

Effect of e-Service Quality on Customer Engagement Behaviors: Insight from the hotels in Malaysia

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Abstract

The reopening process has begun Covid-19, especially in the hotel operation. Therefore, the hotel industry must understand the need to influence customers' choices through advanced of information technology (IT). This study is intended to explore the effect of t e-service quality on customer engagement behaviors in Malaysian hotels. This study was analyzed via PLS-SEM with 247 respondents. The findings indicate that system availability significantly influences customer engagement behaviors, followed by efficiency, system availability, privacy/security, and fulfillment. Based on what this study found, Malaysian hotel service providers will be able to improve the quality of their e-services to get customers more involved.

Keywords: Artistic Community; Transposition of Space; Installation Art

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1.0 Introduction.

The hospitality sector encompasses many enterprises and establishments concerned with amusement and customer happiness (Natnaporn & Aeknarajindawata, 2019). Focusing on comfort, enjoyment, relaxation, and experiences, as defined in meeting customers' requirements and offering services, defines the quality of the hospitality sector. In terms of global economic power, the hotel and tourism sectors have expanded considerably in recent years. As in other Malaysian nations, several sectors actively lure tourists to Malaysia. Globally, the hotel business is growing at an unparalleled pace. As a worldwide business, the hotel sector has gained appeal. The hotel sector is quickly expanding (Fong, Lam & Law, 2017). The issues caused by Corona Virus pandemic (Covid-19) have greatly affected almost every element of hotel operations worldwide. As social distancing becomes, the new regular hotel operation needs to be implemented with the rise of hotel online booking, which is online hotel booking websites (Jiang & Wen, 2020). Pieces of information technology (IT) advancements, especially in hotel operations, are driving a radical change in the distribution of product services (Khoo, 2019). Since most reservations or bookings are now made online rather than offline, the hotel business is more likely to implement electronic service (e-service) (Ayob, Lan, & Sheringham, 2021). In addition, 3 out of every 4 billion people use electronic gadgets to browse the online hotel booking every month to make hotel reservations via social media, online travel agencies (OTA), and direct hotel websites, according to preliminary findings by McDonald (2018). Many people rely on electronic services because of the growing interest of hotel customers in making reservations through e-service platforms. To make matters more complex, the Covid-19 pandemic has significantly impacted every aspect of the hotel's overall operation (Jiang & Wen, 2020), necessitating strict hygiene practices for everyone involved, including service providers and customers. It is still possible to speed up the deployment of Industries 4.0, which combines digital technologies such as e-services into individuals' private, professional, and social lives in the face of pandemics (Jiang & Wen, 2020). The process of reopening, however, began gradually, and the government has begun to relax some of the rules. For example, the hotel can now reopen with limited customers to maintain social distancing and hygiene (Chi & Gursay, 2020). Due to these challenges, hotel operators can now promote their services locally and internationally, especially with the development of e-services, particularly in online hotel booking. This relatively brief break gave them an ideal chance to improve their online presence, particularly their website, by including more direct booking platforms like Agoda.com, Booking.com, and Traveloka.com, thereby enhancing the user experience across all of these online booking platforms (Mauguin, 2020).

2.0 Literature Review.

2.1 E-Service Quality

Electronic service as e-service quality can be described as efforts and performance whose delivery is mediated by information technology (Rowley, 2006). The concept of service

quality can be defined as customers' overall evaluation and judgment of the excellence and quality of e-service products in virtual markets (Parasuraman et al., 2000). The concept of e-service quality existed from using traditional service quality to evaluate the quality of a website itself. Based on the researcher's findings, e-service quality refers to a company's capacity to provide customers with virtual services and meet their needs and expectations (Husain, 2017). According to Li, Peng, Jiang, and Law (2017), the hotel website is defined by online lookers and investigated its variables for such e-service quality. It is one of the crucial ways to communicate with its customer's online platform (Chen & Dhillon, 2003).

Moreover, Parasuraman et al. (2000) pointed out that quality problems of e-services should be assessed across the entire online process, from information search to information search. The e-SERVQUAL scale measured e-service by a core dimension within this study, including performance, system availability, efficiency, privacy/security, and fulfillment. On the other hand, the hotel industry is one of those that benefit from attracting visitors and encouraging them to return. Over the last decade, researchers have focused on the rise of e-service in the hospitality industry. The hospitality industry encompasses various businesses and facilities concerned with entertainment and customer satisfaction (Khoo, 2019).

In contrast to food for needs and necessities, the hospitality industry is distinguished by its emphasis on comfort, enjoyment, and life. As a result, the hotel industry is the foundation of the hospitality industry and is rapidly becoming one of the world's fastest-growing industries. Li, Peng, Jiang, and Law (2017) state that one of the most important ways to engage with your consumers on the platform is through your hotel's website, which is determined by online users and whose electronic service quality factors are evaluated primarily in the research and planning stages of a transaction. Furthermore, the quality of a hotel's e-services is crucial to its overall service. (Lacalle, 2021). Website quality is used as a synonym for e-service across many sectors, with a beneficial effect on advertising and the success of online services. Location details, accepted payment methods, and on-site amenities are available to visitors, and accommodation reservation information is easily accessible (Khoo, 2019).

System Availability

The hotel reservation system, for instance, is a method that allows customers to make secure online reservations. While the procedure is comparable to hotel online booking, the hotel's booking engine connects directly to its website, avoiding any further expenses for the property. Using the hotel's online booking system, customers may pick the length of their stay, the sort of room they like, and any extras and pay using a secure payment platform (Lacalle, 2021). For instance, Law and Hsu (2006) assess the dimension of the hotel's website, including the reservation information, hotel amenities, property contact information, the surrounding region, and website administration, as well as the features those online users in each dimension value most. The reservation information dimensions include the room rate, availability, and security of payment, the location map, hotels, and room conveniences (in facility data), the telephones, address, and e-mail addresses of the

hotels (for contact details), transportation services to the hotels, airport, and entertainment venues (for surroundings details), and up-to-date data, multilingual sites, and a rapid download time are among the essential system availability (for website management).

Efficiency

According to Parasuraman, Zeithaml, and Malhotra, efficiency is defined as the ease and rapidity with which users access and utilize a website (2005). In other terms, efficiency is the potential to decrease website consumption or browsing time. When developing a website, efficiency is often one of the most significant factors to consider since customers are typically more concerned with usability, requiring relevant information about the goods and services (Abdullah et al., 2016). On the other hand, most hotel website visitors are mobile due to the nature of the hotel and tourism industries. Therefore, cell phones, tablets, and other computing devices can access the website. A decent website must be resizable and permit these devices' reservations. In addition, delivery and payment information processing through automatic answers, hotel websites' search speeds, and a well-structured website are instances of efficiency (Li, Peng, Jiang, & Law 2017). When customers view a particular e-service of a website as trustworthy, they are more likely to return to the site and interact with the service in the future (Abdullah et al., 2016).

Moreover, one of the most crucial aspects of designing a website for a market that places a premium on usability is ensuring visitors can easily find the information they need about goods and services without wasting time (Abdullah et al., 2016). Value is created, and customer satisfaction is maintained when a business promptly addresses and satisfies customer requests (Khoo, 2019). Customers are more likely to return to a hotel with an improved reservation flow and customer service if their questions and orders are answered quickly and accurately (Lacalle, 2021). Many hotel website visitors are likely to be on the go, given the nature of the hospitality and travel industries. As a result, the website will be visited via mobile devices such as smartphones and tablets, and traditional computers.

Privacy and Security

Privacy and security include measures that prevent unauthorized third parties from accessing confidential client information at the start and finish of a transaction (Fong, Lam, & Kaw, 2017). Website security and privacy are frequently discussed in the travel and hospitality industry in today's internet age. When making an online purchase, customers are leery about giving their personal information to an untrusted website because they want to receive better service from that site in the future (Fong, Lam, & Kaw, 2017). These researchers found that people are hesitant to plan trips using websites or apps for several reasons, including privacy and safety concerns related to providing personal and financial information online. Despite the ease of use that internet platforms provide, experts say that clients may be reluctant to use them due to these concerns. Despite the ease of use that internet platforms provide, experts say that clients may be reluctant to use them due to these concerns. Multiple prior studies (Ayob, Lan, & Sheringham, 2021) corroborate these

doubts by demonstrating a robust correlation between trust and the propensity to make an online hotel reservation when privacy and security issues exist.

Fulfillment

Orders can only be fulfilled if they are correctly described, delivered on time, and contain the necessary information. The sustainability of online websites at danger when customers cannot complete a transaction, things are not delivered on time or at all, e-mails are not replied to, and essential information needs to be gathered. On-time delivery, order fulfillment, and appropriate delivery circumstances are all critical components of a hotel's ability to provide excellent customer service (Fong, Lam, & Kaw, 2017). Electronic services are judged on customers' satisfaction and engagement on hotel websites to serve them better. Reservation systems must match the needs and expectations of customers, for example, by allowing them to rapidly access their personal information and connect with hotel sites (Khoo, 2019). Customer satisfaction also depends on the correctness of product demonstration, with the items generated by the customer matching the things requested and being delivered on time (Khoo, 2019).

On the other hand, the quality of a hotel's customer service depends on its ability to ensure timely deliveries, accurate reservations, and suitable weather conditions for all outbound packages. That is because customer happiness is a significant factor in determining the quality of an e-service. Consequently, website quality is crucial in facilitating the customer's search for the desired product. Therefore, it should never be a problem for hoteliers to enhance the customer experiences and ensure their satisfaction (Ayob, Lan, & Sheringham, 2021).

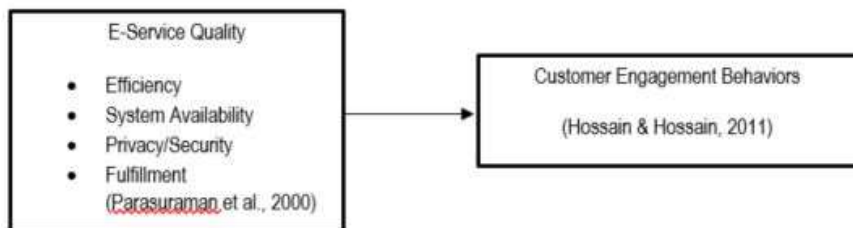
2.2 Customer Engagement Behaviors

Involvement in an industry's products and organizational operations initiated by the company or its customers is defined as "interaction" (Beatty et al., 2012). The behavior aspect of consumer interaction is also described. Numerous personality traits impact how well a company engages with its customers. The three-way communications networks focus on customers' online reviews of their most recent dining encounters. Furthermore, hotels have different sectors and operations in the hospitality industry. The essential strategy for customer engagement with hotel service providers is that most customers expect interaction from hotel service providers before and during their journey to improve their experience (Gounaris et al., 2010). In addition, customer engagement begins during the first interaction with the customer and will last even after the customer has experienced good service. Thus, the perceptions, assessments, and opinions expressed in these user-generated online reviews comments often significantly impact the hotel business and prospective customers (Roy et al., 2018). This interaction has an impact on businesses in a variety of ways, including word-of-mouth (WOM) activities, references, and feedback, customer assistance offered voluntarily, web posts and blogging, brand groups participation, product creation engagements, and other behavioral manifestation that may affect the business and its product (Gounaris et al., 2010; Roy et al., 2018). To enhance

customer engagement with the hotel, the hotel provider must provide the customers with easy-to-use and trustworthy websites because the customers will reveal their engagement when they have experienced a good service which the online hotel booking is easy to access and the information provided is easy to understand by customers to make a hotel's reservation. As a result, the customers recurring satisfaction with the hotel websites might return and use the service offered, thus developing customer engagement behaviors towards the hotel websites. Because of the proliferation of social media platforms, business-to-customer and customer-to-customer interactions have evolved into a three-way contact network involving the customer, the hospitality company, and potential customers. The majority of individuals browse online reviews before booking a reservation. By reading other customers' reviews about other customers' experiences on an online hotel booking website, prospective guests can learn more about the hotel of their choice and improve their standards as they make their booking decision (Ayob, Lan, & Sheringham, 2021). Online hotel reviews are a reliable source of information since they are constantly updated and contain more recent data than what is provided by the service suppliers themselves. When examining the internal structure and formation systems of customer engagement in online booking reviews. The previous researchers from Roy et al. (2018) indicated that customer engagement significantly influences the customers to keep connected and engage with the hotel service provider. Moreover, within the online review from the customers, the hotel service provider can interact with the customers, which enables them to answer all the questions and fulfill the customer requirements without a doubt.

2.3 Theoretical Framework

Table 1: Theoretical Framework



Source: (Parasuraman et al., 2000; Hossain & Hossain, 2011)

3.0 Methodology

According to Creswell (2014), quantitative analysis and surveys were used in this study to determine the quantitative influence of the targeted latent components. The researchers use a quantitative approach to collect information from potential respondents using an appropriate sampling method and distributed the questionnaires through the online survey

platform. Survey research is a technique that may focus on a single group of the targeted population that is being studied. In this study, the researcher uses a causal research design where this study is conducted to determine a cause-and-effect relationship between two and more variables. In addition, the researcher uses causal research, known as explanatory research, to identify the cause-and-effect relationship where it focuses on the analysis of situations or specific problems to explain the pattern of relationships between variables (Hair et al., 2017). A well-designed questionnaire is assigned. Since this study fundamentally aims at the influence of e-service quality on customer engagement behavior, the researchers used the non-probability multi-stage sampling technique where the population elements' sampling frame is unavailable. This study's non-probability sampling technique combines judgmental and purposive-convenience sampling techniques. In this study, the researchers chose 247 participants who agreed to participate. The details characteristics of the targeted population are that the respondent must be an adult who already has a job and income, and the respondents can be Malaysian or non-Malaysian citizens; thus, the respondent must have experience visiting a hotel in Malaysia. Besides, in the first stage, judgmental sampling was applied with several important characteristics: the respondent must be an adult who already has a job and income. The respondents must have experience visiting a hotel in Malaysia. After that, purposive-convenience sampling was applied at the final stage to get a response from the respondent. The survey was distributed using Google Forms and circulated via social media such as Facebook. Hossain (2011) provided the customer engagement behaviors variable, and Hahn et al. (2017) provided the e-service quality variable of fulfillment, system availability, efficiency, and privacy/security for this study's research questions. Since this study attempts to investigate the new conceptual framework simultaneously, the statistical analysis used the Structural Equation Modeling using Partial Least Squares (PLS-SEM) (Hair et al., 2017). Bootstrapping was employed to determine the significance test in this PLS-SEM experiment, which is more trustworthy than the usual t-test (Hair et al., 2017). According to Hair et al., (2017), the recommendation's 5000 sample replications were used to calculate empirical t-statistics and the Bias Corrected (BCa) bootstrap (2017).

4.0 Findings and Discussion

4.1 Measurement Model Analysis

Table 1 shows that all items measuring the targeted variables have a factor loading value greater than 0.70. Other criteria, such as Average Variance Explain (AVE), Composite Reliability, and Cronbach's Alpha for each variable which are fulfillment, system availability, efficiency, privacy/security, and customer engagement behaviors also meet the PLS-SEM analysis's minimum requirements of 0.50 and 0.70. (Hair et al., 2017). In terms of discriminant validity, Table 2 showed that fulfillment, system availability, efficiency, privacy/security, and customer engagement behaviors were distinguishable from the others because the HTMT ratio value was less than 0.90. (Henseler et al., 2015). As a result, it

confirms that each variable in this measurement model has optimal convergence and discriminant validity.

Table 2: Convergent Validity for Measurement Model

| Indicator | Loading | AVE | γ | α |
|--|---------|-------|----------|----------|
| Fulfillment | | | | |
| It delivers orders when promised (FUL1) | 0.824* | | | |
| This site makes items available for delivery within a suitable time frame (FUL2) | 0.889* | 0.753 | 0.924 | 0.890 |
| It quickly delivers what I order (FUL3) | 0.894* | | | |
| It sends out the items ordered (FUL4) | 0.862* | | | |
| Availability | | | | |
| This site is always available for business (AVA1) | 0.855* | | | |
| This site launches and runs right away (AVA2) | 0.874* | 0.769 | 0.930 | 0.900 |
| This site does not crash (AVA3) | 0.890* | | | |
| Pages at this site do not freeze after I enter my order information (AVA4) | 0.889* | | | |
| Efficiency | | | | |
| This site makes it easy to find what I need (EFF1) | 0.831* | | | |
| It makes it easy to get anywhere on the site (EFF2) | 0.864* | 0.670 | 0.890 | 0.835 |
| It enables me to complete a transaction quickly (EFF3) | 0.797* | | | |
| Information at this site is well organized (EFF4) | 0.780* | | | |
| Privacy / Security | | | | |
| It protects information about my Web-shopping behavior (PSC1) | 0.890* | | | |
| It does not share my personal information with other sites (PSC2) | 0.859* | 0.714 | 0.909 | 0.866 |
| This site protects information about my credit card (PSC3) | 0.839* | | | |
| I feel safe when dealing with web transactions (PSC4) | 0.790* | | | |
| Customer Engagement | | | | |
| I prefer to book the hotel on this hotel website (CEB1) | 0.869* | 0.740 | 0.919 | 0.883 |

| | |
|--|--------|
| I will make my next booking from this hotel website (CEB2) | 0.849* |
| I will revisit this website in the future (CEB3) | 0.860* |
| I will recommend the others to visit this website (CEB4) | 0.862* |

Note: AVE = Average Variance Explained; γ = Composite Reliability; α = Cronbach's Alpha; *p <0.05.

Table 3: HTMT Discriminant Analysis for Measurement Model

| | (1) | (2) | (3) | (4) | (5) |
|-----|--------|--------|--------|--------|-----|
| (1) | - | | | | |
| (2) | 0.773* | - | | | |
| (3) | 0.889* | 0.850* | - | | |
| (4) | 0.798* | 0.804* | 0.862* | - | |
| (5) | 0.795* | 0.852* | 0.860* | 0.811* | - |

Note: (1) = Fulfillment; (2) = Availability; (3) = Efficiency; (4) = Privacy / Security; (5) = Customer Engagement; *p <0.05.

4.2 Structural Model Analysis

According to the structural model analysis, the independent variables which are fulfillment, availability, efficiency, and privacy/security can explain approximately 67% of the variance explained toward the dependent variable which is customer engagement behaviors. According to the effect size analysis in Table 3, system availability has a medium effect size on customer engagement, whereas fulfillment, efficiency, and privacy/security have a small effect size relationship towards customer engagement behaviors. In terms of structural path analysis, fulfillment, system availability, efficiency, and privacy/security had a statistically significant effect with a positive direction toward customer engagement behaviors at the 5% level of significance because the p-value was less than 0.05. (Hair et al., 2017). It is also supported by of BCa Bootstrapping confidence interval analysis, which found that the 95 % confidence interval did not contain the value of zero (Hair et al., 2017).

Table 4: Structural Model for Measurement Model

| Path | β | t-statistic | p-value | 95% BCa Bootstrap | f^2 | Remark |
|------------|---------|-------------|---------|-------------------|-------|--------|
| FULL → CEB | 0.159 | 1.987* | 0.047 | (0.005, 0.313) | 0.028 | Small |
| AVA → CEB | 0.356 | 4.651** | <0.01 | (0.207, 0.505) | 0.149 | Medium |
| EFF → CEB | 0.223 | 3.051** | <0.01 | (0.072, 0.361) | 0.028 | Small |
| PSC → CEB | 0.183 | 2.740** | <0.01 | (0.044, 0.307) | 0.039 | Small |

Note: FUL = Fulfillment; AVA = Availability; EFF = Efficiency; PSC = Privacy / Security; CEB = Customer Engagement; β = Path Coefficient; f^2 = Effect Size; The bootstrap sample was 5000 samples; *p <0.05; **p <0.01.

5.0 Conclusion & Recommendations

This study's findings explain E-service quality toward customer engagement behaviors. Customers are more likely to be engaged if they can count on high average levels of satisfaction, availability, efficiency, and privacy/security. It is already known the first research objective whereby there is a significant relationship between e-service quality and customer engagement behaviors based on the findings identified from the previous chapter which all indirect effects were significantly greater than 95%. However, the analysis also revealed that, due to the highest value of the path coefficient, system availability is the most significant influence influencing customer engagement behaviors, followed by system efficiency, system privacy and security, and finally, system fulfillment. These findings also revealed that e-service on the hotel website is expected to have a strong search engine, which is essential for encouraging customer engagement behaviors. In addition, the fulfillment shows the hotel website has been providing platforms that are convenient to access which the customer will keep engaged with the hotel itself for the next booking thus, system availability and privacy/security are simply links with the customers where the customers are direct to the hotel website which they can choose and select their preferences and pay securely within online payment platform through online hotel booking. Based on the results, it has been proved that e-service quality significantly affects customer engagement behaviors. The results of this research have made a substantial contribution to both the academic and industrial fields of hotel management. This study may give a complete picture of the manager's factors influencing customer engagement behaviors. This gives them an advantage over their competition. In addition, this study aids the organization in sustaining and even enhancing the quality of their e-services, specifically hotel online services. Academically speaking, testing hypotheses and subsequent connection to the results of empirical data gathered from existing literature will contribute to the current body of knowledge. It will give additional information about the elements driving consumer engagement behaviors and enable the other researcher to publish future work on the topic. This study will also serve as one of the new reading resources and reference materials for future scholars. If the hotel's service provider can increase customer engagement on its website, this relatively brief hiatus was the perfect chance for them to strengthen its online presence, notably its website, by introducing extra direct online booking tools. They may gain more customers for their firm if the e-service portal is appropriately installed and thoroughly examined. The research limitations are significant for researchers to gain more knowledge about research. More detailed and in-depth research should be performed using a little improvisation of the theoretical framework. It would be fascinating to explore the influence of e-service quality on customer engagement behaviors and how it will affect the hotel industry in enhancing the successful implementation of e-service itself in the modern era of innovative technology.

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Paper Contribution to Related Field of Study

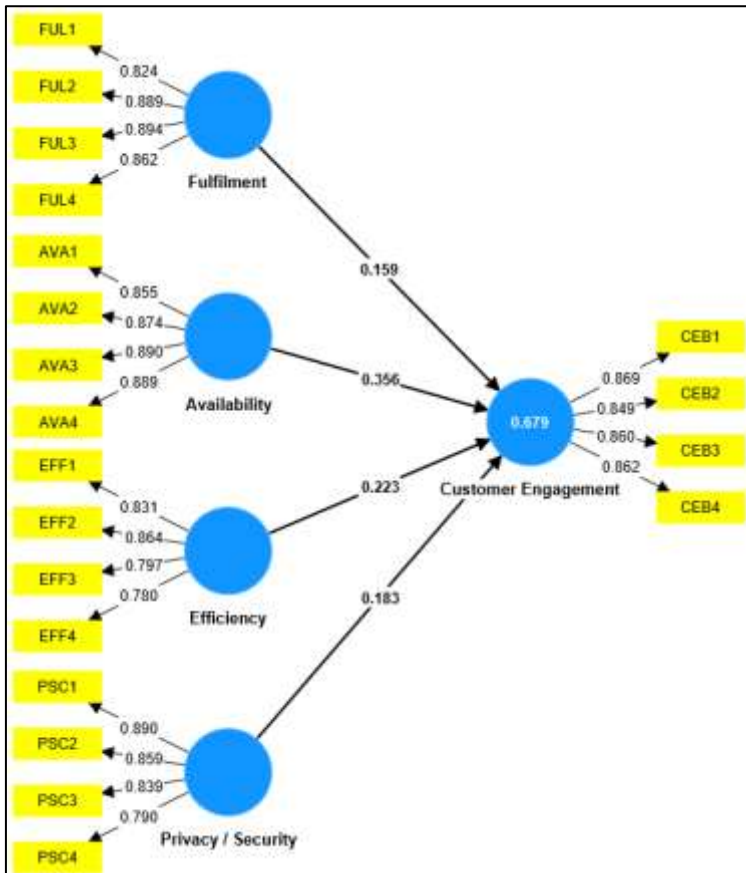


Figure 1: PLS-SEM Analysis Output for Loading and Path Coefficient Values

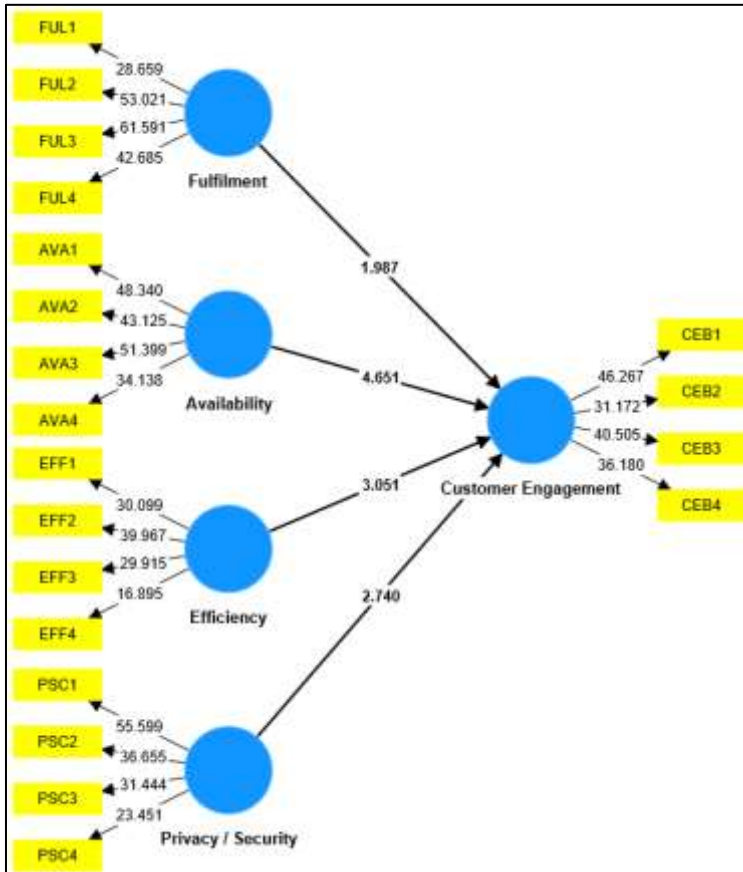


Figure 2: PLS-SEM Analysis Output for t-statistic values via Bootstrapping Analysis

Upon the basis of the finding of this research, it is hoped that the research results will provide light on how successfully e-service deployment may be carried out in Malaysian hotels. It is good news for hoteliers since e-services can help them increase income, cut costs, and improve customer service in the hospitality business. This study's results will aid the Malaysian Association of Hotels (MAH) and Malaysian hotels in enhancing the quality of e-services to stimulate consumer involvement by hotels themselves. In the future, the practical and integrated performance of e-service quality may contribute to the performance of Malaysian hotels. Soon after the successful deployment of the e-service, the Malaysian Association of Hotels (MAH) would be able to advertise and entice customers to stay and remain involved with hotels. Besides, this study also is to improve the hospitality business, where it is beneficial for management to understand the hotel's customers to adopt the e-service in their hotel reservations. In addition, from the researchers' point of view, this study

will help all the overall hotel operation management to understand the convenience better using the e-service. This research is vital for both the hospitality industry and hospitality researchers. The hotel service provider can use their information to decide whether they want to improve the service. Completing the study will enable the researchers to enhance their understanding so that they can acknowledge the e-service from various aspects.

Authors Declaration

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