Analysis of Technology Acceptance Model (TAM) to Use E-Money in Bali Province

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ABSTRACT

Objectives - The rapid development of technology has penetrated many sectors of life in society, one of which is in Bank Sector. E-Money is another item in the realm of money related exchanges and dependent on the utilization of high innovation, the Technology Acceptance Model (TAM) hypotheses is extremely suitable to clarify how purchasers enthusiasm on it. This examination utilizes 100 online buyer respondents as examples, from the sum that can't be distinguished. Information accumulation by online polls. This exploration tried by quantitative strategies with SEM-PLS investigation. The consequences of speculation testing demonstrate that all the hypotheses were accepted. Perceived easy to use and perceived usefulness are positive and significant effect to attitude, and also attitude has a positive and significant effect to intention to use. Further research also needs to consider other variables that can influence intention to use new product with based on technology system. The aftereffects of this examination additionally empower the organization that issued e-money to be progressively mindful of angles that can improve the marketing technique. This paper contributes researchers by inspecting model of TAM and how it identifies with customer conduct to utilize electronic cash in Bali.

Key Words: TAM, Intention, E-money, Acceptance Technology.

1. INTRODUCTION

The quick improvement of innovation has entered numerous divisions of life in the public area, one of which is in the financial area. Advances in innovation in the sector has been exceptionally fast financial case, from the approach of computerized teller machines (ATMs), mobile banking, to web banking. The mechanical advancement did not stop there, in 2009 the Indonesian government together with Indonesian Central Bank issued another financial item dependent on innovation to be specific electronic cash. Innovative progressions affect all enterprises, including the financial

business which at present can encourage client banking exercises to be increasingly proficient and furthermore agreeable to its clients [1]. As a rule, innovative advancements in the field of money related exchanges shape purchaser conduct to will in general utilize progressively successful and effective exchange apparatuses, one of which is to utilize cashless transaction. Cashless transaction that are right now creating are utilizing E-money.

Table 1: Attributes of Cleveland dataset

Cash and E-Money Transaction Value					
No	**Year**	**Cash** **(Billions of Rp.)**	**Cash Growth (%)**	**E-money (Billions of Rp.)**	**E-Money Growth (%)**
1	2014	111,795,756		3,319	
2	2015	112,845,451	0.94%	5,283	59.17%
3	2016	111,827,354	-0.90%	7,063	33.69%
4	2017	118,620,366	6.07%	12,375	75.21%
5	2018	121,641,851	2.55%	47,198	281.40%
6	Jun-19	5,414,956	-95.55%	162,755	244.83%

The advancement of electronic cash in Indonesia is exceptionally fast since it was issued in 2009 prior. As indicated by information from Bank Central of Indonesia (2019), the estimation of electronic cash exchange in the network came to until in the first semester of 2019 which sum is 162.755 Billion Rupiah, an extremely noteworthy increment from the 2017 information which just added up to 47.192 billions rupiah. In total, electronic cash has in fact expanded, since 2014 until 2018 the use of e-money is up 'til now named low since it is still underneath 1 percent which is as yet far from the wants for Indonesian Bank Central which spotlights on the usage of equipment can accomplish 1 percent of complete trades.

E-money is the latest instrument in a portion structure, E-money as a strategies for portion has the going with parts; issued dependent on the estimation of money spared early, the estimation of money set away electronically in a medium, for instance, a server or chip, used as a techniques for portion to sellers who are not sponsor of e-money, similarly as the estimation of electronic money kept by the holder and

managed by the underwriter rather than is a store as insinuated in the law overseeing banking [2]. The undeniably across the board issuance of electronic cash issued by banking and non-banking organizations, for example, T-Cash, Flazz Card, FlexiCash, and e-toll items which raises rivalry so firmly in the electronic cash business.

E-money has points of interest and weaknesses that can influence the conduct of shoppers to utilize it. Shopper conduct is the conduct appeared by customers in discovering, purchasing, utilizing, assessing and discarding items and administrations that are relied upon to address different issues [3] For this situation, people who are buyers reserve the privilege to acknowledge or dismiss an item, is one type of shopper conduct [4] clarifies that the hypothesis of consumer behavior can be seen from the process of the decision making, in particular the contribution to the type of showcasing boosts and the condition that will deliver yield as attitude, intention, and purchase behavior. This premise is utilized [5] in building up an innovation reception aim model, to be specific Technology Acceptance Model (TAM) is impacted by two pointers, in particular saw convenience and saw usability that can influence the utilization of conduct. data Technology. This demeanor will influence the aim, and after that the goal will impact the utilization of data innovation. Considering e-money is another thing in the domain of fiscal trades and subject to the use of high innovation development, the Technology Acceptance Model (TAM) theory is amazingly appropriate to explain how the aim to utilize e-money are seen from their disposition and saw value and saw usability of the item.

In the improvement of research finished reliant on TAM, there are raunchy results between one examination and another. In an examination found that apparent convenience did not have a positive and noteworthy effect on customer frames of mind in the utilization of web banking, this shows clients feel that it is hard to use web banking and this result is contrary to the possibility of the TAM itself which communicates that apparent usability impact inspirational demeanor [6]. A couple of various assessments have found that apparent value have a huge and noteworthy impact on the aim to utilize [7] [8] yet a couple of various assessments get different results, where in an examination found the converse, to be explicit the apparent handiness did not have a huge impact to goal to utilize [6] [9]. States that all variables in TAM, both saw helpfulness, saw convenience and frame of mind have no noteworthy impact on goal. This is what urges researchers to lead investigate with the investigation subject is TAM with e-money as the object of research [9].

2. LITERATURE REVIEW
2.1 Consumer Perception
Purchaser recognition is an inclination or impression held by shoppers of an item. Recognition can be molded both from the experience of shoppers, just as from the impressions ingrained by makers, among others, through promoting correspondence that is connected. Purchaser discernments can impact the whole basic leadership process in deciding the buy or utilization of an item. Observation can be deciphered as a procedure when people select, sort out, and interpret stimulti [10]. Simulti are any boosts or sources of info that can be caught by the human faculties, for example, items, bundling, brands, commercials, costs, etc [3].

The stimulus is received by the five senses and then processed so that the perception is created. Perception has an important role in consumer involvement. This is because basically humans store information in an associative form and that relationship helps humans interpret the surrounding environment, including interpreting a product or brand. The perception desired by the company can be very different from the perception of the market or the consumer. There are several things that cause different perceptions of the same object because it is influenced by the formation of perceptions are exposure, attention and comprehension [11].

2.2 Technology Acceptance Model (TAM)
The Technology Acceptance Model (TAM) depicts the acknowledgment of innovation that will be utilized by innovation clients [5]. This hypothesis was received from a few models that were worked to investigate and comprehend the elements that impact the acknowledgment of the utilization of new advancements, incorporating those recorded in different writing and references to research brings about the field of data innovation are Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB).

Developed based on two theories of TRA and TPB, TAM has an established reputation and has been widely adopted to explain the adoption of innovative technologies by individual consumers [12]. Since being introduced by [5] TAM has been widely used by researchers to explain the acceptance of technology use. Although TAM is designed to predict the adoption of information technology application users in workplace organizations, many researchers have modified the original model to explain many needs such as the integration of TAM, TPB and TOE in e-Commerce [13] consumer acceptance of herbal medicines in Iran [14], implementation of e-government [15] [9] and the effect of green value on loyalty to the mass bicycle system [16].

3. RESEARCH FRAMEWORK
The scientist does not correspond the impact between apparent convenience and aim of utilization in light of the fact that dependent on the current hypothesis, it is less fortifying the connection between these factors. In view of the hypothesis, the utilization aim is affected by the apparent helpfulness and frames of mind of the shoppers, while the apparent straightforwardness has an association with seen value and disposition, supposing that someone feels ease in using e-money, it's mean e-money has points of interest and purchasers will choose their manner against the nearness of e-money. The simplicity of utilizing e-money won't really pull in somebody's enthusiasm for utilizing e-money supposing that changing to another installment strategy one needs more

things that can energize his enthusiasm for utilizing e-money, for example, saw convenience and frame of mind.

The relationship between all variables to be measured in measuring the intention to use electronic money in the Province of Bali, both in terms of usefulness and ease of use towards the attitude of prospective consumers in using electronic money, which then affects the intention of prospective consumer consumers to use electronic money products, poured in the form of a frame of mind.

By considering every one of the clarifications for the speculations examined above, talking about the positive and negative angles that exist in these hypotheses, an exploration model is built up that can portray the states of innovation acknowledgment in e-money, so then this research can be contained in a complete picture, so that it is easy to understand and see the mindset of this research. The thinking framework of this study is as follows:
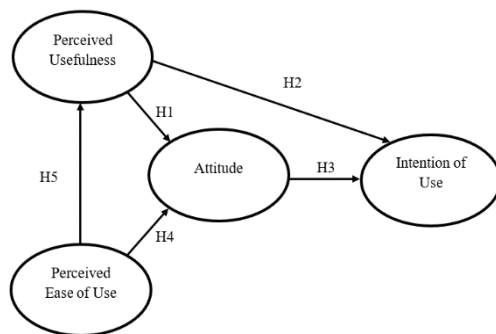

Figure 1: Research Framework

Based on the framework above, Hypotheses can be formulated in this study, among others:
H1: Perceived usefulness has a positive and significant influence on attitude.
H2: Perceived usefulness has a positive and significant influence on intention.
H3: Attitude has a positive and significant influence on intention.
H4: Perceived ease of use has a positive and significant influence on attitudes.
H5: Perceived ease of use has a positive and significant influence on perceived usefulness.

4. RESEARCH METHODOLOGY

The populace utilized in this investigation is forthcoming e-money clients in Bali whose numbers can't be distinguished. The inspecting method in this investigation was purposive examining with a complete example of 100 respondents. This purposive inspecting method is a system that decides the example dependent on specific criteria and decided purposefully by the analyst [19]. Criteria for deciding the example in this examination incorporate; at least senior high school, domiciled in Bali, Prospective purchasers who don't have e-money and Prospective customers who are not dynamic toll street clients. The review was directed in July 2019.

Partial least squares (PLS) was used in this study. PLS is a condition model for Structural Equation Modeling (SEM) in light of segments or variations. To adulate the speculation and produce a practical model, this investigation utilizes Structural Equation Modeling (SEM) with a change based or segment based methodology with Partial Least Square (PLS). In the event that the auxiliary model to be broke down meets the recursive model and the dormant variable has standardizing markers. Intelligent or blended, the most fitting way to deal with Before directing a test with the SEM-PLS strategy, this model is first tried by legitimacy and unwavering quality. The legitimacy test is utilized to quantify the legitimacy or legitimacy of a survey [19]. A poll is said to be legitimate if the inquiry in the survey can express something that will be estimated by the survey. A test can be said to have high legitimacy if the test does its estimating capacity, or gives exact and precise estimation brings about agreement with the end goal of the test. A test produces information that isn't applicable to the reason for holding an estimation said to be a test that has low legitimacy. Test the legitimacy of the instrument in this investigation utilizing item minute connection with a cut-off $\geq$ 0.30 [19]. An instrument is said to be substantial in the event that it has a connection coefficient between the grain scale and the all-out score in the instrument is more than 0.30 (r $\geq$ 0.30).

Reliability test expects to discover to what degree the consistency of the estimating instrument utilized, so when the estimating instrument is utilized again to analyze a similar item with a similar procedure despite the fact that the time is not quite the same as the outcomes to be gotten are the equivalent. To test the reliability level utilizing Croanbach's coefficient productive alpha demonstrates how far the things in the examination are emphatically related with one another. Reliability alludes to the estimation of croanbach's alpha with a cut off $\geq$ 0.60. [19].

5. RESULT

5.1 Instrument Reliability and Good of Fit Test
Reliability test expects to discover to what degree the consistency of the estimating instrument utilized, so when the estimating instrument is utilized again to look at a similar article with a similar strategy despite the fact that the time is not the same as the outcomes to be acquired are the equivalent. To test the reliability level utilizing Croanbach's coefficient productive alpha shows how far the things in the investigation are decidedly associated with one another. Unwavering quality alludes to the estimation of croanbach's alpha with a cut off $\geq$ 0.60 [19] as per showing on the Table 2 below:

Table 2: Reliability Test

No	Variabel	*Cronbach Alpha*	Remark
1	Perceived Usefulness	0.845	Reliabel.
2	Perceived Ease of Use	0.676	Reliabel.
3	Attitude	0.941	Reliabel.
4	Intention	0.916	Reliabel.

In light of the consequences of the apc and ars esteems below, it very well may be said that the aftereffects of this investigation can be acknowledged on the grounds that they meet the criteria of integrity of fit where the APC and ARS esteems must be littler than 0.05 [19] as per showing on the Table 3 below:

Table 3: Goodness of Fit

Fit model	Index	*p-value*	Criteria	Remark
Average path coefficient (APC)	0.487	P<0.001	P <0.050	accepted
Average R-Squared (ARS)	0,594	P<0.001	P <0.050	accepted
Average Block Variance Inflation Factor(AVIF)	1,990		<5	accepted

5.2 Evaluation of the Measurement Model or Outer Model

The consequences of the assessment of joined loadings and cross loadings to test the focalized legitimacy of estimation instruments (surveys) are displayed in Table 4 underneath. To survey whether the external model meets the states of concurrent legitimacy for intelligent builds, it tends to be seen by taking a gander at the p estimation of essentialness which must be <0.05 [19]. In view of these criteria, the general estimation of cross stacking on apparent convenience factors, saw usability, disposition and goal to utilize is legitimate with the p estimation of every marker < 0,05 as per showed on the Table 4 below:

Tabel 4: Output Combined Loading and Cross-Loading Results

Variabel	Indicators	*Cross Loading*	SE	*P value*
Perceived Usefullness	X1.1	0.662	0.156	0.000
	X1.2	0.826	0.105	0.000
	X1.3	0.794	0.094	0.000
	X1.4	0.660	0.134	0.000
	X1.5	0.735	0.158	0.000
Perceived Ease of Use	X2.1	0.804	0.146	0.000
	X2.2	0.866	0.068	0.000
	X2.3	0.781	0.089	0.000
	X2.4	0.436	0.169	0.006
Attitude	Y1.1	0.860	0.101	0.000
	Y1.2	0.907	0.076	0.000
	Y1.3	0.892	0.064	0.000
	Y1.4	0.886	0.071	0.000
Intention	Y2.1	0.819	0.091	0.000
	Y2.2	0.849	0.091	0.000
	Y2.3	0.921	0.083	0.000
	Y2.4	0.875	0.096	0.000
	Y2.5	0.811	0.107	0.000

5.3 Hypothesis Testing

Variable relationship test insights can be seen at the impact size worth which is determined as the outright estimation of individual commitments for each inert variable indicator on the estimation of R-Square as per showed in the Table 5

below. Size impacts can be gathered into three classes: feeble (0.02), medium (0.15), and enormous (0.35) [19]. Table 5 above below demonstrates that the impact size estimation of every factor is more noteworthy than 0.2 so it is in the medium and huge class. Testing of variable relationship measurements can likewise be seen from the estimation of the path coefficients for every factor relationship indicates positive and critical relationship since p-esteem is under 0.05 [19].

Tabel 5: Path Coefficient

	Standard Error	Effect Size	Path coefficients	P values
Perceived Usefulness →Attitude	0,097	0,247	0,354	0,001
Perceived Usefulness →Intention of Use	0,077	0,235	0,330	0,001
Perceived Ease of Use →Perceived Usefulness	0,074	0,519	0,720	0,001
Perceived Ease of Use → Attitude	0,090	0,355	0,484	0,001
Attitude→Intention of Use	0.074	0.426	0.547	0.001

Testing the factual relationship of factors can likewise be seen from the estimation of the coefficients way for every factor relationship demonstrating a positive and noteworthy relationship in light of the fact that the p-esteem is under 0.05 [19]. With this test it can likewise be seen that there are generally builds that are acknowledged.

6. CONCLUSION

The results of hypothesis testing show that perceived usefulness a positive and significant effect on the attitude variable of using e-money. The results of this study state that electronic money products are beneficial to prospective consumers, thus forming a positive attitude towards the use of electronic money. the same results have also been obtained by previous researchers, among others they got same result, that the Perceived usefulness has a positive and significant effect to attitude [21] [6] [12] [22] [9].

In perspective on the hypothesis test, it is found that the Perceived usefulness has a positive and significant impact on the intention of using e-money. this explains that, the more someone feels that electronic money products are useful, then the attitude of that person will also be more positive in using the product. This is unsurprising with the other previous research got the same result that Perceived usefulness has a positive and significant impact on the intention of using e-money [23] [24] [13] [8] [9].

In perspective on the hypothesis test found that the attitude variable has a positive and significant effect on the intention variable. The results of this study state that the positive attitude of potential customers of electronic money will also have a positive impact on the intention of prospective customers in using electronic money products. This is solid

with the assessment from the previous researches that found the same result that attitude has positive and significant effect on the intention variable [6] [8] [9].

In perspective on the hypothesis test found that the Perceived ease of use variable has a positive and significant impact on the attitude variable. it can be concluded in this study that, the perception of prospective consumers who state that electronic money products are easy to use, will have a positive and significant impact on the attitude of prospective customers in using electronic money. this result is same with the previous study that found perceived ease of use has a positive and significant impact on the attitude [7] 8] [9].

The results of hypothesis testing show that Perceived ease of use variable has a positive and significant impact on the Perceived usefulness variable. The results of this study can be assumed that, if the perception of the ease of use of electronic money products by prospective consumers is higher, then the product will also be perceived beneficial by the prospective customer. This is also supported by research of previous researcher that found same result that perceived ease of use has a positive and significant impact on the perceived usefulness [25] [26] [8] [9][27][28].

7. RESEARCH LIMITATIONS

This exploration scope just on the purchaser e-money items in Bali, with the goal that examination results cannot be summed up to the shopper electronic cash items in different locales. This exploration just looks at the degree to the expectation of planned customers towards the utilization of e-money, at where in TAM is it conceivable to direct research to intention of forthcoming buyers that emerge because of the goal to utilize e-money. This examination is just completed in certain time focuses (cross segment), while the world changes inevitably (dynamic), so this exploration is essential to be done again later on.

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