



## The Application of Extended Expectation-Confirmation Model to Identify Influencing Factors Digital Loyalty for Mobile-Based Travel Platform

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### Abstract

The aim of this study was to determine the factors that impact the faithfulness of users on digital travel platforms, using the model proposed by researchers on satisfaction and loyalty based on user perceptions using the Expectation-Confirmation Model, which was enhanced by incorporating the variables of security and loyalty. Surveys were distributed online using a purposive sampling technique, and the minimum number of samples was determined using the Slovin formula with a 5% confidence interval. Subsequently, the data collected was analyzed using Ms. Excel and the PLS-SEM approach with SmartPLS. According to the findings of this study, out of the seven hypotheses, two hypotheses from travel A and B were rejected, specifically the security hypothesis regarding satisfaction and the satisfaction hypothesis regarding continuance intention. Similarly, the perceived usefulness hypothesis regarding continuance intention was rejected for travel A and B due to the path coefficient value and t-test of the hypothesis being less than 0.1 and 1.96. However, four hypotheses were accepted for all three platforms. According to the calculation of R<sup>2</sup>, satisfaction, continuance intention, and perceived utility are the three criteria that have the most impact on loyalty on the three digital travel platforms.

**Keywords:** Digital, Travel Platform, Satisfaction, Expectation-Confirmation Model.

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### 1. Introduction

Online business, commonly referred to as electronic commerce, has now become a regular part of daily life for individuals all over the globe, particularly in Indonesia. E-commerce is the practise of conducting business over the internet and the World Wide Web. Since trade cannot take place without an exchange of value, such as money, these interactions must involve an exchange of value. E-commerce includes actions like buying, selling, advertising, and giving out information across different computer networks. It is altering the dynamics of competition, the speed at which deals are completed, and the effectiveness of the communications, goods, and payments that take place between customers and businesses as well as between those businesses and their suppliers. The distribution, purchase, sale, and advertising of products and services through electronic channels like the internet, television, the world wide web, or other computer networks is referred to as e-commerce [1]. According to the E-commerce Association, Indonesia is seeing the world's fastest e-commerce industry growth. It is projected that the Indonesian e-commerce market will experience a 31% increase, reaching US\$ 3.8 billion in 2019. This growth is driven by a large population, economic expansion, and the rising number of products available for sale through e-commerce platforms. Moreover, the prevalent use of smartphones in the current technological era has prompted the evolution and adaptation of e-commerce businesses into mobile commerce, also known as M-Commerce. The versatility of smartphones, which cater to human needs, has led individuals who already engage in online shopping to transition from desktop to mobile platforms. The progress of mobile commerce has transformed people's way of life [2]. Technology has greatly assisted the community in all aspects, such as online shopping for necessities, eliminating the need to physically visit a store and instead allowing purchases to be made solely through a smartphone [3]. People not only purchase their daily essentials online; in this digital age, many individuals utilize applications that sell airplane tickets and hotel reservations to conveniently and swiftly book their travel arrangements. According to Techinasia, many internet businesses, such as Traveloka, Mister Aladin, Tiket.com, NusaTrip, Pegi-peg, Agoda, Ezy Travel, Halal Trip, and GoIndonesia, provide quick and easy online services for purchasing airline tickets and lodging. M-commerce suppliers and organisers must work to satisfy

their consumers in order to compete in this competitive environment as a result of the quick and diverse rise of mobile commerce, which has increased competition [4].

User satisfaction is still a top goal in the world of online commerce and is essential to succeeding in this industry. User contentment is widely recognized as the primary indicator of a system's success. Consumer contentment refers to the overall attitude of consumers towards service providers or products. Attitude represents an emotional response to the disparity between what consumers expect and what they actually receive from service providers in terms of meeting their needs, goals, or desires [5]. Consumers generally anticipate that the products, whether goods or services, they consume will come with satisfactory and enjoyable service. Customer satisfaction results from comparing customer expectations with their actual experience when utilizing or consuming a service. The importance of creating satisfied customers lies in their potential intention to make repeat purchases if the service provider can exceed their expectations [6]. Identifying the variables that contribute to customer satisfaction is crucial as they can serve as a metric for business performance and guide future improvements. Consumers follow a series of steps to achieve their intention of making repeat purchases. Before making a purchase, this process starts as buyers establish their initial expectations for the good or service [7]. After the initial use, they generate opinions on the product's or service's performance and contrast it with their original expectations. The degree of satisfaction is based on how closely expectations match actual performance [8]. While unsatisfied customers stop using a product or service further, satisfied customers acquire intents to make repeat purchases. But only a small number of the many possible applications can still be said to exist and produce consumer pleasure. Only three apps Traveloka, Tiket.com, and Pegipegi receive 4.5 stars or more according to Google Play reviews [9].

User satisfaction also influences user loyalty favourably, therefore devotion is an important area to concentrate on. Companies must invest five times as much to attract new customers as they do to keep their current ones [10]. Additionally, a 5% increase in client retention can increase a company's earnings by 25%. This highlights the importance of the loyalty that customers have towards service providers [11]. Understanding the factors that influence the loyalty of mobile reservation customers is extremely important for practitioners and researchers. Since initial approval does not guarantee continued use of the application [12]. It's also important to recognise that while the majority of smartphone users have a specific reservation app loaded on their device, roughly half of them remove it and switch to another app. Establishing and upholding loyalty aids companies in formulating mutually advantageous long-term relationships with users [13]. Additionally, it is understood that loyal customers are prepared to pay more, display increased purchasing intents, and refuse to convert to competing companies. The satisfaction consumers feel when using an application is the justification for planners and developers to think about features of the user experience since users will judge the value they might get from a business based on this interaction [14]. The Expectation-Confirmation Model (ECM) states that customer happiness has an impact on users' intentions to return to an e-commerce site [15]. Online shoppers consider security to be one of the most important factors since they are concerned that unauthorised people can access and use their personal data [16]. Users are more satisfied when security concerns are effectively addressed [17][18]. Additionally, user contentment and a user's intention to return to a technology have a substantial impact on the growing user loyalty.

## **2. Research Methods**

This study employs quantitative techniques. The sampling method utilized in this investigation was purposeful sampling from the non-probability sampling technique category. The data collection procedure that will be conducted by researchers is through a survey by distributing questionnaires. The questionnaire was formulated in the form of an open-ended question based on variables and indicators in the integrated evaluation model. Additionally, literature reviews in the form of textbooks, periodicals, the internet, the findings of previous research, literature reviews on models that support this investigation, and interviews are also conducted by researchers to reinforce the background and theories in the study. The structural equation modelling (SEM) approach will be used as the data analysis method in this inquiry. SEM is a multivariate statistical technique that combines factor analysis and regression (correlation) analysis with the goal of examining relationships within a model, as well as those between constructs and indicators. The PLS-SEM technique with SmartPLS will be examined in the project.

## **3. Results and Discussion**

Based on the results of the demographic analysis, it is known that 45% of the respondents used travel C, 31% used travel A, and 24% used travel B. 48% who used travel C were male and 52% were female; 48% who used travel A were male and 52% were female; and 36% who used travel B were male and 64% were women. 19% were travel C users aged 17–20 years, 63% aged 21–25 years, 5% aged 26–30, 6% aged 31–35 years, 1% aged 36–40 years, and 6% aged > 40 years, while travel A users were 16% aged 17–20 years, 45% aged 21–25 years, 4% aged 26–30 years, 3% aged 31–35 years, 3% aged 36–40 years, and 29% aged > 40 years, then travel B as many 9% aged 17–20 years, 64% aged 21–25 years, and 29% aged > 40 years. 52% using travel C were students, 25% were private employees, 6% were entrepreneurs, and 17% were other professions, while 49 were travel A users. respondents (39%) were students, 4 respondents (3%) were civil servants, 40 respondents (32%) were private

employees, 17 respondents (13%) were entrepreneurs, and 17 respondents (13%) were other professions, then travel B as many as 9 respondents (9%) were students, 9 respondents (9%) were civil servants, 62 respondents (64%) were private employees, 9 respondents (9%) were entrepreneurs, and 8 respondents (9%) were other professions. 18 respondents (10%) from travel C use applications with very frequent frequency, 46 respondents (25%) use applications with frequent frequency, 33 respondents (18%) use applications with rather frequent frequency, 31 respondents (17%) use applications with infrequent frequency, 35 respondents (19%) use the application with a rather rare frequency, and 20 respondents (11%) use the application with a very rare frequency, while 13 respondents (10%) from travel A use the application with very frequent frequency, 20 respondents (16%) use applications with frequent frequency, 44 respondents (35%) use applications with rather frequent frequency, 29 respondents (23%) use applications with rare frequency, 17 respondents (13%) use applications with rather rare frequency, and 4 respondents (3%) use applications with very rare frequency, then 9 respondents (9%) from travel B use applications with very frequent frequency, 17 respondents (18%) use applications with frequent frequency, 36 respondents (37%) use applications with frequent frequency quite often, 26 respondents (27%) use the application with a rather rare frequency, and 9 respondents (9%) use the application with a very rare frequency.

Based on the results of the structural model analysis on the t-test travels B and C, it shows that H1 is accepted, which means that SC has a positive influence on ST. This is supported by the travel path coefficient values C (0.234) and B (0.221), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that SC to ST has little effect, which means that the hypothesis that connects  $SC \rightarrow ST$  has an effect. However, the t-test travel A shows that H1 is rejected; this is supported by the Path coefficient (0.147), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ), it states that SC to ST has a small effect. Acceptance of the security hypothesis on satisfaction in travel applications B and C means that application users C and B think that they feel safe transacting using the application, application providers protect users' personal data, and they can overcome problems from user security threats. So, of course, addressing application security will have an impact on user satisfaction. Rejecting the security hypothesis on satisfaction in travel A, this means that application users think that they feel insecure in transacting using the application, application providers do not protect users' personal data, and they cannot overcome the problem of user security threats. So, that in this situation, the user feels insecure about using the application, which will decrease the level of satisfaction.

Based on the results of the structural model analysis on the t-test travels A, B, and C, it shows that H2 is accepted, which means that CF has a positive influence on ST. This is supported by the path coefficient values C (0.453), A (0.522), and B (0.393), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that CF to ST has a medium effect, which means that the hypothesis that connects  $CF \rightarrow ST$  has a significant effect. Thus, it can be said that CF has a significant positive effect on ST. This hypothesis is in accordance with the initial research conducted, which is in line with previous research. Acceptance of the confirmation hypothesis on satisfaction in applications A, B, and C means that the users of the application think that using the application with the services provided exceeds their expectations, and all user expectations are in accordance with the existing reality. So, of course, the suitability of user expectations that are materialized will have an impact on user satisfaction itself. Based on the results of the structural model analysis on the t-test travels A, B, and C, it shows that H4 is accepted, which means PU has a positive influence on ST. This is supported by the travel path coefficient values C (0.206), A (0.288), and B (0.332), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that PU to ST has little effect, which means that the hypothesis connecting  $PU \rightarrow ST$  has a significant effect. Thus, it can be said that PU has a significant positive effect on ST. This hypothesis is in accordance with the initial research conducted in line with previous studies. Acceptance of the perceived usefulness hypothesis on satisfaction in travel applications A, B, and C means that users think that using these applications allows them to book travel tickets more quickly and easily and save time and effort. so that the perceived usefulness of the user has a positive impact on his satisfaction.

Based on the results of the structural model analysis on the t-tests A, B, and C, it shows that H3 is accepted, which means that CF has a positive effect on PU. This is supported by the travel path coefficient values C (0.316), A (0.492), and B (0.481), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that CF to PU has a medium effect, which means that the hypothesis connecting  $CF \rightarrow PU$  has a significant effect. Thus, it can be said that CF has a significant positive effect on PU. This hypothesis is in accordance with the initial research conducted, which is in line with previous research. Acceptance of the confirmation hypothesis for perceived usefulness in travel applications A, B, and C means that application users think that using the application with the services provided exceeds their expectations, and all user expectations are in accordance with the existing reality. So, of course, the user's expectations are in accordance with the perceived usefulness. Based on the results of the structural model analysis on the t-test travel C, it shows that H5 is accepted, which means PU has a positive influence on CI. This is supported by the path coefficient value (-0.337), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that PU to CI has little effect, which means that the hypothesis linking  $PU \rightarrow CI$  has an effect. However, the t-test travels A and B show that H5 is rejected; this is supported by the Path coefficients A (-0.030) and B (0.102), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ), it states

that PU to CI has an effect. Thus, it can be said that PU has a significant effect on CI. This hypothesis is in accordance with the initial research conducted, which is in line with previous research, while the t-tests in A and B show that H5 is rejected, which is in accordance with previous research. Acceptance of the perceived usefulness hypothesis on continuance intention in the travel application C means that users think that using the application allows them to book travel tickets more quickly and easily and save time and effort. so that the user's perceived usefulness has a positive impact on continued use. Rejecting the perceived usefulness hypothesis for continuance intention in travel applications A and B, this means that users think that using the application does not make them faster in ordering travel tickets and does not save time and effort. so that the user's perceived usefulness is not appropriate, which makes them no longer use the application on an ongoing basis.

Based on the results of the structural model analysis on the t-test travels A and C, it shows that H6 is accepted, which means that ST has a positive influence on CI. This is supported by the travel path coefficient values C (0.608) and A (0.590), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that ST to CI has an effect, which means that the hypothesis linking  $ST \rightarrow CI$  has an effect. However, the travel B t-test shows that H6 is rejected; this is supported by the Path coefficient (0.314), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ), it states that ST to CI has an effect. Thus, it can be said that ST has a significant positive effect on CI. The acceptance of the satisfaction hypothesis on continuance intention in travel applications A and C means that users think that by using the application, they feel very satisfied with the service and are very happy using it. so that user satisfaction has a positive impact on sustainable use. Rejecting the satisfaction hypothesis on continuance intention in travel application B, this means that users think that by using the application they feel dissatisfied with the service and are not happy using it. so that the dissatisfaction felt by users makes them no longer use the application on an ongoing basis. Based on the results of the structural model analysis on the t-tests A, B, and C, it shows that H7 is accepted, which means that CI has a positive influence on LOL. This is supported by the travel path coefficient values C (0.744), A (0.711), and B (0.730), and when viewed from the effect size ( $f^2$ ) and relative impact ( $q^2$ ) values, it states that CI to LOL has a medium effect, which means that the hypothesis connecting  $CI \rightarrow LOL$  has a significant effect. Thus, it can be said that CI has a significant positive effect on LOL. This hypothesis is in accordance with the initial research conducted, which is in line with previous research. Accepting the hypothesis of continuance intention towards loyalty in travel applications A, B, and C, this means that the users of these applications think they should continue to use these applications as often as possible compared to other applications. so that continuous use has a positive impact on user loyalty to the application.

#### **4. Conclusion**

For travel C, all variables are significant, however for travels A and B, two variables are not significant since their values fall below the t-test cutoff: On travel A, safety for satisfaction, this indicates that they do not feel secure enough, thus reducing satisfaction. The likelihood of repeat use for travel service B indicates that customers are unsatisfied, which lowers their desire to utilize the service again. Despite the fact that the perceived utility factor for repeat usage on trip A and B is not substantial, this suggests that the perceived usefulness does not live up to users' expectations while using travel, lowering the intention to reuse. According to the calculation of  $R^2$ , contentment, intention to use the platforms again, and perceived utility are the three characteristics that have the most impact on users' loyalty to the three digital travel platforms. The factors in this study's enhanced ECM model show that user satisfaction can be raised by correctly addressing security issues on digital platforms. Users' intentions to use a technology again and their level of satisfaction with it both have a big impact on how loyal they become. This study indicates how security has a good impact on happiness, which in turn has an impact on intention and, eventually, on loyalty. It is clear from the researchers' research that the findings emphasize the significance of user loyalty and happiness in order to boost customer retention and maintain current customers, such as travel C. This is evident from a demographic perspective, where 55 respondents (30%) have utilized travel C related services for more than three years. And 69 respondents (38%) aged 1-3 still utilize the service. Because they are content with the services provided, they continue to use them and are hesitant to switch to other services. This research model can be redeveloped, namely by adding service quality variables, because specifically in the service provider sector, companies must always strive for an increase in service quality because better service quality will further increase customer satisfaction, which in the end will have implications for customer loyalty. In the process of distributing questionnaires, it is better to do it directly without online distribution. In order to prevent misunderstandings of the statements in the questionnaire, respondents should be given a direct explanation of each statement item. This will also allow researchers to learn about any issues respondents had about the subject of the study when filling out the questionnaire. In future studies, when comparing applications, it is expected to use the same number of respondents for each object so that the results obtained are balanced.

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