

The Mediating Role of Electronic Personalization in Online Travel Platform: A Conceptual Framework

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Abstract

Online travel platforms have brought new vitality to the tourism industry's sustainable development with the advent of the digital age. Although it has attracted academic attention, there is a lack of research exploring the technical impact of travel platform quality on e-customer satisfaction. The article constructs an innovative information system model based on the information system success model and personalized management theory. This model measures the impact of electronic personalization-related dimensions of online travel platforms on electronic customer satisfaction by establishing a high-quality information system. The research not only provides a new perspective for exploring customer satisfaction research on online travel platforms but also enriches the personalized marketing management theory of travel websites (APPS) and provides new perspectives and ideas for research in related fields.

Keywords: Information Quality, System Quality, E-service Quality, E-personalization, E-customer Satisfaction

Introduction

In the process of building an online travel platform, the correlation between the Information System Success Model (ISS) and e-customer satisfaction (Salameh, 2018) has become a core element for online enterprises to gain a competitive advantage in the continuous changes in the e-commerce field. Given the dynamic nature of online interactions, it is particularly important to delve into the factors that influence consumer satisfaction (Constantinides, 2004; Luo et al., 2012). This study aims to add to the growing body of knowledge on optimizing

online customer experience and customer satisfaction by exploring the relationship between ISS and e-personalization and to examine the impact of “information systems quality on e-customer satisfaction: The mediating role of electronic personalization” (Chandra et al., 2022).

The normal operation and effectiveness of an e-commerce platform largely depend on the quality of its information system (Cui et al., 2019; Duy et al., 2018). These systems must be reliable, timely, and protect users' privacy (Borhan et al., 2019). The quality of information systems is not just a technical issue; it directly affects our online shopping experience and trust (Fang et al., 2014). Electronic personalization plays an important role in this process. It can help us better enjoy services and improve satisfaction (Al-Hashem et al., 2019). Electronic personalization, simply put, is to use advanced technology to make the online experience more thoughtful according to each person's preferences, behaviors, and needs (Lee & Lehto, 2010; Toch et al., 2012). Such personalization is really important to us. It can alleviate the burden of excess information and enhance its relevance. It also allows us to have a better understanding of online travel platforms (Al-Hashem et al., 2022). The quality of the information system significantly influences the effectiveness of electronic personalization (Popiel & Sang, 2021). In order for the system to understand us better, the platform needs to have a responsive, secure, and smooth infrastructure so that it can provide personalized interfaces, suggestions, and content (Sundar et al., 2010; He et al., 2016). Electronic personalization is like a bridge that connects electronic customer satisfaction and the inherent quality of information systems, making our experience better (Akram et al., 2022).

In the context of the big data era, more and more people expect to experience personalized services, and the role of electronic personalization has become increasingly prominent (Levin & Datnow, 2012). By applying data analytics and machine learning algorithms, businesses are able to adjust and optimize their e-personalization strategies in real time to adapt to changing customer preferences (Chandra et al., 2022). The impact of good information system services (ISS) on satisfied online customers becomes stronger through the use of electronic personalization as a connecting factor (Mothersbaugh et al., 2012). In addition, it is also crucial to provide customized functions, such as personalized product advertising, customized system interfaces, interactive services, information recommendations, etc. (Lambrecht & Tucker, 2013). These features not only help improve customer satisfaction, but also effectively promote customer loyalty and repeat purchase behavior (Rane et al., 2022).

In previous research, a large amount of literature has confirmed that e-service quality has a positive correlation with e-personalization and customer satisfaction (Al-Hashem et al., 2022; Fared et al., 2021; Treesinthuros, 2012). However, Demir et al (2021) suggested that the data platform is not comprehensive enough to consider the quality of electronic services alone. We should also consider whether the customer's perceived use of the system has an impact on satisfaction. Liang et al (2006) also suggested that the platform's unique information should determine the impact of information quality on electronic personalization. These are the issues to be considered in this study.

Therefore, this study explores more broadly the improvement of e-customer satisfaction through research in e-personalization-related fields (Gunawardane, 2023). Pereira (2023) used the ISS model to theoretically verify the important relationships between information

quality, system quality, e-service quality, and e-personalization, highlighting its transformative potential in improving e-customer satisfaction on online travel platforms.

Literature Review

Effect ISS on E-customer Satisfaction

Many scholars have verified the successful model of relational information systems. Lundvall (2016) examines the relationship and dependence between the Information Systems Success Model (ISS) and e-customer satisfaction (Eid, 2011). Many academic articles have contributed to this discussion, and one well-known framework that has attracted attention is the Information Systems Success Model (Petter et al., 2008; Nguyen et al., 2014; Kapoor et al., 2018), which is known for its comprehensive approach to assessing the effectiveness of information systems. Li et al.'s (2021) analysis examines the impact of a descriptive information systems success model on e-customer satisfaction.

DeLone and McLean's influential research gave rise to the Information Systems Success Model, a comprehensive framework that encompasses six dimensions: system quality, information quality, service quality, intention to use, user satisfaction, and net benefits. A lot of academic papers, like those by DeLone and McLean (2003), Seddon (2008), and Wu and Wang (2006), have talked about this paradigm in detail (Sharma et al., 2016), giving us a basic understanding of how the information system success model makes customers happy on the online travel platform (Duy et al., 2018). Scholars have been studying the dynamics that make up the basis of this important relationship (Lundvall, 2016), with a main focus on how the Information Systems Success Model (ISS) and e-customer satisfaction are linked and depend on each other (Eid, 2011). Many scholarly articles contribute to this discussion, and one notable framework that has attracted attention is the Information Systems Success Model, known for its comprehensive approach to assessing the efficiency of information systems (Melville et al., 2004; Peter et al., 2008). This literature analysis examines scholarly works that describe the influence of the Information Systems Success Model on e-customer satisfaction (Fang et al., 2011). The financial services sector has empirically demonstrated the efficacy of the information systems success model. Liang's (2009) study entails the development and empirical testing of a model that investigates the correlation between website quality, customer satisfaction, customer trust, and the length, depth, and breadth of client relationships in online financial services. In the online context, trust is introduced to extend DeLone and McLean's IS success model (Fang et al., 2011; Chen et al., 2015). Information quality, system quality, service quality, and trust are important factors in determining customer satisfaction. According to Patrada et al (2023), information quality and e-service quality have a positive and significant effect on experience quality, customer perceived value, and customer satisfaction.

System quality, an essential component of the Information Systems Success Model, pertains to the technical characteristics of the information system. Studies such as Seddon et al (1999) and DeLone and McLean (2016) highlight the importance of a well-crafted, dependable, and effective system in enhancing user satisfaction. Perceiving strong system quality enhances the e-customer experience and promotes satisfaction with the online platform as a whole (Ali & Raza, 2017). Another dimension of the model is information quality, which refers to the system's relevance and accuracy (Stvilia, 2007). Researchers, including Wang and Liao (2008); Petter et al (2008), argue that high information quality enhances the perceived value of the

system, influencing user satisfaction. Accurate and timely information contributes to the trustworthiness of the online platform (Matute et al., 2016), which is paramount for customer satisfaction. The revised model added the dimension of service quality, which encompasses aspects like responsiveness and assurance (Johnston, 1995). Academic works by Parasuraman et al (1988); Van Dyke et al (1997) align with the notion that positive interactions with the service aspects of an information system contribute to user satisfaction. A seamless and supportive service environment fosters a positive perception among e-customers. Alarifi & Husain (2023) explore the service quality dimensions in Internet banking and their impact on e-customers' satisfaction and loyalty.

Moreover, the intention to use, user satisfaction, and net benefits dimensions (Kim & Lee, 2014) within the Information Systems Success Model collectively contribute to the overall impact on e-customer satisfaction. Studies such as Gefen et al (2003); Udo et al (2010) show that positive intentions, high user satisfaction, and perceived net benefits are all associated with increased e-customer satisfaction.

In summary, the Information Systems Success Model serves as a powerful framework that allows us to better understand the factors that influence e-customer satisfaction (Fang et al., 2011). As scholars who have studied for many years have said, system quality, information quality, service quality, etc. are all extremely important in determining the customer's online experience (Setia et al., 2013). As this model continues to improve, it is increasingly able to help companies optimize their system platforms (Murer & Bonati, 2010). Therefore, this study aims to provide a comprehensive understanding of the interrelated factors that influence e-customer satisfaction.

E-personalization Effect on E-customer satisfaction

The connection between e-personalization and e-customer satisfaction has become an important area of academic study (Al-Hashem et al., 2022). This is because online platform information systems are changing quickly, and it's becoming more important to tailor electronic services to each person's preferences (Fan & Poole, 2006). E-personalization, which refers to the application of technology to customize online experiences according to individual user attributes and behaviors (Lee et al., 2015), has received significant attention in academic discussions (Chandra et al., 2022). Research by Liang and Lai (2002); Li and Karahanna (2015) highlights the importance of individualized features in improving customer satisfaction. E-personalization involves multiple facets, such as customized suggestions, focused information, and user interfaces tailored to align with individual tastes (Chandra et al., 2022).

Regarding the research on electronic personalization, many scholars believe that electronic personalization has a positive impact on customer satisfaction. According to studies by Montoya-Weiss and Voss (2003); Suki (2016), customized recommendations increase customer satisfaction by providing relevant and interesting content. When consumers using e-commerce believe that online platforms understand their preferences and meet their personalized needs, their customer satisfaction will be higher. Furthermore, Dinev et al (2015); Tsai et al (2019) explored the balance between providing customized services and protecting user privacy when analyzing the personalization-privacy paradox. Existing literature shows that users have preferences for customized services but may also have

reservations about infringing on their privacy (Kim et al., 2019). To effectively implement e-customization technologies, it is crucial to resolve this paradox by prioritizing transparency and empowering consumers to choose personalization features (Cloarec, 2020). This approach will ultimately have a significant impact on overall customer satisfaction. Studies conducted by Li and Kannan (2014); Parise et al (2016) highlighted the importance of real-time customization in improving customer satisfaction. Electronic personalization refers to the process of modifying content and recommendations based on users' immediate interactions Toch et al (2012), resulting in an interactive and adaptable online environment. Immediate responses to user preferences can enhance personalization, thereby positively impacting e-customer satisfaction (Amin, 2016).

To summarize, the majority of literature consistently emphasizes the critical role of e-personalization in shaping e-customer satisfaction (Salem & Alanadoly, 2023). Academic research from several fields, such as information systems, marketing, and consumer behavior, offers a thorough comprehension of how individualized features impact user perceptions (Bhattacharjee, 2001; Koivisto & Hamari, 2019). This analysis provides significant insights for practitioners seeking to maximize their online platforms for customer satisfaction through effective e-personalization strategies as organizations traverse the digital landscape (Aldoseri et al., 2023).

Mediating Role of E-personalization

Researchers have extensively studied electronic personalization as a mediating variable. People expect services to meet their needs when they receive them, which is why electronic personalization is gaining popularity in the digital realm (Dwivedi et al., 2021). Many researchers have carefully studied the relationship between the Information Systems Success Model (ISS) and e-customer satisfaction, and e-personalization plays a key role in this relationship (Akram et al., 2022). Electronic personalization simply means tailoring digital experiences to each individual's preferences, behaviors, and characteristics. Li and Karahanna (2015); Li et al (2015) discuss various aspects of electronic personalization in detail, acknowledging that it has a strong impact on user experience and outcomes. In the field of e-commerce, how electronic personalization affects customer satisfaction and loyalty has been a topic of concern in recent years (Nisar & Prabhakar, 2017).

Whether electronic personalization can improve people's experience of life services is a hot topic in various fields. Verhagen et al (2015); Li et al (2018) have demonstrated that personalized experiences enhance customer satisfaction by establishing a more pertinent and captivating online environment. Furthermore, e-personalization acts as an intermediary connection between customer satisfaction and loyalty Odeh et al (2021), where tailored encounters promote a feeling of connection and dedication to the online platform. Uzunboylu et al (2011); Hew et al (2019) conducted research on the role of electronic personalization in educational environments. Improved student engagement, satisfaction, and academic achievement are associated with electronic personalization in e-learning settings. Electronic personalization mitigates the influence of the learning environment on student outcomes by customizing educational content and experiences based on individual learning styles, preferences, and progress (Abdullah et al., 2015). The literature by Ploderer et al (2018); Rahimi et al (2018) highlights the role of electronic personalization in mediating the patient-provider relationship in healthcare. Personalized health information systems contribute to

patient involvement, compliance with medical advice, and overall contentment. Electronic personalization serves as a channel for converting the functionalities of digital health technology into significant, personalized healthcare experiences. The financial sector also experiences the mediating impact of electronic personalization.

The studies conducted by Kumar and Venkatesan (2005); Xie et al (2016) investigate the role of personalized financial services, such as targeted promotions and tailored suggestions, in influencing the link between financial institutions and customer satisfaction. In the banking and financial arenas, e-personalization improves customer experience and satisfaction by personalizing financial offers to individual needs (Smith et al.). Furthermore, online advertising and marketing recognize electronic personalization for its mediating role. The academic studies conducted by Dinev et al (2015); Tsai et a (2019) emphasize the role of tailored advertisements in moderating the impact of marketing stimuli on customer attitudes and behaviors. Electronic personalization in advertising aims to deliver more pertinent and focused material, thereby impacting consumer perceptions and purchase intentions (Gaber et al., 2019).

In summary, the currently available literature continues to emphasize the important role of e-personalization in influencing the relationship between different factors and desired outcomes in numerous areas. Technological advancements such as electronic personalization enable the customization of digital interactions to individual preferences, thereby enhancing user experience and satisfaction. It is suitable for many fields, such as e-commerce, education, healthcare, finance, marketing, and advertising. Leveraging electronic personalization plays an important role in the evolving digital environment (Sarker et al., 2019).

Theoretical Model

As a result, in this study, the theoretical model of the impact of customer satisfaction on online travel platforms is based on the basic framework of information systems and e-commerce research. This model draws on DeLone and McLean (1992, 2003, 2016) to illustrate the relationship between information system quality and online customer satisfaction. System quality is an integral component of information systems success (ISS) and includes system reliability, timeliness, and overall efficiency. According to the scholarly information of Seddon et al (1999); DeLone and McLean (2016), there is a strong correlation between excellent system quality and user satisfaction. Reliable, user-friendly, and responsive systems enable pleasant interactions that impact e-customer satisfaction. The system's accuracy, pertinence, and timeliness all contribute to the information quality of the ISS model. The studies conducted by Seddon et al (2008); Wu and Wang (2006) emphasized the importance of information quality in influencing users' opinions. Accurate and relevant information increases the system's perceived value, directly impacting e-customer satisfaction. The updated ISS model includes service quality as a component, with particular emphasis on the level of support and responsiveness provided by information systems. Academic research by Van Dyke et al (1997); Parasuraman et al (1988) emphasized the important role of active interaction with the service part of the system in improving customer satisfaction. Additionally, an uninterrupted and conducive service environment can improve overall customer satisfaction online.

Moreover, the impact of information system quality on customer satisfaction, particularly the impact of electronic personalization, is a significant consideration. Academic research by Li et al (2015); Li and Karahanna (2015); Verhagen et al (2015) forms the basis of this analysis. The underlying component of information system quality is an important consideration. This dimension comprises the technical characteristics of information systems, including reliability, responsiveness, and security. Li and Karahanna (2015) and Seddon et al. (2016) assert that a high level of information system (ISS) quality enhances the user experience by offering a dependable and efficient platform, hence laying the foundation for customer satisfaction in the online environment. Verhagen et al (2015); Li et al (2018) have emphasized the significance of e-personalization as a mediator in the impact of information systems on customer satisfaction. Real-time personalization, which modifies content and interactions in response to the user's current behavior, enhances the mediating effect. This creates a dynamic feedback loop between the ISS, e-personalization, and e-customer satisfaction. The framework offers a thorough grasp of how the technical features of information systems impact the satisfaction of online customers. E-personalization acts as the mediating force that transforms ISS into e-personalization and e-customer satisfaction. Based on the Information Systems Success Model, this study assesses the relationship between e-personalization, information system quality, and e-customer satisfaction.

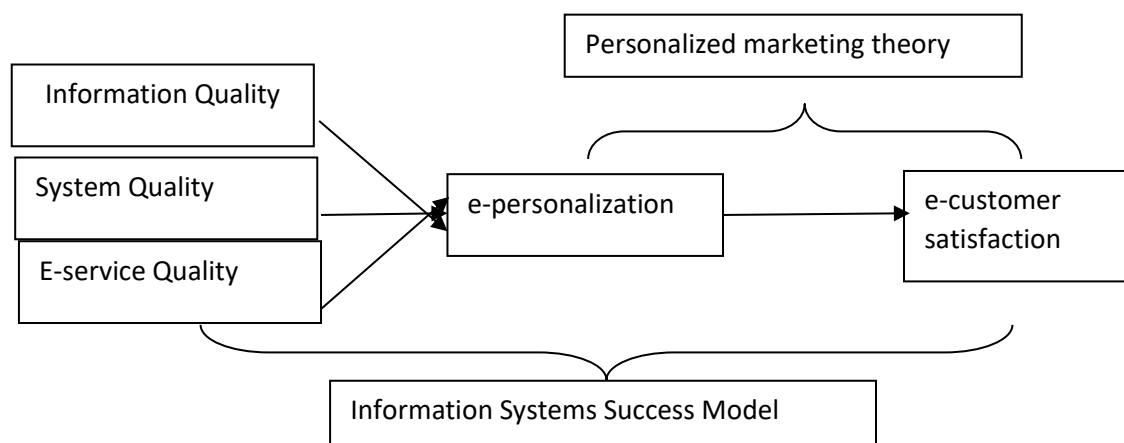


Figure 1. Theoretical Model

Information Systems Success Model and Personalized marketing theory

DeLone and McLean developed the Information Systems Success Model, which has served as a fundamental paradigm in information systems research. Introduced in 1992 and further developed in 2003 and 2016, this model offers a complete framework for assessing the effectiveness of information systems and their influence on different stakeholders. The model consists of six essential dimensions: system quality, information quality, service quality, intention to use, user satisfaction, and net benefits. Academic literature has consistently relied on the Information Systems Success Model to examine the efficiency of information systems in a variety of settings. Researchers have investigated the model's suitability in several areas, including e-commerce, healthcare, education, and finance (Nusair & Hua, 2010). This has enhanced our understanding of how each aspect impacts the overall effectiveness of information systems. The works of Seddon et al (2008); Wu and Wang (2006); DeLone and McLean (2016) have extensively explored the specific aspects of the model. Scholars have scrutinized the impact of system quality on customer satisfaction, focusing on

the technical aspects of information systems. The exploration of information quality has mostly focused on the relevance and accuracy of data, specifically in relation to its influence on user perceptions and intents to use it (Zheng et al., 2013). Additionally, the concept's ongoing adaptation to the shifting digital landscape demonstrates its durability. Li and Karahanna (2015) conducted recent research to examine the Information Systems Success Model's applicability in the field of electronic personalization and its impact on customer satisfaction.

"Personalized Marketing Theory" has become a crucial framework in modern marketing research (Liu et al., 2023) as experts investigate the complexities of personalized strategies in the digital age. This idea focuses on tailoring marketing techniques to cater to the specific requirements, inclinations, and actions of consumers, utilizing breakthroughs in data analytics and technology (Aljohani, 2023). The personalized marketing theory has played a crucial role in comprehending the interactions between businesses and their customers in contemporary scholarly research. Li et al (2016); Verhoef et al (2017) examine the influence of tailored marketing on consumer engagement, loyalty, and purchasing behavior. Research demonstrates that the successful implementation of personalization enhances consumer trust and satisfaction, leading to increased levels of brand loyalty. The notion of personalization goes beyond conventional segmentation, highlighting the significance of tailored interactions on an individual level. Researchers such as Li and Kannan (2014) investigate the significance of real-time personalization, emphasizing its ability to react to user behaviors in real-time. The capacity to adapt in real-time allows marketers to personalize content and recommendations in a dynamic manner, hence improving the overall effectiveness of personalized marketing strategies. Furthermore, the ethical aspects of individualized marketing have been a topic of investigation. The studies conducted by Tsai et al (2019); Dinev et al (2015) explore the concept of the "personalization-privacy paradox," which investigates the intricate trade-off between delivering individualized experiences and protecting customer privacy. These works highlight the importance of transparency and customer autonomy in tailored marketing initiatives to address privacy issues (Hemker et al., 2021).

Discussions

Li et al (2015); Li and Karahanna (2015) conducted research that emphasizes the significance of well-designed information systems in creating positive e-customer experiences. Customer satisfaction is positively correlated with the system's dependability, responsiveness, and security. However, it is evident that e-personalization plays a significant role in facilitating the connection between ISS and customer satisfaction. The research highlights the significance of e-personalization as a means of facilitating transformation. Li et al (2015) argue that the utilization of sophisticated information systems facilitates the execution of efficient e-personalization strategies, including customized recommendations and interfaces. ISS enables the seamless incorporation and analysis of user data, hence generating prospects for tailored online experiences. Li et al (2015); Li and Kannan (2014) explore the concept of real-time personalization, emphasizing the dynamic aspect of e-customization in responding to immediate user actions. According to Sathiyavany and Shivany (2018), the ability to make real-time modifications and personalizations not only enhances user experiences but also establishes a continuous feedback loop, hence upgrading the Information Systems System (ISS) in response to evolving demands and preferences for e-customer satisfaction.

In essence, the discussions focus on the ISS's influence on electronic customers. The gratification from the mediating role of e-personalization highlights the complicated relationship between the technical elements of information systems and the individualized experiences they enable. Academic research has emphasized the significance of the Information Systems Success Model (ISS) in facilitating efficient e-personalization. Consequently, this phenomenon significantly influences the overall contentment of electronic clients within the dynamic digital environment. We expect organizations that prioritize both a robust information systems success model (ISS) and strategic electronic personalization (E-personalization) to achieve a synergistic effect, resulting in a more satisfying and engaging online experience for their clientele.

Conclusion

The study summarizes the strategic importance of synergies between China's online travel platforms, ISS, and e-personalization. Investing in high-quality ISS platforms can make better use of the potential of electronic personalization and ultimately have a positive impact on customer satisfaction. With the development of the digital environment, a comprehensive understanding of interrelated dynamics helps to make informed decisions and guide enterprises to develop the best strategies, prioritizing technological excellence and the electronic personalization of information systems to ensure customer satisfaction with the online travel platform. It will focus on the views, processes, and direction of this approach, with the aim of providing a holistic perspective to the study.

To the best of our knowledge, no previous research has tested ISSM and personalized marketing theory in the context of OTP. This study demonstrates that ISS is a model that explains the improvement of e-customer satisfaction in the context of OTP by considering various quality indicators comprehensively. Furthermore, we improve the OTP satisfaction model when we combine the ISS model with e-personalization. The new model improves the D&M model in the context of OTP, taking into account product information, system usage, and platform service quality, as well as accounting for the dependent variables more fully. As a result, the proposed model provides theoretical support for a new OTP acceptance model. Therefore, one implication of this study is that it provides an extension to the ISS model in the context of OTP. Another important implication is the theoretical operationalization of the electronic personalization construct as a new variable construct. The e-personalization structure is the most important driver of OTP usage and platform quality, which influences e-customer satisfaction.

This study provides practical contributions to online travel platforms. Determining e-customer satisfaction among online customers is not easy. Online travel platforms should give them more attention. The research results will provide theoretical guidance for online travel platforms to improve their competitiveness in the digital environment. By gaining a deeper understanding of the relationship between information systems models and personalization theory, platforms can more accurately formulate digital strategies, improve the design and functionality of information systems, and increase e-customer satisfaction. This is crucial for online travel platforms to stand out in the fierce digital competition, be able to better meet the needs of different electronic customers, and enhance user stickiness.

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