long-term sense of researching technology acceptance, continual use intentions and, more importantly, a more recent perception of the hedonic value of novel services, which called for the calculation of more hedonic constructions, such as perceived joy, flow, immediate response, and social comparison.

GMA in the context of e-commerce is conceptualized as the application of gamification

mechanics which consists of entertainment, trendiness, interaction, intimacy, and novelty aspects in marketing implementation to produce a pleasant experience that affects the user's view of value, consumer engagement, and brand loyalty [14].

By using the GMA concept, it is expected that brand loyalty to certain online marketplace applications will be able to maintain existing users to continue using an online marketplace application to buy and sell, and prevent the shifting of consumers to other online marketplace applications. So, we could form a hypotheses as shown below:

H1: Experience on Gamification marketing activities significantly affect customer brand engagement

H8: Experience on Gamification marketing activities significantly affect brand loyalty

Previous research also concluded that perceived usefulness, perceived ease of use, perceived enjoyment and intention of engagement obtained from gamified system in marketing have a considerable significant impact on brand attitude [29] [8] and customer satisfaction [30]. So, we could also form a hypotheses as shown below:

H2: Experience on marketing activities have significantly affect Brand Attitude

H3: Experience on Gamification marketing activities significantly affect Customer Satisfaction

According to [14], [31], [32], as well as [33], there are five constructs that allow Gamification Mechanics to run and provide more experience for its users, namely:

- Entertainment, when gamification mechanics that are applied within a scope make users feel interested and fun in carrying out activities in it, so that by using a system that applies gamification in it, users will feel entertained and feel happy about using the system.
- Trendiness, when users who are in a scope where gamification mechanics are applied feel to know information and follow the latest trends, where users can feel the updated information or content contained within that scope.

- Interaction, including the possibility of interaction by users within a scope where gamification mechanics are enforced, so that system users feel the reciprocity of the system for the input or input that has been given.
- Intimacy, when users in a scope where gamification mechanics are applied feel more familiar and enjoy the environment, so users can feel closer emotionally within that scope.
- Novelty, when users feel that the scope in which gamification mechanics is implemented is new, innovative, and imaginative.

Marketplace as one form of e-commerce that leading today's business, has a role in meeting the sellers' demand and consumer needs is one of the media that holds most of the transactions carried out in the e-business field. According to research conducted [34], eBay's income as one of the leading cross-country marketplace with total income $8,64 billion, mostly come from marketplace. This proves that the marketplace has changed the way many people around the world buy and sell, do a transaction, and meet their needs from conducting conventional trading to being technology-based.

The concept of gamification in the e-business sector is currently being carried out by marketplace application organizers in order to carry out pleasant buying and selling activities for both sellers and buyers. This is supported by the results of research by [35] which prove that the application of the concept of gamification on e-commerce is effective in increasing the number of visits and active participation rates on e-commerce websites.

2.3 Social Media Marketing

According to [36], social media is a collection of internet-based applications that are built on the basic ideology and technology of web 2.0 and allow the creation and exchange of user-generated content, where the majority of websites in the current era allow users to act as content providers for certain websites, such as youtube.com which allows its users to make videos, upload them, and then other users can watch the videos. According to the [37], there are several criteria that must be met from a website to be called the UGC, namely:

- Must be published, whether it is made public in general, or published to a selected group of people (not including sending e-mails or short messages and replication of pre-existing content without any form of manipulation).
- Must demonstrate a number of creative endeavors.
- Must be made outside the routine of the profession or occupation.

According to [38], social media marketing is different from traditional marketing techniques, therefore social media marketing refers to a company's need to change its marketing objectives from conducting a sales effort to an effort to establish relationships with consumers. Social media marketing is also considered to be more transparent in its communication with consumers, so that it can focus more on introducing the brand being marketed rather than controlling the brand image. According to [39], there are five constructs that measure the marketing activities of a brand on social media, namely:

- Entertainment – determine how entertaining and interesting the content on a brand's social media account for consumers who access it, so that consumers feel happy to spend their time interacting through the brand account's social media content.
- Customization – including the availability of social media content and services that are suited to the needs and specific interests of consumers of a brand, so that consumers feel the ease of accessing a brand's social media account anytime, anywhere.
- Interaction – refers to the possibility of two-way communication between the consumer and the brand of a product or service or with fellow consumers, so that consumers can easily exchange opinions and convey information and opinions they have.
- Word of Mouth – describe the tendency of consumers to convey information or opinions about products or services of a brand to people around them, such as relatives, family, or colleagues.
- Trend – the renewal and updating of social media content owned by a brand, so consumers can feel that they are following the latest developments with the brand's social media content.

In addition, according to [40], social media makes customers more sophisticated and helps them develop new tactics in finding, evaluating, choosing and buying goods and services. Therefore, according to [41], consumers who are busy in their daily routine must be able to contact the company whenever needed, so the company must be available and can be contacted on any social media channels, such as Facebook or Twitter and may leads to consumer engagement. So, we could also form a hypotheses as shown below:

H4: Social Media Marketing significantly affect customer brand engagement.

H9: Social Media Marketing significantly affect

brand loyalty

2.4 Consumer Brand Engagement

According to [42], brand engagement is the level of an individual consumer related to the brand and mindset that depends on the context that is classified and characterized by specific stages, namely cognitive, emotional, and behaviors that intersect directly with a brand.

According to [43], consumer brand engagement refers to multidimensional concepts that include cognitive, emotional, and behavioral which play a major role in the process of relational exchange where other relational concepts are consequences in the iterative engagement process in brand communities, for example a brand's official account on social media.

According to 44], customer brand engagement is a positive cognitive, emotional, and consumer behavior of brand-related activity on interactions between consumers and brands. So it can be concluded that consumer brand engagement is a concept that includes cognitive and emotional aspects of consumers towards a brand in the occurrence of interaction between brands and consumers through an iterative engagement process in the brand community.

In this research, the application of gamification elements is expected to be able to improve relations and direct interaction with marketplace application users so that it can generate

positive responses also the effect of the implementation of gamification marketing activities in e-marketplace or social media marketing applications will be examined which will further influence brand loyalty through consumer brand engagement. So, we could also form a hypotheses as shown below:

H5: Customer brand engagement significantly

affect brand loyalty

2.5 Brand Loyalty

Loyalty or positive behavioral responses are formed over a period of time and often surpass the expectations of the consumer [45]. The ability to attract and retain consumers to be loyal to their brand in the long run is one of the determinants of organizational success. Loyalty in a brand context can be interpreted as purchase of a product or a service of specific brand repeatedly. Brand loyalty can be viewed as a positive behavioral response and a commitment to make a purchase of a certain brand repeatedly in their subsequent purchase decisions. According to [46], brand loyalty plays an important role in shaping marketing advantages, for example, reducing marketing costs, gaining more customers from another segment, and greater trading leverage. Consumer loyalty degree towards a specific brand can also come in vary [47] so loyalty period of each customer will also vary according to the degree of loyalty of every consumer from specific brand.

As one of organization's marketing asset, according to [45], brand loyalty can also be seen as shared outcome of the dynamic interaction between the company. To have an equal customer-brand relationship, there must be a reciprocal appeal, or interest exchange, between the two organization and the consumer through the brand. Brand Loyalty also contribute in adding more values to a specific brand, because it is attached to the brand itself, so it is considered as a favorable response to the brand and leads to the purchase of products or services from the brand consistently over a certain period of time. Therefore, it is important to gain and retain brand loyalty.

2.6 Brand Attitude and Brand Loyalty

According to [48], brand attitude as one of the binding relationships between customers and brands varies greatly in degree of strength and weakness. Consumers who have a stronger brand attitude tend to have more resistance when they hear bad information and try to divert them from a certain brand. Relevant studies about cognitive loyalty describe that an individual's trust to an object will have an influence on the attitudes he has towards that object [49]. Related studies also suggest that the main key in forming brand loyalty is customer satisfaction, brand attitude, and commitment-to-repurchase behavior [50]. So, we could form a hypotheses as shown below:

H6: Brand attitude significantly affect brand loyalty

In this study, we use an unidimensional construct of a brand attitude to measure the effect from GMA and the impact towards brand loyalty.

2.7 Customer Satisfaction

In general, customer satisfaction is conceptualized as a post-consumption assessment of a company or offer, depending on the value received, quality, and expectations [51]. Customer satisfaction is another important trait that must be taken into account in the compilation of loyalty towards the service provider in providing the provider into every brand. Both service management and marketing literature show there is a strong theoretical foundation for the empirical distribution of the relationship between customer satisfaction and brand loyalty [30] [36].

Satisfying customers is one of the final goals sought by all organizations, both service and goods organizations, because the long-term benefits of having customers who are satisfied with positive comments arising from conversation, loyalty, and profitability support [53] [54].

Therefore, loyalty can be given as a result of organizations that are successful in generating benefits for customers so that they will maintain and enhance repeat business with the organization [55]. In this study, researchers used unidimensional variables from customer Satisfaction to measure the effects received from experience on gamification

marketing activities and their impact on brand loyalty. So, a hypotheses as shown below can be formed:

H7: Customer satisfaction significantly affect brand loyalty

3. RESEARCH METHODOLOGY

3.1 Research Model and Hypotheses

The research to be done in this article is a cross-sectional study, where the measurement of variables will be carried out at the same time without further follow-up. Variables to be examined in the study include experience on Gamification marketing activities and Social media marketing as independent variables, customer brand engagement, brand attitude, and customer satisfaction as mediator variables, and brand loyalty as dependent variables. The complete model of this study can be seen in figure 2.
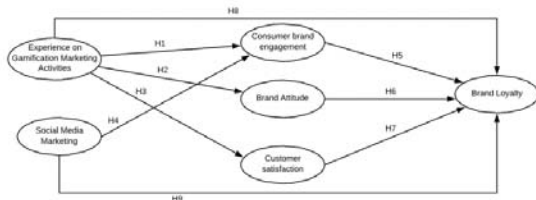

Figure 2: Conceptual Research Model

As outlined in previous section, keep in mind that there are several other factors that affect brand loyalty, including brand attitude [56], consumer-brand engagement [42] [57], and customer satisfaction [30] [52], while these factors can also be influenced by experience on gamification marketing activities [58] [8] [59] and social media marketing [3] [60] [61], so that further studies need to be executed on the effect of experience on gamification marketing activities and social media marketing mediated by consumer-brand engagement, brand attitude, and customer satisfaction, to compare the effect of each independent variable on the variable bound directly to the influence exerted through the mediator variable.

3.2 Variable Measurement

All instruments in this study have been adapted from related prior work. Experience on gamification marketing activities assessed with four anchored measurement [14]: entertainment, interaction, trendiness, and intimacy. Social media marketing was also measured with four measurement [62]: Interactivity, informativeness, personalization, trendiness, and word of mouth (WOM). Consumer brand engagement was assessed with 17 items of indicators [57], while brand attitude was measured with four items indicators [60]: (a) Pleasant idea of brand, (b) Good reputation brand, (c) Brand preference, and (d) Sensible brand. Customer satisfaction [63] was also measured with four items indicators (Feel good about purchase/use decision, Good overall evaluation, expectation fulfillness, and pleased with overall program/ campaign) and brand loyalty [64] measured with five items indicators (Recommend when asked for advice, Stay with the brand, Stick with the brand even when problem occur, Consideration to be faithful to a brand, and first choice brand)

The scale used in this study is the Likert scale, where the choice of answers to questions has been given using a strongly disagree interval (scale 1) to strongly agree (scale 5). The calculation of the score given is as follows:

- Strongly disagree about getting a score of 1
- Don't agree to get a score of 2
- Neutral gets a score of 3
- Agree to get a score of 4
- Strongly Agree to get a score of 5

3.3 Population and Sample
3.3.1 Population
In this study, researchers conducted research in the coverage area of the city of Jakarta, Indonesia. The population in this study is the citizens of Jakarta who contribute to the use of e-commerce, which is 22% of the total penetration of e-commerce use in Indonesia totaling 26.3 million people [65], so that the population in this study amounted to 5,786,000 person.

3.3.2 Sampling Method and Data Collection
The minimum number of samples was calculated using the Slovin formula. The minimum number of samples needed in this study is 400 samples, but researchers succeeded in getting a number of 436 respondents, so it can be seen that the respondents collected by the researchers have met the minimum

required sample. In this study, researchers used a technique that is classified as purposive sampling that can be categorized in non-probability sampling, which several criteria are applied into population by researcher in order to find the suitable respondents which are assumed to be more representative in answering the developed questionnaires. The criteria that apply in this study are male and female respondents who are in the age range of 15-44 years old, where the stated age range in Indonesia is categorized as productive age and contributes the most to the use of e-commerce [57]. In addition, the selected respondents must also use social media (facebook, instagram, twitter, youtube, linkedin, and google+) and online marketplace application users (user of one or more of following application: Shopee, Tokopedia, Bukalapak, Lazada, Blibli) for the past 3 months.

The study was conducted using primary data derived from data collection through questionnaires distributed to respondents using google form.

3.4 Data Analysis

Once the data collection has completed and met the minimum required amount of sample, first we conduct the descriptive analysis which allow research to provide a general overview of the population's behavior toward online marketplace and social media usage in Indonesia as a scope of the current study.

After the descriptive analysis is completed, the data will be tested for reliability (using cronbach alpha and composite reliability) and validity to ensure that the questions used to measure variables are valid and there are no errors using confirmatory factor analysis, we will define the relatiosnhip among the variable and its indicators. In the current study, we used Structural Equation Model – Partial Least Square (SEM-PLS) method to confirm the dimensions of a concept or factor, which also based on covariance which is based on the path diagram of the path analysis and to be able to measure the effect of theoretical relationships [66] using Smart PLS 3 as a tools.

4. RESULT AND DISCUSSION

4.1 Descriptive Analysis

The questionnaire was distributed with the help of Google-form to respondents who used social media and made transactions through the online marketplace for the past 3 months. As many as 53% (231 respondents) of all respondents came from the age group of 25-34 years old. This amount is followed by respondents from the age group of 15-24 years old as 24% (103 respondents) and 35-44 years old as 23% (100 respondents). This result implied that most of the online marketplace application transactions are made by Jakarta citizen who are in age range 25-34 years old.
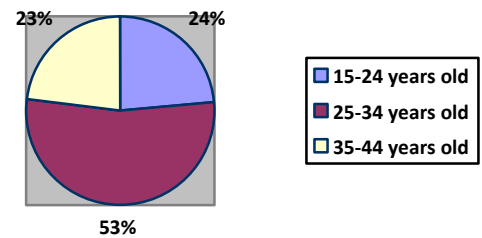
Figure 3: Total Respondents by Age Group

Out of a total of 436 respondents in this study, 191 female and 245 male contributed in answering the given questionnaire.
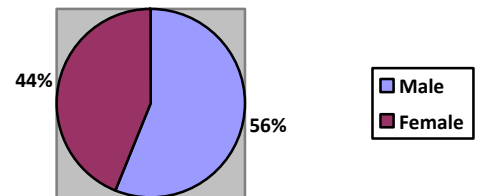
Figure 4: Total Respondents by Gender

In the questionnaire distributed, researcher asked the respondent to give a rank from the mentioned social media and online marketplace application that commonly used in Jakarta, Indonesia, by sorting the applications based on their frequecy of used. Rank 1 means respondent used the online marketplace application or social media most frequent and 6 means respondent used the

online marketplace application or social media least frequent where 1 number only could represent one social media or online marketplace application. From the descriptive data as shown in figure 5 below, researcher also found that Instagram has been most used social media and Shopee is the most used online marketplace application among respondents as shown in figure 6 below.

4.2 Data Testing and Processing
4.2.1   Convergent Validity
Convergent validity in research is related to the principle that the measures of a construct should be highly correlated, this is by looking at the loading factor for each construct indicator and seeing the value of the average variance extracted (AVE). The recommended AVE value is above 0.5 [67]. From the results of data processing it can be seen the validity of the indicators that measure latent variables, the results are summarized in the form of a table as follows.

Table 1: Loading Factor per Indicators for Each Variable

	BA	BL	CBE	CS	GMA	SMM
BA1	0,856					
BA2	0,864					
BA3	0,881					
BA4	0,870					
BL1		0,864				
BL2		0,866				
BL3		0,797				
BL4		0,885				
BL5		0,892				
CBE1			0,829			
CBE10			0,782			
CBE11			0,828			
CBE12			0,855			
CBE13			0,876			
CBE14			0,862			
CBE15			0,830			
CBE16			0,848			
CBE17			0,848			
CBE2			0,854			
CBE3			0,860			
CBE4			0,837			

	BA	BL	CBE	CS	GMA	SMM
CBE5			0,755			
CBE6			0,741			
CBE7			0,877			
CBE8			0,818			
CBE9			0,796			
CS1				0,868		
CS2				0,855		
CS3				0,882		
CS4				0,904		
ENT1					0,749	
ENT2					0,764	
INF1						0,726
INF2						0,775
INF3						0,768
INT1					0,705	
INT2					0,735	
INT3					0,761	
INTI1					0,789	
INTI2					0,833	
INTI3					0,817	
INTI4					0,834	
INTI5					0,770	
INTR1						0,747
INTR2						0,741
INTR3						0,760
PER1						0,747
PER2						0,748
PER3						0,679
TRE1					0,739	
TRE2					0,719	
TRN1						0,765
TRN2						0,750
TRN3						0,733
WOM1						0,783
WOM2						0,810
WOM3						0,783

Table 2: AVE Score for Each Variable

	Average Variance Extracted (AVE)	√AVE
BA	0,753	0,867
BL	0,742	0,861
CBE	0,689	0,83
CS	0,770	0,877
GMA	0,591	0,786
SMM	0,570	0,76

4.2.2 Discriminant Validity

Discriminant validity can be proven by looking at the reflective measurement model based on the cross loading value of the manifest variable against each latent variable. According [68], if the correlation between latent variables with each indicator is greater than the correlation with other latent variables, then that variable is considered to be able to predict the indicator better than other latent variables.

Table 3: Cross Loading for Each Variable

	BA	BL	CBE	CS	GMA	SMM
BA1	**0,856**	0,765	0,799	0,767	0,771	0,676
BA2	**0,864**	0,774	0,752	0,801	0,788	0,713
BA3	**0,881**	0,805	0,765	0,764	0,775	0,687
BA4	**0,870**	0,753	0,695	0,766	0,735	0,660
BL1	0,801	**0,864**	0,686	0,826	0,727	0,665
BL2	0,795	**0,866**	0,710	0,816	0,767	0,684
BL3	0,678	**0,797**	0,714	0,649	0,688	0,626
BL4	0,776	**0,885**	0,688	0,802	0,731	0,665
BL5	0,783	**0,892**	0,760	0,784	0,762	0,642
CBE1	0,749	0,696	**0,829**	0,704	0,764	0,690
CBE10	0,603	0,599	**0,782**	0,567	0,691	0,710
CBE11	0,719	0,708	**0,828**	0,697	0,758	0,727
CBE12	0,720	0,677	**0,855**	0,647	0,751	0,689
CBE13	0,770	0,730	**0,876**	0,691	0,770	0,681
CBE14	0,720	0,689	**0,862**	0,656	0,761	0,677
CBE15	0,658	0,616	**0,830**	0,588	0,720	0,628
CBE16	0,754	0,708	**0,848**	0,704	0,749	0,679
CBE17	0,740	0,668	**0,848**	0,661	0,740	0,695
CBE2	0,760	0,727	**0,854**	0,731	0,806	0,752
CBE3	0,763	0,725	**0,860**	0,729	0,777	0,727
CBE4	0,790	0,742	**0,837**	0,732	0,790	0,712
CBE5	0,783	0,741	**0,755**	0,745	0,748	0,694
CBE6	0,512	0,506	**0,741**	0,472	0,620	0,625
CBE7	0,737	0,698	**0,877**	0,681	0,755	0,712
CBE8	0,754	0,737	**0,818**	0,723	0,759	0,695
CBE9	0,644	0,615	**0,796**	0,588	0,713	0,699
CS1	0,778	0,785	0,727	**0,868**	0,756	0,649
CS2	0,778	0,769	0,719	**0,855**	0,733	0,689
CS3	0,775	0,808	0,692	**0,882**	0,724	0,671
CS4	0,801	0,809	0,694	**0,904**	0,744	0,682
ENT1	0,687	0,666	0,653	0,635	**0,749**	0,573
ENT2	0,666	0,641	0,670	0,613	**0,764**	0,612
INF1	0,531	0,529	0,543	0,566	0,585	**0,726**
INF2	0,589	0,562	0,589	0,596	0,641	**0,775**
INF3	0,535	0,511	0,583	0,577	0,608	**0,768**
INT1	0,569	0,521	0,638	0,524	**0,705**	0,661
INT2	0,610	0,561	0,661	0,565	**0,735**	0,687
INT3	0,643	0,639	0,667	0,620	**0,761**	0,682
INTI1	0,694	0,695	0,734	0,686	**0,789**	0,667
INTI2	0,722	0,698	0,803	0,684	**0,833**	0,700
INTI3	0,770	0,737	0,738	0,713	**0,817**	0,665
INTI4	0,781	0,747	0,751	0,736	**0,834**	0,710
INTI5	0,713	0,703	0,723	0,698	**0,770**	**0,662**
INTR1	0,690	0,639	0,730	0,620	0,743	**0,747**
INTR2	0,615	0,579	0,649	0,559	0,687	**0,741**
INTR3	0,611	0,583	0,615	0,589	0,662	**0,760**
PER1	0,526	0,533	0,560	0,548	0,574	**0,747**
PER2	0,498	0,484	0,561	0,502	0,569	**0,748**
PER3	0,440	0,416	0,480	0,433	0,496	**0,679**
TRE1	0,634	0,617	0,617	0,621	**0,739**	0,682
TRE2	0,634	0,609	0,629	0,644	**0,719**	0,663
TRN1	0,640	0,593	0,656	0,610	0,689	**0,765**
TRN2	0,568	0,523	0,625	0,528	0,628	**0,750**
TRN3	0,664	0,634	0,661	0,630	0,678	**0,733**
WOM1	0,622	0,634	0,686	0,590	0,700	**0,783**
WOM2	0,649	0,667	0,724	0,627	0,727	**0,810**
WOM3	0,655	0,650	0,715	0,643	0,679	**0,783**

4.2.3 Reliability

Researchers tested the reliability of the construct as measured by two criteria, namely composite

reliability and Cronbach's alpha. The construct is declared reliable if the composite reliability and Cronbach's alpha values are above 0.60.

Table 4: Cronbach's Alpha and Composite Reliability for Each Variable

	Cronbach's Alpha	Composite Reliability
BA	0,891	0,924
BL	0,913	0,935
CBE	0,972	0,974
CS	0,900	0,930
Experience on GMA	0,937	0,945
SMM	0,946	0,952

4.2.4 R-Square

Structural model testing is done by looking at the R-Square value which is a goodness-fit test of the model. The R square calculation results for each endogenous latent variable in Table 5 show that the R square value is in the range of 0.611 to 0.756. Based on this, the results of the calculation of R square show that R square is strong (Sugiyono, 2012).

Table 5: R Square Score

	R Square	R Square Adjusted
BA	0,782	0,782
BL	0,860	0,859
CBE	0,826	0,825
CS	0,710	0,709

4.3 Hypotheses Testing

The author makes calculations to determine the effect of the independent variables mediated by the mediating variables in this study. The significance test of mediation influence for mediation models with mediator variables (significance tests of indirect effect) conducted with the [69] approach is considered to qualify as a mediator variable if it meets the following conditions:
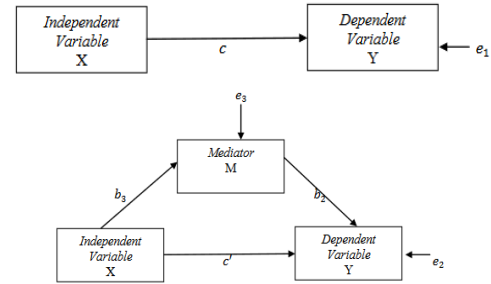

Figure 3: Significance Tests of Indirect Effect with the Baron and Kenny approaches [69]

4.3.1 The Effect of Independent Variable on the Dependent Variable is Significant c≠0

Based on the steps of Baron and Kenny's approach in Figure 3, the authors calculate the effect of the independent variable on the dependent variable (X to Y), where the independent variables are Experience on Gamification Marketing Activities (GMA) and Social Media Marketing (SMM) on Brand Loyalty (BL) as dependent variables. Based on the calculations performed, the results obtained as in table 6. Because the SMM variable does not have a significant effect on Brand Loyalty (does not meet the requirements), the SMM variable is not continued to count the effect of the variable its mediation in influencing Brand Loyalty as an independent variable. While the GMA variable has a significant influence on Brand Loyalty, so it meets the requirements and can be continued to do the effect of the mediation variable calculation. Based on these conclusions, the following equation is obtained:

BL = 0,764 GMA   **(1)**

Table 6: The results of testing the effect of GMA variables on BL and SMM on BL

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Value
GMA -> BL	0,764	0,762	0,059	12,931	0,000
SMM -> BL	0,106	0,107	0,067	1,585	0,114

4.3.2 The effect of independent variable on the mediating variable is significant *b*3 ≠ 0

In this step, the authors tested the effect of independent variables (Experience on Gamification Marketing Activities - GMA and Social Media Marketing - SMM) on mediator variables (Brand Attitude - BA, Consumer Brand Engagement - CBE, and Customer Satisfaction - CS). Based on the test results presented in table 7, it can be concluded that all the effects of the independent variables on the mediating variables are significant and meet the second requirement, so that the influence of the independent variables mediated by the mediator variables can be tested. Based on these conclusions, the following equations is obtained.

$$CBE = 0{,}695 \; GMA \tag{2}$$

$$CS = 0{,}843 \; GMA \tag{3}$$

$$BA = 0{,}884 \; GMA \tag{4}$$

Table 7: Testing Results Obtained From the Effect of Independent Variables on Mediating Mariables

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value
GMA -> BA	0,884	0,884	0,016	55,634	**0,000**
GMA -> CBE	0,695	0,692	0,057	12,203	**0,000**
GMA -> CS	0,843	0,842	0,019	43,785	**0,000**

4.3.3 The effect of independent variable on the mediating variable is significant *b*3 ≠ 0

In this step, we use PLS bootstrapping calculation method for testing hypotheses. Thus, we obtained the result values as written in the table 6.

Table 7: The results of testing the effect of mediation variables on the dependent variable by controlling the dependent variable

	Origin. Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value
BA -> BL	0,283	0,287	0,070	4,034	**0,000**
CBE -> BL	0,074	0,075	0,064	1,156	**0,248**
CS -> BL	0,482	0,474	0,059	8,153	**0,000**

	Origin. Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value
GMA -> BA	0,884	0,885	0,016	56,288	**0,000**
GMA -> BL	0,146	0,140	0,076	1,907	**0,057**
GMA -> CBE	0,696	0,697	0,056	12,480	**0,000**
GMA -> CS	0,843	0,843	0,019	44,850	**0,000**
SMM -> BL	-0,018	-0,010	0,051	0,346	**0,729**

According to [70] and [71], partial mediation occurs when c 'is significant and c' <c, but when c 'is not significant and c' <c, perfect mediation occurs. Therefore, it can be concluded that:

- Experience on Gamification Marketing Activity variables are perfectly mediated by Brand Attitude and Customer Satisfaction. This can be proven by the change in influence given in table 5 which illustrates the significant influence of this variable on Brand Loyalty and then after being mediated by the Brand Attitude and customer satisfaction variables become insignificant as in table 7.
- Although in table 6 the Experience on Gamification Marketing Activities variable has a significant effect on the Consumer Brand Engagement variable, but apparently the Consumer Brand Engagement variable does not mediate the effect of the Experience on Gamification Marketing Activities variable on Brand Loyalty. This is seen in the insignificant value based on testing the influence between Consumer Brand Engagement and Brand Loyalty.

Therefore, based on these conclusions, the following equation is obtained:

$$BL = 0.283BA + 0.482CS \tag{5}$$

Based on the results obtained from data processing using smartPLS and with a t table value of 1.96 and a p value of less than 0.05, the following results can be obtained:

Table 8: The results of the decision are based on data processing performed

Hypotheses		Original Sample (O)	T Statistics	P Values	
H1	GMA ->	0,696	12,480	0,000	Supported

Hypotheses		Original Sample (O)	T Statistics	P Values	
	CBE				
H2	GMA -> BA	0,884	56,288	0,000	Supported
H3	GMA -> CS	0,843	44,850	0,000	Supported
H4	SMM -> CBE	0,237	4,044	0,000	Supported
H5	CBE -> BL	0,074	1,156	0,248	Not Supported
H6	BA -> BL	0,283	4,034	0,000	Supported
H7	CS -> BL	0,482	8,153	0,000	Supported
H8	GMA -> BL	0,146	1,907	0,057	Not Supported
H9	SMM -> BL	-0,018	0,346	0,729	Not Supported

The following results will show direct effects and indirect effects of experience on gamification marketing variables with mediation variables.

Table 9: Direct and Indirect Effects of Independent Variables on Dependents by the Effect of Mediation Variables

	Direct	Indirect	Total Indirect	Total Effect
Experience on GMA -> Brand_Loyalty	0,146			
BA Mediation		0,25		
CS Mediation		0,406		
			0,656	0,802

The following results will show the direct effect and indirect effect of the dimensions on the experience on gamification marketing activities variable with mediation variables.
Based on these results, it can be concluded as follows:

- In the entertainment dimension of the experience on gamification marketing activities variable, there is a direct effect on the brand loyalty variable of 0.068, but in this study the indirect effect is greater than the direct effect with the brand attitude variable as the largest mediator with an indirect effect of 0.059. The total effect of 0.21.
- On the interactivity dimension of the experience

on gamification marketing activities variable, there is a direct effect on the brand loyalty variable of -0,001, but in this study the indirect effect is greater with the brand attitude variable as the largest mediator with an indirect effect of 0.039 than the direct effect with total effect of 0.101.

- In the intimacy dimension of the experience on gamification marketing activities variable, there is a direct effect on the brand loyalty variable of 0.112, but in this study the indirect effect is greater with the variable customer satisfaction as the largest mediator with the indirect effect of 0.304 rather than the total direct effect an effect of 0.585. This dimension is the dimension with the greatest total effect of the experience on gamification marketing activities variable.
- In the trendiness dimension of the experience on gamification marketing activities variable, there is a direct effect on the brand loyalty variable of -0.013, but in this study the indirect effect is greater with the brand attitude variable as the largest mediator with an indirect effect of 0.033 than the direct effect with total effect of 0.119

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study aims to examine the influence of experience on gamification marketing activities and social media marketing on brand loyalty in online marketplace applications.

Although behavioral implications as a consequences from adopting gamification in various non-gaming area has been developed in a context of e-business [10] and online shopping [32], In the sense of GMAs, very few studies have highlighted favorable consumer behaviors. This study results fill this void by demonstrating the major impact of gamification marketing activities experience on beneficial brand loyalty which manifested as high competitive advantage for the company, mediated by other factors. Particularly, this study investigate the gamification mechanics effect, which was conceptualized into gamification marketing activities and the involvements of mediating variable – consumer brand engagement, brand attitude, and customer satisfaction in affecting brand loyalty in online marketplace application context.

It is also a new finding in the aspects of human and computer interactions, specifically when adapting gamification mechanism in non-gaming area in order to make an influence to consumer behavior in a context of online marketplace application. Although previous study has explored the experience of gamification marketing activities and how it can affect brand loyalty [14], this is the first study that involve gamification marketing activities in the online marketplace application context and test the effect on brand loyalty mediated by consumer brand engagement, brand attitude, and customer satisfaction. While other studies only partially observed how gamified mechanics can be implemented in e-business context (such as [14] and [32]) and how it could affect consumer engagement [32], brand loyalty [18], and brand attitude [29] seperately, current articles offer a brand new view point where independent variables – experience gamification marketing activities and social media marketing can have impact on brand loyalty, especially when consumer brand engagement, brand attitude, and customer satisfaction mediating the effects towards brand loyalty.

Based on the results of testing the hypothesis on the research model in this study, it can be proven that the experience of gamification marketing activities has a positive influence on brand loyalty, where good experience on gamification marketing activities in online marketplace applications will increase customer loyalty to an online marketplace application. In addition, the variable brand attitude and customer satisfaction also has a positive influence on brand loyalty. Brand attitude and customer satisfaction will result in increased brand loyalty. Experience in gamification marketing activities is fully mediated by brand attitude and customer satisfaction in influencing brand loyalty in online marketplace applications, while social media marketing is considered not to significantly influence brand loyalty in online marketplace applications. The consumer brand engagement variable does not mediate the effect of experience on gamification marketing activities on brand loyalty in online marketplace applications. The dimensions of the experience variable in gamification marketing activities that most influence brand loyalty are the dimensions of intimacy.

Therefore, with this proof, the results of this study are expected to be able to contribute to each of the organizers of online marketplace applications, especially for organizers of online marketplace applications where the majority of users are domiciled in Jakarta. This implication is very important, because with these implications, it is expected to prevent the switching of brand loyalty owned by customers to competitor applications.

Management of online marketplace applications are advised to be able to take advantage of the existing gamification marketing activities in their applications by emphasizing the closeness with each user. This can be done by interacting more closely and in accordance with each individual user. In addition to entertaining, gamification marketing activities are also expected to build closeness that is familiar with its users and is expected to lead to increased consumer loyalty to online marketplace applications.

5.2 Recommendation

For online marketplace application companies, it is expected to pay more attention to aspects of closeness with customers in applying the concept of gamification in their marketing activities, because the intimacy dimension of gamification marketing activities is the most contributing to brand loyalty. By maintaining a close relationship with each customer, it is expected to build and maintain loyalty in the online marketplace application brand. This can be done by making customers enjoy the time they spend when accessing online marketplace applications, for example by creating a gamified system that summarizes user transactions over a period of time with memorable words familiar to customers, can also be given additional rewards when reaching a certain number of transactions in that period.

In addition, it is also important to maintain consumer satisfaction and brand attitude because these two things mediate the experience on gamfication of marketing activities in influencing brand loyalty. With consumer satisfaction and good brand attitude, it is expected that loyalty towards an online marketplace application can increase.

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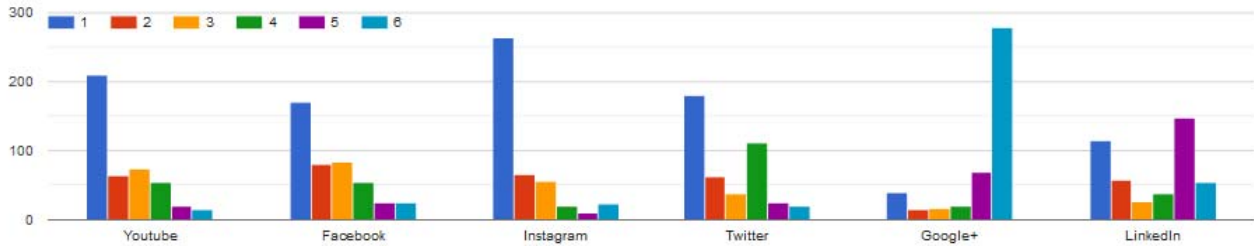
Figure 5: Most Used Social Media Ranking (1: Most Frequently, 6: Most Rarely. 1 Number Can Only Represent 1 Social Media)
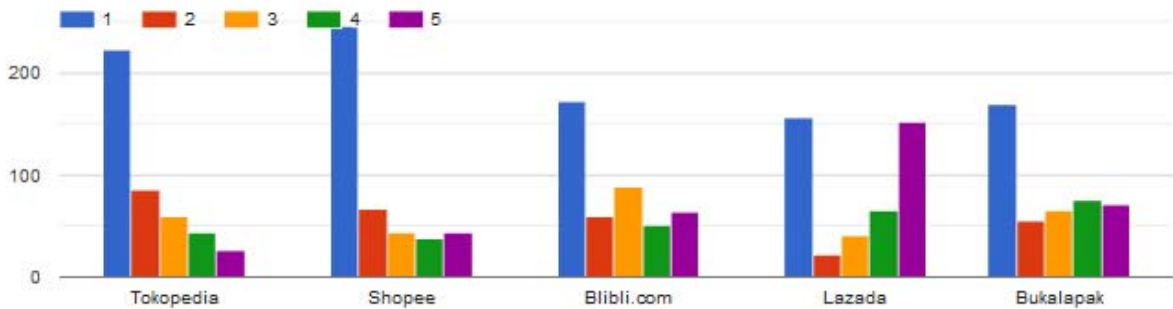

Figure 6: Ranking of the Most Used Online Marketplace Applications (1: most often, 5: Most Rarely. 1 Number Can Only Represent 1 Online Marketplace Application)