



Empirical Research Article

Strategic Framework for Website Evaluation based on a Review of Tourism and Hospitality Literature from 2010–2023

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Abstract

This study examines the scientific publications on website evaluation in hospitality and tourism from 2010 to 2023 through a systematic review and discusses implications for future research. The reviewed literature from publication years, journals, research methods, website-related stakeholders, context, various forms of Internet presence (Internet forms), and theories are analyzed to create a comprehensive website evaluation dimension. Furthermore, a conceptual framework is developed to show the relationship between the website characteristics, stakeholders–channels interaction, and stakeholders' reactions. The proposed website evaluation framework in hospitality and tourism synthesizes the existing knowledge, identifies gaps, and further advances our understanding of this research area.

Keywords

upselling; website evaluation; hospitality and tourism; systematic literature review

1. Introduction

Websites have developed as the most vital platform for most, if not all, businesses and organizations. In hospitality and tourism, websites have become an increasingly popular tool for tourists searching for travel-related information. Technological innovations have made even complicated hypermedia websites accessible to all and sundry, and thus people prefer to purchase products online. Given the growing importance of website quality in hospitality and tourism, website evaluation has attracted research attention since the late 1990s.

Although Ip, Law, and Lee (2011) and Law, Qi, and Buhalis (2010) provided an overview of website evaluation before 2011, no study has carried out an in-depth exploration of the connections and relationships between websites and stakeholders. Considering the rapid pace of technological progress and the increasingly complex social environment, previous studies on website features may no longer be up-to-date. The present study addresses this issue and utilizes a systematic review of previous literature, and develops a comprehensive analysis of recently published articles on website evaluation. By identifying gaps in the current research, the findings advance our understanding of website evaluation and provide valuable insights for future studies.

This study proposes several research objectives. First, the trend of website evaluation is examined through a comprehensive review of literature published from 2010 to 2023. Specifically, this study analyzes the development trend of article publications, journal articles, and methodology over time and explores the website-related stakeholders, website context, internet forms, and theories. Then, a comprehensive framework of website evaluation is proposed based on website characteristics, stakeholder–channels interactions, and stakeholders' reactions. Finally,

avenues for future research are identified by finding gaps in the extant literature on website evaluation.

2. Literature Review

2.1 Website Quality Evaluation

As technology has evolved over the past three decades, websites have become one of the most vital Internet platforms for publishing information and providing services to social communities. As such, the assessment of website quality has become apparent and has received considerable academic attention. Bai, Law, and Wen (2008) proposed that website quality is an essential concept in academic studies, reflecting the customers' perceptions and influencing their decision making. Website quality plays a significant role in customer reactions (e.g., satisfaction, loyalty, and continuance usage) and is essential in improving the companies' online position (Alshibly & Chiong, 2015; Almakayee, 2023). Website quality has been extensively examined based on the dimensions of information, technical (system), and service (Chang & Chen, 2008). For example, Au Yeung and Law (2004) proposed that functionality refers to the information quality of a website's products or services and has been used to assess the website quality. A multi-dimensional conceptualization of website quality was also developed in previous literature. For example, apart from information and system quality, Hernández, Jiménez, and Martín (2009) suggested that ease of use is a vital evaluation criterion for website quality. Wang, Law, Guillet, Hung, and Fong (2015) evaluated website quality from primary dimensions of usability, functionality, security, and privacy. With the increasing number of published articles on website quality evaluation, additional dimensions have been

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proposed as test metrics. These dimensions encompass functionality, usability, ease of use, interaction, navigation, and accessibility. Consequently, the evaluation of website quality has increased in comprehensiveness and multidimensionality, considering various aspects that contribute to a positive user experience (Shchiglik & Barnes, 2004; Herrero, San Martín & Hernández, 2015; Sun, Fong, Law, & He, 2017; Li, Peng, Jiang, & Law, 2017; Teixeira, Eusébio, & Teixeira, 2022)).

The present study reviews and summarizes the literature on website evaluation published between 2010 and 2023 to gain a clearer understanding of the various dimensions that are used for evaluating website quality, thus shedding light on the evolving landscape of this research area.

2.2 Review of Website Quality Evaluation

Since the emergence of hotel websites in the late 1990s, website evaluation has been a topic of significant interest among academic researchers. Early studies primarily summarized research findings and practical implications. Law, Qi, and Buhalis (2010) were pioneers in exploring methodological approaches and outlined five common evaluations between 1996 and 2009.

Another notable review of website evaluation was conducted by Ip, Law, and Lee (2011), who proposed a framework by summarizing website features and effectiveness. Chiou, Lin, and Perng (2010) also comprehensively reviewed 83 articles published from 1995 to 2006 across multiple disciplines and identified information systems, marketing, and combined approaches as the three mainstream categories for evaluating websites. These reviews also expanded in scope to encompass the website contents, features, stakeholders, and design. For example, Sun et al. (2017) evaluated websites from the perspectives of consumers, suppliers, and their combined viewpoints between 2000 and 2015. Recent reviews, such as by Chan, Law, Fong, and Zhong (2021), incorporated psychological factors into the evaluation and examined the websites' content, system, sensory, social, and hedonic designs between 2001 and 2020. These studies have significantly enriched the dimensions and methods of

website evaluation over the past two decades.

However, a gap remains in our understanding of the evolution of hotel website evaluation amid its rapid development. Thus, Law (2019) carried out a comprehensive review that summarizes the progress and future developments in hotel website evaluation from 1990 to 2018. This review identified a new set of criteria—which comprise information quality, information, website features, website characteristics, website quality, and website effectiveness. Building upon these previous efforts, the present study reviews website evaluation-related studies between 2010 and 2023 to trace the chronological changes in evaluation methodologies. A new framework is developed based on website characteristics, stakeholder-channel interactions, and stakeholders' reactions.

3. Methodology

According to the reporting checklist of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), this study adopted a systematic quantitative approach for the literature review. PRISMA comprises a four-stage process that was initially developed by 29 academics in the medical field to improve the transparency and accuracy of literature reviews (Liberati, Altman, Tetzlaff, Mulrow, Gøtzsche, Ioannidis, & Moher, 2009).

For a comprehensive assessment of website quality in the tourism and hospitality industry, this study collected papers published between January 1st, 2010 and May 5th, 2023 from relevant journals, including those indexed in Web of Science (WoS) and Scopus databases. These two databases were selected because of their extensive coverage and are commonly considered as primary sources for literature reviews (Palumbo, Manesh, Pellegrini, Caputo, & Flamini, 2021).

Keywords were found through a Boolean search query, which includes the name, abstract, and keywords. The search was limited to "articles" because these are high-quality peer-reviewed manuscripts and certified information (Palumbo et al., 2021). Conference proceedings and books were excluded from the literature review given that these cannot be verified for accuracy through the peer review process.

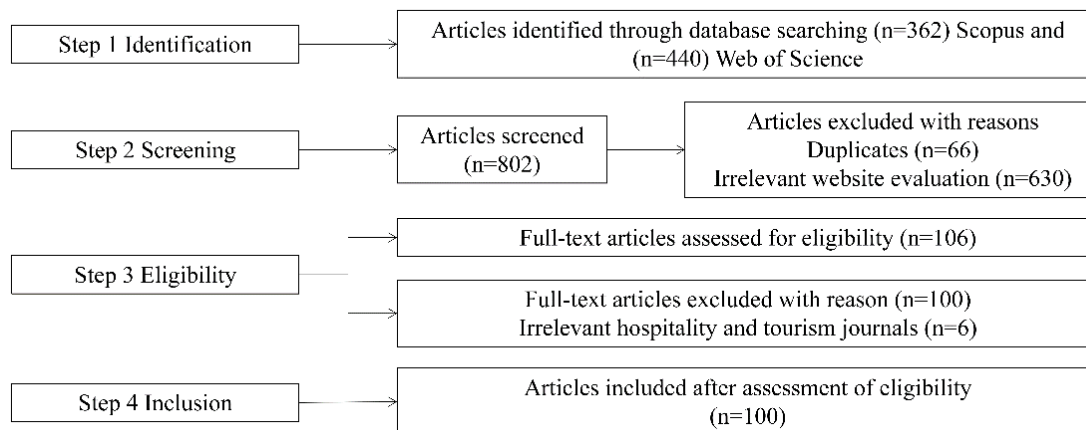


Fig. 1. PRISMA sampling

Figure 1 reveals the PRISMA sampling, and the first step was to collect articles from the set parameter. WoS and Scopus generated 440 and 362 valid articles, respectively. Keywords applied on both databases were "hospitality, leisure, sport, tourism" and "hospitality and tourism".

Search strings on Scopus resulted as follows, and all journals (55) related to hospitality and tourism were included:

(TITLE-ABS-KEY (website OR "web site" OR mobile OR "mobile device" OR App) AND TITLE-ABS-KEY (tourism OR hospitality OR hotel OR travel) AND TITLE-ABS-KEY (evaluation OR quality OR performance OR measurement OR assess) AND PUBYEAR > 2010 AND PUBYEAR < 2023 AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")).

The search strings for WoS are shown as follows:

(TS=(website evaluation) or TS=(website assessment) OR TS=(website quality) OR TS=(website assess) OR TS=(website performance) OR TS=(website measurement) OR TS=(web site evaluation) OR TS=(web site assessment) OR TS=(web site quality) OR TS=(web site assess) OR TS=(website performance) OR TS=(web site measurement) OR TS=(mobile evaluation) OR TS=(mobile assessment) OR TS=(mobile quality) OR TS=(mobile assess) OR TS=(mobile performance) OR TS=(mobile measurement) OR TS=(App evaluation) OR TS=(App assessment) OR TS=(App quality) OR TS=(App assess) OR TS=(web performance)) AND ((TS=(tourism) OR TS=(hospitality) OR TS=(hotel) OR TS=(travel)) AND WC=(Hospitality, Leisure, sport, & tourism) AND DT=(Article) AND DOP=(2010-01-01/2023-05-05) AND LA=(English).

After screening the initial results, 696 unrelated articles were excluded. Removal of articles that were not published in hospitality and tourism-related journals further reduced the final sample to 100, which were then analyzed in this study.

4. Findings

4.1 General Considerations

4.1.1 Years of Publications

Figure 2 presents the number of publications from 2011 to 2023. The earliest study was published in 2011 by Musa and Thirumoorthi, who explored the service quality evaluation of the best backpacker hostel. The number of articles related to website evaluation was low in 2014, then began increasing during 2015–2016. Subsequently, the articles on research website evaluations were only 9–12 during 2017–2022. No articles were published from January to May 2023.

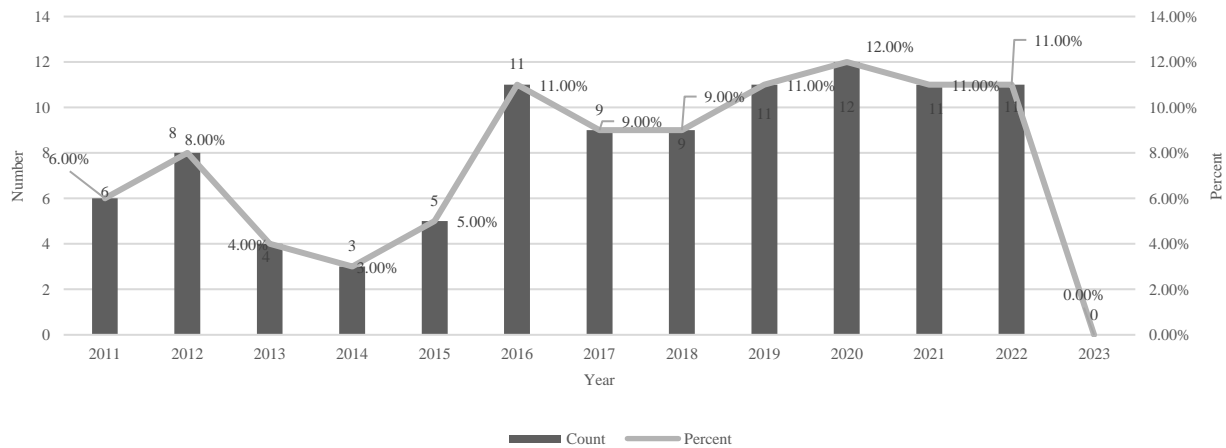


Fig. 2. Publication count by year

4.1.2 Publications by Journal

The final sample used in this study comprised 100 articles that were published in hospitality, tourism, and leisure journals (n=34 journals), as shown in Figure 3. This study adapted the 2022 Journal Citation Reports in the Web of Science to divide hospitality and tourism journals into four quartiles (Q1-Q4), where Q1 journals refer to the journals with the highest journal rank, etcetera. Among these articles, five were published in journals other than the Social Sciences Citation Index (SSCI) or Emerging Sources Citation Index (ESCI) journals and most were from the including the *Tourismos* (n=2), *African Journal of Hospitality, Tourism and Leisure* (n=2), and *International Journal of Hospitality and Tourism Systems* (n=1). Of the remaining articles, 40 were published in Q1 SSCI journals, including the *Journal of Hospitality Marketing & Management* (n=6), *International Journal*

of *Hospitality Management* (n=6), *Tourism Management Perspectives* (n=5), *Journal of Hospitality and Tourism Management* (n=5), *Information Technology & Tourism* (n=5), *International Journal of Contemporary Hospitality Management* (n=4), *Tourism Management* (n=3), *Current Issues in Tourism* (n=3), *Journal of Travel Research* (n=2), and *Journal of Destination Marketing & Management* (n=1). Additionally, 28 were published in Q2 SSCI journals, with most publications in the *Journal of Hospitality and Tourism Technology* (n=9). The remaining articles were published in Q2 and Q3 ESCI journals (n=17, n=8, respectively). Two articles were published in *Tourism and Hospitality Management* journals under the ESCI, but were unavailable in the WoS Category Quartile. Overall, the majority of articles (n=68) were published in Q1 and Q2 SSCI, indicating that website evaluation is widely studied and accepted by top journals in hospitality and tourism.

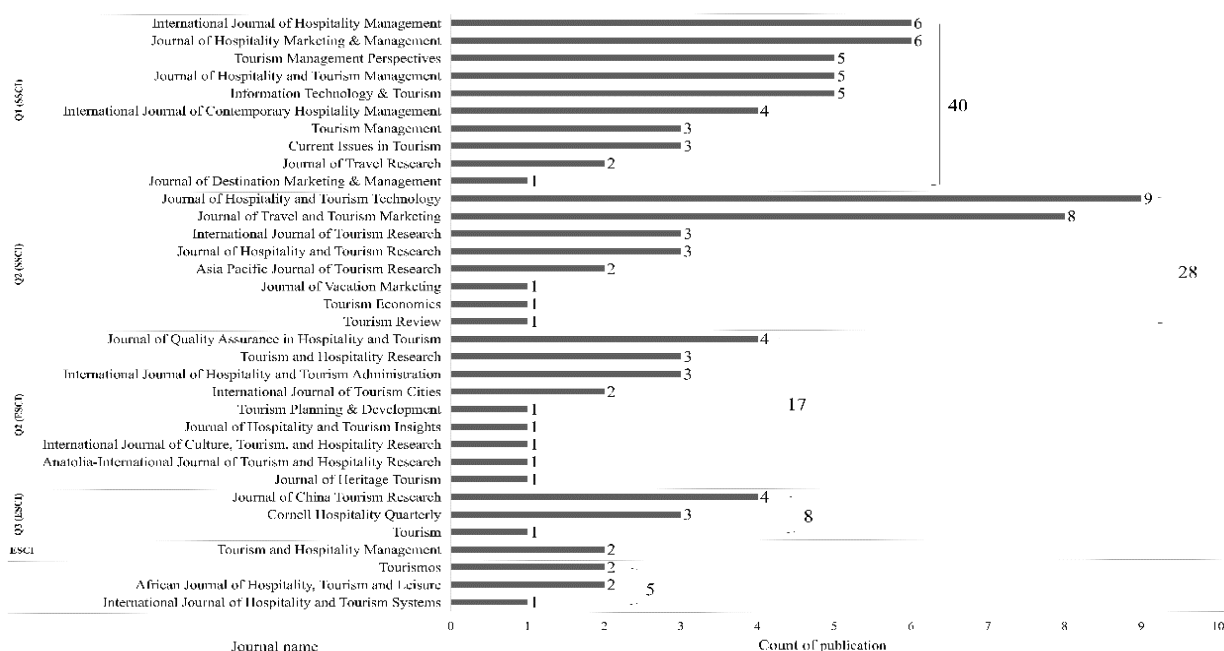


Fig. 3. Publication sources

4.1.3 Methods of Publications

Quantitative methods were the predominant choice in the sample, accounting for 75.25% (as shown in Table 1). By contrast, the use of qualitative methods was relatively infrequent, representing only 2.97% of the articles. These findings indicated that scholars tended to favor quantitative approaches in studying website evaluation. However, mixed methods were becoming a popular alternative, accounting for 21.78% of the sample. The number of articles using mixed methods was highest (n=12) from 2015 to 2018 then declined slightly (n=8) between 2019 and 2023.

Law et al. (2010) identified five predominant methods that were commonly used to evaluate websites, namely, counting methods, user judgment, automated, numerical computation, and combined methods. User judgment and counting methods were frequently adopted between 2011 and 2014. A closer look at the applied methods showed that counting and user judgment methods were used the most (n=12), followed by numerical computation (n=7). The possible reason was that these two methods evaluate website quality from the stakeholders' perspectives. Scholars believe that hospitality and tourism websites are a tool for stakeholders, and therefore, website managers must accept stakeholders' suggestions to improve websites. For example, website stakeholders (customers, experts, suppliers, practitioners, policymakers, researchers, and students) evaluated website quality based on a well-prepared checklist (Law et al., 2010). User judgment methods also evaluated the satisfaction and perceptions among stakeholders, such as potential customers and practitioners (Law et al., 2010).

Focusing on the website quality checklist, scholars began to examine the interaction between websites and users after 2014, specifically addressing what and how website characteristics influence the users' perception and satisfaction. Structural

equation modeling (SEM) has become the dominant method (n=42) since 2015 and peaked between 2019 and 2023. SEM measures the multidimensional conceptions that cannot be directly observed and measure the relationship among variables (Bollen, 1989). This method became the primary tool for scholars to explore the mechanism between websites and users from multiple perspectives (e.g., society theory (Chen & Lin, 2018)). The majority of studies using the SEM method examined website characteristics and their relationships with other variables (e.g., customers' intention to use (Bui, Jeng & Lin, 2015), booking intention (Köchling & Lohmann, 2022), purchase intention (Dedeke, 2016), and trust and attitude (Loureiro, 2015)). Results showed that scholars focused on the characteristics influencing website quality according to the users' perceptions in the early studies.

By contrast, fewer studies used content analysis and Delphi to evaluate website quality based on primary data (such as interviews) and secondary data (online reviews) (Tian & Wang, 2017; Wang, Xiang, Law, & Ki, 2016). Although the reviewed articles applied the qualitative method less than the quantitative approach, a combination was used to enrich the findings. Qualitative analysis was beneficial for concluding the in-depth analysis of collected text and enriching the existing website quality checklist. The quantitative analysis was applied to evaluate website quality (Dahiya & Duggal, 2018; Lei & Law, 2019). For instance, counting methods, numerical computation, and user judgment methods were combined with case studies; focus group discussion was supported by user judgment methods, literature review, and counting methods; and Delphi was used with counting methods. These combinations were commonly found in the reviewed literature.

Table 1. Methods used

Methods	2011-2014	2015-2018	2019-2023	Total	Percent
Quantitative	18	21	37	76	75.25%
SEM	3	15	24	42	41.58%
User judgment methods	6	1	5	12	11.88%
Counting methods	8	2	2	12	11.88%
Numerical computation	1	2	4	7	6.93%
Automated methods			1	1	0.99%
Combined methods		1		1	0.99%
quantitative content analysis			1	1	0.99%
Qualitative	1	1	1	3	2.97%
Content analysis	1	1	1	3	2.97%
Mixed	2	12	8	22	21.78%
Case study & User judgment methods		1		1	0.99%
Content analysis & Counting methods		5		5	4.95%
Content analysis & Numerical computation	1	1	1	3	2.97%
Content analysis & SEM		1	3	4	3.96%
Content analysis & User judgment methods		2	2	4	3.96%
Delphi & Counting methods		1		1	0.99%
Focus group discussion & User judgment methods			1	1	0.99%
Inductive analysis & User judgment methods	1			1	0.99%
Literature review & Counting methods		1		1	0.99%
Thematic analysis & Statistic			1	1	0.99%

In all reviewed articles, the questionnaire was the most frequently used data collection method (n=62), which is highly associated with the applied techniques. As previously mentioned, the data were commonly analyzed by using SEM, which requires a sufficient number of participants to establish reliability tests, hypotheses, and relationships between theoretical constructs and their observed indicators. Other common methods, such as counting, user judgment, and numerical computation also require a large sample size for analysis. Thus, the questionnaire was the most effective method for data collection among the sample.

Furthermore, 18 studies adopted multiple data collection methods (interview and survey). As previously mentioned, the

qualitative approach allows researchers to obtain updated and new dimensions that are unavailable in secondary data. Several scholars further combined various quantitative methods to achieve their research objectives. For example, online reviews were combined with interviews or quasi-experimental study/group discussions were carried out with surveys. Secondary data were mainly from online reviews and were less used to evaluate website quality. Rather, such data were considered as part of the literature review or preliminary study before the main interviews (n=2), group discussion (n=1), surveys (n=62), or lab experiments (n=1). Figure 4 shows a summary of the data collection approaches and sample size.

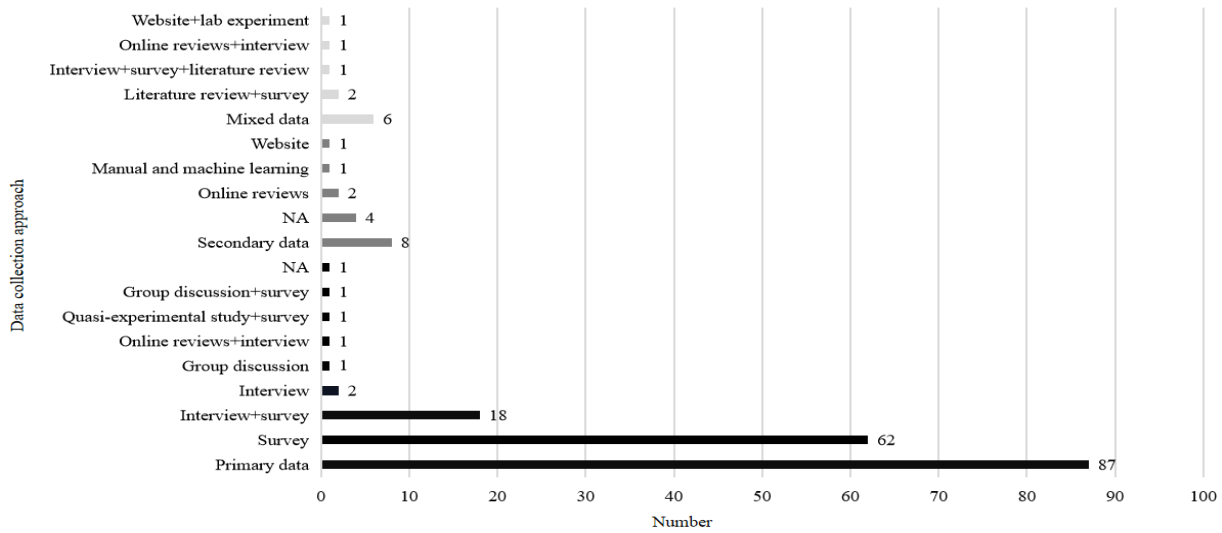


Fig. 4. Data collection approach(es) and sample size

4.1.4 Website-Related Participants, Contexts, and Internet Forms

In the reviewed articles, the majority were focused on consumer perception (n=60), followed by surveys of industry professionals, including managers (n=10) and practitioners (n=7). Academics,

such as professors (n=6) and students (n=8), were also frequently targeted for sample recruitment. However, several studies did not specify the type of professionals (n=6) or industry experts (n=8) included in their sample. The other interviewees are also listed in Figure 5.

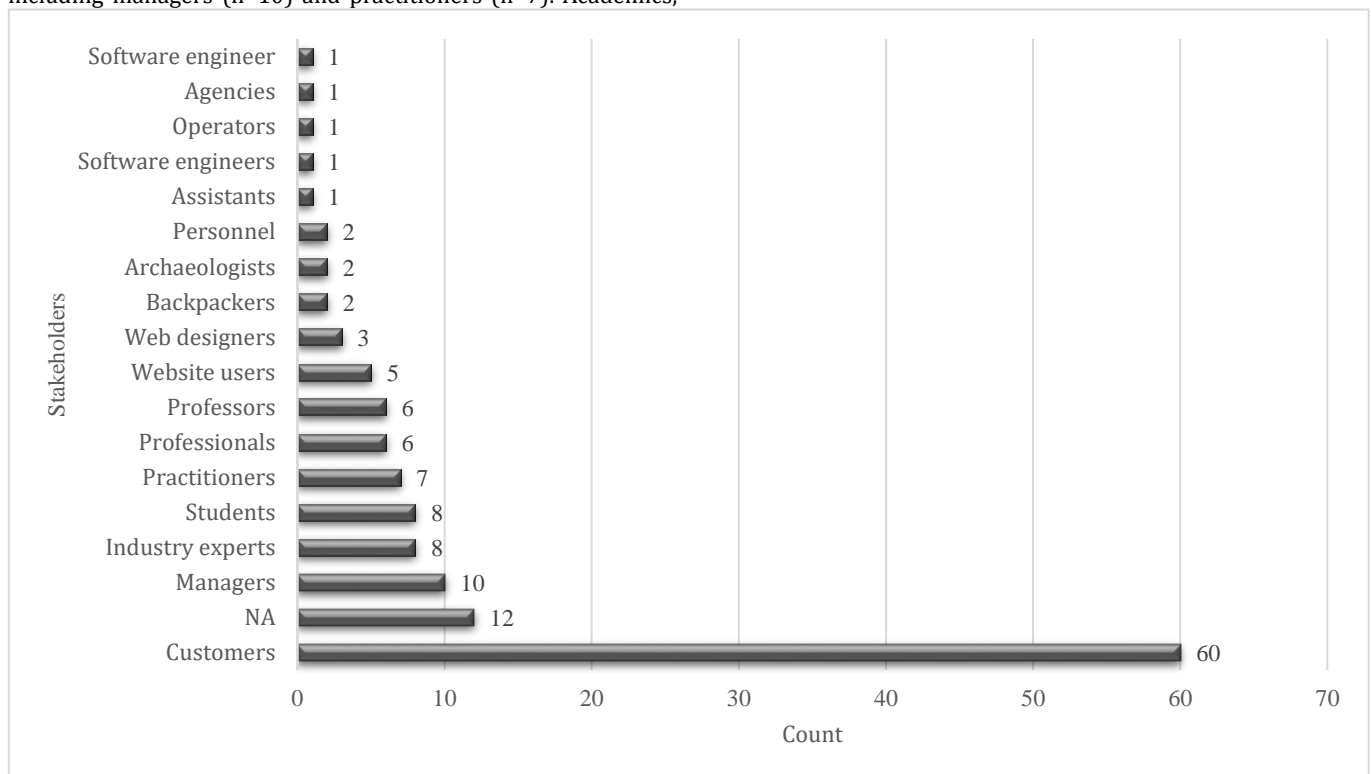


Fig. 5. Relevant stakeholders

The following section discusses how websites were evaluated in the reviewed articles. The evaluation was broken down into the investigated individual or multiple platforms and their host organizations. The platforms included websites, mobile websites, and apps (Table 2). The host organizations included hotels, restaurants, Online travel agents (OTA), Destination management offices (DMO), travel agents, and online tourism communities. The summary shows that a trend of research on hotels (n=31) and tourism-related websites (n=40) emerged over time, while studies on websites of irrelevant host organizations were excluded.

With regard to the evaluated platform, websites (including computer and mobile) were the primary target. Still, research on apps has dramatically increased in recent years (Wong, Leung, &

Law, 2020), reflecting the rapid development of smart devices after 2010. Mobile websites represented a transition between desktop websites and apps. However, they never materialized into a good consumer experience as a platform, resulting in limited interest (n=3) in their evaluation (Lei & Law, 2019). Faster and more reliable networks became the primary motivation for accessing information through mobile devices. Additionally, more hotels, OTAs, and DMOs were willing to invest resources in developing purpose-built apps that provide improved user experience, thereby becoming an essential platform for online bookings in recent years. However, the publications rarely analyzed a combination of websites and apps, with only one publication examining the behavioral differences between electronic and mobile users on hotel bookings (Wu & Law, 2019).

Table 2. Website forms and contents

Website forms and contexts	2011-2014	2015-2018	2019-2023	Total
Website	21	28	29	78
Tourism	11	15	14	40
Hotel	7	12	12	31
Hotel and tourism	1	0	2	3
Others	2	1	1	4
App	0	6	12	18
Tourism	0	2	8	10
Hotel	0	4	1	5
Others	0	0	3	3
Mobile website	0	0	3	3
Hotel	0	0	3	3
Website and app	0	0	1	1
Hotel	0	0	1	1

4.1.5 Theories of Publications

This section analyzes the adopted theoretical concepts in the reviewed articles (Table 3). The theories mainly explain how website features affect the customers’ intentions and behavior from various contextual and socio-psychological factors. Several articles used the unified theory of acceptance and use of technology (UTAUT) and extended UTAUT (UTAUT2) as theoretical support, which was particularly effective in evaluating antecedents and determinants of affective travelers’ technological acceptance of an app or website (Lai, 2015). Nathan, Victor, Tan, and Fekete-Farkas (2020) evaluated the factors influencing tourists’ behavioral intention to use the Airbnb app using UTAUT2 and found a strong relation between users’ information communication and technology literacy to the acceptance and use of websites and apps.

While technology acceptance led to the early website evaluation studies, more articles explored the psychological perspective. Ali (2016) and Loureiro (2015) investigated how hotel website quality influences customer perceptions, satisfaction, and intentions based on the stimuli (S)-organism (O)-responses (R) theory. This perspective can be further elaborated into cognitive and health psychologies. Studies on cognitive psychology examined the necessary attributions of online travel agencies based on attribution theory (Bui et al., 2015), dimensions that influence users’ website stickiness based on social influence

theories (Chen & Lin, 2018), antecedents of influencing users’ intention based on theory of reasoned action, and the factors influencing users’ e-tourism website stickiness (Chen & Lin, 2018) using theory of planned behavior (TPB) (Perez-Aranda, Gonzalez Robles, & Urbistondo, 2021); Sun, Law, Schuckert & Hyun, 2022). Other studies concerning health psychology, such as that of Kim, Koo, and Chung (2021), examined the tourists’ mobility app use behavior based on stress-coping theory. Koo, Chung, Kim, and Hlee (2016) investigated the effect of destination websites based on use and gratification theory. Tian and Wang (2017) explored the electronic customer relationship management (e-CRM) features on hotel websites from the management perspective.

Website performance was also commonly evaluated over time. Schmidt, Cantalops, & dos Santos (2008) assessed the existing framework with features or characteristics to evaluate websites. The model of Internet commerce adoption (MICA) (Daries, Cristobal-Fransi, Ferrer-Rosell, & Marine-Roig, 2018) or the extended MICA (eMICA) (Ting, Wang, Bau, & Chiang, 2013) were also adopted for website evaluation. However, these analyses failed to acknowledge the rapid technology development, which improves the features and the usability of websites and apps as time passes. Such limitation allowed subsequent studies to extend the assessment features or improve the adopted models. A recent study by Tian and Wang (2017) explored the e-CRM features on hotel websites.

Table 1. Theoretical foundations

Theories (n=14)	Number
Stimuli (S)-organism (O)-responses (R) theory	4
Unified theory of acceptance and use of technology (UTAUT)	3
Attribution theory	1
Social influence theories	1
An extended unified theory of acceptance and use of technology (UTAUT2)	1
Dual-system theories	1
Signaling theory	1
Stress-coping theory	1
Theory of planned behavior (TPB)	1
Theory of reasoned action	1
Use and gratification theory	1

4.2 Review of Evaluation Frameworks from the Three Themes

4.2.1 Website Characteristics

The present study divided website characteristics into six categories: content, technical, psychological, social, service, and other factors. Content characteristics refer to the information presented through the website (Karimov, Brengman, & Van Hove, 2011), mainly including general information, functionality, information quality, content quality, facilities and equipment, and product information. Technical traits refer to items relevant to

navigation, visual appeal, reliability, responsiveness, and ease of use (Sarantis & Soares, 2017). Psychological traits refer to customers’ utilitarian values, hedonic values, enjoyment, perceived risk, and trust in websites (Shankar, Jebarajakirthy, Nayal, Maseeh, Kumar, & Sivapalan, 2022). Service characteristics refer to customers’ perceptions of service quality, performance expectancy, and effort expectancy. Social design refers to social presence, which comprises website reputation, customer contact and communication, social engagement, customer relationship,

social influence, and social environment. Others mainly include website marketing and management.

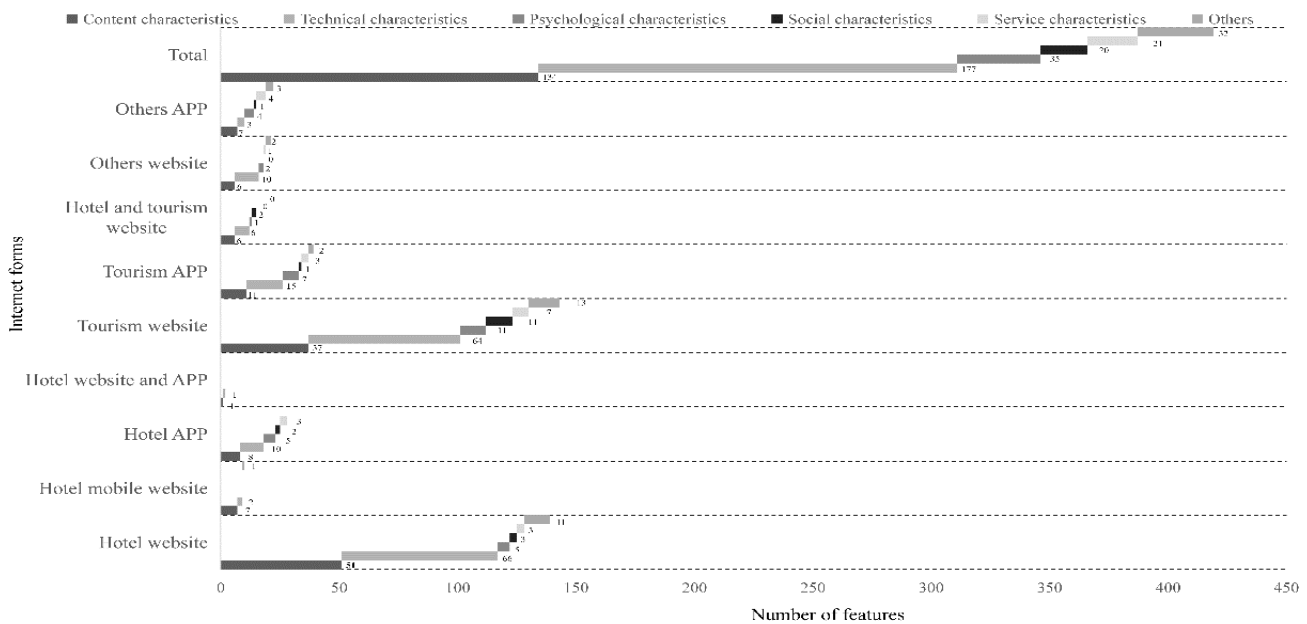


Fig. 6. Categories of website, app, mobile website, or website and app

Figure 6 shows that hotel and tourism websites have more features than apps. Hotel websites focus on content and technical categories, while tourism websites mainly feature psychological, social, and customer service categories. As a recently examined platform, hotel, and tourism apps appear to have less comprehensive categories for evaluation than those for websites and emphasize the content, technical, and psychological categories. Hotel mobile websites only focused on content and technical categories.

The number of technical websites (n=177) is generally more than that of other categories, indicating that compared with supplementing more content, administrators first focused on how to improve their website or app usefulness effectively.

4.2.2 Stakeholders-Channel Interactions

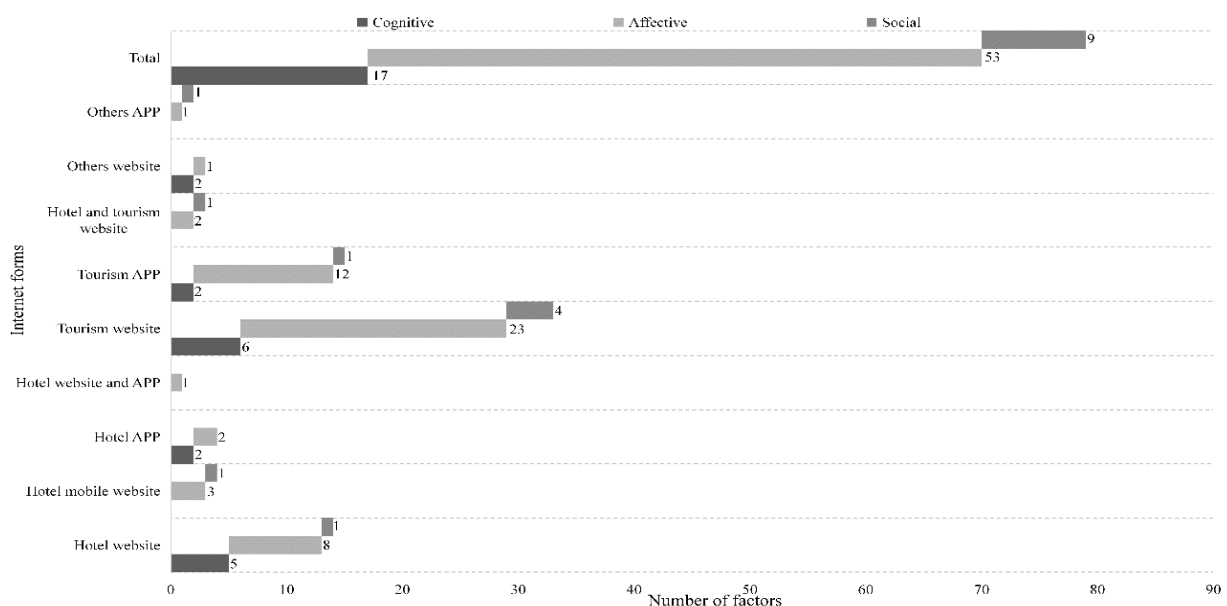


Fig. 7. Overview of the cognitive, affective, and social factors

The interaction of stakeholders-channels differed with the other website characteristics. More interactions were found on

websites and apps for tourism than for hotels (Figure 7). Moreover, cognitive, affective, and social factors on tourism websites appeared more than on hotel websites. Scholars who studied

tourism-related websites focused on the interaction between customers and channels, especially the influence of website characteristics on customers' cognitive, affective, and social factors than hotel websites. In addition, how website characteristics influence the customers' affective perception and behavior was explored more than the cognitive perception.

4.2.3 Stakeholders' Reaction

Finally, scholars explored the influence of website characteristics on customers' behavior intention (Figure 8). Website quality drives stakeholders' reactions, such as purchase intention, behavior intention, loyalty/intention to follow/trust/satisfaction/attitude, recommendation, booking intention/use, and others (e.g., performance, usability, experience,

net benefits). The reviewed literature mainly examined how website quality influences the customers' booking intention or usage (n=19), those who perceive increased benefits through use or are encouraged to reuse desktop websites/apps. The next focus was on the relationship between website quality and purchase intention, which was unsurprising given that managers were primarily interested in gaining economically by translating customers' use of websites/apps into online purchases. Fig. 8 shows that customers who perceive high engagement through these channels, are highly likely to perceive satisfaction, loyalty, and trust and to recommend these channels to others. Most articles focused on how tourism or hotel websites influence customers' purchase intention. Sellers were likely to gain economic benefits through customers' interaction with websites. By comparison, the reviewed literature focused more on websites and less on the relationship between apps and their users.

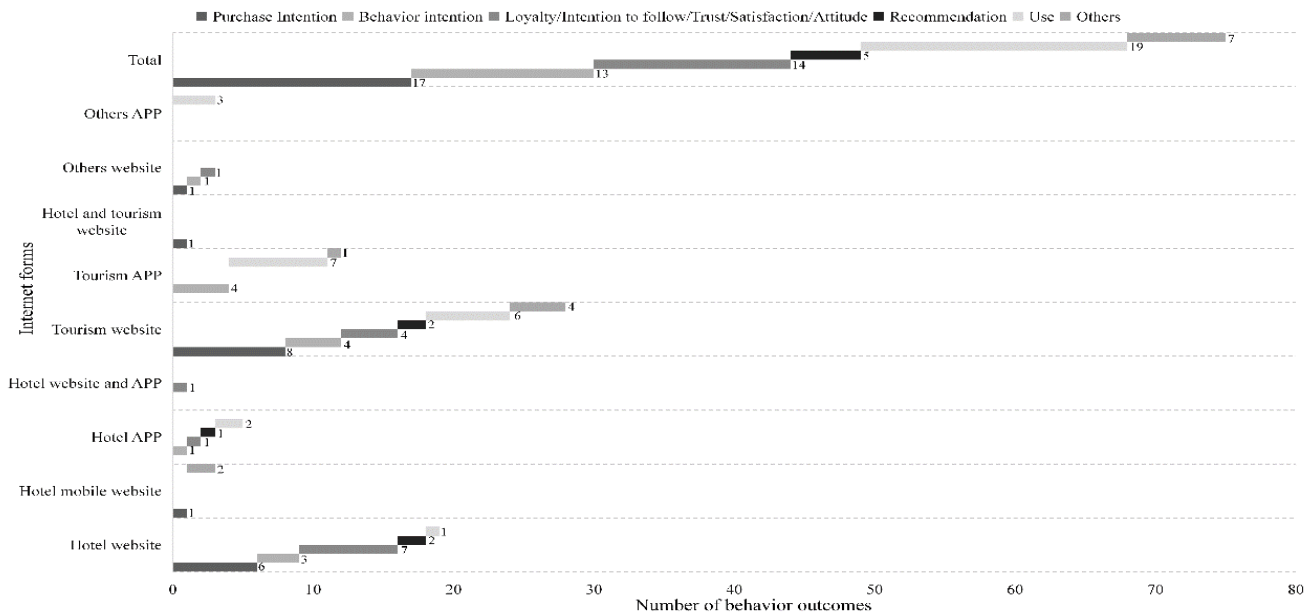


Fig. 8. Overview of the behavior outcomes

5. Discussion

Previous studies have investigated the effects of website quality on customers' perceptions. The present study synthesizes the articles through a systematic literature review to provide generalizations on the relationship among the website characteristics, stakeholders-channels interactions, and user reactions. A comprehensive conceptual framework is also developed for scholars and managers to enhance the performance of hospitality and tourism-related websites and apps. The framework includes critical antecedents, mediators, outcomes, and moderators concerning website evaluation from hospitality and tourism perspectives, as shown in Figure 9.

With regard to website characteristics, all the features are divided into content, technology, social, service, and other factors based on four research contexts (hotel, tourism, hotel & tourism, and others) and three Internet forms (desktop website, mobile website, app, and mobile & app). Technology is the driving factor that implicated usability (Kabassi, 2019), interactivity (Kim, Koo & Chung, 2021), ease of use (Hua, Cole, & Xu, 2021), navigability (Sun, Cárdenas, & Harrill, 2016), visual appearance (Sun et al., 2016), personalization (Kim & Mattila, 2011), and accessibility (Sun et al., 2016). These factors were the strongest influencers of customer reactions regardless of platforms. Concerning the platform content, although other websites or apps (e.g., travel ports) mentioned new factors, such as local culture/history (Dayour, 2019), the majority of studies mentioned other factors, such as general information (Cao & Yang, 2016), functionality (Cao

& Yang, 2016), information quality (Wang & Li, 2019), and company size (Leung & Ma, 2020). Content and technological characteristics were considered based on platforms (desktop website, mobile website, app), while stakeholders (e.g., customers) were considered in terms of psychological and social levels. The most mentioned psychological factors are hedonic (Ongsakul, Ali, Wu, Duan, Cobanoglu, & Ryu, 2021), trust (Kim & Mattila, 2011), risk (Liebana-Cabanillas, Carvajal-Trujillo, Villarejo-Ramos & Higuera-Castillo, 2020), and satisfaction (Perez-Aranda et al., 2021). Social drivers, social influence (San Martín & Herrero, 2012), reputation (Jeon & Jeong, 2017), relationship (Cao & Yang, 2016), contact, and communication (Li & Wang, 2011) are identified in various research contexts. The present study mainly categorizes service quality (Li & Wang, 2011), service (Chiou, Lin, & Perng, 2011), performance expectancy, and effort expectancy (Li & Wang, 2011) into the service level while management (Lei & Law, 2019), marketing (Ostovare & Shahraki, 2019), and brand (Mohseni et al., 2018) were categorized as others.

Three interactions (cognitive, affective, and social) were included in the stakeholders-channels interactions. Perceived service quality (Jeon & Jeong, 2017), perceived value (Rita, Oliveira, Estorninho, & Moro, 2018), perceived credibility (Tian & Wang, 2017), security and privacy (Wang et al., 2015), perceived usefulness (Wang & Li, 2019), utilitarian performance (Ongsakul et al., 2021), and website quality (VO, Chovancová, & Tri, 2020) were related to cognitive level. Hedonic performance (Ongsakul et al., 2021), satisfaction (Jeon & Jeong, 2017), attitude (Sun et al., 2022), perceived trust (Sun et al., 2022), perceived flow (Ali, 2016), performance expectancy (Lai, 2015), perceived behavioral control (Lai, 2015) belonged to affective level. Subjective norms (Sun et al., 2022), social values (Phromlert, Deebhijarn, & Sornsaruht, 2019),

and culture (Koo et al., 2016) are categorized into social levels. As for moderators, 100 studies identified 11 variables, which include risk, eWOM, website review, service quality, perceived value, hotel attributes performance, value for money/time, self-construal, age, and visit experience. This study uses six categories, including

purchase intention (Mohseni et al., 2018), behavior intention (Ongsakul et al., 2021), loyalty/intention to follow/trust/satisfaction/attitude (Akhtar et al., 2019), recommendation (Rita et al., 2018), use (Wang & Li, 2019), and others.

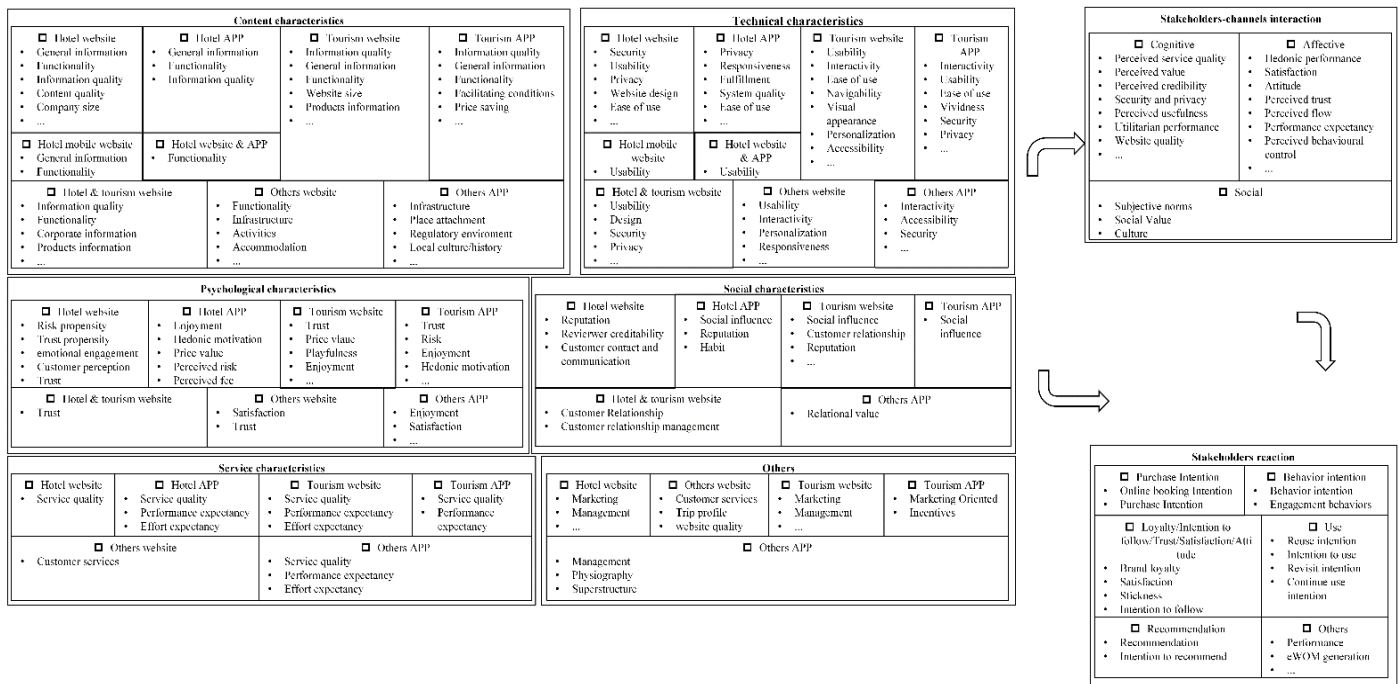


Fig. 9. Conceptual Model of website evaluation

5.1 Theoretical and Managerial Implications

This study advances the theoretical understanding of website performance in certain respects. First, the review provides a better understanding of website quality dimensions applied to hospitality and tourism. Three themes (website characteristics, stakeholder-channel interaction, and reactions) contributed to helping readers understand the mechanisms between the users and platforms. Second, this study differs from previous reviews in distinguishing between different Internet forms (desktop website, mobile website, and app), which can help researchers and administrators deepen such understanding. By contrast to previous review articles that focused only on hotel, tourism, or hotel and tourism, this review summarizes articles from four contexts: hotel, tourism, hotel and tourism, and others (e.g., travel ports). This review finds the excessive use of the questionnaire survey as the data collection tool and encourages future studies to attempt to use multiple methods.

In addition, practical implications are provided for hospitality and tourism managers on how to update a website (desktop website, mobile website, or app) to satisfy stakeholders. Moreover, understanding the comprehensive framework of website evaluation can help managers understand which website features are vital for stakeholders, how to promote interaction between the website features and stakeholders, and which website features drive users to purchase products to gain economic benefits.

5.2 Future Research Directions

On the basis of the sample, this literature review proposes future research directions. Regarding the methodology, previous studies mainly used counting, user judgment, and automated and numerical computation. SEM theory was the primary method to investigate the relationship between website quality and stakeholders. Website evaluation mainly adopts quantitative methods (e.g., experimental, SEM), while qualitative research has yet to gain further attention (i.e., used in only three studies). The qualitative method is inductive and exploratory; therefore, future studies are urged to use it to explore and reveal new perspectives.

Multiple methods are also recommended to analyze this topic, such as using content analysis to code the online review, obtain new variables from a website, and then explore the mechanism through experiment design. Future studies are encouraged to investigate human interactions and use neurophysiological methods to measure human emotions and reactions.

Regarding the stakeholders, previous studies mainly focus on investigating the customer's evaluations. Other important stakeholders (e.g., industry managers, employees, experts, and academics) are worthy of investigation in future research.

As for the research contexts and Internet forms, this study demonstrates that previous literature focused on hotel and travel agency websites and ignored those on other contexts (e.g., museums), which is recommended to be incorporated in future research. For example, in recent years, live streaming has become a new platform for consumers to purchase products, and thus should be considered.

Most existing studies mainly examined how website features interact with customers based on a single theory from society, psychology, economy, communication, and information systems and technology fields. Multi-theoretical perspectives can be used to investigate the influence of website quality on customers, which has remained unexplored. For example, cue utilization theory (Burnkrant, 1978) and culture theory (Kim, Triandis, Kagitcibaşı, Choi, & Yoon, 1994) can be used to examine the website features that influence customers' intention of individualism and collectivism. Previous studies mainly focused on website quality from a single perspective. Therefore, combining multiple theories can help scholars find new insights to enhance the understanding of website evaluation.

Previous literature has explored the effects of 11 variables, such as age, risk, eWOM, website review, service quality, perceived value, hotel attributes, value for money/time, self-construal, and visit experience. However, future improvement remains possible, particularly in encouraging scholars to investigate other moderating variables from stakeholders' psychology, such as familiarity/unfamiliarity, expectation/non-expectation, and price consciousness.

5.3 Limitations

This study has a few notable limitations. The review focused on articles in the hospitality and tourism field but excluded several studies on the same contexts published in other journals, such as Sustainability, Journal of Business and Technical Communication, Information & Management, and Technological Forecasting and Social Change. Therefore, future studies may enrich website evaluation by including other disciplines, such as business and communication. Given that website evaluation-related articles published before 2010 have been reviewed, those published from 2010 to 2023 were included in the present study. Future research can review publications from 1990 to date.

6. Conclusions

Although previous literature on website evaluation has been reviewed, room for future improvement remains possible, particularly in providing a comprehensive framework for website evaluation in hospitality and tourism, including website drivers, stakeholders-channels interaction, stakeholders' reactions, and moderators based on three Internet forms and four research contexts. Thus, the mechanisms between websites and stakeholders and the future advances in the guidelines for research agenda are clearly illustrated. In contrast, a comprehensive framework for website evaluation in hospitality and tourism is established.




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