

Evaluation of Acceptance Model in E-Commerce Using TAM

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Abstract

Information technology has had an impact on human life, including business on the internet, namely E-Commerce which saves time and does not require large capital to promote products. and encouragement to make changes in the system so that technology acceptance increases and they can take advantage of it. This study uses the TAM method as a reference to evaluate the level of technology acceptance in e-commerce systems by system users or the whole community. The results of this study indicate that the majority of E-Commerce System users agree that this E-Commerce system helps them. The results of this study also show that e-commerce must pay attention to interest, perceived usefulness, perception and ease of use in implementing and developing e-commerce-based information systems.

Keywords : *E-Commerce, Technology Acceptance Model, interest, perception, usability*

Introduction

Currently the development of information technology is very complex and has many impacts on human life, including business on the internet, namely E-Commerce which saves time and does not require large capital to promote products. One of them is the Tokopedia website which serves the sale of goods and services so that anyone can do business and compete at low costs. Reporting from the Asian Nikkei Review, Indonesia experienced a growth of 11 million e-commerce consumers throughout 2017. This number brings the total e-commerce consumers to 35 million.

A survey conducted by FT Confidential Research (FTCR) on 1,000 urban consumers shows that local e-commerce, namely Tokopedia, is still the 'master at home'. In fact, in Indonesia, e-commerce users towards Tokopedia have a perception of perceived ease of use, namely having trust / feeling confident that the information system from Tokopedia is easy to use so that Tokopedia is the most widely used and currently dominates e-commerce in the country. As an example of successful online-shopping in Indonesia, this forum can be used as a reference for other entrepreneurs who want to get involved in this business. However, to further examine what factors influence the acceptance of this online shopping business in Indonesia, further research is needed.

The problem that arises is that there are still many people in Indonesia who are actually still doubtful about buying goods or services on the internet, because they think they are very prone to fraud even though not all online buying and selling can be cheated. Having problems when transacting, for example: slow response from the store to buyers for ordering and confirming products, images displayed often do not match orders, etc.

Davis (1989) when introducing the Technology Acceptance Model (TAM) indicated the use of the system as an important indicator of the acceptance of a technology. The initial TAM model uses perceived ease of use and perceived usefulness.

The reason or purpose of this research is to contribute ideas for Tokopedia as a motivation and encouragement to make changes in the acceptance of e-commerce that they can use in the field of marketing.

Literature Review

E-Commerce

According to McLeod, e-commerce is the use of communication networks and computers to carry out business processes [4]. E-commerce has enormous benefits. First, consumers do not need to come to the seller's store to choose the goods they want to buy. Second, from a financial point of view, consumers can save costs, if the location of the store is far away, consumers can save on travel costs by being replaced by shipping costs that are much cheaper. And useful for users, it can be seen that the application of the new information technology can be accepted by users.

E-Commerce Components

E-commerce has several standard components that are owned and not owned by offline business transactions, namely (Hidayat, 2008:7) [4]

- Products: Many types of products that can be sold via the internet such as computers, books, music, clothes, toys, and others.
- A place to sell products (a place to sell): a place to sell is the internet, which means you must have a domain and hosting.
- How to receive orders: email, telephone, sms and others.
- Payment methods: Cash, check, bank draft, credit card, internet payment (eg paypal).
- Delivery method: delivery can be done by package, salesman, or downloaded if the product being sold allows it (eg software).
- Customer service: email, online forms, FAQ, telephone, chat, and others.

E-Commerce Users

The classification of e-commerce that is commonly done by people is based on the nature of the transaction. According to Suyanto (2003:45) the following types can immediately be distinguished :

- o Business to business (B2B)
- o Business to Consumer (B2C)
- o Consumer to Consumer (C2C)
- o Consumer to Business (C2B)

And for the journal that we discussed, we use type C2C

Method

This study uses the Technology Acceptance Model (TAM) method to analyze the level of acceptance of e-commerce. TAM is an adaptation of TRA which was introduced by Davis in 1986. The purpose of TAM is more specifically to explain the behavior of computer users (computer usage behavior) [3]. TAM uses TRA as a theoretical basis to specify a causal relationship between two key beliefs, namely perceived usefulness and perceived ease of use. TAM is much more specific than TRA, because TAM is intended only for behavior using computer technology (Davis et.al, 1986). This TAM model is not only able to predict, but also can explain so that researchers and practitioners can identify why a factor is not accepted and provide possible appropriate steps.

The main purpose of the Technology Acceptance Model (TAM) is actually to provide a basic step from the impact of an external factor on internal beliefs, attitudes and intentions. TAM is designed to achieve this goal by identifying several basic variables suggested in previous studies that agree with the factors that affect cognitively and affectively on computer acceptance and using TRA as a theoretical basis for determining the relationship model of research variables. TAM positions two beliefs, namely perceived usefulness and perceived ease of use as the main factors for computer acceptance behavior.

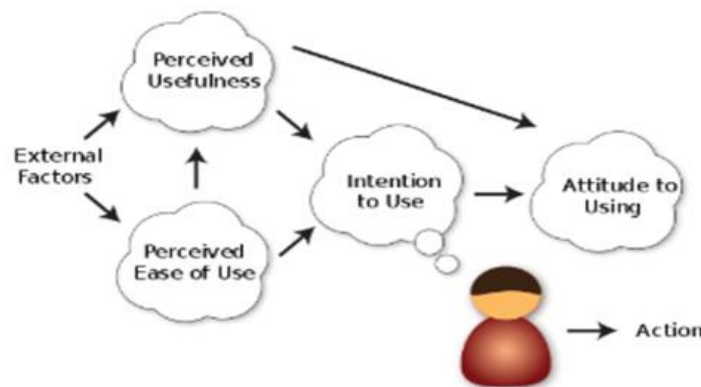


Figure 1. Technology Acceptance Model (TAM)

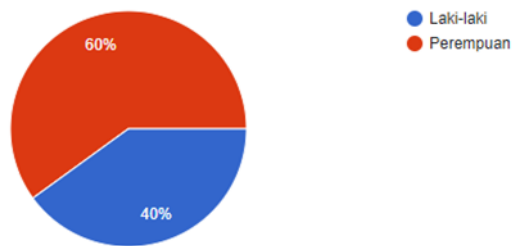
There are 5 known understandings in TAM (Davis et. al, 1986), as shown in Figure 1, namely:

- 1) Perceived ease of use, defined as the extent to which a person believes that using a technology will be free from effort.
- 2) Perceived usefulness, defined as the extent to which a person believes that using a technology will improve his performance.
- 3) Attitude toward using technology (attitude toward using), is defined as the evaluation of the user about his interest in using technology.
- 4) Behavioral intention to use technology (behavioral intention to use), is defined as a person's interest (desire) to perform certain behaviors.
- 5) Actual technology usage, measured by the amount of time used to interact with technology and the frequency of use of the technology.

Results and Discussion

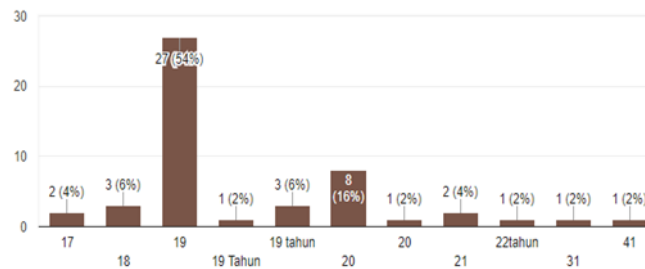
From the data collection carried out, the characteristics of the respondents were obtained, as follows :

Gender



Based on a study of 50 questionnaires, the majority of respondents were female as many as 30 respondents (60%). While the remaining 20 respondents (40%) were male.

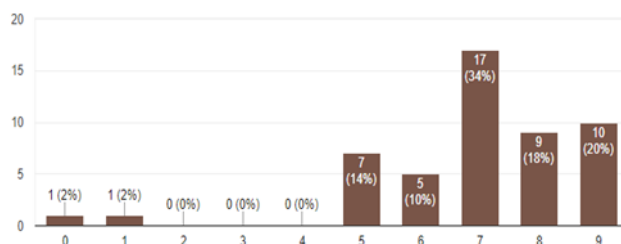
Age



It can be seen based on 50 respondents, there are 2 people 4% of respondents are 17 years old, 3 people or 6% of respondents are 18 years old, 31 people or 62% of respondents are 19 years old, 9 people or 18% of respondents are 20 years old, 2 people or 4 % aged 21 years, 1 person or 2% aged 22 and 31 years. So the majority of respondents are 19 years old (62%).

Based on the questionnaire questions

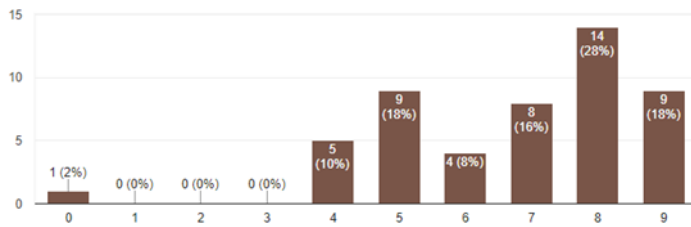
1. Respondent: E-commerce system helps me to be more effective



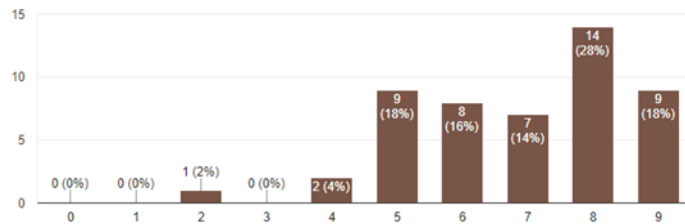
2. Respondent: E-commerce system helps me to be more productive

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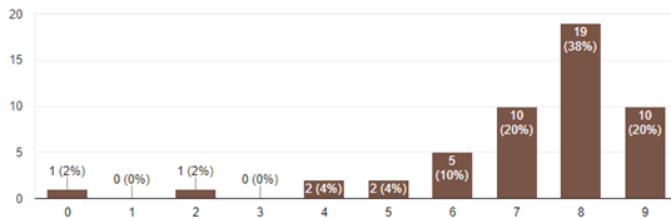
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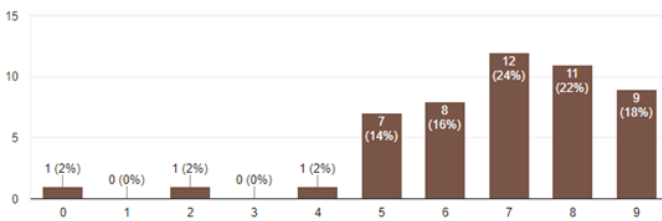
3. Respondents: The information (such as online help, on-screen messages, and other documentation) provided with this system is clear



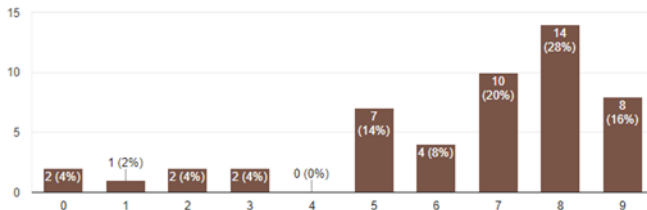
4. Respondent: E-commerce system is easy to use



5. Respondents: Flexible use of E-commerce systems

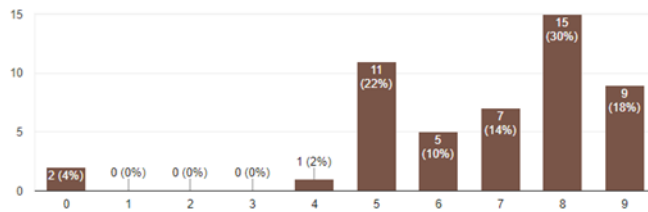


6. Respondent: I can use it without written instructions

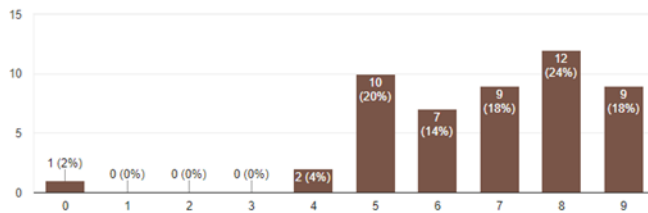


7. Respondent: I feel comfortable using the E-commerce system

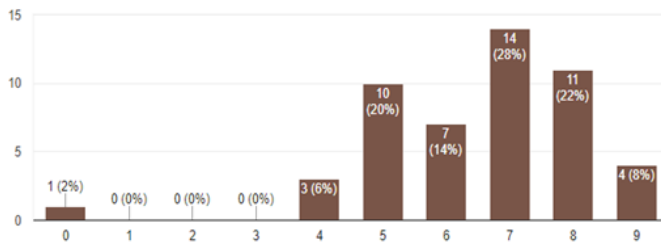
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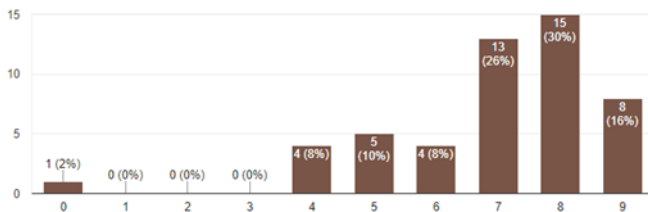
8. Respondent: I like to use E-commerce system interface



9. Respondent: The E-commerce system has all the functions and capabilities I expected



10. Respondent: Overall, I am satisfied and find it easy to use the E-commerce system



Beneficial Effect (perceived usefulness)

No	Question	Description
1.	Be Effective	17 (34%) of 50 respondents agreed
2.	Be Productive	14 (28%) of 50 respondents agreed
3.	Information provided clearly	14 (28%) of 50 respondents agreed

Effect of Ease (perceived ease of use)

No	Question	Description
1.	Easy to use	19 (38%) of 50 respondents agreed
2.	Flexible	12 (24%) of 50 respondents agreed
3.	Using without written instructions	14 (28%) of 50 respondents agreed

Attitude toward using

No	Question	Description
1.	Comfortable using E-commerce system	15 (30%) of 50 respondents agreed
2.	Love the E-commerce system interface	12 (24%) of 50 respondents agreed

User Behavioral Intention (behavioral intention to use)

No	Question	Description
1.	Love the E-commerce system interface	12 (24%) of 50 respondents agreed
2.	Be Effective	17 (34%) of 50 respondents agreed
3.	Be Productive	14 (28%) of 50 respondents agreed

The results obtained above have shown that in appearance, acceptance of e-commerce has had a good appearance and is quite liked by many respondents. In terms of usability, the acceptance of e-commerce has been sufficient to meet the e-commerce needs of users, although it is still not significant. On the convenience side, several functions in e-commerce have been able to function according to their purpose, but there are still certain functions that have not been used by users according to their designation so that they are still not useful enough. While the level of satisfaction, the majority of users have expressed satisfaction with e-commerce so that it can continue to be used properly and is expected to continue to be used in the future

Conclusion

Based on what we evaluated from this research, according to the data we have collected through the questionnaires that we have distributed, the majority of E-Commerce System users agree that this E-Commerce system helps them. So we can conclude that the acceptance of this technology by users or society is good. The results of this study are expected to provide input for management and system analysts to pay attention to interests, perceptions of usefulness, perceptions of convenience and others in implementing and developing e-commerce-based information systems.

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