

# Factors Affecting Customer to Use E-Wallet with Brand Image As Moderating Variable An Evidence of E-Wallet Brand LinkAja Users

Mudi Irawan

Sekolah Tinggi Manajemen IPMI, Jakarta, Indonesia  
Author E-mail: mudi.irawan@ipmi.ac.id

## ABSTRACT

Non-cash transaction become popular in Indonesia during Covid 19 because of health and safety reason. According to internal report, LinkAja is succeeded to maintain the good level of awareness (83%) from year on year. However, LinkAja's brand performance is experiencing a significant drop in consideration (35%) and actual usage (24%). Thus, the aim of this study is to investigate factors affecting LinkAja customer to use e-Wallet with Brand Image as moderating variables. Within Quantitative Method and survey, the author collected sample from 113 LinkAja e-Wallet Customers in Jabodetabek during March 2022. The study found that Perceived Usefulness and Perceived Ease of Use have a significant effect on Intention to Use, and Intention to Use e-Wallet has a significant effect on Actual Usage of e-Wallet. In the contrast, Brand Image has no moderating effect between Intention to Use e-Wallet on Actual Usage of e-Wallet. This study provides several theoretical and practical guidelines for Finance Technology and Brand Management in Indonesia and other country. Author recommended LinkAja must focus their strength on product services and experience and marketing effort on branding. There are limitation of the study, which are cross-sectional time horizon, the sample was limited to 113 respondents, and the result was limited to Jakarta Area only. Authors recommended a future study to continue investigating e-Wallet phenomenon in other area with a broader time.

**Keywords:** *Perceived Ease of Use, Perceived Usefulness, Intention to Use e-Wallet, Actal Usage of e-Wallet, Brand Image.*



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## INTRODUCTION

Financial Technology (*fintech*) is one of the drivers of the digital economy in Indonesia. According to the e-Economy SEA 2020 report, Indonesia managed to record \$44 billion in Gross

Merchandise Value (GMV) contributed by the e-commerce, on-demand, online travel, and fintech sectors. With the impact Covid-19 pandemic, it has accelerated fintech growth in the region. The sub-sectors that experienced growth included

investment 116%, remittance 43%, insurance 30%, digital payments 3%, and lending <1% (Fintech Report 2020, DSRResearch).

Digital Wallet or E-Money is considered as the famous product from FinTech industry in the last 5 years yet respectively it's becoming more booming since early 2020 in the response to Covid-19 pandemic with non-cash or cashless transaction thru utilizing e-wallet aps as payment method. E-wallet as an alternative online payment is evidence of increased cashless transactions. Based on data that iPrice and Jakpat collected, 26% of the 1,000 respondents said they chose to use e-wallets/e-money as a payment method when shopping online. This will give a lot of room for e-wallet in Indonesia to grow even more.

Currently there are more than 48 licensed e wallet platforms led by domestic players from both public and private sectors. Local players getting the top billing in the e wallet rankings in Indonesia. This can be attributed to the promotions and campaigns done by them as well as the government's support in enabling Indonesia to become a cashless. GOPAY, OVO, Dana, and LinkAja are the top 4 e-wallets brand with the achievement of highest number of monthly active users during the period from Q2 2019 till Q2 2020. Ipsos conducted the research about the popularity of e-wallet players in Indonesia and it's resulted that GOPAY as the most popular brand with 58%, followed by OVO (29%), Dana (9%), and LinkAja (4%) (Report of top e-wallet 2020 in Indonesia published by iPrice).

LinkAja is one of e-wallet company recently in Indonesia as the latest and youngest e-wallet brand in fintech industry. As the only e-wallet owned by BUMN (state-owned enterprise), LinkAja has a static ranking from Q2 2019 to Q2 2020, both for monthly active users and total app downloads in Android and iOS. CNBC Indonesia reported that LinkAja users are mostly coming

from outside Jakarta as Tier 1 city. It has almost 50 million users spread in more than 90% of the territory throughout Indonesia in Tier 2 & Tier 3 cities. Furthermore, 83% of LinkAja users are spread outside Jakarta, with 40% of them outside Java (Report of top e-wallet 2020 in Indonesia published by iPrice).

In this highly competitive environment, a brand image is very important (Amstutz, A. E, 1970). To create a well-positioned brand the companies always play an important role. Customers' emotions to brand based on their identification with a brand image. Brand image is the total and overall personality in the consumer's mind. Brand image depends upon the actual image of the firm in consumers' mind.

Since it launched early 2019, LinkAja is performing very well in term of brand awareness and able to reach the highest 63% in only 9 months by November 2019. In the year 2020 the awareness performance is showing the same pattern with average score of 74% or +11% compared to November 2019. The same good achievement continues to happen in year 2021, the lowest level is 77% (+3% vs. average 2020) and recently LinkAja is reaching the highest score at 83% in July 2021.

Yet LinkAja has the very good of awareness performance make it able to compete with others popular e-wallet brand, the different figure is happened in Consideration and Have/Ever Use with both scores are below 50%. The highest intention rate (consider among aware) is 38% in June 2021 or drops 45% compared to highest score awareness. Conversion rate (current use among aware) is performing more declining with 26% as the highest score (-16% vs. consider).

Even though E-Wallet as of one the growing product from Fintech industry, thus resulting a lot of previous research focusing on analyzing the intention to use e-wallet as mobile payment

from several aspects such as services quality, customer loyalty, and technology adoption toward using mobile wallet. However, there has been only few research on Brand Image moderating the effect of intention to use until the usage of e-wallet brand.

These things make this research is interesting to learned how the brand awareness is relatively high, but the term of usage is too low. There are several problems identified here; whether the low of intention rate is because of the technology acceptance issue, are the customers dissatisfied with product & services, and how the customer is perceived the brand image and it effect to the usage?

By looking into the problem identifications, the researcher will be exploring the factor affecting the intention to use e-wallet of LinkAja for cashless transaction with Brand Image as Moderation variable. Thus, there some research questions that need to be deep dive & analyze in this research.

In this research of e-wallet usage, the author will also explore more in detail how the strong building of brand image will affect to the usage. Brand Image is a representation of the overall perception of brand and is shaped from information and experience of that brand. The image of the brand is related to attitudes in the form of beliefs and preferences for a brand.

This research focuses on E-Wallet Users in Jakarta. The author will focus on users of LinkAja features aged more than or equal to 16 years and have ever using LinkAja features at last three months. The data will be collected in the period of March 2022.

## **LITERATURE REVIEW**

Financial Technology is recognized as one of the most important innovations in the financial industry and is growing rapidly (Lee and Shin,

2018). This was driven by reduced trust in financial service providers which led to an increase in market appetite for alternative financing (Leong et al, 2017).

The adoption of Financial Technology are the cases to investigate. Many models were suggested by the researchers. These include the Theory of Reasoned action (TRA), Theory of planned behavior (TPB), Technology Acceptance Model (TAM, TAM2) and Unified Theory of Acceptance and Use of Technology (UTAUT).

The Technology Acceptance Model (TAM) developed by Davis et.al, (1989). TAM is one of the most influential extensions of Ajzen and Fishbein's theory of reasoned action (TRA) in the literature. Davis's technology acceptance model (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) is the most widely applied model of users' acceptance and usage of technology (Venkatesh, 2000). It was developed by Fred Davis and Richard Bagozzi (Davis 1989, Bagozzi, Davis & Warshaw 1992).

The Model has been used to explore the adoption of technology and innovation that has received substantial empirical support in explaining purchase intention of various types of technology or innovation such as Information Technology by Davis et al., (1989); mobile application by Wang & Yi, (2012); Service Robots at Restaurant by Hwa Seo, et.al., (2021). There has been a focus on these beliefs in previous studies of consumer acceptance and the adoption of mobile payment (Dewan & Chen, 2005; Teo, Fraunholz, & Unnithan, 2005).

TAM was developed to predict individual adoption and use of new Its. It posits that individuals' behavioral intention to use an IT is determined by two beliefs: perceived usefulness and perceived ease of use. Of the two TAM variables, studies have found perceived usefulness to have the stronger influence (Davis, 1989).

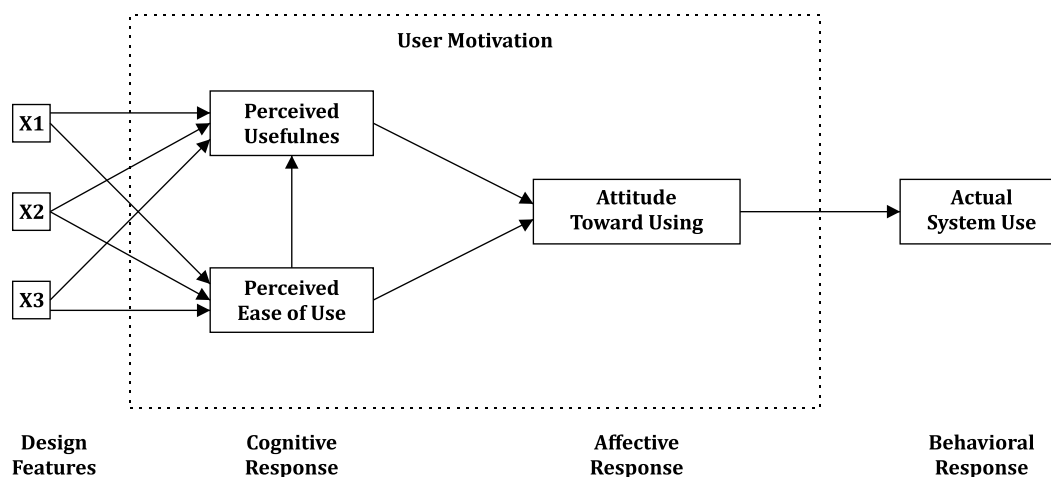


Figure 1. Research Framework

Therefore, it is important in terms of the richness of the literature to adapt TAM to the purchasing behavior of the consumer. In this sense, it is useful to add the variables that influence consumers' behaviors of purchasing technological products but that was not previously included in the literature into the model, such as brand image.

In TAM, Perceived usefulness is defined as the degree to which an individual believes that using a particular system would enhance his or her job performance (Davis, 1989). Performance Expectancy (PE), from the point of view of consumers, may be defined as the degree to which using a technology will provide benefits to consumers in performing certain activities (Venkatesh et al., 2012)

Then, Perceived ease of use is defined as the degree to which an individual believes that using a particular system would be free of physical and mental effort (Davis, 1989) From the consumers perspective, Effort Expectancy (EE) may be defined as the degree of ease associated with consumers use of technology (Venkatesh et al., 2012).

Intention to use technology is a central concept in the TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003). Furthermore, intention to use a

system can explain a large portion of a user's actual system usage. Meanwhile, according to Handoko (2019), Intention to Use is defined as the assumption of supporting factors that influence behavior. This assumption can be measured by how much the individual wants to buy supporting equipment in using technology Loanata & Tileng (2016).

Brand image is identified as observation about the brand as replicated by the brand relations detained in customer psyche. Brand image also stated as brand sense, and it is mainly established on customers' previous considerations and the position of the product or service but as well affected by organizations symbol of their external brand communications (Grace, 2004).

Actual usage is a real condition of system application (Davis, 1989). A person will feel happy to use the system if they believe that the system is not difficult to use and increase their productivity, which is from the real conditions of use. The form of measurement of actual system usage is how often and duration of use of ICT. The actual use of technology (actual technology use), is measured by the amount of accumulated time spent interacting with technology and how often the actual system usage is a real condition of system application (Davis, 1989).

Previous study by Mawadha (2019) found that higher perceived usefulness (PU) make a higher behavioral intention (BI) to use e-wallet. Perceived usefulness (PU) affect attitude toward using (ATU) e-wallet. Another study from Seetharman, et. al. (2017) supported the findings.

Naufaldi & Tjokrosaputro (2020) examine whether perceived ease of use, perceived usefulness, and trust are positive predictors of Intention to use DANA in Jakarta. The population of this research is the DANA users who live in Jakarta. The result of this research is perceived ease of use and perceived usefulness affect intention to use, and the trust can't affect the intention to use. These study confirmed a previous study from Chemingui & Lallouna, H. (2013).

There are four previous study that investigate relationship between intention to use and the actual usage. Heryanta (2019) studies the influence of behavioral intention on the actual use of GO-JEK Indonesia users with the Technology Acceptance Model and Innovation Diffusion Theory approach. Heryanta confirmed previous study from from Febrianto (2018) about the effect of intention to use on actual usage of e-purchasing Applications. The result was there is a positive and significant effect of intention to use on actual usage of e-purchasing applications.

There is a lack of previous study discuss the moderating role of brand image between intention to use and actual usage. Previous study from Shamsudin, et. al. (2020) to evaluate the factors that may lead to customer satisfaction in the E-wallet services in Malaysia. The findings are the customers are very concern on the service quality provided from E-Wallet provider and Brand Image is one of the factors that may lead to customer satisfaction. Brand Image & Customer Trust can only be gained based on customer experiences.

Based on the previous theory and previous research which has been explained above, the author will be proposed theoretical framework. This study proposes several hypotheses such as:

- H1: Perceived Usefulness (PU) has a positive effect on Intention to Use E-Wallet (IW)
- H2: Perceived Ease of Use (PE) has positive effects on Intention to Use E-Wallet (IW)
- H3: Intention to Use E-Wallet (IW) has a positive effect on Actual Using E-Wallet (AW)
- H4: Brand Image (BI) has a moderating role between Intention to Use E Wallet (IW) on Actual Usage of E-Wallet (AW)

## **RESEARCH METHODOLOGY**

These study follows the positive philosophy that the research questions can be answered by analyzing collected data from Link Aja Users. This study also uses the deductive research method, which develops hypotheses based on the research objectives. The researcher used the several concepts and previous theories to set the hypotheses. In addition, the author uses the quantitative method, which collects the data by conducting a survey from the sample in Jakarta.

The type of data is either nominal or interval scale in order to analyze it statistically. The mono approach is used in this study, which focuses on the quantitative method to collect data. The source of data consists of primary data in this study.

This research is designed as a cross-sectional (or one-shot) study in terms of time horizon, which gathers data just once. Referring to the study's title, the researcher uses primary data to collect information in the period of March 2022 in Jakarta Greater Area.

This research used a questionnaire as data collection technique. The author use Google forms to distribute online questionnaires through

social media and digital messaging apps like WhatsApp and Line. The questions in the survey are closed-ended, using a Likert 5 scale in the form of interval scales.

Therefore, This research used purposive sampling techniques to determine the sample with some consideration and criteria as follows:

- Users of LinkAja features aged more than or equal to 16 years
- Have ever using LinkAja features at last three months

Based On Cohen`s Table, In this study, the minimum sample size turns out to be 111. Author use 113 samples for these study.

There are a total of 21 measurement items with 5 variables to reflect the variables and the following is an explanation of the operational variables in this study.

Authors develop a questionnaire and conducted a pilot test (or pre-test) in order to determine the questionnaire's reliability and validity. and valid to measure the variables. The reability and validity test result shows that all variables-have Cronbach’s Alpha higher than 0,7 and Pearson Correlaations higher than 0,03. Therefore, the questionnaire can be considered reliable and valid to measure the variables.

In order to analyze the data, Authors used Descriptive Statistics Technique with SPSS 25 and Structural Equation Modeling (SEM) analysis method using Smart PLS 3.3.

**RESULT AND DISCUSSION**

According to Descriptive Statistics result and analysis, Author would give interesting findings from these study.

The highest mean value of variables is 4,68 of

| <b>Variables</b>               | <b>Indicator</b> | <b>Detail</b>                                  |
|--------------------------------|------------------|--|
| Perceived Usefulness (PU)      | PU1              | Providing services as needed                   |
|                                | PU2              | Can be used in various cities                  |
|                                | PU3              | Can be used in almost all daily transaction    |
|                                | PU4              | Increase Productivity                          |
| Perceived Ease of Use (PE)     | PE1              | Easy to understand & follow                    |
|                                | PE2              | Save time through digital payment methods      |
|                                | PE3              | Attractive display in Apps                     |
|                                | PE4              | Flexible and controllable                      |
| Brand Image (BI)               | BI1              | have a competitive advantage                   |
|                                | BI2              | satisfy the needs and wants of consumers       |
|                                | BI3              | Recommended by people around me                |
|                                | BI4              | The uniqueness of brand association            |
|                                | BI5              | Often offer Promo/Cashback                     |
| Intention To Use E-Wallet (IW) | IW1              | Likelihood of use                              |
|                                | IW2              | Can Be Trusted                                 |
|                                | IW3              | Suitable for all activities                    |
|                                | IW4              | Further motivation                             |
| Actual Usage of E-Wallet (AW)  | AW1              | Real use                                       |
|                                | AW2              | Use because of trust                           |
|                                | AW3              | Use because of reliability                     |
|                                | AW4              | Use because User Interface dan User Experience |

Perceived Ease of Use (PE). In average, respondent perceived that LinkAja could save time through digital payment methods, has attractive display in Apps, Flexible, and controllable. In contrast, the lowest mean value of indicators is 4,46 of Actual Usage of e-Wallet. Many respondent prefer to use other e-Wallet providers offers in transactions. Its relevant with internal data Q3 2021 that only 23% used LinkAja while their four competitors reach above 48%.

The highest mean value of indicators are 4,68 which PU1 and PE1. The lowest mean value of indicators is 4,30 of AW1. Respondents give PU1 and PE1 a highest value because they perceived LinkAja meet their criteria as e-wallet that fit with their needs and offer an easy to understand & follow. As the lowest value, AW1 that refer to statement "I Prefer to use LinkAja e-Wallet compared to other e-Wallet providers' offers in transactions" mean that LinkAja has not a top choice for e-Wallet users in Indonesia. It relevant with internal data that LinkAja still below other competitor like Gopay, Ovo, Dana, ShopeePay in

number of download and number of transactions.

In The Mean Value based on respondent profile, there are some interesting findings. In gender, female perceived that Link Aja e-Wallet has been useful and ease of use more than male thought. Based on Ages, they also have an intention to use e-wallet, and using e-wallet (actual usage) more than male thought. Its relevant with internal data that women intent to use e-wallet more than male based on transaction volume and number of downloads.

To evaluate the measurement model, internal consistency, convergent validity and discriminant validity are validated. All of the indicators of the variables except Moderating Variable have outer loading values above 0.70, indicating that they are well constructed as indicators.

The result shows that the AVE values are above 0.5 except Moderating Variable, indicating that the different indicators can measure the same variable within the same concept.

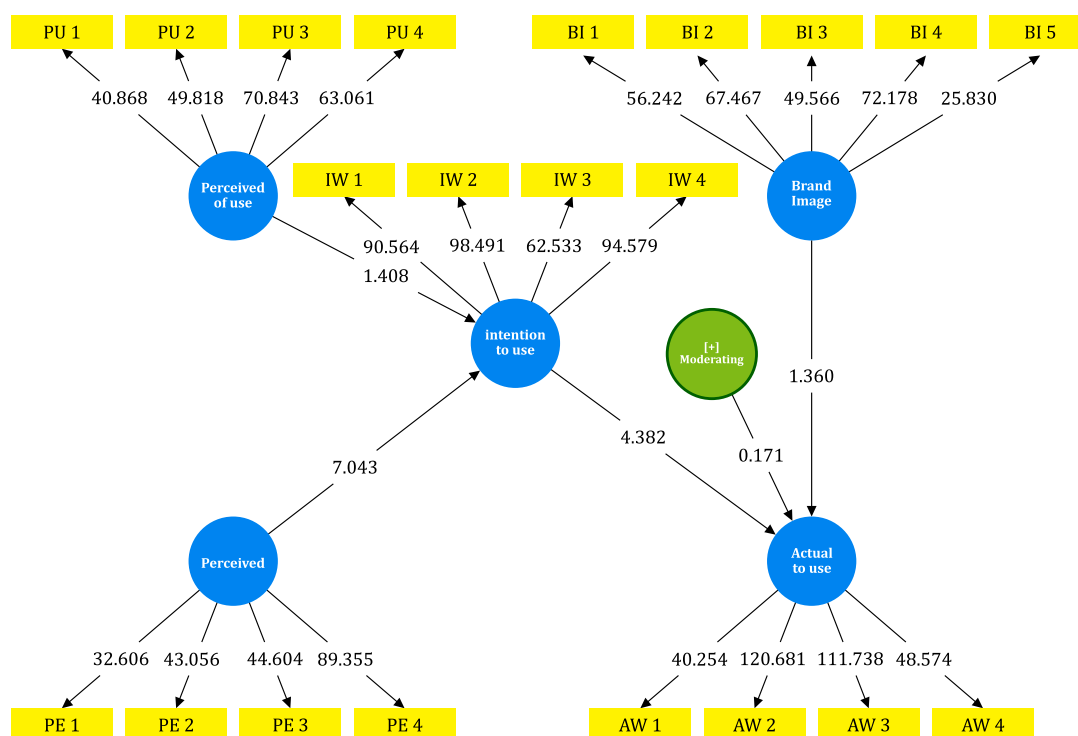


Figure 2. SEM PLS Result

In structural model, All of path coefficient in these study shows relatively weak relationships. All of the relationships (except Moderating Variable) have VIF values higher than 5, indicating there is no collinearity issue.

R<sup>2</sup> values of 0, 804 to Intention to Use e-Wallet (IW) are considered high in disciplines (Hair et al., 2014). R<sup>2</sup> values of 0, 846 to Actual Usage of e-Wallet (AW) are considered high in disciplines. All of the endogenous latent variables to IW and AW have R<sup>2</sup> values higher than 0.20, indicating that the structural model is predictively accurate. The effect size f<sup>2</sup> calculates the change in R<sup>2</sup> to evaluate the endogenous constructs. f<sup>2</sup> values of 0.538, 0,023, 0,499, 0,056, and 0.0046, represent small, medium, and large effects, whereas f<sup>2</sup> values less than 0.02 indicate that there is no effect (Cohen, 1998).

P-Value and T-value are important to measure the significance level of each relationship. The result are only Resonance to Brand Engagement and Resonance to Brand Awareness have a significant effect those meet the minimum criteria.

T-Value represent the level of significance effect of each variable. All of T-Value below 10. The highest T-Values is 7,043 from PU on IW represent the level is quite significant but not strong. The lowest T-Values is Moderating effect on Actual Usage of e-Wallet means that the are no significance effect. Based on survey questionnaire, the respondent didn't find any strong correlations between Brand Images on

Actual Usage of e-Wallet and the brand image could not act as moderating variable . The mean value of PU is smaller than mean value of Brand Image.

According to Internal Data, the path coefficient result is relevant. User of Link Aja e-Wallet thought there are less impact of marketing effort from Link Aja Management to drive the user to use LinkAja and become a loyal customer. Compare to other competitors that offer customers loyalties program include more special promo to retain the users.

One of the example correlations between PU and IW. There are some reasons based on survey questionnaire to explain the T-value and P-value meet the standard criteria. The respondent of survey agreed that LinkAja has providing e-Wallet services as needed, can be used in various cities, can be used in almost all daily transaction, LinkAja e-wallet increase my productivity. It delivers users to have an intention to use e-wallet although the effect is small category.

Refer to Internal data, since it launched early 2019, LinkAja is performing very well in term of brand awareness to make user perceived their apps usefulness. LinkAja able to reach the highest 63% in only 9 months by November 2019. In the year 2020 the awareness performance is showing the same pattern with average score of 74% or +11% compared to November 2019. The same good achievement continues to happen in year 2021, the lowest

Table 2. Findings

| Effects          | Original Sample | Sample Mean | T Stat | P Values |
|------------------|-----------------|-------------|--------|----------|
| BI -> AW         | 0,233           | 0,220       | 1,360  | 0,087*   |
| IW-> AW          | 0,701           | 0,714       | 4,382  | 0,000 ** |
| Moderating -> AW | -0,005          | -0,004      | 0,171  | 0,432    |
| PE -> IW         | 0,156           | 0,163       | 1,408  | 0,080*   |
| PU-> IW          | 0,753           | 0,749       | 7,043  | 0,000**  |

\* Significant level one tailed at P Values 0,1

\*\* Significant level one tailed at P Values 0,05



level is 77% (+3% vs. average 2020) and recently LinkAja is reaching the highest score at 83% in July 2021. Yet LinkAja has the very good of awareness performance make it able to compete with others popular e-wallet brand.

In other cases, BI has no moderating role between IW on AW. There are some reasons. There is no doubt because since Author measure the SEM-PLS model, the value of Moderating always shown below standard of Path Coefficient, R<sup>2</sup>, F<sup>2</sup>, VIF. Respondent of the survey very concerned about Brand Image and the mean value of BI is bigger than AW as the lowest mean value. Respondents tend to answer above 4.0 for the BI question those consist of LinkAja e-Wallet has a competitive advantage among others, satisfy the needs and wants of consumers, recommended by people around me, has uniqueness of brand association, often offers Promo/Cashback. But the problem is when respondent fill the AW section questionnaire.

According to Internal Data, it highlights that LinkAja need to emphasize its unique competitiveness to convince people who thinks using other E-Wallet brand and often promo. On the other hand, in Q3 2021, LinkAja brand equity in Tier 3 is declined compared to Q2 2021 across any SES, young segment and older age.

## **CONCLUSION**

The study found that Perceived Usefulness and Perceived Ease of Use have a significant effect on Intention to Use, and Intention to Use e-Wallet has a significant effect on Actual Usage of e-Wallet.

In the contrast, Brand Image has no moderating effect between Intention to Use e-Wallet on Actual Usage of e-Wallet.

This study could theoretically contribute to empirically measure the effect of Intention to Use e-Wallet on Actual Usage of e-Wallet and test the moderating role of Brand Image between Intention to Use e-Wallet on Actual Usage of e-Wallet.

This study also provides several practical guidelines for Finance Technology and Brand Management in Indonesia and other country. This research discuss the phenomenon of e-Wallet in Indonesia especially LinkAja.

The study found that boosting promotional activity to gain a level of Brand Images will give a strong effect from Intention to Use e-Wallet to Actual Usage of E-Wallet. The more an e-Wallet Company offer a perceived benefit of brand and reduce perceived risk of brand, the more user will have actual using e-Wallet. LinkAja must focus their strength on product services, experience, and expand the partnership with a merchant in Indonesia that affect Customers feels the apps could provide their all activities.

There are limitation of the study, which are cross-sectional time horizon, the sample was limited to 113 respondents, and the result was limited to Jakarta Area only. Authors recommended a future study to continue investigating e-Wallet phenomenon in other area with a broader time.

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