

# Hype VS Smart, Which One is Our Online Customers? Examining the Role of Gamification, Products Assortment, e-WOM and Lifestyle of Indonesian E-Commerce Apps. Customers

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**Abstract:** The interest of using e-Commerce in Indonesia especially among students activities has increased rapidly and shifted, not only for online transactions but it has already become a lifestyle. Several studies show the important role of Lifestyle as an intervening (moderation) variable. This study aims to determine various factors such as gamification, e-WOM, and product assortment affect purchase intention. The role of lifestyle as moderation was put between gamification and purchase intention. This study uses quantitative method, the type of data used is primary data obtained directly from the first source and calculated using SmartPLS version 3.0 software. The analysis unit is active students in all strata using e-Commerce actively, with an average age between 18-35 years. The results show e-WOM has a positive and significant influence on purchase intention. As for gamification and product assortment to purchase intention both have not significant results; and lifestyle as a moderation between gamification and purchase intention, has a negative result.

## 1 INTRODUCTION

It is undeniable that in this era the relationship between our lives and the use of internet has become inseparable due to the facts that the Internet has become a part of our daily life. The internet has brought upon us many benefits such as the ability to access information freely and without being constrained by time. As a result, society has become conditioned to expect speed and mobility in everything. The complete opposite of what Indonesian society was in the 90's where the concept of togetherness and Gotong royong was the main philosophy. That philosophy has corroded with the arrival of the internet which gives Indonesian people the capability of doing something without someone else's help but a smartphone, that includes buying without ever visiting a real store.

The consumer's lifestyle is a way to reflect their inner needs by engaging in certain behaviours. Lifestyle is also part of the values that the person has and can be seen from one's everyday behaviour. Consumers that have different lifestyles will surely feel a difference in value even if the product is the same. It can be said that everyone's lifestyle is different even if they use the same products by fitting their

behaviour based on what they are doing. In internet, there are six lifestyle elements that affect online shopping behaviour attitudes, opinions, interests of customers; E-offers, E-distrust, E-logistics, E-enjoyment, E-self-efficacy concern along with beliefs like E-negative beliefs (Pandey and Chawla, 2014). In developing successful brand apps and reaching the benefits from the customers, firstly companies should analyze the smartphone user's needs and lifestyles to develop apps that consumers can use conveniently in their daily lives (Lee, 2019).

Based on the research done by katadata.co.id, Indonesian digital consumers are predicted to reach 31.6 million buyers in 2018 and will increase to 43.9 million by 2022. In Indonesia, E-Commerce sales are expected to reach US\$8.59 billion or roughly 117.7 trillion Indonesian rupiah for year 2018. That number was based on the data that was made by Statista and it is expected to reach US\$ 16.5 billion by 2022 which is almost twofold of 2018. The total number of online buyers in 2018 is expected to jump from 11.8% to 15.7% from the Indonesia population and its approximately from 31.6 million online buyers in 2018 to 43.9 million online buyers in 2022. The largest E-commerce for retail sales in Southeast Asia is based in Indonesia.

Based on the projection by Statista digital retail sales in Indonesia reached US\$ 5.29 Billion. That number is the highest when compared to the E-commerce sales of neighboring countries in the ASEAN region. The closest of which is Singapore (US\$ 2.13 Billion), Malaysia (US\$ 2.13 Billion), Thailand (US\$ 2,89 billion) and Vietnam (US\$ 1.71 Billion). All of which is still below the numbers projected by Statista.

To ensure the accomplishments of online membership communities can be a challenge. The companies have to attract the participants to create a dynamic society and even more challenging work is to create a high-quality user experience that keeps your participants involve — and repeat buying (Clark, 2019). In cyberspace, user experiences involve the senses, emotions, cognition, behavior, and relationships as well as entertainment and escape (Lee and Jin, 2019).

With the rapid development of the E-commerce Industry, many new and unique ways of getting new users and customers to use an application, one of them is gamification which is a sequence of processes that makes an activity interesting just like what a game does, that is with adapting several game concepts such as points, rewards, missions, quests, etc. Gamification usually used in conjunction with other gaming elements such as points, badges, leaderboards and achievements, These Shopping experience elements aimed at increasing the use of their apps; On consumers' side, in hope to receive various prizes by participating in gamification, they also find it a joyable experience.

Information technology used in products and brands strategy in Indonesia are at significant growth and consumers also turn to the internet to find recommendations through comments posted on certain web, discussion communities and social media. Comments regarding a product bought by a consumer in the internet is one of the important points of e-Word-Of-Mouth communication. With their intention to buy, consumers find comments about products they want. Several studies on eWOM communication find the significant effect on willingness of the online buyer to spread positive impression and review in their virtual community. Furthermore, the quality of the services provided indeed affect the customer satisfaction positively (Purnasari and Yuliando, 2015)(Yan et al., 2016). Most consumers in the beginning feel skeptical before buying a product and will not believe the information that is available in the internet. There is an invisible circle that shows that there is a relationship between one consumer to another consumer. With e-WOM, it is easier for consumers to make decisions when buying products online.

Cited from Wang, studies from Bettman, Hoyer

and Mehrabian, they conclude that before purchasing the product, the consumers will do process the information about the product from the information processing model and stimulus-organism-response (S-O-R) model. (Wang and Chang, 2013). Purchase intention is the attitude, forms as a response of processes after through several action such as observation and studying towards a certain object. Both marketers and academic researchers put confidence that purchase intentions present valuable insights into the effectiveness of marketing.

## 2 LITERATURE REVIEW

IT investments put focus on e-business market orientation behaviors thus its enable to develop distinct capabilities. E-commerce applications have potential for using IT to develop the potential and contribute in reaching the main business goals. This IT potential occurs because e-commerce systems are more likely to grasp and communicate the information. When the company better deals with the market, the corporate IS will more support activities that add value in the customer perspectives (Borges et al., 2009).

The key propeller of “gamification” is to incentivise customers in the gamification experience environment to exhibit behaviours and feel emotions like gameplay. Cited from Houtari, the term “gamification” initially used in a personal blog posted by Brett Terrill (2008). He explains this word as “taking game mechanics and applying them to other web properties to increase engagement”. In the next following years in 2010, these term more common to use in the business industry (by Deterding et al. in 2011) and in the academic (by Hamari et al. in 2014) (Huotari and Hamari, 2017).

Gamification has been applied for many purpose such as in education to create blended learning environment (Landers, 2014) (Can and Dursun, 2019), new product creation (Leclercq et al., 2017), branding strategy (Lee, 2019) (Yang et al., 2017) and off course loyalty program for customers (Hsu and Chen, 2018)(Hwang and Choi, 2020)(Lee and Jin, 2019) though balancing the right level of gamification and usefulness is not a simple task, to identify the core gamification elements and significant relationships is of the utmost importance to investigate, implement, and constantly refine gamified systems, business and services, that reinforce engagement, therefore achieving greater services, products, or evens user acceptance (Baptista and Oliveira, 2019).

In e-commerce, the customer experience is centered on ease-of-use and convenience. They can op-

optimize conversion by adding image-based classifications to extract information from pictures or make product searches much easier. Retailers use various assortment strategies to improve the attractiveness of their assortments. In fact, the internet offers limitless retail space and makes it possible for retailers to offer all the product assortment to the user (customers) in the web channel. This has been proven into a big advantage to consumer welfare. The greater selection of products online, along with the ease to search through products on a website, has been disclosed to push ahead the sales of niche and previously hard-to-find products. Greater product selection is among the top reasons for consumers to engage in e-commerce (Ma, 2016). The key assortment factors include assortment organization, option differentiation and assortment of size (e.g., variety, option complementarity, option alignability, and price dispersion), the nature of the decision task (e.g., accountability and complexity); preference uncertainty (e.g., availability of an ideal option), option attractiveness; whilst the key consumer factors include expertise (e.g., attribute levels and awareness of the relevant attributes), consumer goals (e.g., purchase quantity and purchase timing), (Chernev et al., 2012).

Information adoption is a process that is formed because a person has a goal to use or process certain information. Information adoption is defined as a process where people purposefully engage in using and exploring the information. In this paper, eWOM adoption means consumers agree with the content or information from E-WOM and consequently consumers want to buy products based on information from E-WOM they get. E-WOM is someone's comment on a product or service where the comment is given by other consumers through the internet network. E-WOM that is read or accepted by consumers can influence consumer trust and purchasing behavior. When consumers enter certain e-commerce website pages, consumers know more or less about the author of EC-eWOM is. Therefore, not all EC-eWOM has the same effect on consumer confidence or purchasing behavior.

Usually, consumers will decide for themselves whether to just believe in the existing EC-eWOM or judge by their own decision. When an online customer decides not to trust or not depend on EC-eWOM, they usually use alternative information options, such as social media e-WOM (Yan et al., 2016). Previous studies conclude that a customer satisfaction is a positive effect to customer trust and commitment (Purnasari and Yuliando, 2015); in Spain, perceived entertainment and subjective norms manifest themselves as helpful paths to gain satisfied m-shoppers

and deliver the positive e-WOM about m-shopping in different age groups (San-Martín et al., 2015); in Iran, the study confirms the effects of eWOM on purchase intention (Zangeneh et al., 2014).

Explaining the idea of online brand experience, Schmitt (2000) states that technology changes the lifestyle. It means action and activity of each individual during brand contact confirm "behavioral experience" with that particular brand (Khan et al., 2016). The changes in consumer behavior today which impacts on the internet of things and mobile communication meets the consumer needs. The need for internet and mobile communication technology exists because of the desire of consumers to save time with the ease and sophistication of technology. therefore, many consumers today then use technology in every day-to-day activities not only in the process of communicating or interacting long distance, but have used it in various activities and lifestyles or commonly known as e-lifestyle. The reasons why people need for internet and mobile communication technology exists is because the desire of consumers to save time with the easy way and sophistication from technology. Therefore, many consumers today use technology in every day-to-day activities not only in the process of communicating or interacting long distance, but also to use in various activities and lifestyles or commonly known as e-lifestyle. Chanaron (2013) argued e-lifestyle as one of three types of lifestyle that emerged due to innovation from technology. Therefore, e-lifestyle is a new way of living in the modern era with technology enlightened can be measured by using psychological and sociological variables (Pandey and Chawla, 2014).

The popularity of online marketing on modern customer as they has wider range of products to choose from, further complicating the decision-making process and changing consumer behavior (Victor et al., 2018). Establishing trust is a small part of the ongoing management process of the relationship building. Building relationships will be even more important in an e-business world, where multiple channels and interaction points create a level of complexity not experienced previously and e-business is likely to play an important role in certain markets and for certain types of firm (Coltman et al., 2001).

Hype factors Strategy implementation such as lifestyle and gamification are features consumers love because they are fun and enjoyable; and e-commerce find it effective to increase application usage. On the contrary, some says the hype factors associated with such strategies does not withstand the test of data in the long run.

Smart customer is a smart individual able to make

conscious decision-making processes of choices and to play an active role in the e-commerce environment and not a fragile individual regularly exposed to the threat of exploitation, discrimination, control and deception by tech companies (Colangelo and Maggolino, 2019).

Purchase intention encourages business industry to make a higher performance such as how customer satisfy with the products or services. Hence, purchase intention has been as defined as one of the most prominent part in the business field. In general, customer satisfaction is explained as how customers assess the products or services once they finished utilized it as much as how the customers perception the services of products by comparing from each company in the same industry. Purchase intention is a key element to determine whether the product meets customers' expectations and customer's need.

When the products and services meet the customers' expectations customers will satisfied and will be dissatisfied if the performance of production is less than their expectations. Purchase intention also important to promote a long-term business success in order to help companies retaining customers and enhance CLV (customer lifetime value) (Xiao et al., 2019).

This study also wants to classify consumers as Hype or Smart consumers, with gamification and lifestyle variables to represent Hype while e-WOM and Product assortment represent Smart decision by consumers.

### 3 RESEARCH METHOD

This research implemented in quantitative method with descriptive associative analysis. Data collection technique is an important part of a research to find results of the problems formulated. Data collection technique used in this research is by questionnaire. In this questionnaire there are research questions about the influence of gamification, e-WOM, product assortment and purchase intention of e-commerce applications users.

The scale development in this study used a reflective approach in measurement as it is recommended for applications of the reflective indicator model include constructs such as attitudes, perceptions and/or purchase intentions (Anisimova, 2016). The independent variables items were measured using a five-point Likert type scale anchored on "1" strongly disagree to "5" strongly agree. Likert type scales are commonly used in empirical studies on measurement of e-commerce impact.

The population of this study is university students in JABODETABEK area, or around Jakarta, Bogor, Depok, Tangerang and Bekasi area – Indonesia. From BPS or Indonesian Central Bureau of Statistics data, number of university student in those area around 1,5 million. Sample gathered for this study is 400 persons.

This research has 3 operational variables

1. Independent variables; The independent variables in this research are Gamification, E-WOM and product assortment.
2. Dependent variables; Dependent variables are variables that are assumed to measure or grade the independent variables. The dependent variables in this research is Purchase Intention.
3. Moderation variable; moderation variable are variable that show interaction between moderation variable itself and the independent variable that influences the dependent variable. The moderation variable in this research is Lifestyle.

The Theoretical Framework of this study shown in Figure 1 below :

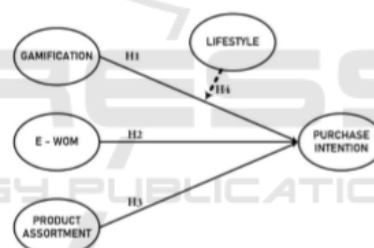


Figure 1: Research Model

Theoretical Framework of this research contains several hypotheses:

- H1 : Gamification will be significantly and positively related to purchase intention
- H2 : E-WOM will be significantly and positively related to purchase intention
- H3 : Product assortment will be significantly and positively related to purchase intention
- H4 : Lifestyle moderates the relationship between gamification and purchase intention.

Hypothesis trial formulation In partial least square, the hypothesis test will be done by looking at the t-value and T-statistics results where the testing requirements in partial least square is as follows:

1. If T-Statistics < t-value, then Ho is accepted, Ha is rejected
2. If T-Statistics > t-value, then Ho is rejected, Ha accepted

Therefore, based on these requirements, these are the hypothesis that were made:

Hypothesis 1

Ho: there is no significant influence between Gamification towards Purchase Intention.

Ha: there is significant influence between Gamification towards Purchase Intention.

Hypothesis 2

Ho: there is no significant influence between eWOM towards Purchase Intention.

Ha: there is significant influence between eWOM towards Purchase Intention

Hypothesis 3

Ho: there is no significant influence between product assortment towards Purchase Intention.

Ha: there is significant influence between product assortment towards Purchase Intention.

Hypothesis 4

Ho: e-WOM does not moderate Lifestyle towards Purchase Intention.

Ha: e-WOM moderates Lifestyle towards Purchase Intention.

## 4 RESULTS

Significance tests that were conducted to find out the influence between variables in the research is done by resampling with bootstrapping. Bootstrapping is done using the software SmartPLS 3.0.

Results of the significance test of each variable to test the hypothesis can be explained as:

1. Hypothesis1: influence of Gamification towards Purchase Intention.

(a) Hypothesis

Ho: there is no significant influence between Gamification towards Purchase Intention.

Ha: there is significant influence between Gamification towards Purchase Intention.

(b) Basis for decision making

T-statistic test

if T-statistic  $> 2.58$ , then Ho is rejected and Ha is accepted.

If T-statistic  $< 2.58$ , then Ho is accepted and Ha is rejected.

(c) Decision

Uji T-statistic

$0.109 > 2.58$ , then Ho is rejected dan Ha is accepted.

(d) Summary

There is no positive and significant influence between Gamification and Purchase Intention in Ecommerce application users

2. Hypothesis2: the influence of e-WOM towards Purchase Intention.

(a) Hypothesis

Ho: there is no significant influence between eWOM towards Purchase Intention.

Ha: there is significant influence between eWOM towards Purchase Intention

(b) Basis for Decision making

T-statistic test

If T-statistic  $> 2.58$ , then Ho is rejected and Ha is accepted.

If T-statistic  $< 2.58$ , then Ho is accepted and Ha is rejected.

(c) Conclusion

Uji T-statistic

$3.711 > 2.58$ , then Ho is rejected and Ha is accepted.

(d) summary There is positive and significant influence between e-WOM and Purchase Intention in Ecommerce application users

3. Hypothesis3: Influence of product assortment towards purchase intention.

(a) Hypothesis

Ho: there is no significant influence between product assortment towards Purchase Intention.

Ha: there is significant influence between product assortment towards Purchase Intention.

(b) Basis for Decision making

T-statistic test

If T-statistic  $> 2.58$ , then Ho is rejected and Ha is accepted.

If T-statistic  $< 2.58$ , then Ho is accepted and Ha is rejected.

(c) Decision

T-statistic test

$2.194 > 2.58$ , then Ho is rejected and Ha is accepted.

(d) Summary There is no positive and significant influence between product assortment and Purchase Intention in E-commerce application users

4. Hypothesis4: Lifestyle moderates the influence between Gamification towards Purchase Intention.

(a) Hypothesis

Ho: There is no significant influence between lifestyle that moderates the relationship of gamification towards purchase intention.

Ha: There is significant influence between lifestyle that moderates the relationship of gamification towards purchase intention.

- (b) Basis for Decision making  
T-statistic test  
If T-statistic > 2.58, then Ho is rejected and Ha is accepted.  
If T-statistic < 2.58, then Ho is accepted and Ha is rejected.
- (c) Decision  
T-statistic test  
1.084 > 2.58, then Ho is accepted and Ha is rejected.
- (d) Conclusion Lifestyle has no positive and significance in moderating Gamification towards Purchase Intention in E-commerce application users.

The summary of the results of the hypothesis in this research can be seen in Table 1 below:

Table 1: Indirect Effect Output results

Relations	Summary
Gamification (X)→ Purchase Intention (Y)	There is no positive and significant influence between Gamification and Purchase Intention in E-commerce application users
e-WOM (X)→ Purchase Intention(Z)	There is positive and significant influence between e-WOM and Purchase Intention in E-commerce application users
Product assortment (Y)→ Purchase Decision (Z)	There is no positive and significant influence between product assortment and Purchase Intention in E-commerce application users
Lifestyle Gamification (moderation)→ Purchase Intention(Y)	There is no positive and significant influence between product assortment and Purchase Intention in E-commerce application

## 5 CONCLUSIONS

Based on the results of the research that has been conducted, it can be summarized that:

1. based on the analysis results, the first hypothesis shows that there is no positive influence and significance between gamification and purchase intention in E-commerce application users.

2. based on the analysis results, the second hypothesis shows that there is a positive influence and significance between E-WOM and purchase intention in E-commerce application users.
3. based on the analysis results, the third hypothesis shows that there is no positive influence and significance between product assortment and purchase intention in E-commerce application users.
4. based on the analysis results, the fourth hypothesis shows that lifestyle has no positive influence and significance in the moderation of gamification towards purchase intention in eCommerce application users.

Based on the results of the research, there are several ideas for further research as follows; first; it is recommended to take a bigger sample in order to get results that can represent each population that resides in Indonesia especially those of productive age; second; e-Commerce application developers are more focus on product reviews therefore user are easiser to do online purchasing; third, e-Commerce developers more maximizing gamification features therefore users obtain optimal benefits from the gamification. and users able to recognize the effect of availability product.

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