

Determinant Use of Behavior Online Shopping Information System

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ABSTRACT

The purpose of this study was to predict and explain construct Behavioral intentions and use of Behavior of Undiksha academic society in using the online shopping information system. Pilot observations were conducted to determine the constructs. Pickup surveys and google forms were used to collect data. 96 respondents were selected through a purposive sampling method. The results showed that the construct of Behavioral Intention is influenced by the construct of perceived usefulness, trust and subjective norms, where trust is the main determinant. Then the Use of Behavior construct is influenced by the construct of perceived ease of use, subjective norms and construct Behavioral intention where subjective norms are the main determinants. TAM constructs can predict the desires and actual usage of the Undiksha academic society in using this online shopping information system.

Keywords: *Online shopping, TAM, Undiksha academic society*

1. INTRODUCTION

In era industrial revolution 4.0, almost all productive and consumptive activities require information that are fast, abundant, effective, efficient and flexible with high mobility. They become major requirements. Fast means user obtained information in a short time even though it continues to develop. Abundant means users get many information they needed beyond their expectations and can compare it with other information. Effective means users get information in accordance with the purpose of seeking information. Efficient means users get information that matches or exceeds their expectations but with minimal cost or effort. Due to the characteristics of that users, technology, media and information systems need internet support.

Many telecommunication companies are competing to provide interne networks which large, wide and fast so that they can fulfil customers needed. The results from survey of Asosiasi Pengguna Jasa Internet Indonesia (APJII) 2018 from total population of Indonesia, around 64.8 percent, are internet users. Because of large users, the application designers for both consumptive and productive designed based on mobile-based.

One of mobile application is an online shopping application contain with an online shopping information

system. Because it involves several parties, such sales service providers, buyers, sellers, banking, and shipping companies, which is each has different procedures, but all related activities must be reported in a system so that users can make decisions on their activities.

Many applications of online shopping have developed. This can be seen from a survey conducted by AJPII in 2018 that almost 50 percent of Indonesians of all ages have purchased online. One of the users of online shopping applications is the Undiksha academic society. They consist of elements from students, lecturers, staff, and managers. We had did early observations to determine factors in using of information systems or applications. The result are its used to see new models of goods for consumption, sale or reference for an activity. The function of information system in application, if the Undiksha academic society able to take advantage of discounted prices, promotional packages and bonus packages provided by application service providers. Now, physical trading has reduced by sellers and producers, as a result is happened very tight competition between online shopping and mass shopping.

Undiksha academic society use online shopping information system because it has the intention to use it [1]. Based on the results of interview, it was found that the intention of the Undiksha Academic Society appears

actions to use an online shopping information system came from its usefulness, ease of use, trust and other parties that influenced users to use the system. This is in line with the research of [2] and [3]. Therefore, the focus of this research is the determine of actual usage by the Undiksha academic society using online shopping. Reference [4] stated that using of information systems based on technology are determined by Behavioral intention and use of Behavior.

Usefulness means that the Undiksha academic society feels confident using the online shopping information system and it can provide benefits both productive and consumptive [1] and [5]. Undiksha academic society desire and acts to use the online shopping information system because it can be run easily and they can easy to understands the contents of the system [1] and [6]. Trust in the information system is also one of the factors that the Undiksha academic society considers willing and using the online shopping information system, because system is secure and the information that available is always up to date [7] and [8]. Other party can influenced Undiksha academic society in using online shopping information systems because they provide information and suggest confidence to them to use it [9] and [10]. It is also necessary to note that users who use this information system often hear and get recommendations from other users or the media so that users make the decision to shop for a product in the information system [10].

We assumed that the Undiksha academic society desired and using the information system because they accepted it. Based on this assumption, the researcher uses the Technology Acceptance Model (TAM). Because, first, TAM is a theory of acceptance of information technology that considers psychological factors. Second, TAM is a simple but valid model. Third, TAM is an acceptance model for information technology systems that will be used by technology users [11]. Reference [12] previous researchers have used this model in technology acceptance research for the Undiksha academic society so that it can be used as a theoretical basis for subsequent research.

This study replicated research conducted by [10]. The equation of this research is first, this study also uses the construct perceived usefulness and the subjective norm construct. Second, it has the same assumption that action begins with an intention so this study also uses the construct Behavioral intention. Third, this study also examines consumer Behavior in using a shopping information system, namely online shopping information system. However, this study also has differences with the study such as first, the researcher needs to add construct perceived ease of use and trust [10]. Because in using an information system user want and use it because users easy to use and feel safe for use

it, beside useful and influence from other parties to use an information system.

Second, differences in the object of research where the object of this study has similarities with the research of [13]. Third, We aims to predict and explain the determinants of the Behavior of the Undiksha academic society, so that we uses the Partial Lease Square (PLS) be an analysis tool. Because according to the research design, this statistical tool is very good for predicting and explaining and it result information that efficient and easy to interpreted by the model [14].

2. LITERATURE REVIEW

We conducted a theoretical study with a literature survey to adjust the technology acceptance theory and using a technology by Undiksha academic society in using the online shopping information system. We believes that using online shopping information systems is not mandatory Behavior but voluntary Behavior, but the constructs in the Technology Acceptance Model (TAM) are representative in this study, we uses TAM by adding a construct of trust and a subjective norms.

The perceived usefulness is the level of confidence of Undiksha academic community, to increase their activities in using an online shopping information system [1]. This construct is directly related to the construct of Behavioral intention and the construct of use of Behavior with indicators from research Bonn are (1) Faster administration, (2) Economic benefits; (3) Increase productivity, (4) Increase effectiveness, (5) Make work easier [15].

H1: Construct Perceived Usefulness has positive effect on construct Behavioral Intention of using Online Shopping Information System by Undiksha Academic Society

H2: Construct Perceived Usefulness has positive effect on construct Use of Behavior of using Online Shopping Information System by Undiksha Academic Society

Perceived ease of use is the level of Undiksha academic community in using a certain system such as an online shopping information system so that it will facilitate their work [1]. The ease of using online shopping system will increase user confidence in using this system. Construct perceived ease of use is explained through the TAM model and combine with other TAM models is directly linked to the construct of behavioral intention and the construct use of Behavior where the indicators (1) No difficulty, (2) Easy, (3) Easy to understand interactions [6].

H3: Construct Ease of Use has positive effect on construct Behavioral Intention of using Online Shopping Information System by Undiksha Academic Society

H4: Construct Ease of Use has positive effect on construct Use of Behavior of using Online Shopping Information System by Undiksha Academic Society

Trust is a subjective belief from consumers towards online shopping service providers that will give consumers expectations for they online transactions for both potential consumers and repeat purchaser [16] and [17]. Trust is level of consumer confidence in an online shopping site and level the consumer's interest in shopping through the site [18]. Trust is a strong factor that positively affects online shopping interest. Consumers may transact online with low levels of trust and lack of trust has a negative effect on consumer interest in online activities [19] and [20]. Indicators for the trust construct used are (1) trustworthy, (2) consumer trust, (3) consumer confidence, (4) commitment, (5) attractive [21].

H5: Construct Trust has positive effect on construct Behavioral Intention of using Online Shopping Information System by Undiksha Academic Society

H6: Construct Trust has positive effect on construct Use of Behavior of using Online Shopping Information System by Undiksha Academic Society

Subjective norms are a person's expectations from specific references to individuals or groups and their motivation to fulfil those expectations [22]. The subjective norm in this study is the expectation of trust and motivation given by others to the Undiksha academic society, which can influence it to carry out purchases in the online shopping information system. This construct is directly related to the construct of Behavioral intention and the construct use of Behavior. This study uses indicators (1) advice from friends; (2) Recommendations from the rating provider; (3) Recommendations from other buyers; (4) Suggestions from social media [23].

H7: Construct Subjective Norms has positive effect on construct Behavioral Intention of using Online Shopping Information System by Undiksha Academic Society

H8: Construct Subjective Norms has positive effect on construct Use of Behavior of using Online Shopping Information System by Undiksha Academic Society

Behavioral intention is a person's desire to do or use something in this case the desire of the Undiksha academic society to want and use an online shopping information system [1]. Behavioral intention has a positive effect on the constructs use of Behavior [4]. Behavioral intention indicators (1) Continuing to Use the System; (2) Expectations in Using the System; (3) Recommending System used are from the research of [13] and [12].

Behavior is a real action or activity that is carried out in this case using of an online shopping information system by Undiksha academic community [11]. Behavioral intention has a strong correlation with usage Behavior and is a prominent predictor of the use of online shopping information systems [10]. Indicators and question items construct usage Behavior no (1) Frequency of use; (2) Time, using from reference [13] and [12].

H9 : Construct Behavioral Intention has positive effect on construct Use of Behavior of using Online Shopping Information System by Undiksha Academic Society

3. METHOD

First, we did preliminary observations through interviews with several Undiksha society. The goal is we had gotten an overview the factors that influence desires and actual usage them in using this system. The results of the interview are determine constructs that measure its. Second, we collected research data using a survey method by google form and a picked-up survey which was sent to the Undiksha academic society. This is to see respondents' perceptions based on the constructs to measure desire and actual usage from Undiksha academic society. We use google form because of pandemic period and many respondents do online shopping activities. We asked the respondents to also fill in directly when we met the respondents according to the criteria.

Third, the we used purposive sampling technique, are (1) respondents had used, searched information in online shopping information systems either by application or on the web; (2) the respondent has registered an account, purchased, paid, traced the shipment of goods, confirmed the evaluation of services in the online shopping information system (online shopping) either by application or on the web; (3) respondents conduct online shopping activities at least twice in an online shopping information system either by application or on the web; (4) the respondent has made a review or rating on information, services, and goods has sent from the online shopping information system either by application or on the web; (5) Respondents directly or indirectly have conveyed or invited others to try or use at least one online shopping information system either by application or on the web. Based on the research criteria, there were 96 respondents who were suitable as the research sample.

Fourth, the results of the questionnaire were processed using Partial Least Square (PLS), because it is in accordance with this study to predict and explain [14] the desires and actions of the Undiksha academic society using this system. The results of PLS are also to determine the validity of constructs in TAM [14].

Table 1. Result Output Quality Criteria Overview Algorithm

	AVE	Com mu- nality	Crobo ach Alpha	Composite Reliability	R Square
PU	0,532	0,790	0,782	0,850	
PE	0,753	0,843	0,834	0,901	
TR	0,691	0,898	0,887	0,917	
SN	0,648	0,834	0,820	0,880	
BI	0,629	0,706	0,695	0,834	0,639
U B	0,553	0,631	0,607	0,787	0,684

4. RESULT AND DISCUSSION

4.1. Model Testing

Before testing the hypothesis, we tested model. The evaluation of the model in this study was carried out through the outer model and inner model. Outer model is evaluated using the parameters Average Variance Extracted (AVE), Communnality, Cronbach Alpha and Composite Reliability. In the table 1 we can be seen that the results of AVE and Communnality for each construct are greater than 0.5 and the Cronbach Alpha and Composite Reliability values are above 0.6. Its meant that the measuring model in this study is in accordance with the parameters. The inner model in this study by looking at the value of R2 where the table 1 shows that the value is fit or the relationship between constructs in the model is able to predict Behavioral intentions and use of Behavior. Then the researchers tested the hypothesis (H) 1, 2, 3, 4, 5, 6, 7, 8 and 9 where based on the bootstrapping process the t-statistic value was above 1,645 with a significance level of five percent (5%) and all coefficient values were positive then all hypotheses are accepted.

4.2. Discussion

4.2.1. Perceived Usefulness, Behavioral Intention and Use of Behavior

Based on the results of testing the construct Perceived Usefulness has a positive effect on the construct Behavioral Intention and the construct Use of Behavior. However, this construct more affects the Behavioral Intention construct. This shows that the Undiksha academic society, although in their daily activities are more in academic activities, there is always a desire to use an online shopping information system that has been downloaded and has been installed in their electronic device. For example, only by looking at the presence of new products in the display or promotion in the application, comparing the price of a product if they want to buy a product and try a shopping simulation but haven't shopped, if there is a product to

be purchased or there is a desire to buy. Using whole of the information system as a when there are already products purchased and paid for by them.

The results also show that the Undikhsa academic society has the confidence to use an online shopping information system if the system is useful or provides benefits. It is useful to start with fast administration of the system, for example, where they do not need to access a lot of personal data but the system can already register them. It is also useful because the system also often provides economic benefits and increases the productivity that will be obtained by them, for example with promo, free shipping and returns that can be used to shop elsewhere from the results of spending in the system. Of course, these things will increase the effectiveness and efficiency or confident in using this system. This is what raises their desire and real action in using this information system.

The results of this study are consistent with the research of ref [24],[25],[26], and [27]that the construct of perceived usefulness has a significant positive effect on the construct of Behavioral intention. However, the results of this study do not support the research results of [28]. In this study the Perceived Usefulness construct had significant effect on the Use of Behavior construct but its influence lower than correlation construct perceived usefulness and construct Behavioral intention. This is because the Undiksha academic community believes that there are benefits obtained from using the information system, giving rise to a desire first, for example still searching or consideration before deciding to follow the process in the system.

4.2.2. Perceived Ease of Use, Behavioral Intention and Use of Behavior

The test results show that the construct Perceived Ease of Use has a positive effect on the Behavior Intention and Use of Behavior construct. This is because the Undiksha academic society believes that they use the information system if the operation in the system is easy to apply, does not make it difficult to find information and it is easy to understand every menu in the system. It affects their desire and actions in using this system.

Ease of process because they used the system, for example the ease and not difficult of following the process both when searching for products, purchasing products, payment, sending goods and submitting processes for returning or cancelling purchases are things that they consider using the system. The menu of each online shopping information system is different, but the ease of understanding the menus and processes of each system is also something that affects their desire and actions in using the system.

The results of this study are consistent with the research results from [29] and [12] that the convenience user used system causes them to apply it. However, the results of this study do not support study from [30] and [31], because when they directly tried the system and got immediate results on how easy the process was to increase their confidence using the system

4.2.3. Trust, Behavioral Intention and Use of Behavior

Construct Trust is the belief of the Undiksha academic society in using this system, where this construct affects the construct Behavioral Intention construct and Use of Behavior. Where this construct has more influence on their desire to use the system. The results of this test are in accordance with the research results of [18] that increasing the level of consumer confidence in an online shopping site, can increase the higher the consumer's interest in shopping through that site.

Undiksha academic society want to use the system because the system is trusted and trusted by them. This can be seen from the frequency other users use the system by providing an assessment of the system services. This is increasing the confidence of the Undiksha academic society to use the online system in the learning process. Commitment and attractive appearance is also an indication that they are willing to use the system.

The results are consistent with the research of [19] and [32] explained the belief of the Undiksha academic society in using its can increases their desire to use the system. However, the results of this study are inconsistent with the results from [21] because using of this system by the Undiksha academic society, both, beliefs and review from other consumers as well as display and commitment of the system providers, it further raises their desire to use this system.

4.2.4. Subjective Norms, Behavioral Intention and Use of Behavior

The test results show that construct subjective norms have a positive effect on construct Behavioral intention and Use of Behavior. This means that the desire and actual use by the Undiksha academic society influenced by recommendations or suggestions from other parties. Of course, these other parties have already used and based on their suggestions influenced desire and actual usage to use the system for Undiksha academic society.

Close friends often provide recommendations directly or indirectly to the Undiksha academic society when they looking for product references or looking for price references, they can search for online shopping information systems. Close friends suggest that rating

givers and other buyers are a reference that the store is trusted. Social media is also a reference suggestion for Undiksha academic society to carry out purchases. The results of this study are consistent with the research of [23], [33], [34] and [35].

4.2.5. Behavioral Intention and Use of Behavior

The results showed that the construct Behavioral Intention had a significant positive effect on the Use of Behavior construct. This means that the actual usage by the Undiksha academic society using the online shopping information system are based on their desire. Therefore, the Undiksha academic society in certain buying will continue to use this system, in which there is an expectation of benefits, useful and ease of use of this system. Likewise, they will recommend this system to other parties directly or indirectly because the Undiksha academic society has already obtained the benefits, ease of use and useful of this system. The results of this study are consistent with the results of research by [4], [26],[12] and [13].

5. CONCLUSION

5.1. Conclusion

First, construct Behavioral Intention is influenced by the construct of perceived usefulness, trust and subjective norms, where trust becomes the main determinant. Second, construct Use of Behavior is influenced by the construct of perceived ease of use, subjective norms and construct Behavioral intention where construct subjective norms are the main determinant. Third, construct subjective norms is the main determinant of this research. This means that desire of the Undiksha academic society and actual usage using online shopping information system, the role of other parties becomes the main influence and other party becomes the main determinant. Fourth, the TAM constructs can predict the Behavioral intention and actual usage of the Undiksha academic community in using online shopping information system.

5.2. Implication

First, for the Undiksha academic society, role of other parties needs to be considered in their desires and actual usage using online shopping information system. Therefore, before in using it, it is necessary to get attention and suggestions or assessments from the system or other parties. Second, the online shopping information system provider company should give attention to suggestions, assessments and comments on each product offered and if necessary, there will be faster direct communication with users, including the Undiksha academic society. Because if there is an inaccuracy in providing suggestions, assessment of

comments, it will affect users in using the online shopping information system.

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