Application of End User Computing Satisfaction Method to Analyze Customer Satisfaction in Using Mobile Application of National E-Commerce Travel Company

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Abstract

This study aims to ascertain perceived usefulness and service variables together with the degree of user satisfaction with the online travel agent application using the end-user computing satisfaction (EUCS) technique. Scholars employ a quantitative methodology. Questionnaires and literature reviews were the data collection techniques utilized to get the information required for this study. Respondents or clients who have downloaded or utilized the online travel agency application comprise the population used in this study. Purposive sampling is one of the sample techniques that the researcher utilized. One hundred individuals made up the sample. Microsoft Excel and the SmartPLS application version 3.3.9 are used for data processing. The measurement model, also known as the outer model, and the structural model, often known as the inner model, are the two models used in inferential data analysis using SmartPLS. According to the analysis's findings, user happiness is significantly impacted by and related to the content variable. User happiness is significantly impacted by and related to format variations. User satisfaction is significantly impacted by and related to the ease-of-use attribute. User happiness is influenced by and related to the perceived usefulness variable. User satisfaction is unaffected by the variables in this study that are rejected, specifically the accuracy variable, which is unrelated to user pleasure with the online travel agent application. User happiness is unaffected by the timing variable.

Keywords: User Satisfaction Analysis, End-User Computing Satisfaction, Mobile Applications, Online Travel Agent.

1. Introduction

Indonesia is a country that has enormous and abundant beauty and natural wealth; therefore, the government takes advantage of the assets that Indonesia has, one of which is business in the tourism sector [1]. Tourism in Indonesia is developing very rapidly, namely because the government provides travel tickets, which make it easier for Indonesian citizens to go to various destinations such as cities, provinces, and other islands [2]. Some people also use this to create a company or business that operates in the travel agency business, which provides tickets for the transportation used and the rental of accommodation such as hotels or villas when customers travel. Therefore, businesses such as travel agents or travelers are very profitable for the economy [3]. The tight competition that exists in the travel agent business means that it must provide easy and effective services to its customers [4]. With the help of information technology, companies gain strategic advantages in the intense competition between business players [5]. Therefore, many travel agent companies are switching to online by utilizing information technology, which is very developed in Indonesia, namely e-commerce, which operates in the field of online travel agents (OTAs) [6]. Information technology can provide rapid changes in various fields, increasing work activities effectively and efficiently. One application of information technology in the sales industry is e-commerce [7]. Tiket.com is one of the emerging e-commerce platforms within the online travel agency (OTA) industry. Operating in the online travel agency (OTA) industry, this e-commerce business is governed by one of private company in Indonesia [8]. The company was founded with the intention of promoting tourism in Indonesia. Online travel agencies (OTAs) offer the same services as traditional travel agencies; the main differences are that digital services are utilized for transactions, information searches, and bookings. Travel agents in Indonesia are growing rapidly. In 2022, data showed that the most popular travel agent in Indonesia was Traveloka, followed by tiket.com. Indonesians have up until now ordered transportation tickets and lodging options like hotels, apartments, and villas using the online travel agent (OTA) application [9]. When placing the desired order, which primarily entails ordering transportation tickets for vehicles like planes and trains, the user can choose from a variety of category features offered by the tiket.com mobile application [10]. Then the online travel agent also offers several new features, such as paylater, in which users can pay for bookings at a later time according to what is stated in the booking agreement [11].
User satisfaction is a subjective factor of user feelings; these feelings can be feelings of happiness or disappointment felt by users when comparing the performance of an application or product with the performance of the application they expected [12]. The success of the system is characterized by the presence of three components: quality, benefits, and user satisfaction. User satisfaction has many advantages, including bettering the company's relationship with users, giving them a solid foundation, encouraging customer loyalty, creating unofficial recommendations based on customer comments that will be profitable for the business, and enhancing the company's standing in the eyes of users [13]. User satisfaction from the moment an application is accepted until the moment it is used is one of the key elements in the success of information technology development. Because of this, it is necessary to analyze or quantify how satisfied users are with the program or system [14]. The end-user computing satisfaction (EUCS) technique, a user satisfaction analysis model that functions as a system measurement and incorporates the variables perceived usefulness and service, was employed in this study. Researchers added the perceived usefulness variable because it aligns with tiket.com's offerings, which include focusing on online reservations for travel and accommodations as well as specific events that will be beneficial to users [15]. As a result, in order to analyze user satisfaction, users must provide their perceived usefulness. Users of information systems will use them if they think the system is helpful [16]. On the other hand, a user of an information system will not utilize it if he feels that it is less helpful. The higher the benefits generated by a system and information, the greater the user satisfaction [17].

The addition of service or service variables is related to the quality of service provided by online travel agents, namely that there are still problems such as slow responses from the team in responding to problems faced by users. This can affect the satisfaction of tiket.com users because the service quality aspect is one of the main challenges for OTAs [18]. Therefore, the dimensions of service quality are very important in determining customer satisfaction [19]. Service quality is more important than other applications because system users are now customers. Therefore, service quality is one of the factors determining success and influences company competition [20]. Service quality is also defined as the gap between users' expectations regarding services and the services they actually receive [21]. Doll and Torkzadeh developed the EUCS method in 1988. End-user satisfaction with the technological components such as a system's form, content, correctness, convenience of use, and timeliness is used in this evaluation approach [22]. If an information system is of high quality and can give its users a sense of enjoyment or fulfillment, then it can be considered successful [23]. The degree to which users are satisfied with an information system is a measure of its success. EUCS was selected since it is widely used for assessing user satisfaction [24] [25].

The End User Computing Satisfaction (EUCS) method has been used in a number of studies to analyze user satisfaction [26]. One such study used the EUCS method to measure user satisfaction with the Traveloka mobile application [27]. Five factors that positively relate to and influence user happiness can be used by EUCS to gauge how satisfied users are with the Traveloka application; the results fall into the "quite satisfied" category [28]. The study that follows examines how Tokopedia's quality affects user satisfaction levels by employing the end-user computing satisfaction (EUCS) technique [29]. Based on the five variables that were employed, the results showed that accuracy and substance, two linked variables, had a substantial impact on user happiness, with the level of satisfaction falling into the satisfied category [30]. Research on user satisfaction analysis of PT online shopping e-commerce is another area of study that makes use of EUCS. The end-user computing satisfaction (EUCS) paradigm or method is employed by ABC International [31]. The variables content, accuracy, format, timeliness, and convenience of use are found to have a significant and positive impact on user satisfaction [32]. It has been demonstrated through a number of studies that the end user computing satisfaction (EUCS) method, which measures user happiness with information systems and applications, may yield useful results [33]. An information system's EUCS is a comprehensive assessment of users based on their interactions with the system. By contrasting expectations and reality, EUCS examines user satisfaction and serves as a tool for evaluating a mobile application's effectiveness in terms of user satisfaction.

2. Research Methods

Researchers are using a quantitative approach, so methods for data collection and analysis are necessary to complete the research. In this research, the tools used in the form of applications or software used by researchers to help process questionnaire data are Ms.Excel to create demographic charts from questionnaires that have been filled out by respondents, and Ms.Word is used as a medium for preparing reports during the research. To obtain the data needed, researchers used Google Form media to create and distribute questionnaires to be filled out by respondents, then analyzed the outer and inner models using the SmartPLS. The data collection methods used to collect the data needed in this research are literature studies and questionnaires. The population used for this research are respondents or customers who have downloaded or used online travel agent applications, namely buying tickets, renting places, etc., and using the Android operating system. The researcher used sampling using a sampling technique, namely purposive sampling, to obtain respondents according to the criteria required according to the research. The sample consisted of 100 people. In this study, data analysis is done once all required
information has been gathered via questionnaires. There are two types of data analysis: inferential and descriptive analysis. Using Microsoft Excel or other software, the first step of the descriptive analysis is to examine the demographic data provided by the respondents. Based on factors including age, gender, occupation, and system usage history, respondent data is categorized. The demographics of the respondents are then ascertained by graphing the classified data. Subsequently, inferential analysis was performed in the second section to examine the data and evaluate the hypotheses that were previously developed using the PLS-SEM approach with SmartPLS. The measurement model, also known as the outer model, and the structural model, often known as the inner model, are the two models used in inferential data analysis using SmartPLS.

3. Results and Discussion

Users are generally satisfied with using the online travel agent application if they need it in its entirety, as indicated by the respondents' answers, which are based on the results of the previous analysis of measuring user satisfaction levels. This indicates that the average value of the satisfaction level for users of online travel agent applications is 4.2. The model presented in this study has a high degree of validity and reliability, according to the findings of earlier investigation. This is shown by the outer loading value in the category above 0.7, the composite reliability (CR) value, the high cross loading value, and the average variance extracted (AVE) value, all of which have values over 0.5. As a result, the study's findings demonstrate that it is possible to move on to the inner model analysis from the outer model analysis. It can be concluded from the structural model findings that the US variable is significantly impacted by the CON variable, and the hypothesis H1 is accepted. The path coefficient value that results is 0.3, and the t-test is 3.15. The content variable has been proven to have a relationship with and influence the user satisfaction variable. The researcher's firsthand observations, which show that the online travel agent application offers content that is good, varied, and in line with user expectations, such as the most recent information and policies, support this. The influence of content (CON) on user satisfaction shows that users feel the benefits of the content provided by the online travel agent application and are in line with user expectations, so this variable has a significant relationship or has an important influence on the user's sense of satisfaction, so that the sense of satisfaction of online travel agent application users will increase. The research findings are consistent with earlier studies that found content had a major impact on application users and CON has a major impact on US users. It is possible to conclude from the data obtained that there is a connection between and influence of the content variable on user happiness.

It can be concluded from the structural model results that the ACC variable has no discernible impact on the US variable, and hypothesis H2 is rejected. The route coefficient value that results is 0.07, and the t-test is 0.56. One could argue that the user happiness variable is unaffected by the indications utilized in the accuracy variable. The association between accuracy and user satisfaction demonstrates that there is no relationship between the accuracy indicator in the application accuracy in supplying data and information and users' use of the online travel agent application. This is due to the fact that certain data or information, including hotel services or the hotel's location within the application, is still displayed that differs from the real one. User satisfaction will suffer as a result. Previous research, which asserts that accuracy has little bearing on or influence over user happiness, likewise supports the results reported. However, given that accuracy has a significant impact on user satisfaction and that prior study has shown that ACC affects user contentment with information technology use, this variable can be reexamined. It is clear from the data that there is no connection or effect of the accuracy variable on customer satisfaction.

The structural model results indicate that the FOR variable has a considerable impact on the US variable, as evidenced by the resulting path coefficient value of 0.27 and the t-test of 2.8. Therefore, hypothesis H3 is accepted. It has been demonstrated that the format variable affects and is related to the user satisfaction variable. It can be concluded that the format significantly affects how satisfied users are. This is supported by the researcher's firsthand observations, which show that the online travel agent application is user-friendly, visually appealing, and makes it easier for users to use. It is evident from the format's effect on user satisfaction that the online travel agent's user interface (or format) is enticing, intelligible, and easy to use. This indicates that the variable will raise the user's level of satisfaction with the tike.com application and is significantly related to or has a major influence on it. This is consistent with previous study that discovered a substantial relationship between the format variable and US; further research discovered a relationship between the FOR variable and system user satisfaction. It is clear from the data collected that there is a relationship between the format variable and user happiness.

The structural model findings show that the EOU variable has a considerable impact on the US variable, as evidenced by the resulting path coefficient value of 0.4 and the t-test of 5.4. Therefore, the H4 hypothesis is accepted. It has been demonstrated that the EOU variable is significant and positively correlated with user happiness. The relationship between user satisfaction (US) and ease of use (EOU) reveals that consumers experience a rise in satisfaction while utilizing the online travel agent application because they find it easy to use and meet their expectations before using it. Researchers' first-hand findings corroborate this, since users find the offered system to be intuitive and simple to use. This is consistent with another research that shows the user satisfaction.
happiness variable is influenced by and has a link with the EOU variable. The ease-of-use variable has an impact on and a relationship with user happiness, according to the results obtained. The path coefficient value that arises from the structural model is -0.1, and the t-test score is 1.5. Hypothesis H5 is rejected since there is no discernible relationship between the TIM and US variables. It has been established that the TEAM variable has no bearing on customer happiness. The link between timeliness (TIM) and user satisfaction (US) indicates that there is no association or influence between the timeliness variable's indicators and user satisfaction. This is because people find it challenging, and timeliness issues like the short payment deadline are to blame. It is essential to enhance and expand the application in the timeliness variable if you wish to alter the payment method while placing an order. This is consistent with earlier studies that found no connection or influence between the TIM research variable and user happiness. The TIM variable may be examined in more research, though, as the findings of this study differ from those of other studies, which explains why there is a substantial relationship between the variable and information system user satisfaction. It may be concluded from the results that there is no relationship or influence of the timeliness variable on customer satisfaction.

The path coefficient value that derives from the structural model is -0.2, and the t-test score is 3.4. As a result, hypothesis H6 is accepted because the USE variable has little effect on the US variable. Therefore, it can be concluded that while the USE variable affects US, it either has no effect at all or not at all on user satisfaction. The researcher's firsthand findings corroborate this, demonstrating that users perceive the advantages of utilizing the online travel agent application because it facilitates the process of searching for hotels or tickets when traveling, leading to a sense of satisfaction with its use. According to the relationship between perceived utility (USE) and user satisfaction (US), people perceive that having an online travel agent application makes traveling easier, which is one of the benefits of using it. Demographic data research confirms this, and most respondents already believe that tiket.com is helpful when traveling. These findings support earlier study that found a favorable but not statistically significant association between perceived usefulness and user happiness with an information system. This can be examined in light of earlier research, which indicates that there is a strong correlation between and an impact on user satisfaction from the perceived usefulness variable. It is possible to conclude from the data obtained that user happiness is not much impacted by the perceived usefulness variable, although it does have a link with it.

The resulting path coefficient value is 0.27 and the t-test is 2.92 based on the structural model results. The US variable is significantly impacted by the SER variable, supporting the acceptance of hypothesis H7. User happiness has been demonstrated to be significantly impacted by the SER variable, which also has a strong link with it. This is confirmed by direct research observations, which show that the online travel agent application offers quick and helpful support. Users can ask questions or report issues via the application right away, which helps them feel at ease and satisfied with the services they are receiving. The impact of service (SER) on user satisfaction (US) demonstrates that the online travel agent application's services already have a service team that is quick to respond to inquiries from users. This indicates that the online travel agent service aspect meets users' expectations, which will raise users' feelings of satisfaction. These findings are consistent with earlier studies that found a strong correlation and influence between the SER variable and system user satisfaction. It is possible to conclude from the results that there is a relationship between the service variable and user happiness.

This research marks a substantial difference from previous research in the context of the use of different research objects. Previously, the research focused on e-commerce in buying and selling goods online, while this research explores online travel agent applications, which include online booking of transportation tickets, events, and lodging. This is a rare step in using research objects because online travel agent applications have rarely been the main focus of previous research. Apart from the different research objects, there are significant methodological differences between previous research and this research. Previous research used a simple random sampling technique for sampling, while this research chose a purposive sampling technique. This change in sampling technique reflects a more specific approach to selecting respondents who have characteristics considered relevant to the research. In addition, in terms of analytical methods, this research develops the EUCS method used in previous research. The perceived usefulness and service variables were two new additions to the EUCS method. This opens the door to a deeper understanding of the factors that influence the user experience when using online travel agent applications. When comparing the results of the two studies, there are interesting differences. Previous research found variables that had no relationship, such as content and ease of use, while this research found variables that had no relationship, namely accuracy and timeliness. However, what is more prominent in this research is the discovery of a positive relationship between perceived usefulness, service, and user satisfaction. An important contribution of this research is the confirmation that these factors play an important role in increasing user satisfaction when using online travel agent applications. Thus, this research not only expands the field of knowledge in the context of online travel agent applications as a rarely explored research object but also presents new insights into the factors that influence user satisfaction in that context.
4. Conclusion

The analysis's findings support the notion that user happiness is significantly impacted by and related to the content variable. This suggests that user happiness may be impacted by the content of online travel providers. User happiness is significantly impacted by and related to format variations. This implies that customer happiness may be impacted by the form or format that the online travel agent application offers. User satisfaction is significantly impacted by and related to the ease-of-use attribute. This suggests that consumer happiness may be impacted by how user-friendly the online travel agent application is. User happiness is influenced by and related to the perceived usefulness variable. This suggests that consumers' perceptions of the online travel agent application's usefulness may influence their level of pleasure. User happiness is significantly impacted by and related to the service variable. This suggests that the level of service provided by the online travel agent application may have an impact on consumer satisfaction. In the meantime, user satisfaction is unaffected by the variables in this study that are rejected, specifically the accuracy variable, which is unrelated to user pleasure with the online travel agent application. User happiness is unaffected by the timing variable.

Recommendations for online travel agent application developers are in accordance with the problems found in the application, namely immediately displaying a payment invoice after making an order, adding a time limit when making a payment, paying attention to the accuracy of the data or information included in the application by synchronizing with parties who collaborate online travel agents in real time for both hotels and transportation, and adding up to the date information notifications if a hotel booking is canceled or a flight schedule changes, as well as improving the refund system, namely providing a display of time estimates and refund system tutorials so as not to make things difficult for users. Based on the research that has been carried out, researchers have several suggestions that could be taken into consideration for further research, namely as follows: Future researchers can add new variables related to user satisfaction with information systems. These variables are security and the mediating variable loyalty, making it possible to get better results. Carry out analysis using other modeling, such as the extended ECM (expectation confirmation model) or the UTAUT 3 (unified theory of acceptance and use of technology) model, to analyze user satisfaction with an application.

References


