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Customer Acceptance of Self-Service Technology in Five-Star Hotels in Egypt

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Abstract

Self-service technology (SST) is continuously improving to make a wide range of services easier, quicker, and more suitable. The current study aims mainly to explore customers' acceptance and intention to use SST in five-star hotels in Egypt based on its ease of use and usefulness. Therefore, the current research highlighted four issues of SST, namely; technology acceptance (perceived usefulness and ease of use), technology readiness (innovativeness, optimism, discomfort, and insecurity), technology characteristics (responsiveness and smartness), and customers' intention to use SST. Five main hypotheses were developed consequently.

A survey form was completed by 940 hotel customers; they were selected randomly from five-star hotels in five regions. The findings revealed that customer acceptance of SST in hotels was significantly correlated with technology readiness and technology characteristics. In addition, there was a significant correlation between customers' acceptance of SST and their intention to use it. The research presents a comprehensive insight into SST practises in five-star hotels in Egypt. Furthermore, many implementations are provided that help hotel managers and decision-makers understand what motivates customers to accept SST.

Keywords: Self-service technology, technology readiness, technology acceptance, Egypt.

1. Introduction

Over the last few decades, technology has pervaded the service industry, affecting every aspect of service delivery and management (Kunz and Walsh, 2020; Meuter, Ostrom, Roundtree, and Bitner, 2000; Phelan, Chen, and Haney, 2013; Tuomi, Tussyadiah, and Stienmetz, 2021). The service business is evolving to embrace more technological features, which replace employees or enhance additional components of the service processes (Belanche, Casaló, Flavián, and Schepers, 2020; Christ-Brendemühl and Schaarschmidt, 2020; Cirillo, Rinaldini, Staccioli, and Virgillito, 2021; Daugherty, Banerjee, and Biltz, 2015).

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The tourism and hospitality industries today view innovation as a critical component (Breier et al., 2021). An important strategic change is information and Communication Technology (ICT) empowering tourism customers with the ability to customize and create their tourism experiences (Lee, Hunter, and Chung, 2020). Customers now have smartphones, tablets, and laptops, which allow them to access information and services as part of the ongoing technological revolution (Priporas, Stylos, and Fotiadis, 2017; Stankov and Gretzel, 2021). Such technology has supported customers in obtaining services while, simultaneously, helping reduce the total expenses that had been necessary to serve customers in the past (Belanche, Casaló, and Flavián, 2021).

Bookings, kiosk tickets, check-in, interactive displays, and mobile technology applications are all available to customers online (Çınar, 2020; Wörndl and Herzog, 2020). The use of technologies in tourism has grown the number of opportunities for customers to self-serve (Liu and Hung, 2020). Although a large body of research has been conducted on the human dynamics of service contacts, there is still a lot to learn about customer interactions with technology-based self-service delivery choices (Shim, Han, and Ha, 2020). Self-service technologies (SSTs) have gradually changed how customers interact with businesses to receive services (Ghosh, 2020).

SST is defined as a term used to describe technologies that enable clients to obtain and consume services without the presence of employees (Das, 2015; Dong, Zhang, Yip, Swift, and Beswick, 2020; Otekhile and Zelený, 2016; Wu, Gursoy, and Zhang, 2021). SSTs have become the agents of change in the hospitality industry. Services such as reservations and, check-in/check-out were traditionally provided by service staff; however, they can now be accessed via the internet, mobile devices, freestanding kiosks, and other SSTs.

The most criticized issue of SST is the decrease in the relationship between employees and guests (human touch). The lack of a "social relationship" means that low-consumer satisfaction and a negative influence on customer loyalty occur when SST is used (Yang and Chao, 2017). Traditional human-touch service (THTS) has many advantages in terms of customer loyalty and sustaining a positive attitude towards the service provider (Solnet et al., 2019). People establish strong trust and interpersonal relationships through employee interactions. The interactions between customers and front-office employees such as eye contact and friendly greetings make guests feel welcomed. THTS raises some threats to relationships between an employee and a customer, as negative interactions can cause the loss of a customer's lifetime loyalty (Wang, Harris, and Patterson, 2013). Based on the above, this research aims to achieve the following objectives:

1.To investigate the effect of customers' readiness (Innovativeness, Optimism, Discomfort and Insecurity) on their acceptance of SST.

2.To investigate the effect of technology characteristics (responsiveness and smartness) on customers' acceptance of SST.

3.To examine the effect of customers' acceptance of SST on their intention to use it.

2.Literature Review

2.1 Self-Service Technologie (SST)

Generally, SSTs are divided into two categories: Transaction-related technology, such as making an order, scanning, or paying for things, is the first type; and customer service or information-related technology, often known

as self-service information technology (Park and Zhang, 2022).

Bitner (2001) and Liu, Hung, Wang, and Wang (2020) noted that implementing SST may achieve higher levels of customer satisfaction and loyalty, and cost-cutting to compete with other businesses in the field. In addition, implementing SST can reduce the company's budget and increase its profits through the elimination of service encounters, employing kiosk services at the swimming pool, reducing delivery times, and more efficiently taking orders since a kiosk can be available 24/7 and does not receive a paycheck. Therefore, electricity, tax, maintenance service, and updates are the only remaining variable expenditures, which are negligible when compared to a staff wage (Belias, Vasiliadis, and Mantas, 2020).

Recently, more scholars are recognizing the critical role of technology in service distribution (Heidenreich and Handrich, 2015; Urbančič et al., 2020). Customer–company interaction through new technology has been significant as it relates to the market space environment. SSTs provide customers not only over-control but also a pleasant and reliable quality of service to guarantee equality when dealing with guests (MENESES, 2020). Automated check-in, automated check-out, cashless, ATMs, kiosks, online services, online food ordering, online hotel booking, electronic table menu and airport self-check-in are all instances of SSTs that have been suggested (Chan, Ma, Ye, and Law, 2021).

Several studies have investigated issues related to SSTs, specifically, improving knowledge of guest profiles (Napierała, Bahar, Leśniewska-Napierała, and Topsakal, 2020). Heidenreich and Handrich (2015) Pointed out that the degree of willingness to use SST actively contributes to the delivery of services. Electronic kiosk technology allows hotels to offer more facilities such as room upgrades, spa and laundry facilities with possible customization for each guest (Carlin and Soskice, 2005; Rose and Fogarty, 2010). SST can be used to store guests 'information in a more organized way than doing this manually through a front desk employee (Bayram, 2020). This can be very useful with up-selling facilities and achieving additional revenue for hotel management (Guillet, 2020).

Self-scanning devices that are in a store's checkout area can also play a vital role (Mumani, Stone, and Wang, 2018). Besides, the online concierge in some hotel lobbies of Marriott Courtyard has a large-format touch screen concierge called GoBoard. This GoBoard provides very useful information to their guests. As an SST service, Digital Concierge offers hotel guests access tourism-related content via mobile devices, kiosks, and interactive screens (Lukanova and Ilieva, 2019). Furthermore, SST is intended to reduce workplace stress. Guests use self-check-in to save time and achieve their goals quickly, especially during busy periods (Ivanov and Webster, 2019).

The number of SSTs in the tourism and hospitality sector is increasing, and they provide limitless options to enhance the visitor experience (Liu et al., 2020). Understanding customer usage of SST from an alternative perspective may reveal a plethora of new information about how to manage the service process (Chen, Guo, Gao, and Liang, 2021; Hilton, Hughes, Little, and Marandi, 2013). As a result, there are both practical and theoretical motivations for the current research.

2.2 SST Measurement

Venkatesh (2000) presented the Technology Acceptance Model (TAM) and the Technology Readiness Index (TRI) which proposed that two

beliefs determine a person's behavioral intention to use SST: perceived usefulness (the degree to which the guests believe that using SST will improve their job performance) and perceived ease of use mean that the extent to which the guests believe that using SST will be effort-free (Davis, Bagozzi, and Warshaw, 1989). Perceived usefulness is one of the basic factors for determining whether SST will be accepted or not.

TRI is widely used to measure a customer's perception of using SST (Parasuraman, 2000). TRI was created to assess and precisely anticipate customer perception and behavior. Optimism, innovativeness, discomfort, and insecurity are four sub-dimensions (Tsikriktsis, 2004). In their study, Chiu, Fang, and Tseng (2010) added personal innovativeness in the TAM, as well as the variable of actual use in their recommendations for further research along with optimism, innovativeness, discomfort, and insecurity are TRI sub-dimension factors (Godoe and Johansen, 2012). Accordingly, five main hypotheses were formulated for the current research (Fig. 1).

H1: Technology readiness influences customers' perceived ease of use of SST

H1a. Innovativeness has a positive effect on customers' perceived ease of use of SST.

H1b. Optimism has a positive effect on customers' perceived ease of use of SST.

H1c. Discomfort has a negative effect on customers' perceived ease of use of SST.

H1d. Insecurity has a negative effect on customers' perceived ease of use of SST

H2: Technology characteristics influence customers' perceived usefulness of SST

H2a. Responsiveness has a positive effect on customers' perceived usefulness of SST.

H2b. Smartness has a positive effect on customers' perceived usefulness of SST.

H3. Perceived ease of use SST has a positive effect on its perceived usefulness.

H4. Perceived ease of use SST has a positive effect on a customer's intention to use it.

H5. Perceived usefulness has a positive effect on a consumer's intention to use SST.

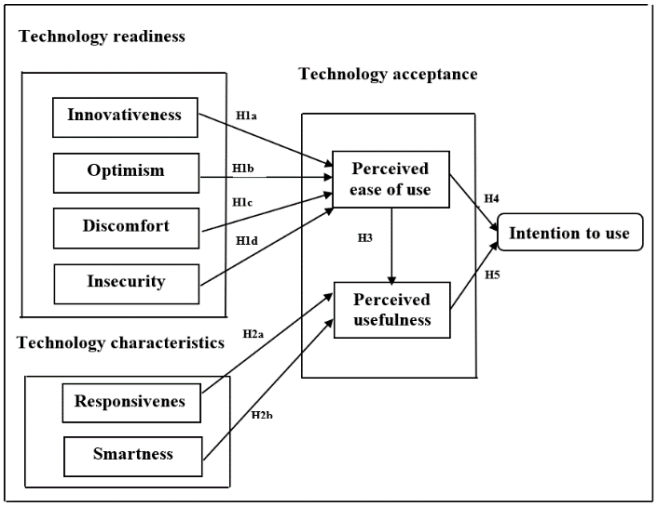

Fig. 1. The hypothetical framework of the research.

3.Methodology

3.1Sampling

The researchers prepared a list of 153 five-star hotels as listed in the 38th edition of the Egyptian Hotel Guide (EHA, 2019 - 2020). First, stratified random sampling was used to select a sample of 46 five-star hotels, accounting for 30% of the total population of 153 hotels from different destinations. Second, using simple random sampling, participants were randomly selected.

3.2 Instrument and Data Collection

To examine guests' acceptability and intention to use SST, a field study was conducted utilizing a self-administered questionnaire. It was divided into two parts: The first part collected demographic data while the second part included items to measure the study variables; TR, TC, TA, and SST intention. The survey items were based on a 5-point Likert scale. In addition, data was collected from 1050 customers who completed the survey. Only 940 questionnaires were returned and valid, accounting for 68 percent of the entire sample, indicating an acceptable response rate.

3.3 Measurements

All variables were chosen from the existing literature as described in Section 2. TR was measured using a 36-item scale, as presented by (Parasuraman, 2000). Technology characteristics (TC) consisted of responsiveness and smartness. Three responsiveness measurement items originated by Mittal and Lassar (1996) and three items for smartness were formulated by (Pechmann and Ratneshwar, 1994). TAM consisted of perceived ease of use and perceived usefulness, each of which consisted of six items that were adopted (Venkatesh, Morris, Davis, and Davis, 2003). The behavioral intention was measured with three items originating from (Venkatesh and Goyal, 2010).

4. Results

In this study, SPSS version 23 was utilized to run tests that described the study's variables as well as to test its hypotheses.

4.1 Reliability Analysis

The reliability was determined using Cronbach's Alpha Measurement. According to the criterion of Hair, Black, Babin, Anderson, and Tatham (2014) and Hayes and Coutts (2020) when the level of reliability exceeds 0.60, it can be perceived as acceptable. The value of Cronbach's alpha for each questionnaire component was estimated in this study (Table 1) and exceeded 0.60 for each construction.

Table 1. Reliability analysis.

Measures	No of Items	Cronbach's Alpha
Technology readiness	36	.878
Innovativeness	7	.729
Optimism	10	.919
Discomfort	10	.786
Insecurity	9	.788
Technology acceptance	12	.888
Perceived usefulness	6	.901
Perceived Ease of use	6	.734
Technology characteristics	6	.896
Responsiveness	3	.834
Smartness	3	.836
Intention to use	3	.917

4.2 Sample Characteristics

The sample's characteristics (Table 2) show information such as the respondent's nationality, gender, age, marital status, educational level, occupational level, and computer knowledge.

Table 2. Respondents' profile.

Item	Frequency	Percentage
Nationality		
Egyptian	261	27.8
German	226	24.0
English	120	12.8
Ukrainian	47	5.0
Swiss	43	4.6
Russian	39	4.1
Holland	29	3.1
Polish	26	2.8
Czech	18	1.9
Other	131	13.9
Gender		
Male	560	59.6
Female	380	40.4
Age		
18-25	286	30.4
26-35	309	32.9
36-45	210	22.3
46-55	88	9.4
56-65	20	2.1
Older than 65	27	2.9
Marital Status		
Single	449	47.8
Married	409	43.5
Divorced	43	4.6
Widowed	39	4.1
Education level (the higher status currently possessed)		
Others (Middle Schools-Secondary Education-Junior High Schools-High Schools-…….ETC)	57	6.1
Sub-school Education	140	14.9
Bachelor's Degree	561	59.7
Master's Degree or Doctorate	182	19.4
Occupation level		
Top management /Professionals	154	16.4
Supervisory /Middle management	277	29.5
Self-employed/own business	61	6.5
Student	234	24.9
Retired	63	6.7
Other (……)	151	16.1
I have ……knowledge about how to use a computer.		
Basic	131	13.9
Average	435	46.3
Advanced	374	39.8
How many times did you stay in this hotel?		
Once	197	21.0
Twice	207	22.0
Three times	172	18.3
More	364	38.7
For how long have you been staying?		
1 Night	62	6.6
2-4 Nights	223	23.7
4-6 Nights	294	31.3
More than a week	361	38.4

Purpose of visit		
Business	153	16.3
Leisure	570	60.6
Other	217	23.1

4.3 Descriptive Analysis

Regarding technology readiness (Table 3), the overall mean for all innovativeness' statements is 3.65; proving that customers are willing to accept innovativeness machines in hotels. The overall averages mean score for optimism is 4.16, which indicates that the hotel customers placed importance on the role of optimism. The existence of discomfort was perceived to be quite high as the overall average mean score for this subsection is 3.31. The group of statements in the insecurity subsection provided a series of interesting observations: the mean scores for insecurity principles range from 2.69 to 3.84, and the overall mean for all statements is 3.19.

TR (Table 3) was perceived as high, since the overall mean value is 3.58, and it is noted that "Optimism" has the greatest mean value (4.16), followed by "Innovativeness" (3.65), while "Discomfort" and "Insecurity" have the two lowest mean values (3.31) and (3.19). The aforementioned values of the means indicate that customers in five-star hotels in Egypt are willing to use SST in their operations because they need to invest time in delivering their orders easily and faster.

Table 3. Descriptive statistics of TRI.

Technology Readiness Index (overall mean= 3.58)	Mean	S.D.
Innovativeness	3.65	.602
Optimism	4.16	.696
Discomfort	3.31	.640
Insecurity	3.19	.726

The TAM model is made up of two behavioral beliefs: perceived ease of use and perceived usefulness. As shown in (Table 4), it is observed that overall responses of the hotel customers are high with values ranging from 3.82 to 4.09. The overall mean for all dimensions is 3.96. Perceived usefulness has the greatest mean value 4.09, followed by the perceived ease of use with 3.82. According to the calculated means of recorded scores, the basic statements that constituted the ideal perceived usefulness are quite high. This indicates that hotel customers have greater perceived usefulness of using SST during their accommodation. According to the calculated means of recorded scores presented in Table 4, the overall mean score for perceived ease of use is 3.82; this indicates that hotel customers have greater perceived ease of using SST during their accommodation.

Table 4. Descriptive statistics of TAM.

Technology Acceptance Index (overall mean= 3.96)	Mean	S.D.
perceived usefulness	4.09	.72
perceived ease of use	3.82	.61

Findings (Table 5) show two dimensions of TC: smartness and responsiveness. "Smartness" has the greater mean value of 4.13, followed by "Responsiveness" with 4.09. According to the calculated means of the recorded scores, the statements that constitute ideal responsiveness are perceived to be quite high; it indicates that customers have greater perceived responsiveness as a result of using SST during their accommodation in hotels. The statements of responsiveness are also perceived to be quite high, which indicates that the hotel customers had a greater perceived smartness to use SST.

Table 5. Descriptive statistics of TC.

Technology Characteristics (overall mean= 4.11)	Mean	S.D.
Responsiveness	4.09	.743
Smartness	4.13	.738

The current research examined to what extent customer intends to use SST during their accommodation in hotels (Table 6). Respondents have an intention to use SST. The overall mean score is 4.16. (Table 7) also

presents brief descriptive analyses of all research variables.

Table 6. Descriptive statistics for intention to use statement.

Intention to use (Overall mean=4.16)	Mean	S.D.
1. I intend to use SST in the hotel.	4.18	.842
2. I predict I would continue using SST in the hotel.	4.11	.827
3. I plan to continue using SST in hotels.	4.17	.834

Table 7. Descriptive statistics for all subsections of SST.

Self-service technology(Overall mean= 3.95)	Mean	S.D.
Technology Readiness Index (TRI)	3.58	.450
Technology Acceptance Model (TAM)	3.96	.608
Technology Characteristics (TC)	4.11	.693
Intention to use	4.16	.773

Table 8. The research variables' correlations.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Innovativeness	1											
2. Optimism	.562**	1										
3. Discomfort	.153**	.249**	1									
4. Insecurity	.016	.149**	.529**	1								
5. Technology Readiness	.612**	.722**	.715**	.653**	1							
6. Perceived Usefulness	.450**	.674**	.195**	.075*	.510**	1						
7. Ease of Use	.448**	.531**	-.053	-.006	-.371**	.658**	1					
8. Technology Acceptance	.493**	.668**	.142**	.041	.490**	.925**	.895**	1				
9. Responsiveness	.398**	.602**	.218**	.063	.468**	.680**	.680**	.746**	1			
10. Smartness	.382**	.631**	.196**	.099**	.481**	.731**	.628**	.751**	.750**	1		
11. Technology Characteristics	.417**	.659**	.222**	.087**	.507**	.754**	.700**	.800**	.936**	.935**	1	
12. Intention to Use	.457**	.559**	.105**	-.018	.398**	.670**	.606**	.703**	.688**	.681**	.732**	1

*** Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).*

4.4 Correlation Analysis

Multi-correlation matrix analysis for the relationship between the variables in this research was investigated (Table 8). The perceived ease of use was positively correlated with innovativeness and optimism ($p < 0.001$). In contrast, discomfort and insecurity did not correlate significantly. In addition, perceived usefulness was positively correlated with responsiveness and smartness. ($p < 0.001$). Perceived usefulness was significantly positively correlated with perceived ease of use. ($p < 0.001$). Moreover, intention to use was positively linked with perceived ease of use and perceived usefulness. ($p < 0.001$).

4.5 Testing Hypotheses and Discussion

The findings of the regression (Table 9) indicate that 20 percent of the observed variability in the level of perceived ease of use is related to the level of innovation that is promoted. ($R^2 = 0.201$). In addition, evaluation of the Beta coefficients ($\beta = .457$, $p < 0.01$) indicates that innovativeness was found to be a strong predictor of perceived ease of use and positively correlated with it. These findings support the acceptance of H1a that line with prior studies conducted by (Walczuch, Lemmink, and Streukens, 2007), (Parasuraman and Colby, 2015) and (Lundberg, 2017). They concluded that innovative people are more critical of technology because they are aware of the most recent advances and potential, and they expect all technology to meet the greatest expectations.

The findings of the regression test in table 9 also indicate that 28 percent of the observed variability in the degree of perceived ease of use is clarified by the degree of optimism ($R^2 = 0.282$). In addition, an evaluation of the beta coefficients ($\beta = .468$, $p < 0, 01$) indicates that optimism was a significant predictor of perceived ease of use and positively correlated with it. Hence, the increment of the perceived ease of use degree of hotel customers is a function of the degree of optimism. The null hypothesis can, therefore, be disproved, and the alternative hypothesis H1b can be accepted. This result is consistent with previous research such as (Chang and Chen, 2021; Elliott, Hall, and Meng, 2013; J.-H. Kim and Park, 2019;

Reinders, Dabholkar, and Frambach, 2008; Rust and Huang, 2012).

Although findings (Tables 8 and 9) reveal that correlation between discomfort and perceived ease of use was negative (R= 0.053, p > 0.05), it was not significant. Thus, H1c is not accepted. This result is not consistent with Guhr, Loi, Wiegard, and Breitner (2013) and Abdullah, Jayaraman, and Kamal (2016) who found that customers facing technological discomfort are more likely to reject a grocery store's self-scanning system.

Additionally, findings (Tables 8 and 9) do not support the acceptance of H1d; they indicate that around 00.0 % (R^2 = 0. 000) of the observed variability in the degree of perceived ease of use is indicated by the degree of insecurity. An evaluation of the beta coefficients (β=.005-, p> 0.05) indicates that insecurity had a negative correlation with perceived ease of use and was not a significant predictor of it. This finding is consistent with Gelderman, Paul, and Van Diemen (2011), who indicated that insecurity might be a weak and unreliable measure to use as an indicator of technology acceptance. Moreover, Walczuch et al. (2007); Godoe and Johansen (2012); and Thamaraiselvan, Arul, and Kasilingam (2019) found support for the standpoint that insecurity has nothing to do with a negative assessment of technology. In contrast, previous research conducted by Y. Wang, Wang, Wang, Wei, and Wang (2020) pointed out that insecurity reduces perceived ease of usage.

Table 9. Regression analysis (H1).

	R	R Square	Adjusted R Square	B	Sig.	Decision
Innovativeness	.448	.201	.200	.457	.000	H1a is accepted
Optimism	.531	.282	.282	.468	.000	H1b is accepted
Discomfort	-.053	.003	.002	.051	.106	Hac is not accepted
Insecurity	-.006	.000	-.001-	.005-	.851	H1d is not accepted

The findings presented in Table 10 indicate that about 46 percent of the observed variability in the degree of perceived usefulness is explained by the degree of responsiveness (R^2 = 0. 462). Moreover, an evaluation of the beta coefficients (β = .660, p< 0, 01) indicates that responsiveness was a significant predictor of perceived usefulness and positively correlated with it. Thus, the increment of the perceived usefulness degree of hotel customers is a function of the degree of responsiveness. Consequently, hypothesis H2a was accepted so, this result is agreed with (White, Breazeale, and Collier, 2012).

Findings (Table 10) also indicate that about 53.5 percent of the observed variability in the degree of perceived usefulness is explained by the degree of smartness (R^2 = 0. 535). In addition, an evaluation of the beta coefficients (β = .715, p< 0, 01) indicates that smartness was a significant predictor of perceived usefulness and positively correlated with it. Thus, the null hypothesis can be rejected, but H2b can be accepted. This finding is consistent with the results of previous studies (Fan, Wu, Miao, and Mattila, 2020; Gretzel, Werthner, Koo, and Lamsfus, 2015; Mangla, Kumar, and Barua, 2014). It is also consistent with Karande, Merchant, and Sivakumar (2011), Shukla and Babin (2013) and Giovanis, Assimakopoulos, and Sarmaniotis (2018) who maintained that the variables of perceived usefulness and perceived ease of use may be influenced by technological characteristics.

Table 10. Regression analysis (H2).

	R	R Square	Adjusted R Square	B	Sig.	Decision
Responsiveness	.680[a]	.462	.462	.660	.000	H2a is accepted
Smartness	.731[a]	.535	.534	.715	.000	H2b is accepted

Statistics (Table 11) show that about 43 percent of the observed variability in the degree of perceived ease of use explains the degree of perceived utility. (R^2 = 0. 433). An evaluation of the Beta coefficients (β = .774, p< 0, 01)

indicates that perceived usefulness was positively associated with perceived ease of use, which was a significant predictor. The null hypothesis can be rejected, but H3 is accepted as an alternative. This result is consistent with some previous studies such those (Abdullah et al., 2016; Kaushik and Rahman, 2015; Renko and Druzijanic, 2014; Ugwuanyi, Uduji, and Oraedu, 2021).

Table 11. Regression analysis (H3).

	R	R Square	Adjusted R Square	B	Sig.	Decision
Perceived ease of use	.658	.433	.432	.774	.000	accepted

Findings (Table 12) indicate that about 34 percent of the observed variability in the degree of perceived ease of use returned explains the degree of intention (R^2 = 0. 342). An evaluation of the Beta coefficients (β = .803, p< 0, 01) for perceived ease of use was a strong predictor of intention to use and was positively correlated with it, according to the findings. Thus, the increment in the intention to use the degree of hotel customers is proportional to how easy it is to use. It is, therefore, possible to accept hypothesis H4. Similarly, M. Kim and Qu (2014) agreed that perceived ease of use refers to the customer's view of how simple it is to understand and use new technology. These findings are also in line with prior studies (Abdullah et al., 2016; Elliott et al., 2013; Jung, Kim, and Farrish, 2014; M. Kim and Qu, 2014; Tahar, Riyadh, Sofyani, and Purnomo, 2020).

Table 12. Regression analysis (H4).

	R	R Square	Adjusted R Square	B	Sig.	Decision
Perceived ease of use	.584[a]	.342	.341	.803	.000	Accepted

Findings (Table 13) indicate that about 41 percent of the observed variability in the perceived utility of something explains the degree of intention to use it. (R^2 = 0. 408). An evaluation of the Beta coefficients (β = .746, p< 0, 01) indicates that the perceived usefulness of a product was found to be a strong predictor of future use and positively correlated with it. Thus, the null hypothesis can be rejected, but H5 can be accepted as an alternative. According to that result, previous research has argued that related to the hotel industry, there is a favorable correlation between perceived usefulness and intention to use SST (Alsamydai, Yousif, and Al Khasawneh, 2012; Elliott et al., 2013; M. Kim and Qu, 2014; Mukerjee, 2020; Renko and Druzijanic, 2014; Shim et al., 2020).

Table 13. Regression analysis (H5).

	R	R Square	Adjusted R Square	B	Sig.	Decision
Perceived usefulness	.639	.408	.407	.746	.000	Supported

5. Conclusions and Implications

SST is a concept used to describe a wide range of technology interfaces that allow customers to provide services without the involvement of direct employees (Belias et al., 2020). The current research confirmed the numerous advantages of implementing SSTs in five-star hotels in Egypt considering SSTs' perceived usefulness and their ease of use. Actually, the research aimed to achieve three main objectives. The first one was to investigate the effect of customers' readiness (Innovativeness, Optimism, Discomfort and Insecurity) on their acceptance of SST in five-star hotels in Egypt. Although the study found that innovativeness and optimism were significantly and positively correlated to the perceived ease of use of the SST, there was no significant correlation between discomfort and insecurity. The second objective was to investigate the effect of technology characteristics (responsiveness and smartness) on customers' acceptance of SST. The results indicated that there was a significant correlation between technology characteristics and customers' acceptance of SST. Finally, the third objective was to investigate the influence

of customers' acceptance of SST on their intention to use it. Customers' acceptance of SST and their intention to use it were found to have a strong significant correlation in that research. Indeed, customers' perception of SST's usefulness was significantly influenced by the perceived ease of use. Additionally, the current research reveals that perceived ease of use has a considerable beneficial impact on a customer's intention to use SST. Furthermore, customers' intention to use SST was significantly influenced by perceived usefulness.

The results of the current research provide implications. In general, hotels in Egypt should embrace strongly the idea of implementing SST practices, as they always make numerous things easier, faster, or more convenient. However, SSTs should be viewed as a supplement to service professionals rather than a replacement for employees. Before deciding which technologies to adopt, hotels should research and evaluate the effects SSTs will have on both their operations and their customers. Also, studying customer experience, learning what works best for them, and discovering what encourages them to choose SST rather than service employee interaction are all important steps in improving the SST experience and implementation. Moreover, training employees to communicate effectively with customers who need help regarding SSTs.

In particular, hotel managers must give great interest to many issues before implementing SSTs. First, they should assess their customers' technological readiness based on their innovativeness, optimism, discomfort, and insecurity. Second, they should consider the technological characteristics of their customers based on their responsiveness and smartness.

Third, before implementing SSTs, they should assess their customer acceptance predicated on the perceived ease of use and usefulness. Finally, hotel managers and decision makers must test their customers' willingness to use SSTs based on their acceptance.

6. Limitation and Future Research

Only five-star hotels in Egypt were included in this study, which was limited to the hospitality sector. It is likewise restricted to four components of SST namely; technological acceptance, readiness, characteristics, and intention to use. Future research should look to incorporate other essential theoretical aspects such as learning and training, as well as changing social settings, into technology adoption models. Moreover, further research into the characteristics of technology could be analyzed for different cultures to determine if there were any shifts between the groups derived from the cultural differences.

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