

Article

Self-Service Technologies (SSTs)—The Next Frontier in Service Excellence: Implications for Tourism Industry

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Abstract: This research aims to understand how self-service technologies (SSTs) can bring about service excellence for tourists by the moderated mediating effect of satisfaction and tourist types, from the customer's perspective. The study draws on survey data from 627 tourists from North Cyprus, Turkey, Italy, United States, and Germany who had experience using SSTs during their travel period for either leisure or business. The utility theory, Lancaster's consumer theory, and random utility theory form the basis of this research's theoretical framework. This study is the first attempt that examines the SSTs' characteristics as antecedents of service excellence from the customer point of view in tourism literature. Moreover, this research enhances knowledge by integrating the concept of service excellence and SSTs' characteristics into the abovementioned theories. The results revealed that service excellence could be provided for customers through SSTs, which this service excellence drives through the characteristics of SSTs. The result of moderated mediation tests on the relationship between SSTs' characteristics and service excellence revealed that tourist types moderate the mediating effect of SSTs satisfaction for functionality, enjoyment, security/privacy, convenience, and customization. Meaning the mentioned constructs are more influential for business travelers than leisure travelers. Limitations, practical and theoretical implications are also discussed.

Keywords: self-service technology; service excellence; functionality; enjoyment; security/privacy; design; customization; convenience; assurance



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1. Introduction

With tourists' ever-growing expectations, the tourism industry's future will depend on managing the information and better understanding tourists' needs. In this respect, competitors try to provide a better service experience for their tourists. The more the competitors try, the more familiar this experience will become. The experience that remains in tourists' minds as a "wow experience" that also surpasses their satisfaction level is a pivotal factor in returning them. This level of satisfaction beyond the expectation is known as service excellence (SE) [1]. To provide a new and novel service excellence experience, managers frequently need to review all aspects of service products and service delivery systems.

Service encounter is the most critical venue where service excellence is realized as the embodiment of wow-experience. Knowing that service encounter is the interaction between servers and customers/tourists. During such an interaction, there are some critical moments that are the momentous elements of tourists' assessment of the quality of the service. The (non)success of the tourist experience is subject to manage these moments correctly, which are called "moments of trust" [2]. Moments of trust between servers and tourists can either break or shine depending upon delivery of the service or co-creating it with tourists. In this context, self-service technologies (SSTs) are one of the most successful

servers in the delivery system, which can serve either alongside personnel or independently to provide tourists with high-tech and high-touch experience [3].

SSTs are defined as technologies that can enhance customers' ability in terms of producing a service for themselves independently [4]. SSTs can improve the delivery process, meet the service standards [5], and provide more services to customers [6]. SSTs have specific advantages for customers, such as location convenience, efficient output, and joyfulness [7,8]. Different aspects of SSTs in different industries have been studied, such as adoption [9,10], factors affecting the usage of SSTs [11,12], and customer satisfaction [13].

Apart from what companies claim about their adherence to 'service excellence', nowadays, customers expect service excellence from service providers in the destination they visit. As elaborated above, the significance of service excellence and the vital role of SSTs in enhancing customers' satisfaction are outlined in the literature; however, the significant effects of SSTs on bringing about service excellence have not received attention. Therefore, the aim of this study is to fill this gap and enrich our understandings of service excellence through the utilization and adoption of SSTs.

This paper draws upon three theories that are borrowed from economics, especially behavioral economics. The chief technical novelty of this research lies in integrating these theories in the context of social sciences, and mainly in tourism. Utility theory explains that tourists decide to consume goods or services for obtaining utility [14,15]. Mankiw and Taylor (2017) stated that utility is the satisfaction derived by consuming more or a variety of goods and services by tourists [16]. Since meeting expectations are the focal point of satisfaction [17], the expectation is the utility that tourists are looking for. Nevertheless, the realization of wow experience beyond the expected level of satisfaction is the ultimate level of utility for tourists. Random utility theory explains that tourists' choice is based on the goals of achieving maximum receivable utility from goods or services [18]; therefore, service excellence is maximum utility. According to Lancaster's consumer theory, the utility is not because of the consumption of goods or services; it is due to characteristics (or attributes) of those goods and services [19]. Therefore, the effects of these characteristics on tourists' utility should be carefully studied, and this article aims to do that.

The SSTs' characteristics are determined as the SSTQUAL (self-service technology service quality) dimensions [20]. The SSTs' service quality and satisfaction have been studied in various contexts (e.g., [21–25]). However, the effect of SSTs' characteristics on bringing about service excellence is not studied so far. Therefore, this research aims to fill the gap in understanding how service excellence can be achieved from SSTs. Furthermore, by providing a comprehensive understanding of SSTs' characteristics as antecedents of service excellence, this research contributes to bridging the gap between theory and practice.

This research has also molded the mediating role of satisfaction in the relationship between SSTs and service excellence. In the literature, it is emphasized that business and leisure travelers are two distinct types of tourists, which have different needs and wants [26,27]. However, the influence of tourist types (business and leisure travelers) on each of the SSTs' characteristics has not been studied before. Therefore, the moderating effect of tourist types on satisfaction/utility is also considered to fill this gap. Overall, this research aims to understand how SSTs can bring about service excellence for tourists by the moderated mediating effect of satisfaction and tourist types. To the best of our knowledge, this study is the first in the tourism literature that examines SSTs' characteristics as antecedents of service excellence from customers' point of view.

This study is important for the following reasons. Service excellence has been recognized as a critical factor for a successful business over the last decade [28]. Research has shown the positive effect of service excellence on increasing business profitability [29]. Service excellence can generate a degree of delight to entice customers to repurchase intention [30]. Therefore, service excellence brings about a positive customer experience, increases their word of mouth support, and ultimately enhances their loyalty [31].

The organization of the article begins by presenting an overview of relevant literature. Following this, the article provides the theoretical framework and research model. The next

section elaborates the hypotheses. The article continues by presenting the method and results of the empirical study. The final part focuses on the implications of results and suggestions for future research.

2. Literature Review

2.1. Self-Service Technology (SST)

SSTs, which have advanced the domain of information and communication arenas [32], have also transformed the way services are delivered to tourists [33,34]. This concept, which was initially offered by Dabholkar (1994), is one of the innovative solutions to provide speed (saving time, flextime) and convenience [6,8,35] service to tourists. It also reduces costs [5], increasing productivity and profitability [5] for firms. There are several examples of SSTs in the tourism industry including self-check-in kiosks in airlines [11], self-check-in/check-out in hotels [10], as well as, online bookings and reservations [36]. Not to mention the relevant technologies such as ATMs in banking [37], self-scanning [38], and self-checkout systems [39]. Many studies have been conducted on actual usage of SSTs by customers [40], and the impacts of using SSTs in various organizations [41]. Some authors have investigated customers' perceptions about different SSTs by calibrating the nature of their acquaintances and approaches in different situations [5,42].

Researchers have attempted to evaluate factors affecting the adoption of SSTs [12,43]. Wei et al. (2016) explored the internal and external factors of adopting SSTs in the tourism sector, which influence the experience of customers [44]. Some researchers have attempted to evaluate customers' choice of choosing SSTs through the cognitive, demographic, and situational determinants [40,45]. SSTs' impact on the customer satisfaction has been studied [37,46,47]; however, understanding factors that bring about service excellence by adopting SSTs in tourism has not received deserved attention.

2.2. Service Excellence

Service excellence is defined as "delivery of a level of service quality that results in delight" [48] (p. 20). Delight is defined as "an expression of very high satisfaction", "an extreme expression of positive affect resulting from surprisingly good performance" [49] (p. 22). Satisfaction is about meeting expectations, which is a judgment, whereas delight is about customer affects resulting from this judgment, which is an emotion [50]. In Johnston's qualitative research, service excellence from the customers' perspective was described as "easy to do business with" [51] (p. 131). According to Johnston [48,51], service excellence comprises four key elements: delivering the promise, providing a personal touch, going the extra mile, and dealing properly with problems and queries. The main element is delivering the promise or doing what the organization proclaims would do, which means meeting expectations (not exceeding them). Personal touch refers to 'service' and demonstrates how well customers are being taken care of, which can generate some delight for customers. Going the extra mile refers to "anticipating customer's needs" and trivially as "providing a little extra", which is always appreciated. The smallest additional things that organizations can do for their customers have a mutual benefit for customers and organizations. Dealing adequately with problems stems from the fact that customers would be convinced as long as an error is dealt with properly and is recovered [48,51]. Johnston's model as the most popular service excellence model fully concentrates on customers, which is the first model integrating the notion of customer delight as a means of achieving service excellence [28,52].

Based on Johnston's model, a new scale for the banking industry was developed in the UK, where an examination of the antecedents of service excellence from the strategic marketing perspective revealed that service excellence is mainly affected by 'innovation' and to some extent by 'reputation'. The 'technology' and 'financial value' were the second two important antecedents. Antecedents and consequences of service excellence in retail service with SSTs have been validated [53].

3. Theoretical Framework

3.1. Theories

In deriving research hypotheses and explaining the research problem, this research relies on the basic principles of three theories, utility theory, the theory of random utility, and Lancaster's consumer theory.

3.1.1. Utility Theory

The "Utility" initially is expounded by Jeremy Bentham [15]. The utility principles were formulated as the essence of an object that brings about happiness, pleasure, benefit, wellness, and advantage [54]. Utility theory explains customers' decision to consume goods or services for obtaining utility [15]. The utility is the satisfaction derived by consuming more or a variety of goods/services [16]. This theory explains that satisfaction/utility can be gained from SSTs by providing not only high quality of services but also a range of services for tourists.

3.1.2. Lancaster's Consumer Theory

Lancaster's consumer theory [19], indicates that each individual's utility is not because of goods' consumption but because of goods' characteristics. The value summation of characteristics/attributes of goods determines goods' value. Therefore, the consumption of goods or services is because of their characteristics rather than goods or services [19]. This theory explains that tourists' utility/satisfaction gained from SSTs is because of SSTs' characteristics/attributes. It is necessary to understand which one of these characteristics/attributes indeed causes utility/satisfaction. Therefore, hypothesizing each of SSTs attributes is required separately.

3.1.3. Random Utility Theory

Random utility theory (RUT) is introduced by McFadden (1973). RUT provides the empirical models with the theoretical foundation based on customers' choices among alternatives (e.g., SSTs or frontline employees). Knowing that attributes determine customers' choices; therefore, each attribute's value is significant. Based on this theory, it is assumed that customers choose based on goals of achieving maximum receivable utility from goods or services [18].

The basis of random utility theory is that individuals are rational decision-makers, maximizing their utility over their choices/alternatives [55]. However, this is unknown to the researcher, which is represented as a random variable. Therefore, random utility theory aims to understand how to achieve the maximum utility while decreasing the random error that is not obvious. This process can be operational and achievable by inserting the attributes/characteristics of SSTs into the model that ultimately will maximize satisfaction and utility. Therefore, through the SSTs, tourists can obtain utility/satisfaction and experience an excellent level of service when their utility gained from SSTs is maximized. The wow experience is also in tandem with service excellence. The random utility theory explains the relationship between satisfaction and service excellence by describing tourists' desire to maximize their total utility. Nevertheless, the maximum utility is tantamount to service excellence or the ultimate level of satisfaction gained from SSTs (i.e., based on the SSTs' characteristics).

4. Hypotheses and Research Model

4.1. SSTs' Characteristics and Satisfaction

SSTs' characteristics are defined and elaborated in many studies; however, after examining the origin of most of the citations, it was realized that the exact definition or explanation of the concept remains at best incomplete. Therefore, we have taken great effort to track most of the previous studies to extract and compile the most proper and reasonable characterization for this concept hereafter.

The utility theory explains the relationship between SSTs and satisfaction; knowing the utility is satisfaction and increasing the quality of services received from SSTs will increase tourists' satisfaction/utility. Moreover, SSTs, by providing more and a variety of services, will result in an increase in satisfaction/utility. Lancaster's consumer theory [19] states that tourists' utility/satisfaction gained from SSTs is not because of SSTs solely; rather it is because of SSTs' characteristics/attributes. Hereafter, the development of the relationship between SSTs' characteristics and satisfaction is elaborated based on the aforementioned theoretical frameworks.

4.1.1. Functionality

The term functionality originated from the Latin *functiō* meaning to perform a function that is intended for users [56]. SSTs' functionality as performance [35], focused on tasks' reliability and accuracy. Meuter et al. (2000) introduced a similar concept as "did its job" to influence customer satisfaction [4]. By experiencing the ease of use of technology, customers become repeat users and feel satisfied [4,57]. Customer satisfaction has also been shown in banking services and airports when SSTs functionality was in operation and usage [58,59]. Therefore, the following hypothesis is proposed:

Hypothesis 1a. (H1a): *SSTs' characteristic of functionality is positively associated with satisfaction/utility gained from using SSTs.*

4.1.2. Enjoyment

The concept of enjoyment has been defined and discussed in many contexts, from different perspectives. However, enjoyment in the context of technology-based self-service was introduced for the first time by Dabholkar [8,35], in which if customers find it to be enjoyable, most likely they would use it. Enjoyment from using SSTs not only increases its usage but also enhances customer's appreciation [60,61]. Such a positive effect on customer satisfaction with SSTs has been established for banking services [62], members of a professional sports organization [63], and passengers in an airport [46]. In light of the aforementioned evidence, the following hypothesis is proposed:

Hypothesis 1b. (H1b): *SSTs' characteristic of enjoyment is positively associated with satisfaction/utility gained from using SSTs.*

4.1.3. Security/Privacy

In consumer research studies, security and privacy concepts are an important concern when customers interact with technology, especially during involvement in a transaction [64,65]. Parasuraman et al. (2005, p. 217) defined privacy and security as "protection of personal information" and "protection of users from the risk of fraud and financial loss" [66]. Nevertheless, customers' transaction data have advantages for both organizations and customers [67]. However, customers are concerned about how their personal information will be used [68], which can affect organizations' sales and profit [69]. The solution for such concern is to provide customers with awareness and give them choices of access to information and use [64] (see also [70]). Security and privacy are important dimensions of service quality and satisfaction in SSTs, which are discussed extensively in the context of banking [37,71], telematics services in automobile [72], and hotel reservation websites [73]. Accordingly, the following hypothesis is proposed:

Hypothesis 1c. (H1c): *SSTs' characteristic of security/privacy is positively associated with satisfaction/utility gained from using SSTs.*

4.1.4. Assurance

Customers rely on service providers, and their reliance depends upon trust [74]. What customers keep in their memory is their perception of how well the organization takes care of their welfare, known as reputation [75]. The element of reputation is a capital asset for organizations [76]. Thus, assurance refers to customers' perception regarding the trust and reputation of SSTs providers [20]. Assurance has been found to be one of the important service quality dimensions of SSTs [77]. Assurance is shown to positively affect satisfaction with SSTs for customers in banking services [62]. It is also shown that assurance positively influences consumers' participation in co-creating logistics services using SSTs [78]. Thus, the following hypothesis is proposed:

Hypothesis 1d. (H1d): *SSTs' characteristic of assurance is positively associated with satisfaction/utility gained from using SSTs.*

4.1.5. Design

Design is a tangible element of service quality [79]. The design reflects consumers' demand for up-to-date technologies that facilitate their interactions with SSTs [80]. These technologies should be aesthetically appealing [81,82]. In the study of the usage behavior of SSTs in Taiwan airport, authors found that when SSTs design is visually appealing, passengers are more likely to be attracted to use them [83]. Design is one of the factors that determine the perceived satisfaction with SSTs [62,84]. This prompts the hypothesis that:

Hypothesis 1e. (H1e): *SSTs' characteristic of design is positively associated with satisfaction/utility gained from using SSTs.*

4.1.6. Convenience

The concept of convenience was initially introduced by Meuter et al. (2000) [4]. They noted that customers' satisfaction from technology-based service encounters is the result of their convenience with their desired services, which take place "where they want" and "when they want". Later, convenience was conceptualized as the perceived flexibility towards the physical location and operating hours of SSTs as well as overall availability [85]. This definition has been completed by Collier and Sherrell (2010) as the perceived required effort and time in finding and facilitating the use of SSTs [86]. With customers co-creating a service, convenience perceive as one of the driving factors for SSTs evaluation before, during, and after a transaction [87]. In the SSTs literature, convenience is identified as one of the inducers of service quality [88] and customer satisfaction [46,89]. Accordingly, the following hypothesis is proposed:

Hypothesis 1f. (H1f): *SSTs' characteristic of convenience is positively associated with satisfaction/utility gained from using SSTs.*

4.1.7. Customization

The concept of customization is discussed by many authors from different perspectives (e.g., mass-customization, adaptation, standardization, and personalization). Nevertheless, these concepts are not akin and should be referenced attentively (see [90,91]). Customization is defined as "tailoring the service characteristics to meet each customer's specific needs and preferences" [92] (p. 1162) to have advantages for organizations and customers. For example, customized services can signal high quality of the service [93]. However, the privacy and security of customers' information should be considered by service providers [94]. Moreover, service customization brings about more perceived control

for their customers [90] and subsequently enhances their satisfaction [46]. In view of the above findings, the following hypothesis is proposed:

Hypothesis 1g. (H1g): *SSTs' characteristic of customization is positively associated with satisfaction/utility gained from using SSTs.*

4.2. SSTs Satisfaction and Service Excellence

According to the utility theory, the utility is the satisfaction that can be augmented by using SSTs [16]. According to the random utility theory, when more utility is gained from the SSTs, tourists' satisfaction is maximized [18]. This is tantamount to the ultimate level of utility gained from SSTs, which is labeled as service excellence or wow experience, beyond the expected level of satisfaction. Therefore, the following hypothesis is proposed:

Hypothesis 2. (H2): *Satisfaction/utility gained from using SSTs positively affects service excellence.*

4.3. The Mediating Role of Satisfaction

Therefore, by integrating the multiple theories mentioned above, we proposed that satisfaction/utility is the mediator on the relationship between SSTs' characteristics and service excellence (utility maximization). This prompts the hypothesis that:

Hypothesis 3. (H3): *Satisfaction/utility gained from using SSTs mediates relationship between (a) functionality, (b) enjoyment, (c) security/privacy, (d) assurance, (e) design, (f) convenience, and (g) customization and the service excellence.*

4.4. Tourist Types as a Moderator

Knowing that business and leisure travelers have different needs, wants, and perspectives regarding delivered services [26,27]; therefore, in our model, we propose tourist types as the moderator. Thus, the following hypothesis is proposed as:

Hypothesis 4. (H4): *Tourist type moderate relationships between (a) functionality, (b) enjoyment, (c) security/privacy, (d) assurance, (e) design, (f) convenience, and (g) customization and satisfaction gained from using SSTs; assuming gained satisfaction/utility is greater for business travelers than leisure travelers.*

In sum, combining hypotheses 1–4, we proposed a moderated mediation model for service excellence (i.e., SSTs are related to service excellence via SSTs' attributes). Yet, business travelers are proposed to assign a greater value for the resources provided by SSTs that translate into satisfaction. In contrast, given the nature of leisure travelers, they are more likely to assign a general level of value to SSTs characteristics. Accordingly, the following hypothesis is proposed:

Hypothesis 5. (H5): *The mediating effect of gained satisfaction from SSTs on the link between (a) functionality, (b) enjoyment, (c) security/privacy, (d) assurance, (e) design, (f) convenience, and (g) customization and the service excellence depends on tourist types; assuming effects are greater for business travelers than leisure travelers.*

The above-described hypotheses and the research model are depicted in Figure 1.

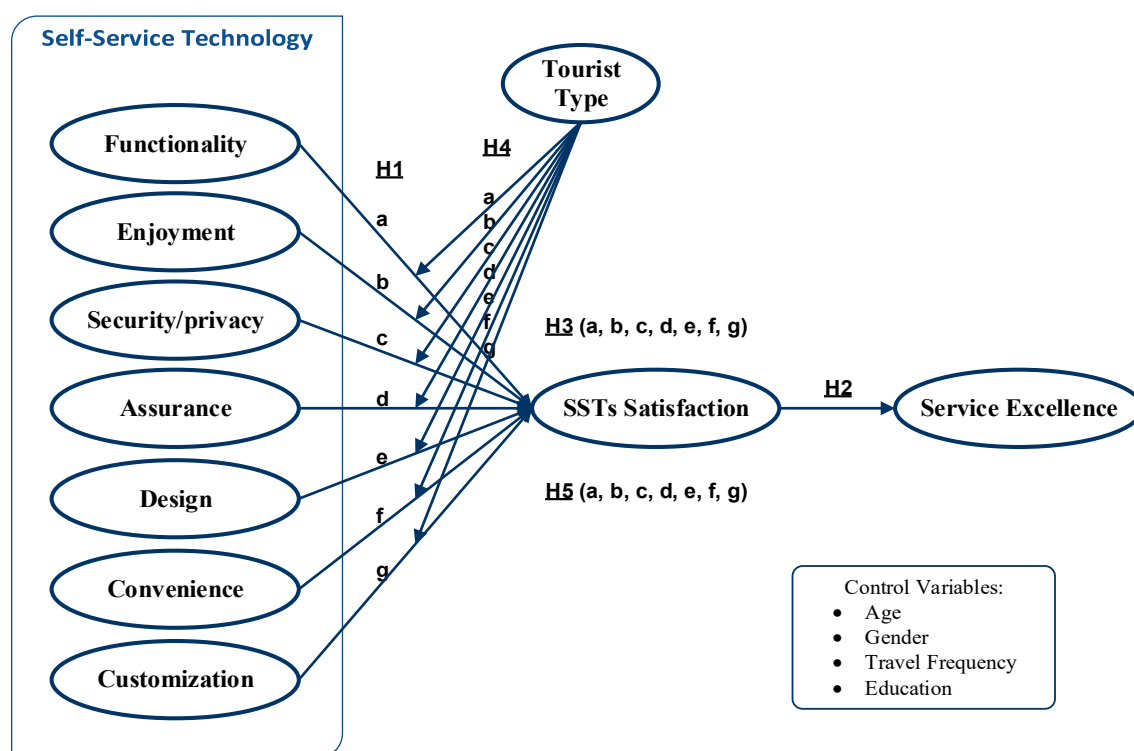


Figure 1. Research model.

5. Methodology

5.1. Participants and Procedure

The data were collected in May 2020 using a computer-based survey via Google Form from tourists whose travel was organized through travel agencies. To achieve research objectives and understand service excellence drivers, we targeted respondents who had experienced using SSTs during their travel period. Therefore, purposive sampling [95] was used accordingly. To mitigate the drawbacks of purposive sampling in terms of the generalizability of results, we tried to collect more data beyond the normal requirement. To accomplish the process, several travel agencies were contacted in different countries (i.e., North Cyprus, Turkey, Italy, United States, and Germany). The selection of the countries came about as we contacted travel agencies through our network and their network within the country or in other countries. After informing travel agencies about our purpose, they agreed to communicate with their customers on the condition to contact the tourists by themselves. Afterward, the online questionnaires were emailed. The response rate was impossible to calculate, as travel agencies were the sole authority to contact tourists. By the cut-off date, 627 surveys were retrieved from respondents. Tourists' participation was voluntary, and they were assured about their anonymity and confidentiality. Table 1 presents the respondents' profiles.

Little over one-half (52%) of respondents were male. The majority of respondents' age ranged from 25–44 years (66%). The sample's respondents appeared to be well-educated holders of bachelor degrees (67.4%). Many respondents were married (55.7%) and had a full-time job (36%). Almost three-quarters of respondents (73.5%) traveled once or twice a year. The result of multiple response analysis indicated that respondents used SSTs for self-check-in (27.6%), seeking information (26.0%), self-order (20.7%), and self-check-out (19.5%). The result of cross-tabulation revealed that business travelers' frequency of using SSTs was higher in comparison to leisure travelers' self-check-in (70.8%) and self-check-out (68.1%). Leisure travelers used SSTs for self-order (80.5%). Seeking information was the common reason for using SSTs for both leisure and business travelers (52.8% and 47.2%, respectively).

Table 1. Respondents' profiles.

Profile Category		Frequency (<i>n</i> = 627)	Percentage (%)
Gender	Female	301	48.0
	Male	326	52.0
Age	18–24	53	8.5
	25–34	189	30.1
	35–44	225	35.9
	45–54	86	13.7
	55–64	50	8.0
	65–above	24	3.8
Educational-level	High school degree or lower	65	10.4
	Associate degree	139	22.2
	Bachelor	280	44.6
	Master	104	16.6
	PhD	39	6.2
Occupation	Employed-Full-time	226	36.0
	Employed-Part-time	96	15.3
	Self-employed/Freelance	79	12.6
	Unemployed	45	7.2
	Student	94	15.0
Marital status	Retired	87	13.9
	Single	187	29.8
	Married	349	55.7
	Divorced/Widowed/Separated	91	14.5
Tourist type	Business	286	45.6
	Leisure	341	54.4
Travel frequency	Once	261	41.6
	Twice	200	31.9
	Three-times	119	19.0
	Four-times	38	6.1
	Five-times or more	9	1.4
Reason for using SSTs (Multiple Response *)	Self-Check-in	301	27.6
	Self-Check-out	213	19.5
	Information-Seeking	284	26.0
	Self-order	226	20.7
	Other usage	67	6.1

Note: * Dichotomy group tabulated at value 1 = Yes.

5.2. Instrumentation

SSTs' characteristics were measured using five items for functionality; four items for enjoyment; and two items for security/privacy, assurance, design, convenience, and customization from Lin and Hsieh [20]. Five items were adapted from the scale developed by Sekhon et al. (2015) [31] to measure service excellence. To measure satisfaction with SSTs, three items from the American customer satisfaction index (ACSI) were used [96]. Responses to each of the items were elicited on five-point scales ranging from "5 = strongly agree" to "1 = strongly disagree". See Table 2, for the list of scale items.

In this research, a few demographic variables including age, gender, travel frequency, and education have been statistically controlled due to their potential relationships with the study variables [97–101]. Age was measured using a six-point scale. Education and travel frequency were measured using five-point scales. Gender was coded as a binary variable (0 = female and 1 = male).

The questionnaire was prepared in English. For the pilot study, the questionnaire was translated into three languages (Turkish, Russian, and German) by using back-translation method [102], which is in line with previous studies [103]. Based on feedback from a pilot sample of 30 international tourists in North Cyprus the instrument was finalized. Since tourists had no difficulty in understanding items, no revision was deemed necessary. The online questionnaire has only one screening question ("Do you have experience of

using SSTs in the last twelve months?”). If the answer was ‘Yes’, they could participate. The ‘Required’ criterion was applied to all online questionnaire measurement items to prevent missing data.

Table 2. Reliabilities and confirmatory factor analysis results.

Items	Standardized Loadings	t-Values	α	CR	AVE
Functionality (<i>FUNC</i>)			0.887	0.914	0.683
I can receive my services with the hotel’s SSTs in a short time/quickly.	0.854	26.374			
The service process of the hotel’s SSTs is clear.	0.666	18.934			
Using the hotel’s SSTs requires little effort and easy to use.	0.969	31.179			
I can get my services done smoothly with the hotel’s SSTs.	0.881	26.741			
Each service item/function of the SSTs is error-free.	0.726	20.202			
Enjoyment (<i>ENJOY</i>)			0.887	0.906	0.708
The operations of the hotel’s SSTs are interesting.	0.978	32.358			
I feel good being able to use the SSTs.	0.781	21.734			
The hotel’s SST has interesting additional Functions.	0.831	25.358			
The hotel’s SSTs provide me with all the necessary information.	0.758	22.301			
Security/Privacy (<i>SECUR</i>)			0.758	0.760	0.613
I feel safe in my transactions with the hotel’s SSTs.	0.779	18.609			
A clear privacy policy is stated when I use the hotel’s SST.	0.787	18.799			
Assurance (<i>ASSUR</i>)			-	-	-
The hotel that is providing the SST is well known.	-	-			
The hotel that is providing the SST has a good reputation.	-	-			
Design (<i>DESIGN</i>)			0.804	0.806	0.675
The layout of the hotel’s SST is aesthetically appealing.	0.861	20.270			
The hotel’s S SST appears to use up-to-date technology.	0.781	18.579			
Convenience (<i>CONV</i>)			0.732	0.757	0.617
The SST has operating hours convenient to customers.	0.912	13.418			
It is easy and convenient to reach the hotel’s SE SST.	0.634	11.467			
Customization (<i>CUSTOM</i>)			0.836	0.847	0.737
The hotel’s SST understands my specific needs.	0.947	21.251			
The hotel’s SST has features that are personalized for me.	0.760	17.693			
Service Excellence (<i>SE</i>)			0.909	0.919	0.696
The hotel’s SSTs deliver the promised services.	0.913	29.331			
The hotel’s SSTs deal with the problems immediately.	0.720	20.399			
The hotel’s SSTs have the tourist’s best interests at heart.	0.942	31.055			
The hotel’s SSTs are informative.	0.721	20.669			
The hotel’s SSTs deal with requests promptly.	0.848	25.937			
Satisfaction (<i>SAT</i>)			0.860	0.895	0.743
Overall, I am satisfied with the SSTs offered by the hotel.	0.890	26.657			
The SSTs offered by the hotel exceed my expectation.	0.702	18.245			
The SSTs offered by the hotel are close to my ideal types of SSTs.	0.971	30.121			
Model fit statistics					
$\chi^2 = 679.494$, $df = 240$, $\chi^2/df = 2.831$					
GFI = 0.919; AGFI = 0.891; RMR = 0.027					
IFI = 0.957; TLI = 0.946; CFI = 0.957					
SRMR = 0.0496; RMSEA [90% CI] = 0.054 [0.049, 0.059], PClose = 0.079					

Notes: All loadings are significant at the 0.001 level; (-) dropped during EFA due to cross-loading; Kaiser–Meyer–Olkin (KMO): 0.839 and Bartlett’s test of sphericity (df : 10,381.388 (300), $p < 0.001$; Model fit statistics (extraction method: maximum likelihood; rotation method: varimax with Kaiser normalization). AVE = average variance extracted; CR = composite reliability; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; RMR = root mean square residual; IFI = incremental fit index; TLI = Tucker–Lewis index; CFI = comparative fit index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; PClose: p -value of close fit; CI = confidence interval.

5.3. Data Analysis

The data analysis process started with checking the case- and variable-screening. The dataset was subjected to check the normality via skewness and kurtosis [104]. The measurement model was subjected to confirmatory factor analysis (CFA) to address issues of convergent validity and discriminant validity [105]. The variety of model fit statistics using AMOS 24.0 provided support for CFA [106]. The exploratory factor analysis (EFA) conducted using the maximum likelihood extraction method with varimax rotation, and it was performed prior to CFA to represent the distinctive concepts of measurements. Integration of both EFA and CFA during the theory-test provides parameter estimates that best explain the observed covariance [107], which is in line with previous studies [108].

The reliability of constructs was measured through Cronbach's alpha coefficient and composite reliability [109]. To analyze the moderated mediation effect (also called conditional indirect effects [110], the macro PROCESS model 7, V.3.5 for SPSS 25.0 using a bootstrapped 5000 sample size via the 95% confidence interval was utilized [110]. Model 7 allows the indirect effect of an independent variable (X: (a) functionality, (b) enjoyment, (c) security/privacy, (d) assurance, (e) design, (f) convenience, (g) customization) on a dependent variable (Y: service excellence) through mediators (M: SSTs satisfaction) to be moderated (W: tourist types). The choice of PROCESS over other methods like SEM for analysis in this study has been very appropriate because of two reasons. First, PROCESS and SEM results are largely identical [111]; therefore, choosing one over another should be based on other reasons. Second, according to the study's aims to test the independent variables separately, the PROCESS was chosen for testing hypotheses separately.

To examine common method bias (CMB), the method of Podsakoff et al. (2003) [112] was used. Accordingly, after maintaining the participants' confidentiality and anonymity, the correlation of constructs was explored to check a very high correlation—greater than 0.9 [106,113]. The result of Table 3 for the correlation matrix demonstrated that there is not any very high correlation among the variables, indicating that CMB is not an issue in this research [106].

Table 3. Correlations, discriminant validity, means, and standard deviations of constructs and control variables.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Functionality	0.827											
2. Enjoyment	0.182 **	0.841										
3. Security/Privacy	0.187 **	0.470 **	0.783									
4. Design	0.185 **	0.349 **	0.181 **	0.822								
5. Convenience	0.136 **	0.131 **	0.147 **	0.134 **	0.785							
6. Customization	0.146 **	0.312 **	0.139 **	0.287 **	0.080 *	0.859						
7. Service Excellence	0.444 **	0.524 **	0.374 **	0.452 **	0.219 **	0.329 **	0.834					
8. Satisfaction	0.522 **	0.299 **	0.190 **	0.293 **	0.296 **	0.255 **	0.383 **	0.862				
9. Gender	−0.027	0.019	0.034	−0.002	−0.020	0.009	0.017	−0.005	1.000			
10. Age	0.035	−0.025	0.001	−0.034	0.011	−0.029	−0.034	−0.034	0.051	1.000		
11. Travel Frequency	−0.029	0.093 *	0.148 **	−0.001	−0.034	−0.053	0.018	−0.072	0.069	0.016	1.000	
12. Education	−0.054	−0.029	−0.035	0.054	0.023	−0.005	0.013	−0.021	0.001	−0.033	−0.028	1.000
Mean	4.088	4.010	3.948	3.759	4.103	4.018	4.165	4.150	0.520	1.941	0.938	1.861
Standard Deviation	0.601	0.638	0.645	0.788	0.640	0.724	0.575	0.658	0.500	1.200	0.988	1.017

Notes: Diagonal elements in bold are the square root of the AVE, * $p < 0.05$, ** $p < 0.01$ (2-tailed).

6. Results

6.1. Assessment of the Measurement Model

The result of reliability and validity are presented in Table 2. Dropping two items of assurance due to cross-loading during the EFA leads to eliminate the construct from the scale. All coefficient alphas (α) of constructs were greater than 0.70 as recommended by Nunnally [114]. Having greater values of 0.70 from the cut-off value of composite reliability [109], together with α s, provided support for all constructs' internal consistency. As presented in Table 2, the result of CFA demonstrated a good fit of the eight-factor measurement model to data on the basis of various model fit statistics, which is in line with previous studies [115]. All factor loadings ranged from 0.634 to 0.978 with significant t-values. Moreover, the average variance extracted (AVE) for all constructs was greater

than the desirable cut-off value of 0.50 [105]; therefore, all measures exhibited support for convergent validity. The issue of discriminant validity was assessed by which the square root of AVEs was greater than inter-construct correlations [105], as shown in Table 3. Taken together, these results indicate the strong psychometric properties of measures.

The correlations among all variables of the study were significant (Table 3), ranged from 0.131 (convenience-enjoyment) and 0.524 (service excellence-enjoyment), all less than 0.9, indicating another support for discriminant validity [116]. Only travel frequency from demographic variables had a significant correlation with enjoyment ($r = 0.093$) and security/privacy ($r = 0.148$). Table 3 also shows the standard deviation and means of variables.

6.2. Test of Hypotheses

The hypothesized relationships were tested with the macro PROCESS model 7, V.3.5 for SPSS 25.0 using a bootstrapped 5000 sample size via the 95% confidence interval. Moreover, a few demographic variables have been statistically controlled due to their potential relationships with the study variables. The resulting coefficients and model test for the conditional process model (i.e., model with both mediation and moderation components) can be found in Table 4.

Table 4. Model coefficients for the conditional process model.

Antecedent	Consequent					
	Satisfaction (M)			Service Excellence (Y)		
	B	SE	p	B	SE	p
Functionality (X)	0.429	0.0362	0.000 ***	0.326	0.0417	0.000 ***
Satisfaction (M)	-	-	-	0.182	0.0552	0.001 **
Tourist types (W)	-0.477	0.0442	0.000 ***	-	-	-
X × W	0.267	0.0626	0.000 ***	-	-	-
	$R^2 = 0.415$ $F(7, 619) = 77.269$, $p = 0.000$ ***			$R^2 = 0.234$ $F(6, 620) = 51.833$, $p = 0.000$ ***		
Enjoyment (X)	0.222	0.0361	0.000 ***	0.406	0.0304	0.000 ***
Satisfaction (M)	-	-	-	0.217	0.0429	0.000 ***
Tourist types (W)	-0.593	0.0481	0.000 ***	-	-	-
X × W	0.384	0.0719	0.000 ***	-	-	-
	$R^2 = 0.311$ $F(7, 619) = 39.683$, $p = 0.000$ ***			$R^2 = 0.333$ $F(6, 620) = 41.772$, $p = 0.000$ ***		
Security/Privacy (X)	0.306	0.0336	0.000 ***	0.280	0.0331	0.000 ***
Satisfaction (M)	-	-	-	0.282	0.0449	0.000 ***
Tourist types (W)	-0.674	0.0522	0.000 ***	-	-	-
X × W	0.163	0.0745	0.029 *	-	-	-
	$R^2 = 0.265$ $F(7, 619) = 41.674$, $p = 0.000$ ***			$R^2 = 0.242$ $F(6, 620) = 22.627$, $p = 0.000$ ***		
Design (X)	0.263	0.0316	0.000 ***	0.270	0.0262	0.000 ***
Satisfaction (M)	-	-	-	0.242	0.0422	0.000 ***
Tourist types (W)	-0.521	0.0509	0.000 ***	-	-	-
X × W	-0.020	0.0565	0.731	-	-	-
	$R^2 = 0.238$ $F(7, 619) = 40.733$, $p = 0.000$ ***			$R^2 = 0.275$ $F(6, 620) = 31.201$, $p = 0.000$ ***		
Convenience (X)	-0.016	0.0413	0.692	0.105	0.0352	0.003 **
Satisfaction (M)	-	-	-	0.307	0.0488	0.000 ***
Tourist types (W)	-0.434	0.0534	0.000 ***	-	-	-
X × W	0.450	0.0613	0.000 ***	-	-	-
	$R^2 = 0.237$ $F(7, 619) = 42.723$, $p = 0.000$ ***			$R^2 = 0.163$ $F(6, 620) = 16.525$, $p = 0.000$ ***		
Customization (X)	0.128	0.0388	0.001 **	0.197	0.0317	0.000 ***
Satisfaction (M)	-	-	-	0.283	0.0457	0.000 ***
Tourist types (W)	-0.508	0.0509	0.000 ***	-	-	-
X × W	0.204	0.0726	0.005 **	-	-	-
	$R^2 = 0.219$ $F(7, 619) = 21.789$, $p = 0.000$ ***			$R^2 = 0.208$ $F(6, 620) = 16.619$, $p = 0.000$ ***		

Notes: * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$; B = unstandardized coefficients; SE = standard error.

It appears the more functionality manifested by the hotel's SSTs, the more tourists satisfied with SSTs ($B = 0.429, p < 0.001$). The more enjoyment, security/privacy, and customization perceived by tourists during their interaction with SSTs, the more satisfaction achieved from SSTs ($B = 0.222, 0.306, 0.128$ respectively, $p < 0.01$ or better). It seems that tourists' satisfaction with SSTs increased for those who found the design of SSTs more appealing ($B = 0.263, p < 0.001$). However, tourists' convenience with SSTs neither significantly nor positively related to their satisfaction ($B = -0.016$).

The effect of functionality, enjoyment, security/privacy, and customization on satisfaction is indeed contingent on tourist types, as evidenced by the statistically significant interaction between X and W in the related models ($B = 0.267, 0.384, 0.163, 0.204$, respectively; $p < 0.05$ or better). The W is conditional effects in the model (tourist types). The result of Table 5 appears that the effect of functionality, enjoyment, security/privacy, and customization on satisfaction is more positive among business travelers. The result in Table 4 shows that the effect of convenience on satisfaction is contingent on tourist types, as evidenced by the statistically significant interaction between X and W in the model ($B = 0.450, p < 0.001$). However, this effect is only significant for business travelers ($B = 0.434, p < 0.001$) (Table 5). In this case, moderation has partially occurred since the main effect of convenience on satisfaction became significant after entering the moderator in the model. The interaction effect of design and tourist types on satisfaction is neither significant nor positive ($B = -0.020$). Therefore, the effect of design on satisfaction is not contingent on tourist types (tourist types do not play the moderator role).

Table 5. Moderating effect of predictor variables at values of tourist types on self-service technologies (SSTs) satisfaction.

	B	SE	p	LLCI	ULCI	R ² -Change
Functionality						0.0147 ***
Business Traveler	0.696	0.0511	0.000 ***	0.595	0.796	
Leisure Traveler	0.429	0.0362	0.000 ***	0.358	0.500	
Enjoyment						0.0327 ***
Business Traveler	0.605	0.0616	0.000 ***	0.484	0.726	
Leisure Traveler	0.222	0.0361	0.000 ***	0.151	0.293	
Security/Privacy						0.005 *
Business Traveler	0.469	0.0665	0.000 ***	0.338	0.600	
Leisure Traveler	0.306	0.0336	0.000 ***	0.240	0.372	
Design						-
Business Traveler	-	-	-	-	-	
Leisure Traveler	-	-	-	-	-	
Convenience						0.045 ***
Business Traveler	0.434	0.0453	0.000 ***	0.345	0.523	
Leisure Traveler	-0.016	0.0413	0.692	-0.097	0.065	
Customization						0.013 **
Business Traveler	0.332	0.0615	0.000 ***	0.211	0.453	
Leisure Traveler	0.128	0.0388	0.001 **	0.052	0.204	

Notes: * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$.

The direct effect of functionality, enjoyment, security/privacy, design, convenience, and customization on service excellence is positive and statistically significant ($B = 0.326, 0.406, 0.208, 0.270, 0.105, 0.197$, respectively, $p < 0.01$ or better). In the meantime, by holding the type of tourists and SSTs satisfaction constant, hotel's SSTs that manifest relatively in providing further functionality, enjoyment, security/privacy, design, convenience, and customization that bring about a wow experience for tourists. The effect of satisfaction on service excellence is positive and significant for functionality, enjoyment, security/privacy, design, convenience, and customization models ($B = 0.182, 0.217, 0.282, 0.242, 0.307, 0.283$, respectively, $p < 0.01$ or better). For all models, none of the control variables showed a significant impact on SSTs satisfaction and service excellence (see Appendix A Table A1).

To sum up, results revealed that functionality, enjoyment, security/privacy, design, and customization had a significant effect on SSTs satisfaction except for convenience.

Satisfaction as the mediator had a significant effect on service excellence in all the models. However, tourist types as the moderator played a significant role in functionality, enjoyment, security/privacy, and customization, and partially for convenience and not for design. Moreover, all predictor variables had a significant effect on service excellence. Therefore, hypothesis 1(a–e,g), hypothesis 2, hypothesis 3(a–g), and hypothesis 4(a–d,g) supported; hypothesis 4(f) partially supported; hypothesis 1(f) and hypothesis 4(e) rejected.

The result of the moderated mediation test was conducted by testing the index of moderated mediation whether it is different from zero. As shown in Table 6, index of moderated mediation for functionality, enjoyment, security/privacy, convenience, and customization models ($B = 0.049$ (CI: 0.017–0.092), 0.083 (0.045–0.130), 0.046 (0.007–0.089), 0.138 (0.081–0.207), 0.058 (0.020–0.098), respectively), zero is not within the bootstrap confidence interval. These results indicate the indirect effect is positively related to the moderator. That is, tourist types moderate the mediating effect of SSTs satisfaction in the relationship of functionality, enjoyment, security/privacy, convenience, and customization on service excellence. However, the index of moderated mediation for the design model ($B = -0.005$ (CI: -0.033, 0.024)) zero is within the bootstrap confidence interval, meaning that the indirect effect was not related to the moderator. That is, tourist types do not moderate the mediating effect of satisfaction on the relationship between design and service excellence.

Table 6. Conditional direct and indirect effects of predictor variables on service excellence.

Antecedent		Consequent					
		Indirect Effect			Direct Effect		
Moderator (W)	B	BootSE	BootLLCI	BootULCI	B	SE	p
Functionality (X)					0.326	0.0417	0.000 ***
Business Traveler	0.127	0.0384	0.054	0.206			
Leisure Traveler	0.078	0.0233	0.035	0.127			
	0.049	0.0191	0.017	0.092	← Index of moderated mediation		
Enjoyment (X)					0.406	0.0304	0.000 ***
Business Traveler	0.131	0.0271	0.081	0.187			
Leisure Traveler	0.048	0.0119	0.028	0.074			
	0.083	0.0217	0.045	0.130	←		
Security/Privacy (X)					0.280	0.0331	0.000 ***
Business Traveler	0.132	0.0245	0.086	0.182			
Leisure Traveler	0.086	0.0163	0.057	0.121			
	0.046	0.0208	0.007	0.089	←		
Design (X)					0.270	0.0262	0.000 ***
Business Traveler	0.059	0.0165	0.031	0.095			
Leisure Traveler	0.064	0.0132	0.040	0.092			
	-0.005	0.0141	-0.033	0.024	←		
Convenience (X)					0.105	0.0352	0.003 **
Business Traveler	0.133	0.0292	0.080	0.194			
Leisure Traveler	-0.005	0.0127	-0.029	0.021			
	0.138	0.0318	0.081	0.207	←		
Customization (X)					0.197	0.0317	0.000 ***
Business Traveler	0.094	0.0194	0.060	0.135			
Leisure Traveler	0.036	0.0135	0.013	0.065			
	0.058	0.0195	0.020	0.098	←		

Notes: ** $p < 0.010$, *** $p < 0.001$; B = unstandardized coefficients; SE = standard error; bootstrap samples: 5000 (95% confidence intervals).

7. Discussion and Conclusions

This research makes a major contribution to the literature by providing insights to understand tourists' needs and wants, and affirm that SSTs not only can meet their expectations to achieve their basic level of satisfaction but also can bring about wow experience or service excellence for them. While this study focused on customers' point of view, managers who design and implement the organization's plan can benefit. The value

added to tourists' experiences through SSTs (i.e., service excellence) is a differentiation strategy. SSTs make the difference between merely providing service in frontstage and co-creating one that causes the unforgettable wow experience. The quality of SSTs encounters with tourists determines the quality of the experience, consequently generating positive word of mouth and customer retention. This also has tremendous implications for the tourism sector. The study revealed that SSTs' attributes contribute to tourists' service excellence by generating "wow factors". Therefore, SSTs, by delivering a higher quality of services to customers, will enhance customer satisfaction. In addition, SSTs tend to provide more and a variety of services to customers and help bring about service excellence in succession.

Functionality as the obvious means of delivering promises not only cause satisfaction but also brings about service excellence for tourists. The positive effect of the functionality on satisfaction in this research is in line with the previous studies [46]. The study revealed that functionality is more important for business travelers than leisure travelers. This is because of their value for money [117], and their less tolerance regarding any failure or inconveniences [118]. Enjoyment, security/privacy, and customization in all models bring about satisfaction as well as service excellence that is more influential for business travelers than leisure travelers. Regarding the positive effect of SSTs in terms of enjoyment [63], security/privacy [37,73], and customization [46] on tourist satisfaction, the results are consonant with the findings of previous studies. One should bear in mind that the design aspect of the SSTs would have a positive effect on satisfaction and service excellence for both business and leisure travelers. The positive effect of design on satisfaction in this research is in line with the previous studies [84]. Interestingly, convenience can only bring about satisfaction and service excellence for business travelers and not leisure travelers. This implies that only business travelers pay attention to the overall availability of SSTs. Although the result of our research regarding the positive effect of convenience on satisfaction was only for business travelers, it is in line with other scholars' results [89].

The findings indicate that all the SSTs' characteristics are indeed significant drivers of customer's perceptions of service excellence. This study revealed that with the exception of design, all the SSTs' characteristics are measurably perceived differently by the type of tourists, in which business travelers are more concerned about these characteristics and by receiving better quality of each item they will be more satisfied (i.e., in terms of both satisfaction and service excellence) in compare to leisure travelers. This is highly plausible since the business traveler's needs and wants are different from others. However, both leisure and business travelers are equally concerned about the design of SSTs, knowing that the design can influence the service excellence for both tourist types. Since utility is arriving from the SSTs characteristics, hence, SSTs by providing more or a variety of services can enrich the maximum utility for tourists that bring about the service excellence for them.

8. Implications

8.1. Theoretical Implications

This study aimed to revolutionize tourist experience creation by calibrating 'wow-experience' and 'service-excellence' into SSTs attributes that have remained a neglected aspect of self-service technology, especially in the tourism sector.

Applying three theories based on behavioral economics and integrating these theories in the context of social sciences, our theoretical argument supports the influence of SSTs' characteristics on tourists' satisfaction and service excellence. We proposed the seven characteristics of the SSTs as the antecedences of service excellence, which makes several theoretical implications. It has revealed that tourists can obtain utility/satisfaction through the SSTs' characteristics (based on utility theory). Moreover, gained satisfaction stemmed from SSTs' characteristics (based on Lancaster's consumer theory). Normatively, tourists always seek to maximize their satisfaction/utility level. It has also revealed that by

receiving more (quality or quantity) of those characteristics, their utility will enhance to the maximum level known as service excellence (based on random utility theory).

This study has delved into tourists' interaction with SSTs scientifically and opened a new horizon for the adaptation of information technology in various destinations towards facilitating tourists' experience. This study has also enriched our perception that practicing 'smart tourism' on a destination is an inseparable dimension of tourist satisfaction in the context of sustaining tourist flow, which transcends the limited business scale view.

8.2. Managerial Implications

This study has imperative implications for the management actions. Providing service excellence for tourists is the ultimate goal of managers. The wow experience beyond the satisfaction level of customers is the critical factor in returning them. The result of this research revealed that the SSTs could make customers satisfied and create a wow experience for them. Therefore, managers of the hotel organizations should bear in mind that implementation of SSTs in the hotel can be the right decision. It provides the tourists with more and a variety of services, where tourists can choose between delivering service from personnel or SSTs, and have access to many different services designed and programmed for the SSTs.

It is noteworthy to mention that service excellence from the SSTs could be achieved only by paying attention to the characteristics of SSTs, which illustrates how tourists' basic idea for each characteristic of SSTs directly affects the tourists' service excellence. Therefore, based on these research results, hotel managers should have tailor-made SSTs that are suitable and adaptable to their specific needs in their organization.

They should avoid ready-made packages because of the following reasons: First, for the functionality, the applied SSTs system needs to be in line with organizations' strategies. For instance, the multilingual option, zoom, and color-changing abilities in SSTs have a significant impact on functionality because tourists can entirely understand what they are doing, especially for elderly people. Secondly, in terms of quality of fit, the design of SSTs should fit the design of the facility (e.g., lobby) and represent the brand of the hotel. Thirdly, concerning security and privacy, the organization manager should obtain full access to the application's source code and its database to integrate with the hotel's property management system or operating system of the hotel. Fourthly, regarding customization, the capacity of SSTs should be considered to collect the tourist's information and assure security. In addition, customization allows modification of menus, messages, format, and layout.

Our finding indicates that among all significant drivers of customer's perceptions of service excellence, convenience and security/privacy (with a minimum nuance) emerge as the strongest antecedents for business travelers, while security for leisure travelers. This highlights the importance of providing customers with more secure SSTs, as well as paying more attention to the location of SSTs and their immediate accessibility. However, convenience is the least important characteristic for leisure travelers, while it is the most important characteristic for business travelers. Moreover, results revealed that functionality is the strongest aspect of satisfaction for both tourist types. One should bear in mind that SSTs are the innovative approaches to the constantly changing world; knowing those customers' needs and wants are also changing; therefore, to fulfill these needs, organizations are obliged to keep pace with the changing business world.

9. Limitations and Future Research

The present study is not without any limitation. As it focused on a few countries, future studies can focus on many countries in different parts of the world. Although this study applied a quantitative method, a qualitative approach might generate some interesting information regarding the tourists' perception regarding their experience with SSTs. Alternatively, future research may consider a comparative analysis of tourists' response behavior towards SSTs' effect on their wow-experience. Last but not least, we were not able

to examine the effect of assurance on satisfaction and service excellence. The elimination of assurance is due to its cross-loading between other factors. Future studies can incorporate this aspect into their research design to examine the assurance construct.

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Appendix A

Table A1. The control variables coefficients in the conditional process models.

Antecedent	Consequent					
	Satisfaction (M)			Service Excellence (Y)		
	B	SE	p	B	SE	p
Control variables in the Functionality model						
Age	−0.012	0.0157	0.460	−0.019	0.0168	0.259
Gender	0.025	0.0405	0.544	0.030	0.0407	0.462
Travel Frequency	0.020	0.0195	0.314	0.025	0.0202	0.220
Education	0.018	0.0170	0.306	0.020	0.0205	0.328
Control variables in the Enjoyment model						
Age	−0.002	0.0181	0.906	−0.007	0.0156	0.670
Gender	0.009	0.0443	0.842	0.012	0.0378	0.743
Travel Frequency	0.001	0.0225	0.969	−0.003	0.0185	0.852
Education	0.006	0.0220	0.788	0.017	0.0189	0.357
Control variables in the Security/Privacy model						
Age	−0.003	0.0186	0.868	−0.011	0.0166	0.509
Gender	−0.001	0.0456	0.987	0.011	0.0403	0.791
Travel Frequency	−0.001	0.0229	0.965	−0.003	0.0199	0.894
Education	0.013	0.0229	0.567	0.017	0.0204	0.404
Control variables in the Design model						
Age	−0.001	0.0192	0.958	−0.006	0.0165	0.698
Gender	0.010	0.0464	0.835	0.020	0.0394	0.617
Travel Frequency	0.018	0.0233	0.448	0.022	0.0193	0.261
Education	−0.008	0.0234	0.732	0.000	0.0201	0.989
Control variables in the Convenience model						
Age	−0.011	0.0191	0.558	−0.012	0.0175	0.502
Gender	0.005	0.0465	0.910	0.022	0.0423	0.605
Travel Frequency	0.001	0.0231	0.982	0.027	0.0208	0.191
Education	−0.012	0.0219	0.579	0.010	0.0212	0.628
Control variables in the Customization model						
Age	−0.003	0.0201	0.875	−0.008	0.0177	0.653
Gender	0.004	0.0473	0.939	0.015	0.0411	0.707
Travel Frequency	0.026	0.0234	0.277	0.032	0.0205	0.123
Education	0.006	0.0240	0.789	0.013	0.0213	0.558

Notes: B = unstandardized coefficients; SE = standard error.

References

1. Ford, R.C.; Sturman, M.C.; Heaton, C.P. *Managing Quality Service in Hospitality: How Organizations Achieve Excellence in the Guest Experience*; Delmar Cengage Learning: Clifton Park, NY, USA, 2012; ISBN 9781439060322.
2. Carlzon, J. *Moments of Truth*; Harper Business: Cambridge, MA, USA, 1990; ISBN 9780887302008.
3. Neuhofer, B.; Buhalis, D.; Ladkin, A. High Tech for High Touch Experiences: A Case Study From the Hospitality Industry. In *Information and Communication Technologies in Tourism 2013*; Springer: Berlin/Heidelberg, Germany, 2013; pp. 290–301.
4. Meuter, M.L.; Ostrom, A.L.; Roundtree, R.I.; Bitner, M.J. Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. *J. Mark.* **2000**, *64*, 50–64. [\[CrossRef\]](#)
5. Taillon, B.J.; Huhmann, B.A. Strategic consequences of self-service technology evaluations. *J. Strateg. Mark.* **2019**, *27*, 268–279. [\[CrossRef\]](#)
6. Kokkinou, A.; Cranage, D.A. Why wait? Impact of waiting lines on self-service technology use. *Int. J. Contemp. Hosp. Manag.* **2015**, *27*, 1181–1197. [\[CrossRef\]](#)
7. Wei, W.; Torres, E.N.; Hua, N. The power of self-service technologies in creating transcendent service experiences. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 1599–1618. [\[CrossRef\]](#)
8. Dabholkar, P.A. Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. *Int. J. Res. Mark.* **1996**, *13*, 29–51. [\[CrossRef\]](#)
9. Considine, E.; Cormican, K. The rise of the prosumer: An analysis of self-service technology adoption in a corporate context. *Int. J. Inf. Syst. Proj. Manag.* **2017**, *5*, 25–39. [\[CrossRef\]](#)
10. Liu, C.; Hung, K.; Wang, D.; Wang, S. Determinants of self-service technology adoption and implementation in hotels: The case of China. *J. Hosp. Mark. Manag.* **2020**, *29*, 636–661. [\[CrossRef\]](#)
11. Thamaraiselvan, N.; Arul, S.T.; Kasilingam, D. Understanding the intention to use self service technologies in the airline industry. *Int. J. Serv. Econ. Manag.* **2019**, *10*, 89. [\[CrossRef\]](#)
12. Lee, H.-J.; Lyu, J. Exploring factors which motivate older consumers' self-service technologies (SSTs) adoption. *Int. Rev. Retail. Distrib. Consum. Res.* **2019**, *29*, 218–239. [\[CrossRef\]](#)
13. Hossain, M.S.; Zhou, X.; Rahman, M.F. Customer satisfaction under heterogeneous services of different self-service technologies. *Manag. Mark. Challenges Knowl. Soc.* **2019**, *14*, 90–107. [\[CrossRef\]](#)
14. Johansson, P.O. *The Economic Theory and Measurement of Environmental Benefits*; Cambridge University Press: Cambridge, UK, 1994; ISBN 9780521348102.
15. Bentham, J. *The collected Works of Jeremy Bentham: An Introduction to the Principles of Morals and Legislation*; Clarendon Press: Oxford, UK, 1996.
16. Mankiw, N.G.; Taylor, M.P. *Economics*, 4th ed.; Cengage Learning: Andover, MA, USA, 2017; ISBN 9781473725331.
17. Berman, B. How to Delight Your Customers. *Calif. Manage. Rev.* **2005**, *48*, 129–151. [\[CrossRef\]](#)
18. McFadden, D. Econometric models of probabilistic choice. In *Structural Analysis of Discrete Data with Econometric Applications*; Manski, C.F., McFadden, D., Eds.; MIT Press: Cambridge, MA, USA, 1981; pp. 198–272.
19. Lancaster, K.J. A New Approach to Consumer Theory. *J. Polit. Econ.* **1966**, *74*, 132–157. [\[CrossRef\]](#)
20. Lin, J.-S.C.; Hsieh, P.-L. Assessing the Self-service Technology Encounters: Development and Validation of SSTQUAL Scale. *J. Retail.* **2011**, *87*, 194–206. [\[CrossRef\]](#)
21. Gunawardana, H.; Kulathunga, D.; Perera, W. Impact of Self Service Technology Quality on Customer Satisfaction: A Case of Retail Banks in Western Province in Sri Lanka. *Gadjah Mada Int. J. Bus.* **2015**, *17*, 1–24.
22. Kim, M.; Qu, H. Travelers' behavioral intention toward hotel self-service kiosks usage. *Int. J. Contemp. Hosp. Manag.* **2014**, *26*, 225–245. [\[CrossRef\]](#)
23. Considine, E.; Cormican, K. Self-service Technology Adoption: An Analysis of Customer to Technology Interactions. *Procedia Comput. Sci.* **2016**, *100*, 103–109. [\[CrossRef\]](#)
24. George, A.; Kumar, G.S.G. Impact of service quality dimensions in internet banking on customer satisfaction. *Decision* **2014**, *41*, 73–85. [\[CrossRef\]](#)
25. Isa, S.M.; Kiumarsi, S. The impact of service quality in postal services: The mediating role of self-service technology. *Int. J. Serv. Oper. Manag.* **2019**, *33*, 395–419. [\[CrossRef\]](#)
26. Kucukusta, D.; Heung, V.C.S.; Hui, S. Deploying Self-Service Technology in Luxury Hotel Brands: Perceptions of Business Travelers. *J. Travel Tour. Mark.* **2014**, *31*, 55–70. [\[CrossRef\]](#)
27. Zhang, T.; Seo, S.; Ahn, J.A. Why hotel guests go mobile? Examining motives of business and leisure travelers. *J. Hosp. Mark. Manag.* **2019**, *28*, 621–644. [\[CrossRef\]](#)
28. Asif, M. A critical review of service excellence models: Towards developing an integrated framework. *Qual. Quant.* **2015**, *49*, 763–783. [\[CrossRef\]](#)
29. Bates, K.; Bates, H.; Johnston, R. Linking service to profit: The business case for service excellence. *Int. J. Serv. Ind. Manag.* **2003**, *14*, 173–183. [\[CrossRef\]](#)
30. Schneider, B.; Bowen, D.E. Understanding Customer Delight and Outrage. *Sloan Manag. Rev.* **1999**, *41*, 35–45.
31. Sekhon, H.S.; Al-Eisawi, D.; Roy, S.K.; Pritchard, A. Service excellence in UK retail banking: Customers' perspectives of the important antecedents. *Int. J. Bank Mark.* **2015**, *33*, 904–921. [\[CrossRef\]](#)

32. Iqbal, M.S.; Ul Hassan, M.; Habibah, U. Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction. *Cogent Bus. Manag.* **2018**, *5*. [\[CrossRef\]](#)
33. Djelassi, S.; Diallo, M.F.; Zielke, S. How self-service technology experience evaluation affects waiting time and customer satisfaction? A moderated mediation model. *Decis. Support Syst.* **2018**, *111*, 38–47. [\[CrossRef\]](#)
34. Vakulenko, Y.; Hellström, D.; Oghazi, P. Customer value in self-service kiosks: A systematic literature review. *Int. J. Retail Distrib. Manag.* **2018**, *46*, 507–527. [\[CrossRef\]](#)
35. Dabholkar, P.A. Incorporating Choice into an Attitudinal Framework: Analyzing Models of Mental Comparison Processes. *J. Consum. Res.* **1994**, *21*, 100. [\[CrossRef\]](#)
36. Schaarschmidt, M.; Höber, B. Digital booking services: Comparing online with phone reservation services. *J. Serv. Mark.* **2017**, *31*, 704–719. [\[CrossRef\]](#)
37. Aslam, W.; Tariq, A.; Arif, I. The Effect of ATM Service Quality on Customer Satisfaction and Customer Loyalty: An Empirical Analysis. *Glob. Bus. Rev.* **2019**, *20*, 1155–1178. [\[CrossRef\]](#)
38. Nijssen, E.J.; Schepers, J.J.L.; Belanche, D. Why did they do it? How customers' self-service technology introduction attributions affect the customer-provider relationship. *J. Serv. Manag.* **2016**, *27*, 276–298. [\[CrossRef\]](#)
39. Wang, C.; Harris, J.; Patterson, P.G. Modeling the habit of self-service technology usage. *Aust. J. Manag.* **2017**, *42*, 462–481. [\[CrossRef\]](#)
40. Yoon, C.; Choi, B. Role of Situational Dependence in the Use of Self-Service Technology. *Sustainability* **2020**, *12*, 4653. [\[CrossRef\]](#)
41. Klier, J.; Klier, M.; Müller, A.-L.; Rauch, C. The impact of self-service technologies—Towards an economic decision model and its application at the German Federal Employment Agency. *J. Decis. Syst.* **2016**, *25*, 151–172. [\[CrossRef\]](#)
42. Lee, H.-J.; Lyu, J. Personal values as determinants of intentions to use self-service technology in retailing. *Comput. Hum. Behav.* **2016**, *60*, 322–332. [\[CrossRef\]](#)
43. Fernandes, T.; Pedroso, R. The effect of self-checkout quality on customer satisfaction and repatronage in a retail context. *Serv. Bus.* **2017**, *11*, 69–92. [\[CrossRef\]](#)
44. Wei, W.; Torres, E.; Hua, N. Improving consumer commitment through the integration of self-service technologies: A transcendent consumer experience perspective. *Int. J. Hosp. Manag.* **2016**, *59*, 105–115. [\[CrossRef\]](#)
45. Blut, M.; Wang, C.; Schoefer, K. Factors Influencing the Acceptance of Self-Service Technologies. *J. Serv. Res.* **2016**, *19*, 396–416. [\[CrossRef\]](#)
46. Kim, J.-H.; Park, J.-W. The Effect of Airport Self-Service Characteristics on Passengers' Perceived Value, Satisfaction, and Behavioral Intention: Based on the SOR Model. *Sustainability* **2019**, *11*, 5352. [\[CrossRef\]](#)
47. Li, S. The impact of service quality, self-service technology, and the corporate image on customer satisfaction and customer revisit intention among luxury hotels in Kuala Lumpur, Malaysia. *Int. J. Serv. Econ. Manag.* **2020**, *11*, 48–70. [\[CrossRef\]](#)
48. Johnston, R. Insights into Service Excellence. In *Service Excellence als Impulsgeber*; Gabler: Wiesbaden, Germany, 2007; pp. 17–35.
49. Oliver, R.L. *Satisfaction: A Behavioral Perspective on the Consumer*, 2nd ed.; Routledge: London, UK, 2014; ISBN 9781317460213.
50. Oliver, R.L.; Rust, R.T.; Varki, S. Customer delight: Foundations, findings, and managerial insight. *J. Retail.* **1997**, *73*, 311–336. [\[CrossRef\]](#)
51. Johnston, R. Towards a better understanding of service excellence. *Manag. Serv. Qual. Int. J.* **2004**, *14*, 129–133. [\[CrossRef\]](#)
52. Gouthier, M.; Giese, A.; Bartl, C. Service excellence models: A critical discussion and comparison. *Manag. Serv. Qual. Int. J.* **2012**, *22*, 447–464. [\[CrossRef\]](#)
53. Padma, P.; Wagenseil, U. Retail service excellence: Antecedents and consequences. *Int. J. Retail Distrib. Manag.* **2018**, *46*, 422–441. [\[CrossRef\]](#)
54. Warnock, M. *Utilitarianism and on Liberty*; Blackwell Publishing Ltd.: Oxford, UK, 2003; ISBN 9780470776018.
55. Cascetta, E. Random Utility Theory. In *Transportation Systems Analysis*; Cascetta, E., Ed.; Springer: Boston, MA, USA, 2009; Volume 29, pp. 89–167. ISBN 978-0-387-75856-5.
56. Holbrook, M.B.; Hirschman, E.C. The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun. *J. Consum. Res.* **1982**, *9*, 132–140. [\[CrossRef\]](#)
57. Davis, F.D.; Bagozzi, R.P.; Warshaw, P.R. User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Manag. Sci.* **1989**, *35*, 982–1003. [\[CrossRef\]](#)
58. Gures, N.; Inan, H.; Arslan, S. Assessing the self-service technology usage of Y-Generation in airline services. *J. Air Transp. Manag.* **2018**, *71*, 215–219. [\[CrossRef\]](#)
59. Othman, A.K.; Hamzah, M.I.; Abu Hassan, L.F. Modeling the contingent role of technological optimism on customer satisfaction with self-service technologies: A case of cash-recycling ATMs. *J. Enterp. Inf. Manag.* **2020**, *33*, 559–578. [\[CrossRef\]](#)
60. Dabholkar, P.A.; Bagozzi, R.P. An Attitudinal Model of Technology-Based Self-Service: Moderating Effects of Consumer Traits and Situational Factors. *J. Acad. Mark. Sci.* **2002**, *30*, 184–201. [\[CrossRef\]](#)
61. Dabholkar, P.A.; Bobbitt, L.M.; Lee, E.J. Understanding consumer motivation and behavior related to self-scanning in retailing implications for strategy and research on technology-based self-service. *Int. J. Serv. Ind. Manag.* **2003**, *14*, 59–95. [\[CrossRef\]](#)
62. Alkibsi, S.; Lind, M. Service Quality Dimensions Within Technology-Based Banking Services. In *Strategic Adoption of Technological Innovations*; Howard, C., Ed.; IGI Global: Hershey, PA, USA, 2013; pp. 198–248. ISBN 9781466627826.
63. Robertson, N.; McDonald, H.; Leckie, C.; McQuilken, L. Examining customer evaluations across different self-service technologies. *J. Serv. Mark.* **2016**, *30*, 88–102. [\[CrossRef\]](#)

64. Milne, G.R. Privacy and Ethical Issues in Database/Interactive Marketing and Public Policy: A Research Framework and Overview of the Special Issue. *J. Public Policy Mark.* **2000**, *19*, 1–6. [\[CrossRef\]](#)
65. Phelps, J.E.; D'Souza, G.; Nowak, G.J. Antecedents and consequences of consumer privacy concerns: An empirical investigation. *J. Interact. Mark.* **2001**, *15*, 2–17. [\[CrossRef\]](#)
66. Parasuraman, A.; Zeithaml, V.A.; Malhotra, A. E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality. *J. Service Res.* **2005**, *7*, 213–233. [\[CrossRef\]](#)
67. Glazer, R. Marketing in an Information-Intensive Environment: Strategic Implications of Knowledge as an Asset. *J. Mark.* **1991**, *55*, 1–19. [\[CrossRef\]](#)
68. Bloom, P.N.; Milne, G.R.; Adler, R. Avoiding Misuse of New Information Technologies: Legal and Societal Considerations. *J. Mark.* **1994**, *58*, 98–110. [\[CrossRef\]](#)
69. Culnan, M.J.; Armstrong, P.K. Information Privacy Concerns, Procedural Fairness, and Impersonal Trust: An Empirical Investigation. *Organ. Sci.* **1999**, *10*, 104–115. [\[CrossRef\]](#)
70. Kim, H.-B.; Lee, D.S.; Ham, S. Impact of hotel information security on system reliability. *Int. J. Hosp. Manag.* **2013**, *35*, 369–379. [\[CrossRef\]](#)
71. Barua, Z.; Aimin, W.; Hongyi, X. A perceived reliability-based customer satisfaction model in self-service technology. *Serv. Ind. J.* **2017**, 1–21. [\[CrossRef\]](#)
72. He, Z.; Yang, X.; Wang, W.; Zhang, M. Measuring service quality in telematics service: Development and validation of multidimensional TeleServQ scale. *Total Qual. Manag. Bus. Excell.* **2017**, *28*, 1166–1182. [\[CrossRef\]](#)
73. Theodosiou, M.; Katsikea, E.; Samiee, S.; Makri, K. A Comparison of Formative Versus Reflective Approaches for the Measurement of Electronic Service Quality. *J. Interact. Mark.* **2019**, *47*, 53–67. [\[CrossRef\]](#)
74. Gefen, D.; Karahanna, E.; Straub, D.W. Trust and TAM in Online Shopping: An Integrated Model. *MIS Q.* **2003**, *27*, 51–90. [\[CrossRef\]](#)
75. Devlin, J.; Ennew, C.T. Understanding competitive advantage in retail financial services. *Int. J. Bank Mark.* **1997**, *15*, 73–82. [\[CrossRef\]](#)
76. Eccles, R.G.; Newquist, S.C.; Roland, S. Reputation and Its Risks. *Harv. Bus. Rev.* **2007**, *85*, 1–10.
77. Orel, F.D.; Kara, A. Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market. *J. Retail. Consum. Serv.* **2014**, *21*, 118–129. [\[CrossRef\]](#)
78. Wang, X.; Yuen, K.F.; Wong, Y.D.; Teo, C.-C. Consumer participation in last-mile logistics service: An investigation on cognitions and affects. *Int. J. Phys. Distrib. Logist. Manag.* **2019**, *49*, 217–238. [\[CrossRef\]](#)
79. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. Servqual: A Multiple-Item Scale For Measuring Consumer Perc. *J. Retail. Spring* **1988**, *64*, 12–37.
80. Zeithaml, V.A.; Parasuraman, A.; Malhotra, A. Service quality delivery through web sites: A critical review of extant knowledge. *J. Acad. Mark. Sci.* **2002**, *30*, 362–375. [\[CrossRef\]](#)
81. Tractinsky, N. Toward the Study of Aesthetics in Information Technology. In Proceedings of the ICIS 2004, Washington, DC, USA, 12–15 December 2004; pp. 11–20.
82. Thüring, M.; Mahlke, S. Usability, aesthetics and emotions in human–technology interaction. *Int. J. Psychol.* **2007**, *42*, 253–264. [\[CrossRef\]](#)
83. Ku, E.C.S.; Chen, C. Der Fitting facilities to self-service technology usage: Evidence from kiosks in Taiwan airport. *J. Air Transp. Manag.* **2013**, *32*, 87–94. [\[CrossRef\]](#)
84. Lian, J.W. Why is self-service technology (SST) unpopular? Extending the IS success model. *Library Hi Tech* **2018**. [\[CrossRef\]](#)
85. Berry, L.L.; Seiders, K.; Grewal, D. Understanding service convenience. *J. Mark.* **2002**, *66*, 1–17. [\[CrossRef\]](#)
86. Collier, J.E.; Sherrell, D.L. Examining the influence of control and convenience in a self-service setting. *J. Acad. Mark. Sci.* **2010**, *38*, 490–509. [\[CrossRef\]](#)
87. Collier, J.E.; Kimes, S.E. Only If It Is Convenient: Understanding How Convenience Influences Self-Service Technology Evaluation. *J. Service Res.* **2013**, *16*, 39–51. [\[CrossRef\]](#)
88. Ding, D.X.; Hu, P.J.H.; Sheng, O.R.L. E-SELFQUAL: A scale for measuring online self-service quality. *J. Bus. Res.* **2011**, *64*, 508–515. [\[CrossRef\]](#)
89. Narteh, B. Perceived service quality and satisfaction of self-service technology. *Int. J. Qual. Reliab. Manag.* **2015**, *32*, 361–380. [\[CrossRef\]](#)
90. Ding, Y.; Keh, H.T. A re-examination of service standardization versus customization from the consumer's perspective. *J. Serv. Mark.* **2016**, *30*, 16–28. [\[CrossRef\]](#)
91. Coelho, P.S.; Henseler, J. Creating customer loyalty through service customization. *Eur. J. Mark.* **2012**, *46*, 331–356. [\[CrossRef\]](#)
92. Wirtz, J.; Lovelock, C. *Services Marketing*, 8th ed.; World Scientific: Hackensack, NJ, USA, 2016; ISBN 978-1-944659-00-4.
93. Ostrom, A.; Lacobucci, D. Consumer Trade-Offs and the Evaluation of Services. *J. Mark.* **1995**, *59*, 17–28. [\[CrossRef\]](#)
94. Bolton, R.N.; McColl-Kennedy, J.R.; Cheung, L.; Gallan, A.; Orsingher, C.; Witell, L.; Zaki, M. Customer experience challenges: Bringing together digital, physical and social realms. *J. Serv. Manag.* **2018**, *29*, 776–808. [\[CrossRef\]](#)
95. Judd, C.M.; Smith, E.R.; Kidder, L.H. *Research Methods in Social Relations*; Holt, Rinehart and Winston: New York, NY, USA, 1991; ISBN 9780030311499.

96. Fornell, C.; Johnson, M.D.; Anderson, E.W.; Cha, J.; Bryant, B.E. The American Customer Satisfaction Index: Nature, Purpose, and Findings. *J. Mark.* **1996**, *60*, 7–18. [\[CrossRef\]](#)
97. Dean, D.H. Shopper age and the use of self-service technologies. *Manag. Serv. Qual.* **2008**, *18*, 225–238. [\[CrossRef\]](#)
98. Elliott, K.M.; Hall, M.C. Assessing Consumers' Propensity to Embrace Self-Service Technologies: Are There Gender Differences? *Mark. Manag. J.* **2005**, *15*, 98–107.
99. Weijters, B.; Rangarajan, D.; Falk, T.; Schillewaert, N. Determinants and Outcomes of Customers' Use of Self-Service Technology in a Retail Setting. *J. Serv. Res.* **2007**, *10*, 3–21. [\[CrossRef\]](#)
100. Meuter, M.L.; Ostrom, A.L.; Bitner, M.J.; Roundtree, R. The influence of technology anxiety on consumer use and experiences with self-service technologies. *J. Bus. Res.* **2003**, *56*, 899–906. [\[CrossRef\]](#)
101. Pradhan, M.; Oh, J.; Lee, H. Understanding Travelers' Behavior for Sustainable Smart Tourism: A Technology Readiness Perspective. *Sustainability* **2018**, *10*, 4259. [\[CrossRef\]](#)
102. McGorry, S.Y. Measurement in a cross-cultural environment: Survey translation issues. *Qual. Mark. Res. An Int. J.* **2000**, *3*, 74–81. [\[CrossRef\]](#)
103. Guliyev, G.; Avci, T.; Öztüren, A.; Safaeimanesh, F. Effects of professionalism on employee satisfaction and organizational commitment at five star hotels in Baku. *J. East Eur. Manag. Stud.* **2019**, *24*, 423–446. [\[CrossRef\]](#)
104. Sposito, V.A.; Hand, M.L.; Skarpness, B. On the efficiency of using the sample kurtosis in selecting optimal lpestimators. *Commun. Stat. Comput.* **1983**, *12*, 265–272. [\[CrossRef\]](#)
105. Fornell, C.; Larcker, D.F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.* **1981**, *18*, 39–50. [\[CrossRef\]](#)
106. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*, 8th ed.; Cengage: Andover, UK, 2019; ISBN 9781473756540.
107. Anderson, J.C.; Gerbing, D.W. Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychol. Bull.* **1988**, *103*, 411–423. [\[CrossRef\]](#)
108. Alipour, H.; Amelshahbaz, S.; Safaeimanesh, F.; Peyravi, B.; Salavati, A. The Impact of Environmental Stimuli on Hotel Service Employees' Service Sabotage—Mediation Role of Emotional Intelligence and Emotional Dissonance. *Sustainability* **2021**, *13*, 876. [\[CrossRef\]](#)
109. Bagozzi, R.P.; Yi, Y. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [\[CrossRef\]](#)
110. Hayes, A.F. *Introduction to Mediation, Moderation, and Conditional Process Analysis*, 2nd ed.; The Guilford Press: New York, NY, USA; London, UK, 2017; ISBN 978-1-60918-230-4.
111. Hayes, A.F.; Montoya, A.K.; Rockwood, N.J. The Analysis of Mechanisms and Their Contingencies: PROCESS versus Structural Equation Modeling. *Australas. Mark. J.* **2017**, *25*, 76–81. [\[CrossRef\]](#)
112. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [\[CrossRef\]](#)
113. Bagozzi, R.P.; Yi, Y.; Phillips, L.W. Assessing Construct Validity in Organizational Research. *Adm. Sci. Q.* **1991**, *36*, 421–458. [\[CrossRef\]](#)
114. Nunnally, J.C. *Psychometric Theory*, 3rd ed.; McGraw-Hill Series in Psychology; Tata McGraw-Hill Education: New Delhi, India, 1994; ISBN 9780071070881.
115. Alipour, H.; Safaeimanesh, F.; Soosan, A. Investigating Sustainable Practices in Hotel Industry-from Employees' Perspective: Evidence from a Mediterranean Island. *Sustainability* **2019**, *11*, 6556. [\[CrossRef\]](#)
116. Tabachnick, B.G.; Fidell, L.S. *Using Multivariate Statistics*, 3rd ed.; HaperCollins: New York, NY, USA, 1996.
117. Dolnicar, S. Business travellers' hotel expectations and disappointments: A different perspective to hotel attribute importance investigation. *Asia Pacific J. Tour. Res.* **2002**, *7*, 29–35. [\[CrossRef\]](#)
118. Mattila, A. Consumers' value judgements: How business travelers as evaluate luxury-hotel services. *Cornell Hotel Restaur. Adm. Q.* **1999**, *40*, 40–46. [\[CrossRef\]](#)