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Examining the Role of Reputation as a Moderator of E-Service Quality, Trust, and E-Loyalty in Online Travel Services

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Abstract: This study presents and examines a more rigorous theoretical model for the relationships among e-service quality (e-SQ), trust, reputation, and e-loyalty in the online travel context, with the latter variables considered simultaneously and with reputation assumed to moderate the effect of e-SQ on both trust and loyalty. The model was tested using the two-step approach of the product method in partial least squares structural equation modelling (PLS-SEM) using data from 257 U.S. respondents who had used travel websites for information search and booking in the 12 months prior to the study. Results revealed that e-SQ positively influenced e-loyalty both directly and indirectly (through trust); however, the effect of e-SQ on e-loyalty is negatively moderated when website reputation is high/positive. These results provide a better understanding of the way e-SQ, trust, and reputation influence e-loyalty in online travel when modelled accurately.

Keywords: e-service quality; reputation; travel websites; e-loyalty; PLS-SEM; moderation effect

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1. Introduction

Customer loyalty has emerged as a desirable marketing outcome for most businesses in recent years [1,2]. Irrespective of whether a firm operates offline or online, loyal customers have proven to not only generate stable future returns but also have lower maintenance costs, as they are less likely to defect if the firm products and services falter. In addition, most importantly, loyal customers are associated with positive word of mouth, which enhances the firm's customer base and attracts new customers over time [1,3,4].

This is particularly true in the online travel context [5], where growth in the number of online travel agencies (OTAs) and metasearch engines has intensified competition in the e-commerce arena [4,6] while simultaneously lower online search costs have made it easier for travellers to compare offerings and prices across multiple providers. As a result, rather than remaining loyal to any specific site, most consumers are promiscuous, switching between different sites in search of the best deal [7,8]. Given the high cost of customer acquisition, this makes customer retention and e-loyalty even more important in the online context [5], with the topic attracting much recent attention from both scholars and industry practitioners [9–13].

In addition, recent studies have shown that in addition to e-service quality (e-SQ), both the level of trust in an online platform/travel website and positive website reputation are important factors influencing e-loyalty [5,10]. Trust is defined as the confidence or belief that the exchange partner (website) will deliver on promises made during the information search/purchase process [14]. Reputation, on the other hand, is customers' overall impression or belief about an organization or website. Customers build these beliefs based not only on the company's branding, promotion, and public relations efforts (which, in this case, represent its image) but also on their previous experience with the company/website and third-party information about the company, including word of mouth provided by other customers [2]. Thus, reputation is a broader concept to simply image (see [15]). Both

trust and reputation have been shown to be particularly important in the case of travel and tourism products. Given the intangible nature of tourism, customers cannot easily assess product quality in advance, relying instead on their confidence in, and overall impression of, the travel website to inform purchase/repurchase decisions and ultimately drive future purchase intention/loyalty [3].

Except for the 2019 paper by Al-Adwan and Al-Horani [12], to the authors' knowledge, existing studies examining the links among e-SQ, trust, reputation, and e-loyalty have not conclusively examined the relationships between these variables concurrently within the same model. Most have either included e-SQ and trust alongside other relationship marketing variables, including satisfaction and perceived value (but not reputation), to examine their effects on e-loyalty (see [5,14,16]) or have included e-SQ and reputation together with the relationship variables of satisfaction, engagement, and perceived value (but not trust) to examine their effects on e-loyalty (see [17–19]). With trust and reputation being of foremost importance in influencing customer behaviour in the online context, as well as in online travel and tourism specifically, there is therefore a need to examine these two variables together alongside e-SQ to better understand their interrelationships and the ways in which they influence e-loyalty.

Furthermore, those few studies that have examined the link between reputation and e-loyalty in their respective model(s) have failed to accurately represent reputation. They have mainly examined either its direct effect on e-loyalty or its mediating effect through the marketing variables of satisfaction, trust, and engagement (see [8,12,17,18,20]). Other studies have examined the moderating role of reputation on the relationships between e-SQ and loyalty (see [7,19,21]). However, in these cases, the moderating effect of reputation in influencing e-loyalty appears to be based on the idea that reputation is likely to influence customers' assessment of the overall quality of their interaction with a website (or e-service quality, in this case) and to subsequently condition the effect that e-service quality might have on loyalty as opposed to impacting loyalty either directly or indirectly [7,21]. One might argue, for instance, that when customers have a positive image of a website, they perceive their experience with the service to be positive, even when in practice it is not, or tend to overlook poor service at the expense of the overall positive/high reputation of the website. This counteracts the effect of e-SQ in influencing e-loyalty in this case [7].

Accordingly, there is a need to properly model reputation when examining the relationships among e-SQ, trust, and e-loyalty so as to better understand the interrelationship between these variables and how they can be conditioned by website reputation. Such insight would enhance our understanding of the drivers of e-loyalty and its formation in the online travel and tourism context, providing invaluable insight to both online travel platforms and suppliers wishing to sell directly to the consumer through online channels. Thus, building on the service, relationship marketing, and signalling theories, this study examines a more rigorous theoretical model of the relationships among e-SQ, trust, reputation, and e-loyalty, with these variables considered simultaneously.

Reputation, in this case, is assumed to moderate the effect of e-SQ on trust and loyalty in the online travel and tourism context. Data from 257 U.S. respondents who used travel websites for information search and booking in the 12 months prior to the study were analysed to examine the above relationships using partial least squares structural equation modelling (PLS-SEM) and the two-step approach of the product method (see [22]). This approach is recommended when examining moderation among continuous constructs, in this case, e-SQ and reputations, and when at least one of the constructs is conceptualized to be a higher order comprising several dimensions, as is the case with e-SQ.

The present study offers both theoretical and methodological implications by providing a better understanding of how e-SQ, trust, and reputation, when modelled accurately, influence e-loyalty in the online and travel context specifically. It also illustrates a more appropriate way to assess the moderation effect in SEM in the presence of higher-order constructs, as well as provides practical implications by helping online travel website administrators better understand how to retain existing customers and enhance loyalty through a

more comprehensive understanding of the relationships between e-SQ, trust, reputation, and loyalty. Furthermore, the findings help clarify which specific aspects/dimensions of e-SQ are most likely to enhance customers' trust and loyalty, as well as how online travel website administrators can tap into website reputation to further alter the relationships among e-SQ, trust, and loyalty, enhancing their e-commerce offering.

Service quality in the online context, or e-service quality (e-SQ), is defined as "customer judgments relating to the quality of service delivered in a virtual environment" [5]. In online travel and tourism specifically, e-SQ represents three dimensions or categories [16]. First is the process or functional dimension that gauges the quality of the interaction that takes place between the consumer and the website. This includes aspects of the website, such as information quality (or to the potential of the site to provide useful and relevant information), security (or the ability of the site to protect customer information), functionality (or the site ease of use and quick refresh time), and personalization (or the ability of the site to provide personalized information for the customer) (see [16,23]). Second, the output/technical dimension gauges the ability of the website to fulfil the needs of the customer, including aspects such as booking accuracy, booking condition and timelines, booking tracing, cancellation policy, and help and information available to users during the search and booking process (see [23,24]). The third dimension is hedonic, which refers to the level of pleasure and playfulness experienced by users when searching for/purchasing products and services, and comprises aspects such as a fun browsing experience, access to other users' recommendations, and ability to interact with the site and share one's own experience [16,25]. The aforementioned dimensions (process, output, and hedonic) are used in the present study to represent e-SQ and conceptualize it as a higher-order construct.

While previous studies have examined the links between e-SQ, trust, and e-loyalty, with relationship marketing theory arguing that improving service quality builds stronger relationships with customers and thus increases trust and loyalty toward a company (see [5]), existing studies show contrasting results as to whether e-SQ influences e-loyalty directly and/or indirectly [5,9–14]. For instance, [26] and [27] demonstrate that both e-SQ and trust each exert a direct effect on the e-loyalty of e-wallet users and online food shoppers in Indonesia, respectively. On the other hand, [12] and [13] both show that e-SQ influences customers' e-loyalty indirectly through the construct of trust in their respective studies of online retail shoppers in Jordan and Pakistan. Furthermore, [14] found that e-SQ exerts both a direct and indirect effect through trust on shoppers' e-loyalty to online retail websites in Indonesia.

Likewise, specifically in the online travel context, [9]) found that e-SQ has a direct effect on e-loyalty of users of OTAs in Turkey. In contrast, [5] and [11]), examining Saudi Arabian and Malaysian travellers, respectively, who used OTAs when making their travel bookings, found that e-SQ exerts only an indirect effect through trust on e-loyalty toward the travel website. Finally, [10] studied Indonesian travellers who had used one of six online companies to make a travel purchase, finding that e-SQ affected e-users' loyalty toward travel websites both directly and indirectly through trust. As such, the precise nature of the relationships among e-SQ, trust, and e-loyalty, when these latter are considered together remains unclear, with the following hypotheses proposed to further examine and enhance understanding of the possible relationships among these constructs:

H1: *e-SQ has a direct positive effect on trust.*

H2: *e-SQ has a direct positive effect on e-loyalty.*

H3: *Trust has a direct positive effect on e-loyalty.*

Although reputation has received ample attention in the context of understanding its effect on loyalty (see [15]), existing studies in the online context have focused primarily on either the direct or mediating effect of reputation on loyalty (see [8,12,17,20]). The former (direct effect) assumes that when customers have a positive overall impression of a website

(reputation), they are more likely to reuse that site and recommend it to others [8]. In contrast, the latter (mediating effect) posits the idea that customers' positive impression of a site contributes to their levels of satisfaction, trust, and engagement, ultimately translating into higher (re)purchase and recommendation intentions [12,28]. However, few studies have empirically explored this possible moderating effect of reputation on the formation of e-loyalty in an online context [29,30], let alone the ways in which the relationships among e-SQ and trust on e-loyalty are altered or shaped by the website's reputation [7,21,31].

In addition, existing studies provide conflicting evidence as to whether reputation positively or negatively moderates such effects. For example, in the general online context, [31] studied Spanish-speaking readers of online Spanish newspapers and found that consumers' familiarity (which serves as a proxy for reputation) positively moderates the relationship between perceived quality of a website (measured in terms of usability) and consumer loyalty. However, the authors specifically found that when users were highly familiar with the newspaper website, perceived quality influenced loyalty both directly and indirectly through satisfaction, as opposed to only directly when users were less familiar with the website. These findings suggest that familiarity amplifies the effect of service quality on loyalty by heightening the significance of its effect on satisfaction and subsequently on e-loyalty (see [31]). Similarly, [21] study of users of online mobile services in Kenya found that website image (which represents one aspect of reputation based on a company's/website's self-reported information; see [15]) positively conditioned the effect of website service quality on users' loyalty, whereby the effect of service quality on loyalty was found to be greater when users perceived the website to have a more positive image or higher reputation. This amplified effect can be explained as a higher reputation translating into higher expectations in terms of the quality of service they expect to receive. If the actual quality of the service turns out to match these higher expectations, then e-SQ becomes a more important predictor of loyalty, making the effect of service quality on loyalty greater when customers hold a more positive opinion of the website.

More recently, [7] studied the relationships between service quality, satisfaction, and loyalty of users of online retail websites in Turkey. They found that reputation had no moderation effect on the relationship between service quality and satisfaction, suggesting that users' satisfaction with the website is solely based on experience, i.e., level of the website's perceived quality, regardless of whether the website had a good reputation or not. However, website reputation in this was found to negatively moderate the relationship between service quality and loyalty, suggesting that the effect of e-SQ on loyalty was lesser when the website had a higher reputation. This finding could be explained by signalling theory, suggesting that when users hold a high opinion of a website, it signals the positive practices and service quality of that company. Accordingly, users take certain level of e-SQ for granted and may perceive their experience to be positive even when it is not or may tend to overlook low experiences at the expense of the overall positive/high reputation they have of the website [19]. This perception eventually reduces the possible effect of service quality on loyalty and future (re)purchase intention in this case (see [7]).

In the online travel context specifically, recent limited studies [4,32] have explored the moderation effect of reputation on e-loyalty in the context of both OTAs and hotel websites. However, these studies examined the conditioning effect of reputation on the relationships between perceived risk, customer engagement, and perceived value on loyalty, but not e-SQ and trust. They argue for a positive moderation effect of reputation among the examined variables, where the effects of both customer engagement and perceived value on loyalty were found to be higher when users hold a high image of the website, amplifying both the value perceived by users and their level of engagement. These findings positively condition the constructs of perceived value and engagement as influencing users' loyalty and future repurchase/reuse intentions (see [32]), while perceived risk had a smaller negative effect (again positively moderated) on loyalty toward OTAs. Positive reputation, in this case, offsets some of the risks perceived by guests, again due to signalling theory, suggesting that

the website is safer to use, and ultimately lessens the negative effect of risk on intention to reuse the website (see [4]).

Thus, the exact nature of the moderation effect of reputation on e-loyalty remains unclear, with diverging arguments and findings on how reputation moderates the relationships between e-SQ and both trust and e-loyalty, particularly in the online travel context. Accordingly, the following general hypotheses for the moderating effects of reputation will be proposed and tested, and the nature of the moderation (positive or negative) will be further confirmed through the analysis:

H4: *Reputation moderates the positive relationship between e-SQ and trust, with the nature (positive or negative) of the moderation effect to be further confirmed.*

H5: *Reputation moderates the positive relationship between e-SQ and e-loyalty, with the nature (positive or negative) of the moderation effect to be further confirmed.*

Figure 1 displays the hypothesized conceptual model for the effects of e-SQ, trust, and reputation on e-loyalty, with the moderating effect of reputation represented by the arrows pointing from reputation to the paths linking e-SQ with both trust and e-loyalty. We present the indicators for each construct in Table A1 (see Appendix A).

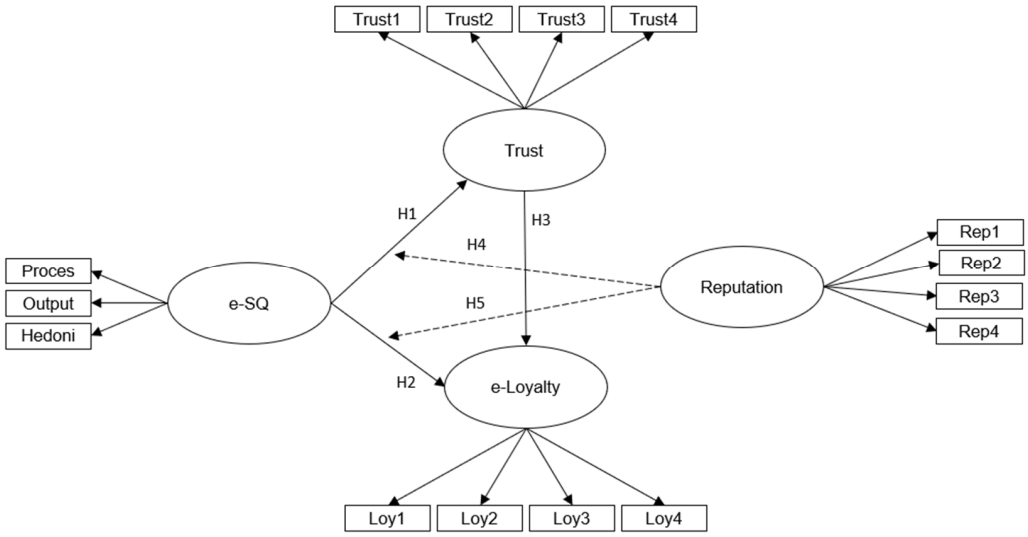


Figure 1. The proposed conceptual model.

2. Materials and Methods

Data was collected online between October and November 2021 by a market research company using a panel representative of the U.S. population. To be considered for this study, respondents must have used a travel website (e.g., a metasearch engine or OTA) at least once in the context of travel planning in the 12 months prior to the survey. In conjunction with direct distribution through supplier websites, online travel platforms represent one of the primary ways in which consumers book travel. Phocuswright's Global Travel Market Report 2024 forecast that online bookings will reach US$1.2 trillion in 2026, representing 65% of all travel revenues globally, up from 61% in 2023 [33]. Of this, an estimated 40% flow through OTAs, with metasearch acting as a significant source of traffic for direct web presences [34]. As such, online travel services represent an important contributor to the e-commerce efforts of travel companies and merit deeper investigation.

To avoid any confusion regarding what is meant by metasearch engines and OTAs, respondents were presented with a short description of the terms along with illustrative examples of major metasearch engines and OTAs prior to starting the questionnaire. A total of 1260 respondents were approached and surveyed using convenience sampling based

on a first-come-first-serve basis and on the screening criteria, of which 257 (20.4%) passed the filter question/criteria. We followed the guidelines outlined by [35] to evaluate the adequacy of the sample size. Hair et al. (2022) [36] recommends that researchers should consider ranges of effect sizes to determine the minimum sample sizes required when modelling complex models, as opposed to methods that estimate sample size requirements using only one path coefficient (e.g., [37]). Taking a conservative approach, we consider potential path estimates in the model to be between 0.11–0.2 and significant at the 0.5% level, corresponding to a minimum required sample size of 155 ([36], p. 27). Thus, our study sample of 257 is adequate to test the conceptual model.

The questionnaire asked respondents about their perceptions of the travel website's quality (e-SQ), trust, (website) reputation, and e-loyalty, with all questions taken from previously validated scales [8,12,24,25] and measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree (see Appendix A Table A1). In this case, e-SQ is assumed to be a higher-order construct consisting of three dimensions: process, output, and hedonic value, as well as the items used to measure the aforementioned dimensions adapted from [24] and [25]. The questionnaire also contained questions on respondents' socio-demographics.

The questionnaire was initially pilot tested with tourism professionals to uphold face validity of the various questions/constructs. Also, common variance bias (CMV) was not a concern, with the results from Harman's one-factor test (see [38]), implying that no single factor accounted for more than 50% of co-variation in our sample. Demographic statistics of the sample of 257 respondents are displayed in Table 1, showing that the data collected is well-distributed and typical of the relevant population.

Because of the quantitative nature of the study, which aims to examine relationships or associations among latent constructs, we used PLS-SEM (version 4.0.8.2) and XL-STAT (version 2022:2) software to examine the proposed model (see Figure 1). Given that both e-SQ and reputation are continuous variables (with the items used to gauge each of these constructs measured using a five-point Likert scale, see Appendix A Table A1) and given that e-SQ is a higher-order construct consisting of three dimensions (process, output, and hedonic), the two-step approach of the product method was used to investigate the moderating effect of reputation on the relationships between e-SQ, trust, and e-loyalty [22,39].

In step 1, the model in Figure 1, excepting reputation, which is the moderating variable in this case, was run to obtain the estimates for the latent variable scores of the e-SQ dimensions and come up with a single score for each of the process, output, and hedonic dimensions used to represent e-SQ (see [19,22]. In step 2, the latent variable scores of the process, output, and hedonic dimensions of e-SQ (identified in the first step above) were then multiplied in a pairwise fashion with the items representing reputation (i.e., the moderator variable in this case) to build up the product/interaction term (e-SQ x reputation). This newly created term (e-SQ x reputation) was then added to the proposed model in Figure 1, in addition to the main constructs of e-SQ, trust, reputation, and e-loyalty, allows testing for the moderation effects of reputation on the relationships between e-SQ and each of trust and loyalty (see [22]). The moderation hypotheses are confirmed if interaction effects, the effects of the corresponding interaction term e-SQ x reputation on each of trust and loyalty are found to be significant (see [22] and [39] for further details on SEM's two-step method).

PLS-SEM (as opposed to traditional covariance-based structural equation modelling [CB-SEM]) was used due to the higher-order conceptualization of the e-SQ as well as the addition of the interaction term to the model, which, in this case, would cause nonconvergence of results under CB-SEM (see [40]). The subsequent analysis focused on two steps: (1) confirm the outer models with regard to the validity of the initial constructs and (2) confirm the inner model with regard to the hypothesized relationships between constructs, including the interaction term [41].

Table 1. Sample characteristics.

	Frequency (n = 257)	Percent	Cumulative Percent
Age			
Minimum	18	-	-
Maximum	69	-	-
Average (S.D.)	41.95 (13.89)	-	-
Gender			
Male	124	48.2%	48.2%
Female	133	51.8%	100.0%
Education			
Primary school	4	1.6%	1.6%
Secondary school/High school	62	24.1%	25.7%
Diploma of vocational studies	67	26.1%	51.8%
Bachelor	81	31.5%	83.3%
Master	36	14.0%	97.3%
Doctorate	7	2.7%	100.0%
Occupation			
Student	12	4.7%	4.7%
Homemaker	22	8.6%	13.2%
Unskilled/Skilled worker	30	11.7%	24.9%
Self-employed	44	17.1%	42.0%
Professional/Executive/Manager	85	33.1%	75.1%
Public servant	8	3.1%	78.2%
Unemployed	14	5.4%	83.7%
Retired	33	12.8%	96.5%
Other	9	3.5%	100.0%
Annual household income			
<20,000	28	10.9%	10.9%
20,001–40,000	52	20.2%	31.1%
40,001–60,000	51	19.8%	51.0%
60,001–80,000	40	15.6%	66.5%
80,001–100,000	26	10.1%	76.7%
>100,000	60	23.3%	100.0%

3. Results

3.1. Outer Model Results

The results of the SEM proposed model (Figure 1, to which the reputation construct and the interaction term e-SQ x reputation were added to account for the moderation effect) confirmed the convergent validity of all initial constructs (i.e., e-SQ, trust, reputation, and loyalty), with loadings for all items exceeding 0.7 and being significant (see Table 2). This is particularly true for the three dimensions of e-SQ, for which the latent variable score was used to represent each dimension (see data analysis above).

Convergent validity was further supported by the average variance extracted (AVE) for all constructs exceeding the required 0.5 threshold, indicating that 50% or more of the variability of the items used to measure each construct was captured by that construct [40].

Finally, discriminant validity was supported as the AVE for each construct exceeded the square of the correlation of that construct with the other model constructs ([35], see Table 3). This implies that each construct is distinct in this study's proposed model [41]. The reliability, convergent, and discriminant validity of the interaction terms (e-SQ x reputation) are not examined, as it is sufficient for these factors to be upheld for e-SQ and reputation (the moderator variable in this case) as per the SEM literature (see [39]).

Table 2. Results of the outer model.

Latent Variables	Manifest Variables	Standardized Loadings	Critical Ratio (CR)	Lower Bound (95%)	Upper Bound (95%)	AVE	D.G. Rho
e-SQ	Process	0.91	36.28	0.851	0.947	0.84	0.94
	Output	0.92	45.73	0.876	0.956		
	Hedonic	0.91	46.42	0.868	0.945		
Trust	Trust1	0.88	25.66	0.798	0.932	0.74	0.92
	Trust2	0.87	22.32	0.775	0.924		
	Trust3	0.87	25.26	0.789	0.921		
	Trust4	0.83	15.91	0.720	0.916		
Reputation	Rep1	0.76	8.85	0.554	0.883	0.58	0.84
	Rep2	0.75	8.71	0.568	0.895		
	Rep3	0.72	8.06	0.523	0.869		
	Rep4	0.81	14.28	0.677	0.900		
e-Loyalty	Loy1	0.87	22.94	0.782	0.930	0.77	0.93
	Loy2	0.89	30.84	0.817	0.931		
	Loy3	0.90	32.08	0.831	0.940		
	Loy4	0.86	19.60	0.747	0.919		

Table 3. Results of discriminant validity (squared correlations for any pair of latent variables < AVE).

	e-SQ	Trust	Reputation	e-Loyalty	Mean Communalities (AVE)
e-SQ	**1**	0.559	0.511	0.561	0.839
Trust		**1**	0.444	0.543	0.741
Reputation			**1**	0.483	0.581
e-Loyalty				**1**	0.770

3.2. Inner Model Results

The nomological validity of the inner model in Figure 1 (to which the reputation construct and the interaction term e-SQ x reputation were added to account for the moderation effect) was first established, with the R^2 results for the endogenous constructs (i.e., trust and loyalty) 59.3% and 66.1%, respectively (see Chin, 2010 [41]). Additionally, the Stone–Geisser Q2 values for trust and loyalty were all > 0, further suggesting that the model has satisfactory prediction power (see [40]).

Additionally, the results of the path coefficients between the constructs revealed that e-SQ had a significant positive effect on both trust and e-loyalty (reg. coefficients = 0.637 and 0.384, respectively), supporting Hypotheses 1 and 2. Trust had a positive significant effect on e-loyalty (reg. coefficient = 0.372), which supports Hypothesis 3. Finally, the moderation effects were reviewed in terms of the path coefficients between reputation and the interaction term (i.e., e-SQ x reputation) on both trust and loyalty (see Figure 2), with results revealing that, while reputation had a positive direct effect on loyalty (reg. coefficient = 0.259) and trust (reg. coefficient = 0.290):

(1) The coefficient of e-SQ x reputation → loyalty (reg. coefficient = −0.120) was significant, suggesting that reputation also negatively moderates the relationship between e-SQ and loyalty, whereas, more specifically, the effect of e-SQ on loyalty diminishes with higher levels of website reputation (i.e., the effect of e-SQ on loyalty in this case drops from 0.384 to 0.264 = 0.384–0.120), thus supporting hypothesis H5, and
(2) The coefficient of e-SQ x reputation → trust (reg. coefficient = −0.050) was non-significant, indicating that reputation does not moderate the relationships between e-SQ and trust, thus failing to support Hypothesis 4.

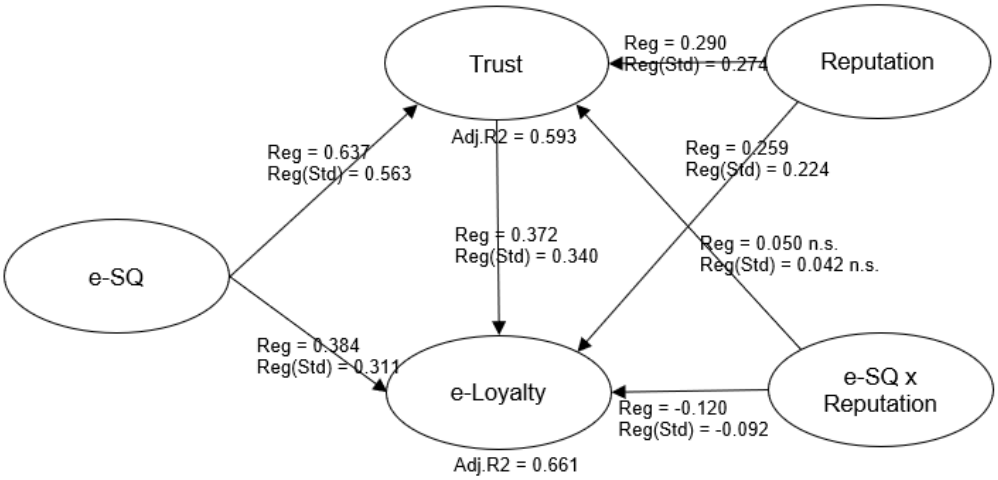


Figure 2. Results of structural model. Note that coefficients are significant at $p < 0.05$ except for n.s.

These results are further discussed below (Figure 2 and Table 4).

Table 4. Outcome of the hypotheses.

H1	e-SQ has a direct positive effect on trust.	Accepted
H2	e-SQ has a direct positive effect on e-loyalty.	Accepted
H3	Trust has a direct positive effect on e-loyalty.	Accepted
H4	Reputation moderates the positive relationship between e-SQ and trust.	Not accepted
H5	Reputation moderates the positive relationship between e-SQ and e-loyalty.	Accepted

4. Discussion

The present study examined the determinants and formation of e-loyalty in the online context in general, and in online travel and tourism specifically, by presenting a more thorough examination of the relationships among e-SQ, trust, reputation, and loyalty. These variables were examined simultaneously, with reputation assumed to play a moderating role on the effect that e-SQ had on both trust and e-loyalty. These results (see Table 4) aim to enhance our understanding of the way e-SQ, trust, and reputation influence e-loyalty, providing both theoretical and practical contributions.

From a theoretical viewpoint, the results revealed that e-SQ influenced e-loyalty both directly and indirectly through trust. In the indirect case, the effects of e-SQ → trust and trust → e-loyalty were both found to be significant (reg. coefficients = 0.637 and 0.372, respectively). While these results challenge some previous studies that found e-SQ to influence loyalty either directly [9] or indirectly [5,11] in both the online/online travel contexts specifically, they align with others that have demonstrated both direct and indirect effects (through trust) of e-SQ on e-loyalty [10,13]. As such, they further contribute to the ongoing debate on how e-SQ influences e-loyalty. On the one hand, the direct effect between e-SQ and e-loyalty supports the literature that stipulates that the customers' judgment of their experience and the quality of service is a key driver of loyalty in general and e-loyalty particularly (see [9]), while on the other hand, the indirect effect of e-SQ on e-loyalty further emphasizes the importance of trust in determining customer loyalty in the online context [11,26]. Given that e-customers lack real-time face-to-face interaction with company representatives that can provide them with information and reassurance about both the product/service and the e-seller itself, they tend instead to rely on the degree of trust and confidence they have to reassure themselves with regard to their online purchase, ultimately motivating them to use that website again and increasing their loyalty to the site [5,11].

Most importantly, the results also revealed that reputation negatively moderated the effect of e-SQ on e-loyalty. In addition to the positive effect of reputation on loyalty, e-SQ had a lower influence on e-loyalty when users have a more positive perception of the website (i.e., the effect of e-SQ on e-loyalty in this latter case is 0.384 as opposed to 0.264 = 0.384–0.120 in the case of high website reputation, see Figure 2). These results help build upon the few limited studies to date that have looked at the moderating role of reputation on the formation of loyalty in the online context and close the gaps in existing research (see [7,31]). While there is still controversy in the general online literature as to whether reputation positively or negatively moderates the effect of e-SQ on loyalty, the results of the present study clearly align with signalling theory [7,19], indicating that higher website reputation signals that the website considers customers' interests and provides high-quality service. As a result, even if the service turns out to be poor (or less positive), this tends to be overlooked because of the website's overall positive/high reputation, reducing the effect of e-SQ on loyalty in the online context in general and in online travel specifically [19].

However, the results revealed that reputation does not moderate the effect of e-SQ on trust, with reputation exerting a direct effect on trust, while the effect of e-SQ on trust is unconditioned by reputation. That is, the effect of e-SQ on trust remains the same (reg. coefficient = 0.637), regardless of whether customers hold a high or low perception of website reputation, as the effect of the interaction term (e-SQ x reputation) on trust was found to be non-significant in this case (reg. coefficient = 0.050, see Figure 2). To the author(s)' knowledge, the moderating effect of reputation on the relationship between e-SQ and trust has not been examined in previous studies. Current findings indicate that customers rely primarily on their experience with, and assessment of, the quality of the website when developing confidence and trust in that website. This aligns with relationship marketing theory, which stipulates that service quality is the main driver of trust for building customer relationships with a service/product provider [7]. Meanwhile, reputation is also shown not to condition (increase or decrease) the effect of e-SQ on website trust.

The present study also provides methodological contributions by illustrating how to properly examine moderation effects in PLS-SEM between continuous constructs, in this case, e-SQ and reputation, when at least one construct is conceptualized as a higher-order construct comprising several dimensions, as is the case with e-SQ. It provides an empirical application of the two-step approach of the product method to examine how reputation conditions the relationships between e-SQ and both trust and loyalty, with the application of this empirical method still limited within the field of travel and tourism (probably due to its relative complexity; see [22]). Thus, it provides further methodological insights for tourism scholars interested in examining moderation among higher-order constructs in their respective studies.

The results also provide practical implications for e-commerce by providing recommendations for OTAs and metasearch engine administrators as to how to enhance customers' loyalty by stressing the importance of e-SQ and clarifying how the latter influences customer loyalty. Results show that customers' assessment of the quality of OTAs not only influences trust but ultimately future repurchase and positive word-of-mouth intention (i.e., loyalty). In addition, close examination of the result can help OTAs and metasearch engine managers better understand which aspect(s) of website service quality they need to apply to enhance their e-commerce capacity. For example, examining the loading of the different dimensions/aspects of e-SQ (see Table 2) reveals that, while all three dimensions are important in shaping customers' experience with websites (e-SQ), output (i.e., the ability of the website to fulfil customer needs) has the highest weight in terms of experience. Therefore, OTA managers should ensure the accuracy and efficacy of orders when it comes to purchases/bookings placed by customers, including timely responses to and execution of customers' inquiries, for example, by tracing orders/bookings made through the website, as well as clearly laying out purchase conditions and cancellation policies.

Lastly, OTA managers should relay pertinent information to customers about available products/services while also solving problems encountered by customers during their search and booking process (see Appendix A Table A1). Focusing on these issues would help drive e-SQ and enhance e-commerce capabilities.

Additionally, managers should understand that building and sustaining a positive image/reputation can enhance their customers' positive word-of-mouth intentions by helping diminish the effect of e-SQ quality on e-loyalty, particularly when customers' experiences are less than expected. In such cases, positive reputation can help customers overlook poor experiences and repatronise the website, thanks to the overall positive image they have of the website. Developing relationship marketing, maintaining strong and positive communication channels with customers, properly managing website reputation across online and offline channels, and investing in efficient and effective marketing campaigns can help enhance a website's reputation and subsequently condition the effect that e-SQ has on e-loyalty. Such efforts ultimately enhance customers' future repurchase intentions and positive word of mouth. This is particularly important given the intense competition that online platforms face today, in which repeat customers can help providers generate stable future stream of revenues. In addition, repeat customers cost less to maintain (compared to attracting new customers) and can provide positive word of mouth, helping travel website administrators to enhance their e-commerce success and competitiveness.

The present study exhibits several limitations that must be addressed in future works. Both trust and reputation have strong cultural dimensions [42]. The present study is based on data collected from a single country, the United States. As such, future papers could gather data from different countries and conduct cross-cultural analyses to further corroborate and help generalise the findings. On the other hand, the present study only examined the marketing relationship variables of trust and reputation to understand the effect of e-SQ on loyalty and specifically in an online travel context. Accordingly, future papers could examine additional relationship variables that are advanced in the service quality literature, for example, satisfaction, perceived value, and engagement, to provide additional insights into how e-SQ affects e-travel service loyalty and the conditioned effect that reputation could further have on these variables, as well as expand the research context to other (online and offline) situations, once again helping to generalize the findings. Additionally, although data for this study was collected at the end of 2021 (the time by which COVID-19 pandemic was starting to subside and travel returning to normal), long-term safety and health concerns engendered by the current pandemic cannot be overlooked. Future studies should further incorporate health and safety information into their measures of e-SQ dimensions to better gauge this latter concept and its effect on the model relationships. Finally, although the two-step product term approach has been advanced as a key method for testing moderation effects among continuous variables/constructs in SEM, other techniques (i.e., the orthogonalization approach; see [22]) have been recently introduced to the SEM software that could further corroborate the present moderation results in future studies.

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Appendix A

Table A1. List of the constructs used in the model and their respective indicators.

Construct	Item(s)	Measurement Scale
Process	The information on this travel website is accurate. The information on this travel website is updated. The information on this travel website is useful. The company behind this travel website is credible. This travel website has adequate secured features to protect customers' information. This travel website provides full confirmation of online payment. The Search function on this travel website is helpful. This travel website functions as it should. This travel website loads quickly. It is easy to find wanted information on this travel website. It is quick and easy to complete a transaction when making a booking decision on this travel website. This travel website has comprehensive information. This travel website has features personalized to users. This travel website provides a space for users to share their travel experiences/reviews about available products/services. It is easy for users to find and read other travelers' experiences/reviews about available products/services on this travel website.	1: Totally disagree to 5: Totally agree [24]
Output	This travel website responds to users' inquiries promptly. Help is available on this travel website when problems are encountered. It is easy to track the booking order of purchased products/services when making a booking decision on this website. Booking order contains all pertinent information about purchased products/services. Policies for changing/cancelling orders laid out on this travel website are customer-friendly.	1: Totally disagree to 5: Totally agree [24,25]
Hedonic	I enjoy the visual display, information, suggestions, and recommendations provided to the users on this travel website. I think it is great fun to browse this travel website. When interacting with this travel site, I do not realize how much time has elapsed. I enjoy sharing reviews and experiences from other travelers on this travel website. I really enjoy booking on this travel website.	1: Totally disagree to 5: Totally agree [25]
Trust	Trust1: I trust what this travel website says about its products/services. Trust2: I believe that this travel website can keep its promise. Trust3: I believe that this travel website is honest in all its dealings. Trust4: This travel website keeps its customers' best interests in mind in all its dealings.	1: Totally disagree to 5: Totally agree [8]
Reputation	Rep1: I am familiar with the name of this travel website. Rep2: People I know recommended this travel website to me. Rep3: This travel website is well-known. Rep4: This travel website has a good reputation.	1: Totally disagree to 5: Totally agree [8,12]
e-Loyalty	Loy1: I intend to reuse this travel website the next time I am travelling/for my next trip. Loy2: This travel website will be my first choice for travel planning. Loy3: I intend to continue using this travel website for a long time. Loy4: I will recommend this travel website to friends and relatives.	1: Totally disagree to 5: Totally agree [18,25]

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