

# The Effect of Perceived Ease of Use and Quality of Information on the Adoption of Instagram-based Android Application

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Abstract: This study aims to analyze the adoption of Instagram Based-Android, which is influenced by the perceived ease of use and quality of information. This research uses a survey based on Instagram, Based-Android users who are staying in Yogyakarta. The sampling technique used is convenience sampling. The number of respondents in this study was 215 people. The data analysis technique used is PLS-SEM. The results of the data analysis show that not all proposed hypotheses are accepted. The effect of PEOU directly or through mediating attitudes can influence innovation adoption. The influence of information quality on adoption mediated by attitude is supported. The direct effect of information quality on adoption is not supported.

## 1 INTRODUCTION

Social media advances are rapidly linking products and services. This social media allows marketers to send special messages to targeted customer segments after filtering them based on the required criteria (Rishi and Sharma, 2017). Social media marketing, according to Yazdanparast et al. (2016), is a process that empowers promotional activities, products, and social services through online channels. This involves marketing related activities such as blogging, sharing photos, and posting online. Also, tools, platforms, and applications allow customers to connect and be able to communicate with others (Pinto & Yagnik, 2017). This study aims to analyze the use of android-based social media on users of tourism content on Instagram. Based on research from we are social (a British social media company), together with Hootsuite, mentioned that out of a total of 268.2 million, 150 million of them are social media users. The results of research Hootsuite published on 31 January 2019 show that in Indonesia, the use of social media has reached a figure of 56%, which has been an increase of 20 million social media users compared to a few years ago. The age of social media users ranges from 18-34 years and spends an average of 3 hours 26 minutes to use social media for various purposes. In this regard, to attract both local and foreign tourists, the role of using social media is very important. In a

matter of minutes or seconds, the location of marketing tourist attractions, we can enjoy its beauty through social media such as Facebook, Twitter, or Instagram. Application Instagram Android-based indeed occupies the first rank social media compared to Facebook, Snapcat, and Tweeter. The initial survey results through 30 respondents who use the Android-based Instagram application, as many as 27 people adopted Instagram, but the phenomenon of the problem that arises is from the information users Instagram use Instagram just to top selfie, watch videos, share other people's posts, follow to artists or shopping online, and do not look for information related to attractions with the adoption of application Instagram this android-based. Adoption, according to Roger (2003) decision to usefully and fully an innovation. The adoption process happens to people individually. The adoption of applications Instagram android-based has an important role that has a function to provide ease or ease of use in use (Lin, 2011).

This research discusses several research gaps, namely the first result of research conducted by that variable X1, Ease of Use, influences Adoption. Research conducted by Davis et al., (1989) research results show that Ease of Use Affects Attitude toward using. The results of research from Bareto., JJ & Martinez., SC (2018) show that the quality of the destination website (ease of use, quality information, interactivity, and web design) has a direct and significant influence on the website's

Attitude Toward adoption. According to Ramadhani (2015), in his research, found that Information Quality influences and significantly affect the Information Adoption Variable.

But the results of research conducted by Prabowo and Arofah stated that there was no significant difference between knowledge before receiving messages about digital TV and after receiving messages via Instagram. In addition, the results of a study conducted by Chong et al. (2012) showed that perceived ease of use had no significant effect on consumers' intention to adopt 3G.

This research seeks to justify the relationship that exists between both variables. Variable perceived ease of use and quality of information as independent variables. In this study, the position of the information quality variable will be observed as an independent variable that influences the adoption of Android-based Instagram applications.

Based on the background of the problem, the formulation of the problem proposed in this study is as follows how the influence of perceived ease of use, quality of information on the adoption of an Android-based Instagram application is mediated by attitudes on Instagram users of Special Region of Yogyakarta.

## 2 LITERATURE REVIEW

### 2.1 Innovation Adoption

The Innovation Adoption decision-making model is developed based on the theory, hierarchy of effect, which is that behavior change generally occurs through a sequential process that starts from the knowledge stage to the formation of behavior. Sirait (2018), the difference between the diffusion process and an adoption process that is the adoption process occurs in individuals in determining decision making, which is a process where it occurs between individuals. In the process of adopting innovation, it cannot directly get a response from the social system, but through several stages, whether an innovation is adopted or not. Innovative individuals will tend to be easier to accept innovation than other individuals (Zhao et al., 2016).

### 2.2 Attitudes on Instagram Users

The attitude, according to Aakers and Myers (1997), is the pros or cons attitude towards the application of a product. Pro or contra attitude toward a product can be applied to predict someone's behavior to use a

product or not to use it. Attitudes towards the application of technology (attitude toward using technology), can also be interpreted as an evaluation of the user about his curiosity in using technology. Attitude is defined as an individual's positive or negative feelings towards the use of individual technology, which shows a positive attitude towards a technology that has a greater tendency to adopt the technology. The definition of attitude, according to Allport in Setiadi (2003: 214) "a mental and nervous connection with readiness to respond, is organized through experience and has a direct or dynamic influence on behavior. According to Egle and Chaiken (1993) in Curran and Meuter (2005), attitude psychological tendencies expressed by evaluating certain entities with several levels that are beneficial or detrimental. Who is the auditor's behavior to use a system in carrying out his work (Kim at all, 2009)? The attitude itself is influenced by perceived usefulness and perceived ease of use (Nasri and Charfeddine, 2012)

### 2.3 Perceived Ease of Use

Perceived ease of use, as described by Davis (1989); Venkatesh & Davis (2000), is the extent to which the use of android is free from effort. This is an individual assessment of the efforts used for using new technology (Davis, 1989). Ease of use is one of the main behavioral beliefs that influence the user's intention to accept technology in both the original and revised TAM models. In the context of an android application, perceived ease of use, as the main determining factor influencing behavioral intentions to use applications on smartphones (Vatanparast, 2010; De Silva et al., 2011). Ease Perception is the extent to which individuals have confidence in the use of technology that will free them from business, that is, if they consider the information media to be used (Jogiyanto, 2008). Perceived ease of use and usefulness affect attitudes towards usability that shape intended to be used (Renny et al., 2013). Attitudes on the use of use in the Technology Acceptance Model are defined by Davis et al., (1989) in Prasada and Ni Putu (2016) as positive or negative feelings of someone performing the specified behavior. The attitude of individuals who support the use of information system technology will automatically encourage the use and use of information system technology. Attitude to users is a factor that has the most significant influence on the adoption of internet banking (Brown et al., 2004). Chau and Lai (2003) show that their perceptions of ease have a positive and

significant effect on the cycle of internet banking use. Perceived Ease has a positive influence on the intention to buy online (Oentario et al., 2017).

H1: Ease of use a positive effect on Adoption of Instagram Based-Android Applications with mediating attitude

H2: Ease of use has a positive effect on Adoption of Instagram Based-Android Applications

## 2.4 Information Quality

Information Quality is defined as a level where information has a characteristic, time, and form that gives value to certain end-users (Brien, 2011). According to Widodo et al. (2016), Information quality is the level at which information has characteristics, contents, the shape, and time that gives it to certain end-users. Information quality has been divided into several questions, namely regarding information that is accurate, reliable, timely, relevance, easy to understand, according to needs and in accordance with formal (Widodo et al., (2016). Information quality is defined as customer perceptions of the quality of information about products or services provided by a website (Park and Kim, 2003, in Loo, 2011). According to Jogiyanto (2007), information quality measures the quality of output of information systems. Ong et al. (2009) argue that information quality is defined as the measurement of the quality of information systems, while Negash et al. (2003) explained the quality of information as one of the functions concerning the value of information output produced by a system. According to Loo., (2011) information quality is the perception of customers of the quality of information about products or services provided by a website Measurement of info quality variables ease of use indicators adopted from Irmadhani., (2012) which include: Up to date information, helping online shoppers make decisions, is consistent, and easy to understand. According to Aji et al. (2014) Attitude is a feeling, thought, or the tendency of someone who is more or less permanent about certain aspects in their environment where the consequences of someone dealing with the object of attitude. The research conducted by Nasri & Charfeddine (2012) knows the factors that influence Tunisian students from adopting Facebook.com. The research model is based on TAM and TRA (Theory of Reason Action). The results of the empirical study show that Tunisian students' interest in using Facebook.com is influenced or determined by attitudes, uses, and social norms.

H3: Information Quality affects the Adoption of an Instagram Based-Android Application mediated by Attitude.

H4: Information Quality influences the Adoption of an Instagram Based-Android Applications

## 2.5 Research Method

Research is conducted in the form of a survey. Convenience sampling is used as a sampling technique because there are no specific restrictions on the sample taken. The sample range in this study includes all android-based Instagram users who are looking for information about travel in Yogyakarta. Five constructs were measured using a 5-point Likert scale. Data analysis techniques using PLS-SEM. The number of samples in this study was 215 people.

## 3 RESULTS

### 3.1 Characteristics of Respondents

The characteristics of respondents can be seen in table 1.

Table 1. Characteristics of respondents

Characteristics	Category	Total
Gender	L	144
	P	82
Duration of make IG	3 - 6 months	10
	7 - 12 months	60
Ages	13- 16 months	103
	> 16 months	50
	18 -22 years	103
Income level (IDR).	23 -27 years	83
	< 1.500.000	104
	28 -32 years	22
	1.600.000 – 2.000.000	37
	> 32 years	15
	2.100.000 - 2.500.000	39
	> 2.500.000	43

### 3.2 Results of Quantitative Analysis

Data processing techniques using SEM methods based on Partial Least Square (PLS) require 2 stages (1) Outer model and (2) Inner Model.

#### 3.2.1 Outer Model for Instrument Testing

Based on results test Outer Loading seen from convergent validity and discriminant validity, it can

be concluded that most of the instruments that make up each variable latent are valid. This is indicated by a value factor loading greater than 0.7. To show convergent validity can be demonstrated through unidimensionality, which can be expressed using the average value of the extracted variant (Average Variance Extracted / AVE). Expected AVE value > 0.5. Other reliability measurements in this study were conducted by conducting a test composite reliability. Based on the results of data analysis shows that the value composite reliability  $\geq 0.7$ . So that all the instruments used in this study are reliable

### 3.2.2 Inner Model Path Analysis

Results of calculation of  $Q^2$  predictive relevance amounted to 0.985 From testing  $R^2$  and  $Q^2$  is seen that the model established is robust. So that hypothesis testing can be done. The test results showed that the path coefficient shows that all paths are significantly positive. Here is a picture of PLS-SEM results Bootstrapping. Test results indicated the path coefficient shows that not all significant pathways. It can be seen from the value of greater than t-table. Not all of the value is greater than t-table at a significance level of 5%, i.e. (1.96). In addition, when viewed from p-values  $\geq 0.05$ , not all paths are significant. Here is a picture of PLS-SEM results Bootstrapping.

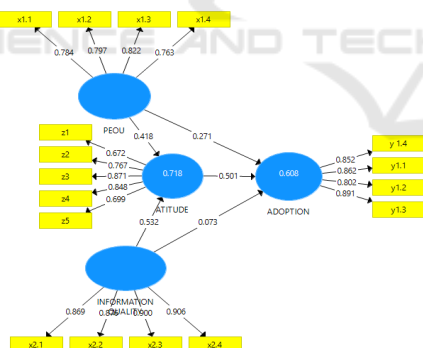


Figure 1: Model PLS-SEM Algorithm for Adoption of Instagram

Test results indirect effects / mediating effect each variable still can be seen in Table 2.

Table 2. Coefficient indirect influence / mediation

	<i>Specific Indirect Effects</i>
PEOU → Attitude → Adoption	0209
Information Quality → Attitude → Adoption	0267

## 4 DISCUSSION

### 4.1 Results of Testing Hypothesis

The first hypothesis states that PEOU effect on attitude-mediated adoption. The results showed that the effect of PEOU towards the attitude of 0.418. The effect of attitude on adoption is 0.271. The effect of PEOU on adoption with mediated attitude is 0.209. Thus the first hypothesis is accepted.

The third hypothesis states that PEOU influences adoption. The effect of PEOU on adoption was 0.271, p-value 0.0001; thus, the second hypothesis was accepted. The third hypothesis states that information quality influences adoption by mediated attitude. The influence of information quality on attitude is 0.532. The effect of information quality on adoption mediated by attitude was 0.209; thus, the second hypothesis was accepted.

The fourth hypothesis states that information quality influences adoption. The influence of information quality on adoption is 0.073, and the p-value is 0.357. Thus the fourth hypothesis cannot be accepted.

## 5 LIMITATIONS

The study analyzed the adoption of Android-based Instagram. The results showed that not all proposed hypotheses were accepted. The quality of the information in this study did not directly influence the adoption of Android-based technology. This is because consumers must be comfortable using this technology (Instagram) before adopting it. Good quality information cannot directly influence adoption because it turns out consumers must feel the comfort and benefits of using Android-based Instagram first before deciding on adoption.

## 6 SUGGESTIONS

The results of this study cannot yet justify the direct influence of information quality on technology adoption. In future research, it is best to reexamine the role of information quality in influencing adoption, so that it is possible to corroborate the results of this study.



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