

## Research Article

# Understanding Consumer Behavior with the Use of the Technology Acceptance Model in Online Booking

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**Abstract.**

This study aimed to examine consumer buying intention using the Technology Acceptance Model (TAM). This study sought to determine the direct effect of perceived usefulness, perceived ease of use, and perceived trust on buying intention through online booking applications. This type of research was explanatory, which explained the causal relationship between the variables and used a quantitative approach. The population used in this study was all people who had installed online booking applications. The sampling method of 450 respondents in this study was non-probability sampling with a purposive sampling technique, whereby the questionnaire was distributed in the form of a survey through social media. Hypothesis testing was carried out using the t-test. Data analysis used multiple linear regression analysis, which was processed with SPSS software. From the results of testing the three hypotheses that had been carried out, it was concluded that the variables of perceived usefulness, perceived ease of use, and perceived trust had a significant and positive effect on the variable of buying intention through online booking applications.

**Keywords:** consumer behavior, Technology Acceptance Model, online booking

## 1. Introduction

Technology development affects both small and large businesses, urging business people to innovate in their business and face the challenge, as business activity always follows technology development. They must utilize this development to provide the best service for customers, considering service speed and accuracy as aspects of work efficiency that should be owned by a business to realize customer satisfaction and ensure their loyalty in using the product or service offered [1].

Internet has become inseparable from business people since it is associated with innovation that can quickly disseminate information all over the world. They use the internet as a medium to trade and purchase goods, which is later known as e-commerce

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[2]. The market of e-commerce users in Indonesia has grown massively each year, indicating that Indonesia has a great potential for digital business marketing.

The Technology Acceptance Model (TAM), as explained by Davis [3], is a theory that states that perceived usefulness and perceived ease of use are the main determining factors that affect someone's interest and behavior when considering new technology. TAM is considered to be the most influential model among other models in explaining the behavior of adopting information technology and information systems. TAM uses the behavioral theory approach, which has been used to review the process of adopting an information technology. TAM emerged based on the Theory of Reasoned Action (TRA) from Ajzen and Fishbein [4]. Acceptance of a technology may come from the user or the technology itself [3]. From the user, it could come from several aspects such as cognitive, individual character, personality, and individual worries about the impact of technology. Meanwhile, from the technology itself, it could come from the network and the condition of the technology. The basic aim of TAM is to provide an explanation regarding the factors that determine technology acceptance, which could explain the attitude of the user. TAM is simple yet it can predict both technology acceptance and technology use.

The TAM model is able to answer the question regarding why the information system in use is acceptable and why there are many information systems that are unacceptable [5]. This is because the user does not have any interest (intention) to use it. Usefulness and ease of use are expected to affect the individual's behavior on technology acceptance and also explain the interest in using technology. Perceived usefulness and ease of use have an influence on the behavioral intention. The technology user will have an intention to use the technology if they think the technology system is useful and easy to use [6]. The correlation with this study, which uses online booking intention as a variable (intention to book online), will be explained in the upcoming points by referring to previous studies that use a similar variable.

According to Ramayah and Ignatius [7], concerning perceived usefulness in the context of online shopping, they explained that they believe technology usefulness is a powerful attractor of online buyers. Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance their job performance [3, 8, 9]. This means the user believes that using an online booking application will increase their performance. Perceived usefulness forms a belief in a user to decide whether they will use the technology or not. Perceived usefulness is a belief in the process of decision-making [6]. This means someone will use an information system if they believe the system is useful, while, in contrast, they will not use it if they

think it is useless. According to Davis [3], indicators of perceived usefulness include accelerating tasks, increasing performance, increasing productivity and effectiveness, as well as improving its usefulness in performing tasks. Another study that explained the correlation of perceived usefulness and online buying intention was from Mandilas et al [10]. Potential internet shoppers (people who buy through the internet), considering the behavioral intention depends on the cognitive choice, may respond well or not to online shopping based on whether the exchange is beneficial or not for the potential internet shopper compared to other forms of retail. They also believe that the power that can attract the online shopper is in the technology usefulness. The results showed that perceived usefulness had a positive influence on online buying intention with perceived usefulness as the most important factor [11].

Next, the perceived ease of use is associated with user-friendliness by Ramayah and Ignatius [7]. Users will choose to make a purchase conventionally if they considered the online application is more complicated. Davis [3] stated the definition of perceived ease of use as “the degree to which a person believes that using a particular system would be free of effort”. This means the online booking application is easy to use and free from any difficulties. The indicator explained by Davis [3] are such as easy to learn, clear and understandable, flexible, and easy to master and easy to use. The more ease provided in the online shopping process, such as an ease of accessing the page, understanding the procedure, comparing the product and price, finding the desired product, it will lead the customer to choose the online shopping system along with a perception that online shopping will make them free from any difficulties [12]. The study of Mandilas et al [10], Kucukusta et al [13], Ramayah and Ignatius [7] showed a result where perceived ease of use had a positive influence on online buying intention.

Besides, perceived trust also will be considered in making an online purchase. Trust is a fundamental of a business. Trust is a secure feeling owned by the potential user of a product or service that the interaction is based on the perception that the online booking application is trusted and attentive towards the user’s interest and welfare [14]. In the context of online shopping, trust is consumer willingness to be susceptible to any of the online store action based on an expectation that the online store will take certain actions, aside from the ability to control or monitor the online store [15]. It means, the consumer is willing to depend on the other party and to be susceptible to other party’s action during the online shopping process, with an expectation that the other party will practice and provide the promised product and service. Security and satisfaction perceived by the consumers in their previous online shopping will create trust. If someone was satisfied with their past time online shopping experience, it will

lead to the online buying intention in the future [16, 17]. Trust becomes a factor to pay attention to in using a new technology. If someone has not trusted the technology, where in this case is online booking application, then the person will rethink before using the new technology and tend to choose the conventional or a more secure technology. Hassanein and Head [18], Haekal and Widjajanta [19] and Phonthanukitithaworn et al [20] revealed that trust had a positive influence on consumer's behavior and trust to the company to make a purchase in the company's website.

Online booking is a reservation made by an organization or individual to arrange their business trip online [21]. Paylou [22] stated that online shopping intention is a situation where the consumer wants and intends to make an online transaction. Besides making a reservation, the organization or individual can view the real-time data of their business trip expenses, track the trip online, and organize the business trip policy. The online booking variable originated from behavioral intention is regarding a situation where someone will do a certain behavior if they have an intention or interest to do it. In contrast, if the person does not have any intention or interest, they will not do a certain behavior [6]. Online shopping intention is used to measure the intention of the potential online shopper, not the real purchase [7]. Mowen and Minor [23] explained that behavioral intention is an intention of a consumer to behave in a certain way to obtain, dispose of, and use a product or service. The indicators of online booking intention are such as having an intention to make an online purchase in the future, considering buying something online, and intending to be an online buyer in the future. Ramayah and Ignatius [7] explained that behavioral intention is a strong predictor of actual behavior. This study aims to examine the effect of perceived usefulness, perceived ease of use, and perceived trust on buying intention through online booking.

Based on the explanation above, the proposed hypothesis is as follows.

1. H1: perceived usefulness has a significant influence on buying intention through online booking application.
2. H2: perceived ease of use has a significant influence on buying intention through online booking application.
3. H3: perceived trust has a significant influence on buying intention through online booking application.

## 2. Methods

This study uses an explanatory research design to test the hypothesis between variables that influence each other. The population of this study is everyone who has installed an online booking application. There were 450 samples used in this study, which meets the minimum requirement of 300-500 samples [24]. Purposive sampling was chosen as the sampling technique with the following criteria: 1) having an intention to use the online booking application; 2) having installed the online booking application; 3) having experience of using online booking application but not having made any transaction. The data was analyzed using a multiple linear regression technique.

All variables in this study uses Likert scale with 1 interpreted as strongly disagree until 5 that is interpreted as strongly agree. Perceived usefulness related to the user's belief that using the online booking application will increase their performance. This perception forms a belief on that technology. It is measured by six indicators from Davis [3]: accelerating task, increasing performance, increasing productivity, effectiveness, providing ease at work, and being useful.

Perceived ease of use is a belief of the user that the online booking application is easy to use that they only need minimum effort and it will be free from any difficulties. It is measured by six indicators from Davis [3]: easy to learn, controllable, clear and understandable, flexible, easy to master, and easy to use.

Perceived trust is the consumer willingness to be susceptible to any of the online store action based on an expectation that the online store will take certain actions, aside from the ability to control or monitor the online store. Three indicators from Mayer et al [15] are used to measure trust. They are ability, policy, and integrity.

Buying intention is a situation where the consumer wants and intends to make an online transaction. It is measured by two indicators: having an intention to use online shopping and having a vision to purchase or search for any information of the product in the online booking application.

## 3. Result and Discussion

Here is the data of respondents in this study. Table 1 showed the respondents characteristics based on the sex, education, domicile, occupation, and age. The descriptive analysis result showed that most respondents were 17-30 years old with nearly balanced percentage for sex category. Most respondents were having bachelor degree and working as students and entrepreneur. Their income was mostly 1 million up to 10

million rupiahs. They mostly knew and understood about online booking application from internet and television.

TABLE 1: Respondent characteristic.

Measure	Frequency	Percentage
<b>Age</b>		
17 – 23 years old	138	30,67%
24 – 30 years old	109	24,22%
31 – 40 years old	63	14,00%
41 – 55 years old	78	17,33%
> 55 years old	62	13,78%
<b>Sex</b>		
Male	216	48,00 %
Female	234	52,00 %
<b>Qualification</b>		
Senior High School	168	37,33 %
Diploma/Bachelor	181	40,22 %
Others	101	22,45 %
<b>Occupation</b>		
Private Employee	70	15,56 %
Student	138	30,67 %
Civil Servant	60	13,33 %
Entrepreneur	101	24,44 %
Others	81	18,00 %
<b>Income</b>		
< 1.000.000	97	21,56 %
1.000.000 - 5.000.000	182	40,44 %
5.000.001 - 10.000.000	131	29,11 %
10.000.001 - 15.000.000	28	6,22 %
> 15.000.000	32	7,11 %
<b>Application Info</b>		
Printed media	55	12,22 %
Internet	177	39,33 %
Television	86	19,11 %
Recommendation	56	12,44 %
Others	76	16,90 %

Source: Processed Data, 2021

Table 2 showed the variable perceived usefulness on buying intention had a t value of 3,034 with significance 0,003. This result indicated that the first hypothesis stating perceived usefulness has a significant influence on buying intention through online

TABLE 2: Regression analysis result.

Variable	Coefficient	t value	Significant	Test Result
Usefulness → Intention to use	0,100	3,034	0,003	Accepted
Ease of use → Intention to use	0,120	4,262	0,000	Accepted
Trust → Intention to use	0,109	2,925	0,004	Accepted

Source: Processed Data, 2021

booking application is accepted. The variable ease of use on buying intention had a t value of 4,262 with significance 0,000. This means the second hypothesis stating ease of use has a significant influence on buying intention through online booking application is accepted. The last, the influence of trust on buying intention had a t value of 2,925 with significance 0,004. This means the third hypothesis stating perceived trust has a significant influence on buying intention through online booking application is accepted.

#### 4. Discussion

A beneficial exchange for internet shoppers to attract the online buyer will depend on the use of technology and usefulness [7]. The influence of perceived usefulness on buying intention through online booking applications indicates that the buying intention will increase if the perceived usefulness of the application is considered to be good by the potential consumer. This result is supported by the study of Mandilas et al [10], which found that perceived usefulness had a positive influence on buying intention. This result proves that a good usefulness of an online booking application will increase the buying intention of the potential user. When the potential user perceives that using the online booking application will be beneficial, efficient, and effective in purchasing plane tickets and hotels, as well as improve their performance and productivity, their buying intention will be very positive towards the online booking application.

Perceived usefulness in an online booking application can be seen from the effectiveness of the purchase of plane ticket, hotel, and etc. The quick process of searching ticket by inputting departure city, destination city, date of departure, number of passengers, and choice of class then will be displayed automatically in the online booking application. The beginner user could easily use the application.

In the search for hotel through online booking application, the user will be able to see the album of photos uploaded by the hotel management or guest that had visited the hotel regarding facilities along with the review. This kind of thing is very useful for the user to find the suitable hotel for them. The booking activity can increase

the performance and productivity of the potential user that they are able to make a reservation. This good perceived usefulness has an influence to increase the buying intention through online booking application.

The influence of perceived ease of use on the buying intention through online booking application means the buying intention of the potential user through online booking application will increase if the perceived ease of use from the online booking application is considered as good by the user. This result is supported by the study of Mandilas et al [10], Ramayah and Ignatius [7] where perceived ease of use had a positive influence on buying intention through online application. The perceived ease of use of a technology will be considered as good if it included several things in the online shopping process such as ease in accessing the page, understanding the shopping steps, as well as finding the desired product. This will make the consumer that has chosen to shop online be free from any difficulties when using the application [12].

Perceived ease of use in an online booking application can be seen from the user-friendly application interface and the features included in the application. The online booking application is easy to navigate and to understand. For example, during the process of searching ticket, there is the 'sort' feature that can sort out as the user desired such as the lowest-to-highest price, earliest-to-latest departure schedule, and others; as well as the 'filter' feature for choosing the airlines, price, connecting or direct flight, and etc. The 'price alerts' feature enables the user to set an alarm in the application when finding the suitable price for their budget. 'Points' feature is where the user will gain points that can be exchanged into discount for the future transaction. 'Refund & Easy Reschedule' enables the user to refund their reserved plane ticket and hotel with several terms and condition. The 'easy reschedule' feature can help the user rearrange their schedule in the short time. The 'Best Price Guarantee' feature can find if there is any other OTA (Online Travel Agent) that offers lower price and they can make a claim based on the applicable term and condition, and then the agent will pay for the price difference. The updated promo information feature will provide various interesting promo from online agent. The 'Push Notification', 'My Booking', and 'Travelers Picker' features enable the user to save the data for future transaction without re-filling the form. The user can also get the ease of payment in the online booking application through various available payment systems such as transfer, credit card, modern retail, installment, etc.

Through the availability of several features in the online booking application, the user will be free from any difficulties that later will elicit a good perceived ease of use towards the application. Later, the good perceived ease of use will influence the buying



intention through the online booking application that will lead people to perceive this application as easy to use.

The influence of perceived trust on buying intention through online booking applications means that people will take trust into serious consideration when using a new technology. If someone feels unsure about an online booking application, they tend to reconsider before using it, or else, they decide to use the conventional way or a safer application. Meanwhile, if they think that the application is secure, the buying intention towards the online booking application will increase. This result is supported by the previous studies of Haekal and Widjajanta [19] and Phonthanukitithaworn et al [20], which found that perceived trust had a positive influence on buying intention through online applications. This study proved that respondents agreed to the online booking application's high trustworthiness. When the online booking application users perceive it as something that has the ability to serve them and secure the transaction from other parties' disturbance, as well as to fulfill its promises, the buying intention through the application will be very positive.

Perceived trust in an online booking application can be seen from its policy, ability, and integrity in providing a quick and responsive service for the potential customer. The display of the online booking website and application is simple and elegant that it looks professional. Also, it does not use the free subdomain, that it has smaller chance to do any fraud. This online booking application also increase the user's perceived trust by showing many advertisements either on the internet, private and national television station with a very high budget. The transaction payment for the ticket is made upon the name of the corporation instead of personal. The application also provides Help Center service with a quick response team. The 'Contact Us' feature in the Help Center gives a fast response in within 30 minutes and always active for 24/7. Thus, if there is any trouble during the transaction, the agency will serve and solve the problem quickly that would benefit both parties.

The available service and support for ensuring the comfort for the online booking application user will increase the good perceived trust for the application. This will have a positive influence on the buying intention through online booking application where people will have a higher good perceived trust towards an application.

## 5. Conclusion

Based on the discussion, it can be concluded that TAM is able to explain the intention to buy in online booking applications. The results of this study can serve as a reference

in developing applications, where ease of use, ease of understanding, controllability according to the user's wishes, and ease of mastery are the most important factors in application development. This study is still limited in its sample size, and further development of models related to online purchasing behavior such as risk is needed.

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