1.0 Introduction

Service providers implemented technology-enabled mechanisms (i.e., Self-Service Technologies, or SSTs) to provide customers with more convenient services to increase their productivity and satisfaction. It permits purchasers to garner and utilize services without interacting directly with service organization employees. Customer processes for acquiring services from service firms range from services provided by employees to services co-produced by the customer. In addition, the objective was to expedite customer access to services through modern and convenient channels in green hotels. By doing so, they can meet their customers’ demands and satisfaction. SSTs are technologies that empower customers to produce services independently. SSTs can strengthen the delivery process, meet service quality, and provide enhanced customer services (Kim et al., 2020). SSTs offer specific benefits to customers, including location convenience, efficient output, and happiness. Adoption factors that influenced the utilization of SSTs and customer satisfaction have all been studied concerning SSTs in various industries. SST investments are profitable when customers adopt the technology. The technology

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Today's hotels are deploying self-service technologies (SSTs) to deliver efficient and effective service. SST significantly impacts customers' interaction with service providers. Through the survey, this study explores the relationship between SST and customer behavioral intention via customer satisfaction for Malaysia's green hotel industry. Data from 431 respondents were analyzed using the partial least squares approach using structural equation modeling. The findings showed that customer satisfaction mediated the association between SST and customer behavioral intention. This finding would help the green hotel managers to focus on SST, which could boost customer satisfaction and indirectly improve the likelihood of positive behavioral intention.

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Investigating the Effect of Satisfaction toward Self-Service Technology (SST) and Behavioral Intention Relationship: Its role in the green hotel industry

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gives a strong customer experience, culminating in customer and organization pleasure with the technology. However, previous research has focused primarily on theories explaining the adoption of information technology. Consequently, research on SST also focuses primarily on initial technology acceptance factors. In contrast, the hospitality and tourism literature has addressed service quality and behavioral intention less frequently. The significance of satisfaction as a determinant of continued SST use. However, the function of satisfaction in this process is not yet fully understood, specifically for the role of the customer’s in-store interaction with the technology and the possibility of satisfaction with the technology translating to satisfaction with the green hotel industry. Moreover, this study investigates the effect of satisfaction toward self-service technology (SST) and behavioral intention relationship in the green hotel industry. This study adds three new contributions to the field of green hotel research. First, it emphasizes technology experience evaluation as the primary driver of technology satisfaction, as opposed to perceptions of technology attributes or perceived quality (Hamid et al., 2016). Therefore, it follows that (Hamid et al., 2016), who emphasized the importance of satisfaction in conceptualizing post-behavior, are correct. Second, satisfaction is included as a crucial mediator. Green hotel research investigates SST satisfaction and loyalty due to technology utilization (Cronin et al., 2000). Thirdly, it analyses satisfaction in green hotel service settings and reaffirms the proposed mediated relationships. The following section contains a literature review of technology experience in green hotels, followed by a description of the survey procedures and measures. Consequently, we describe the outcomes. In conclusion, the discussions of this research’s theoretical and practical implications lead to several limitations and potential areas for future research.

2.0 Literature Review

2.1 Self-Service Technology (SST)
SSTs have accelerated the realm of information and communication (Kim et al., 2020) and have also altered how tourist services are provided. This concept, first proposed by Ali et al., 2006, is one of the novels approaches to providing tourists with speed (saving time, flexibility) and convenience. It also decreases costs, boosting firms' productivity and profitability. In the tourism industry, SST examples include self-check-in kiosks in airlines, self-check-in/check-out in hotels, and online bookings and reservations. Not to mention relevant technologies, including automated teller machines in banking, self-scanning [38], and self-checkout systems. Numerous studies have been conducted on customers' actual use of SSTs and the effects of implementing SSTs in various organizations. Some authors have examined customers’ perceptions of diverse SSTs by calibrating the nature of their friends and colleagues and reaches in diverse circumstances. Past research on the paradigm of service quality (Ahmed & Parasuraman, 1994; Cronin et al., 2000) further conceptualized service quality as a five-dimensional construct in terms of its contextual environment. These distinguishing features are (1) dependability, (2) responsiveness, (3) assurance, (4) empathy, and (5) tangibleness. "SERVQUAL" was introduced to measure service quality in the face-to-face setting of the service process.

2.2 Service Quality
The service quality model includes the distribution method content provided through the service encounter (Ahmed & Parasuraman, 1994). The relevant debate on service quality characteristics and measurement has evolved over the last few decades (Zeithaml et al., 1996). Prior research that aimed to delve deeper into the service quality paradigm (Ahmed & Parasuraman, 1994; Cronin et al., 2000) conceptualized service quality as a five-dimensional construct in terms of its contextual framework. (1) reliability, (2) responsiveness, (3) assurance, (4) empathy, and (5) tangibility are the relevant characteristics. "SERVQUAL" was coined to characterize the measurement of service quality in the face-to-face setting of the service process. As markers, we chose technical quality, functional quality, and business image. In terms of service delivery and consumption, their model involves tangible quality associated with physical objects engaged in the service production process. As a result, service quality metrics have generally focused on consumer interactions with service professionals. Furthermore, the organization works to increase SST service quality to improve customer experiences directly or indirectly related to operations, retain customers, and incorporate technical improvements into the business. SST is a technology interface that allows clients to access hotel services without the intervention of employees. Among the different interfaces are websites, social media, automated hotel check-ins and checkouts, self-service enclosures (e.g., e-photo kiosks, information booths, interactive music, and movie samplers, and electronic kiosks for gifts), and grocery self-checkout lanes. SSTs enable low-cost transactions, co-creation, adaptability, and the lowering of diverse service interactions. Thus, by providing SSTs, green hotels can maximize their performance and reduce operational costs. As a result, SSTs are increasingly viewed as a means of cost-effectively managing expenses and enhancing customer satisfaction to reduce unnecessary service delivery delays (Hamid et al., 2016).

2.2 Customer Satisfaction
The degree to which a consumer feels positive emotions in reaction to a service interaction is measured by satisfaction (Hamid et al., 2016). Satisfaction refers to a customer's satisfaction in a purchase situation in exchange for a specific price. Thus, satisfaction is defined as a “customer's pleasing reaction” based on comparing what the customer has bought, purchased, and consumed. Thus, by offering SSTs, green hotels can improve their performance while lowering their operating expenses. As a corollary, SSTs are increasingly viewed as cost-effectively managing expenses and satisfying customers to avoid unnecessary service delivery delays (Hamid et al., 2016), practices with expected benefits from a services brand, and their predicted potential to meet the consumer's satisfaction objectives. It is mainly an assessment of the aspects of a product or service that contribute to a good level of consumption-related experience. Numerous
studies have found a link between customer satisfaction and service quality when viewed through the customer technology interface. Furthermore, electronic service quality is favorably connected with customer satisfaction in SST applications.

2.3 Behavioral Intention
To understand the relationship between behavioral intentions and actual behavior, Ajzen's Theory of Reasoned Action was used (Ajzen, 2011, 2020). According to Ajzen's (2011) Theory of Reasoned Action, customer attitude about modern technology is usually regarded to significantly affect behavioral intention (Ajzen, 2011, 2020). Several popular models use customer ratings of SST service quality in terms of satisfaction and behavioral intentions to reveal post-purchase behavior. Such factors tell whether a consumer will depart or stay at a green hotel and make favorable comments (Hamid et al., 2016). Customers also support green hotel products, are willing to pay premium costs, and are loyal to the hospitality industry.

Furthermore, they recognize a clear link between behavioral intentions and satisfaction. Behavioral intentions are also defined as their ability to say positive things about them and highly suggest them to other customers, remain loyal to them, repurchase from them, spend more money with the company, and, last but not least, pay a premium price. Furthermore, numerous studies have demonstrated the predictive nature of the behavior, implying that it should be possible to predict specific behaviors based on intentions with acceptable accuracy (Hamid et al., 2016).

3.0 Methodology
This study employed a quantitative analysis with a combination of cross-sectional research methodology since this study intends to quantify a relationship in one new conceptual framework with a one-time data collection method (Creswell, 2014). The data collection took two months, from the end of April until the end of June. A total of 431 respondents agreed to participate in this study. They were selected using a convenience sampling technique, and the questionnaire was distributed using Google Forms via social media platforms such as Facebook and Instagram. As for the statistical analysis procedure, the Structural Equation Modeling with Partial Least Squares (i.e., PLS-SEM) estimation multivariate data technique was used since this study intends to explore the new conceptual framework simultaneously (Hair et al., 2017). In addition, the significance test in this PLS-SEM analysis was computed using the Bootstrapping method, which can be considered more robust than the conventional t-test method (Hair et al., 2017). Therefore, 5000 replications of samples were computed as suggested by Hair et al. (2017) to get reliable results for empirical t-statistics and Bias Corrected (i.e., BCa) bootstrap. In terms of measuring the effect of mediating, Hair et al. (2017) suggested testing the significance of the indirect effect coefficient via bootstrapping, and as for deciding the mediating effect, Zhao et al. (2010) suggest that:

1) If the path of the independent variable to the dependent variable was not significant and the indirect effect was significant, the mediating effect was a full mediation effect.
2) If the path of the independent variable to the dependent variable was significant and the indirect effect was significant, the mediating effect was a partial mediation effect.

4.0 Findings and Discussion
4.1 Measurement Model Analysis
The measurement model analysis (Table 1) shows that all items in this model were valid since the factor loading for each item was above 0.70, and the value of Average Variance Explain for each variable was also above 0.50. In addition, Composite Reliability and Cronbach's Alpha values were also 0.70 (Hair et al., 2017). The analysis of the HTMT ratio reported in Table 2 also confirms that all variables were discriminated against each other's since the ratio value was below 0.90. Therefore, it confirms that each variable in this model can be considered to have optimal convergence and discriminant validities.

<table>
<thead>
<tr>
<th>Table 1: Convergent validity for the measurement model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Tangible</td>
</tr>
<tr>
<td>The service process of the green hotel's self-service technology is clear (TAN1)</td>
</tr>
<tr>
<td>The green hotel's self-service technology is up-to-date technology (TAN2)</td>
</tr>
<tr>
<td>The layout of the green hotel's self-service technology is esthetically appealing (TAN3)</td>
</tr>
<tr>
<td>The service process of the green hotel's self-service technology is error-free (TAN4)</td>
</tr>
<tr>
<td>Reliability</td>
</tr>
<tr>
<td>When I have a problem with this self-service technology, the green hotel's employee shows a sincere interest in solving it (REA1)</td>
</tr>
<tr>
<td>The green hotel's self-service technology provides me with all relevant information (REA2)</td>
</tr>
<tr>
<td>The green hotel's self-service technology employee is dependable (REA3)</td>
</tr>
<tr>
<td>When I have problems regarding this self-service technology, the green hotel's employee is sympathetic and reassuring (REA4)</td>
</tr>
<tr>
<td>Responsiveness</td>
</tr>
</tbody>
</table>

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The green hotel's employee keeping informed me about when self-service technologies will be performed (RES1) 
0.806* 
The green hotel's employee always willing to help me regarding this self-service technology (RES2) 
0.895* 
The green hotel's employee always ready for responding to my inquiries regarding this self-service technology (RES3) 
0.783* 
The green hotel's employee is never too busy for responding to my inquiries regarding this self-service technology (RES4) 
0.756* 
Assurance 
The green hotel providing the self-service technologies is well-known (ASS1) 
0.795* 
The green hotel providing self-service technologies has a good reputation (ASS2) 
0.801* 
I feel safe in my transactions with the green hotel's self-service technologies (ASS3) 
0.816* 
A clear privacy policy is stated when I use the green hotel's self-service technologies (ASS4) 
0.838* 
Empathy 
The self-service technology has operating hours convenient to me (EMP1) 
0.757* 
The green hotel's self-service technology has a feature that are personalized for me (EMP2) 
0.869* 
It is easy and convenient to use green hotel's self-service technology (EMP3) 
0.761* 
The green hotel's self-service technology understands my specific needs (EMP4) 
0.753* 
Satisfaction 
Overall, I am satisfied with the self-service technologies offered by the green hotel (SAT1) 
0.882* 
The self-service technologies offered by the green hotel exceed my expectations (SAT2) 
0.860* 
The self-service technologies offered by the green hotel are close to my idea (SAT3) 
0.819* 
Behavioral Intention 
The probability that I will use this self-service technology again is high (BIN1) 
0.904* 
The likelihood that I would recommend this self-service technology to a friend is high (BIN2) 
0.762* 
If I had to do it over again, I would make the same choice (BIN3) 
0.735* 

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

Table 2: HTMT discriminant analysis for measurement Model

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>-</td>
<td>0.403*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(2)</td>
<td>0.520*</td>
<td>0.580*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(3)</td>
<td>0.613*</td>
<td>0.668*</td>
<td>0.727*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(4)</td>
<td>0.649*</td>
<td>0.588*</td>
<td>0.543*</td>
<td>0.701*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(5)</td>
<td>0.705*</td>
<td>0.643*</td>
<td>0.751*</td>
<td>0.739*</td>
<td>0.669*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(6)</td>
<td>0.689*</td>
<td>0.592*</td>
<td>0.624*</td>
<td>0.771*</td>
<td>0.742*</td>
<td>0.807*</td>
<td>-</td>
</tr>
<tr>
<td>(7)</td>
<td>0.796*</td>
<td>0.785*</td>
<td>0.815*</td>
<td>0.890*</td>
<td>0.815*</td>
<td>0.815*</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: (1) = Tangible; (2) = Reliability; (3) = Responsiveness; (4) = Assurance; (5) = Empathy; (6) = Satisfaction, (7) = Behavioral Intention; *p <0.05.

4.2 Structural Model Analysis

The structural analysis (Table 3) indicated that all independent variables are tangible; reliability, responsiveness, assurance, and empathy can explain around 58.3% of the variance in the satisfaction mediator variable. In contrast, the combination of all independent variables, tangible, reliability, responsiveness, assurance, and empathy, and the mediator variable, satisfaction, can explain 61.7% of the variance explanation toward the dependent variable, behavioral intention. In terms of effect size, tangible and responsiveness variables can give a medium effect toward satisfaction. The analysis also indicated that only the empathy variable gives a medium effect toward the behavioral intention. As for significant path analysis, tangible, reliability, responsiveness, assurance, and empathy were found to have a positive and statistically significant effect on the satisfaction variable at 5% significance since the p-value was below 0.05 (Hair et al., 2017). It is also confirmed by the BCa Bootstrapping confidence interval analysis, where the 95% confidence interval did not consist of the value zero (Hair et al., 2017). The analysis also indicated that only satisfaction and empathy variables were found to have a simultaneously positively statistically significant effect on the behavioral intention variable at a 5% significance level. In contrast, tangible, reliability, responsiveness, and assurance do not significantly affect behavioral intention.
4.3 Mediating Analysis

The mediating analysis reported in Table 4 indicated that satisfaction was statistically simultaneous mediated by the relationship of TAN → BIN, REA → BIN, RES → BIN, ASS → BIN, and EMP → BIN. It is because the indirect effect coefficient was significantly at a 5% level of significance as well as the 95% BCa Bootstrapping confidence interval did not include the zero value. Since the direct effect of TAN → BIN, REA → BIN, RES → BIN, and ASS → BIN were not statistically significant. Hence these four mediating paths can be considered fully mediated. In contrast, the mediating path of EMP → SAT → BIN can be categorized as partially mediated since the direct effect was statistically significant.

Table 4: Indirect Effect of Structural Model

<table>
<thead>
<tr>
<th>Indirect Path</th>
<th>IEC</th>
<th>t-statistic</th>
<th>p-value</th>
<th>95% Bootstrap</th>
<th>BCA</th>
<th>Direct Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAN → SAT → BIN</td>
<td>0.049</td>
<td>2.570**</td>
<td>&lt;0.01</td>
<td>(0.016, 0.002)</td>
<td>TAN → BIN</td>
<td></td>
</tr>
<tr>
<td>REA → SAT → BIN</td>
<td>0.032</td>
<td>2.271*</td>
<td>0.023</td>
<td>(0.010, 0.067)</td>
<td>REA → BIN</td>
<td></td>
</tr>
<tr>
<td>RES → SAT → BIN</td>
<td>0.054</td>
<td>2.411*</td>
<td>0.016</td>
<td>(0.017, 0.107)</td>
<td>RES → BIN</td>
<td></td>
</tr>
<tr>
<td>ASS → SAT → BIN</td>
<td>0.024</td>
<td>2.099*</td>
<td>0.036</td>
<td>(0.006, 0.058)</td>
<td>ASS → BIN</td>
<td></td>
</tr>
<tr>
<td>EMP → SAT → BIN</td>
<td>0.020</td>
<td>2.014*</td>
<td>0.045</td>
<td>(0.003, 0.047)</td>
<td>EMP → BIN**</td>
<td></td>
</tr>
</tbody>
</table>

Note: TAN = Tangible; REA = Reliability; RES = Responsiveness; ASS = Assurance; EMP = Empathy; SAT = Satisfaction; BIN = Behavioral Intention; IEC = Indirect Effect Coefficient; ns = Not Significant; *p <0.05; **p <0.01.

5.0 Conclusion & Recommendations

Based on the result of the analysis, only the empathy variable gives a medium effect toward the behavioral intention. In contrast, tangible, reliability, responsiveness, assurance, and empathy simultaneously positively have a statistically significant effect on satisfaction. Satisfaction and empathy variables simultaneously positively statistically significant effect on behavioral intention. The analysis shows that if the average level of tangible, reliability, responsiveness, assurance, and empathy were simultaneously high, it would increase the average satisfaction level. When it simultaneously increases the level of satisfaction, indirectly, it will increase the average level of behavioral intention. The findings of this study make significant contributions to the existing literature. The main contribution of this study is that it provides empirical evidence of the impact of SST’s service quality and behavioral intentions on customer satisfaction. This hypothesis explains why and how SSTs’ service quality affects behavioral intentions. In this regard, the study adds to the SSTs’ service quality literature about this relationship.

Moreover, hoteliers must remember that they cannot treat all customers the same and expect to receive the same level of satisfaction because each customer has different expectations and levels of satisfaction. As a result, hoteliers must understand the definition of their customers and develop the best ways to create customer satisfaction. Moreover, the hoteliers must improve their strategies in attracting customers to make them feel attached to the hotel itself, thus leading to the highest satisfaction with the service provided. Furthermore, more detailed and perceptive research can be conducted using the current theoretical framework or the theoretical framework with minor alterations. It will be interesting to discuss how self-service technology affects green hotel customer satisfaction and how this will impact the hotel industry’s ability to adapt and evolve from standard approaches to industrialization.
Paper Contribution to Related Field of Study

Based on this study’s findings, it is hoped that the research results will shed light on the feasibility of SST deployment in Malaysian green hotels. The good news for hoteliers as SST can help them increase revenue, reduce expenses, and enhance customer service in the hospitality industry. The study results will assist the Malaysian Association of Hotels (MAH) and Malaysian hotels in improving the quality of services through SST and stimulating customer participation in green hotels. The feasible and integrated performance of SST service quality in the future can indeed contribute to the performance of green hotels. As soon as the SST is successfully implemented, the Malaysian Association of Hotels (MAH) will be able to sell and entice customers to stay and fully participate in green hotels. In addition, this study aims to enhance the green hotel industry by assisting management in comprehending hotel guests’ adoption of the SST for hotel interface. In addition, from the perspective of the researchers, this study will help all green hotel management in gaining a better understanding of SST’s convenience. This research is essential for the green hotel industry and hospitality researchers. The green hotel service provider can use the acquired information to determine whether or not to improve service quality. The study’s completion will help researchers gain a deeper appreciation for SST from multiple viewpoints.
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