Investigating the Impact of Website Design, Reliability, and Perceived Ease of Use on Customer Trust via Customer Satisfaction

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Abstract

The success of E-commerce depends on the efficient interrelation between the design, usability, and usage of online platforms which in turn can influence customer satisfaction fostering customer trust. This study focuses on identifying the impact of website design, reliability, and perceived ease of use on customer trust and how the mediating role between these crucial components is played by customer satisfaction. By choosing the philosophy of positivism and using a deductive approach, this study conducted a thorough survey in many cities of Pakistan to collect quantitative data from 300 individuals chosen through purposive sampling. The study uses sophisticated statistical software like SPSS and Process Macro to analyze the internal consistency, reliability, correlation and mediation of the data gathered. The results revealed that better usability, attractive design, and reliable services increase the satisfaction of customer which in turn fosters an increased trust in e-commerce platforms. This paper provides actionable insights for e-commerce firms that by improving the design, and usability of websites and by providing reliable services, e-commerce companies can satisfy changing customer expectations and generate long-term loyalty, which is a crucial factor for surviving in this highly competitive digital environment. Future research is recommended to include actual customer behavior in the research model to predict the impact of these variables on the purchase intentions of the customers. The study offers fresh insight about the complex integration of the website engaging elements and acts as an asset for industry stakeholders since it provides a holistic strategy that is necessary to survive in this highly competitive environment.

Keywords: Website Design, Reliability, Perceived Ease of Use, Customer Satisfaction, Customer Trust, E-commerce

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Introduction

The Internet has been a driving force behind the extraordinary empowerment of consumers for more than a decade, completely changing the way businesses in the digital era offer goods and services (Ramezani et al., 2020). Personalized online platforms, where customers do not face any barrier of time or location, have replaced the conventional brick-and-mortar concept. With a web connection and the appropriate device, customers can now buy at any time or place thanks to the growth of online merchants, ushering in a new era of unmatched convenience (Beaumont et al., 2022). E-commerce has drawn many academics and industry professionals to conduct research since it offers such great potential for expansion and presents an extremely attractive market to tap into. Their goal is to succeed in this newly developed way of selling goods. Therefore, numerous aspects that might help an online business succeed have been researched. A new understanding of what motivates success in the corporate world has been brought about by this digital revolution. Success now depends on building immersive digital experiences that enthrall consumers, foster trust, inspire engagement, and foster long-lasting relationships rather than just producing high-quality products (Agustian et al., 2023). Previous researchers have pointed out the significance of many aspects of digitalization that foster customer engagement and trust. Many variables have been identified as the building blocks of customer engagement in the digital realm. These may include the design of websites, reliability of the service provider, ease of website navigation, and many more. Recent researchers have also pointed out the significance of customer engagement on market share, profits, and stronger client relationships characterized by improved loyalty, trust, and commitment (Kumar & Lata., 2021).

However, previous studies have recognized the impacts of creative and engaging website design, reliability of the service provider and the ease of using the website on online customer engagement and the building of e-trust on online websites in isolation. However, there is always a need to extend and integrate the existing knowledge on the variables and their relationship under investigation (Lăzăroiu et al. 2020). Additionally, this research ought to explore how customer satisfaction functions as a mediator in these interactions. Although previous research has acknowledged the significance of customer satisfaction, it may not have fully examined its role as a bridge between consumer trust, perceived convenience of use, website design, and reliability. Examining this mediator will provide a more sophisticated comprehension of the establishment and maintenance of trust (Islam et al., 2020). Similarly, the need of the hour is not overlooking the contextual factors and how these factors impact the specific context of Quetta. Local consumer preferences and cultural influences can significantly impact the relationship between these variables. In addition, a large number of the studies that are now available use other variables in addition to customer satisfaction to assess trust of consumers in the domain of online e-commerce. Most studies concentrated on electronic commerce strategies (Tang and Yang, 2020), website layout and quality (Ramadhanti, and Slamet, 2020), and consumer value generation (Wijaya et al.,

2020). Even though customer engagement has been extensively covered in the literature by a variety of criteria, little research has been done on the integrated development of the design of websites, their reliability, and its usability as a predictor of building customer engagement with online web stores.

In Pakistan's acceleratedly technology-driven economy, intuitive and culturally customized website design Substantially increases customer satisfaction, cultivating positive online experiences and continued usage. Aesthetic and operational website design explicitly supports to customer trust by reducing ambiguity and building credibility in Pakistani e-commerce platforms (Hassan & Shah, 2024).

The current study is highly significant because it addresses the issue of e-trust, which is connected to the satisfaction that the e-service provider ensures by making the website's design more sophisticated, creative, reliable, and user-friendly. These factors do not exist in a vacuum; instead, they create a dynamic ecosystem in where they interact and shape each other (Giao et al., 2020). This recognition of interconnectedness is essential because it reflects the actual intricacy of the e-commerce environment. Every variable in this interdependent ecosystem has a distinct function that directs the customer's path through the online buying process. In this dynamic ecosystem these factors combine and influence the customers' journey all the way from their first interaction with the e-commerce platform to their final choice of making a purchase from a trusted online platform. Moreover, these variables have a strong impact on customer's decision as well as their behavior. The customers might return with repurchase intentions as well as post positive reviews online (Sikander et al., 2021). In order to thoroughly investigate the impact of these factors the study will analyze how customer satisfaction in online purchasing mediates the link between website design, reliability, usability, and customer trust. Online retailers need to identify ways to keep the customers satisfied over the long run since customer satisfaction is directly linked with increased sales and profitability (Rodríguez et al., 2020).

There is extensive research on individual factors like website design, reliability, perceived ease of use, customer satisfaction, and customer trust in isolation, a significant gap remains understanding the outcomes of the interaction of these factors in the context of e-commerce (Jaiswal et al., 2020). A vast amount of previous research has focused on these elements separately, failing to identify the critical connections and impacts that link them (Guo et al., 2023). A clear evidence of this research gap is the absence of studies focusing on how website design, as the initial point of customer contact influences customer's perception about the usability and reliability of the online platform. In addition, the mediating role that customer satisfaction plays in transforming these factors to enhance customer trust in the online service provider is also lacking (Saoula, 2023). The study aims to bridge this knowledge gap by providing complete understanding regarding the

integration of these factors into forming an engaging and trustworthy digital environment that serves as the basis for successful online transactions.

Problem Statement

In the continuously evolving online industry, firms must understand how efficiently key digital factors are linked together to achieve long-term success (Rodríguez et al., 2020). The design of a website, the reliability of the service provider, and customers' perceived ease of use are identified as critical factors influencing customer experience and shaping their behavior. Identifying the impact of the relationship between these factors on customer satisfaction and trust proves to be a significant knowledge gap as these factors have mostly been studied individually in prior studies (Mainardes et al., 2019). This study seeks to bridge this knowledge gap by analyzing the impact of website design, reliability, perceived ease of use, and customer satisfaction on customer trust. In addition, the research focuses on identifying the crucial mediating role played by customer satisfaction between website engaging factors and customer trust. With the help of this research, online service providers will gain practical insights on how to strategically combine these crucial factors to build customer trust and successfully survive in the highly competitive digital environment. This research aims to achieve the following objectives.

- To analyze the impact of website design, reliability, and perceived ease of use on customer trust.

- To investigate the mediating role of customer satisfaction between website design, reliability, perceived ease of use, and customer trust.

This study is fiercely important for both academic professionals and industry experts. By bridging the knowledge gap regarding the complex interrelation between website design, reliability, perceived ease of use, and customer trust and crucially examining the mediating role of customer satisfaction in the relationship between these dynamic factors and customer trust, this study adds to the body of knowledge. From this practical perspective, this research helps online service providers by offering insights on how to upgrade their website design and reliability in line with emerging trends to build customer trust in the brand. Increased trust will therefore result in increased customer loyalty, ultimately boosting firms' profitability and help the e-commerce company prosper in this highly competitive digital market. The traditional product-centric approach will shift to a client-centric approach, where firms prioritize strategic planning and customer care policies. By placing customer satisfaction and trust at the core of their business strategies, firms can achieve sustainable growth.

Literature review

Theoretical Background

The application of uses and gratifications theory serves as a strong theoretical framework for explaining why consumers engage with media-enabled platforms (Maslowska et al., 2016). Examples of these incentives include online knowledge, hedonistic amusement, online social contact, and personal identity which can be classified as encompassing both the emotional as well as the utilitarian motives (Maslowska et al., 2016). The literature further elaborates on how Uses and Gratifications Theory can be used to develop various types of engagement. This theoretical framework for this study is the Uses and Gratifications Concept, a communication theory that attempts to explain why individuals use given media and what benefits they derive from such usage. Initially constructed in the context of mass media, Uses and Gratifications Theory now encompasses electronic media and internet communication, making it highly relevant to the study of e-commerce. Customer engagement is determined by several factors that customers consider before interacting with online merchants (Busalim et al., 2019). With the use of social media, mobile and online e-commerce platforms it is deemed necessary for the online shopping web store vendors to understand the reason consumers interact with online stores.

Website Design, Customer Satisfaction and Customer Trust

A virtual company's success is significantly influenced by its website design. The website design involves creating web pages that integrate graphic design, content creation, and web page layout. This helps to foster favorable interactions with the web store. As online platforms are the major mediums of communication between e-commerce stores and customers, the user experience may be greatly influenced by the way they are designed. The design of the web page is one of the most important variables that influence consumer trust. According to Giao et al., (2020) website design is a virtual shop front that acts as the first point of interaction between customers and online enterprises. Giao et al., (2020) contended that website design has a substantial impact on customer satisfaction, loyalty, and the evaluation of internet vendors' quality. In a similar line of sight, website design has a favorable impact on client trust (Wardhani, 2020).

The importance of website design goes well beyond only aesthetic considerations. It's a dynamic gateway with the ability to grab and hold visitors' attention. Initial impressions are shaped by website design, which also builds user satisfaction affecting trust in shopping online (Faisal et al., 2016). An attractive website is necessary for businesses to prosper in today's digital environment. A website's design is influenced by a wide range of elements, including the layout, color palette, typography, responsiveness, etc. Website design must consider mobile responsiveness since it not only benefits users but also influences search engine results (Zhang et al., 2023). According to Oyibo and Vassileva (2017) website designers should not ignore the significance of web aesthetics, as web aesthetics play a crucial role in building customer experience and the inclusive decision of credibility.

Furthermore, great user experience and increased consumer engagement are facilitated by a visually appealing design, simple navigation, mobile responsiveness, quick loading times, well-presented information, strategic CTA placement, and personalization. To meet evolving user expectations and improve customer happiness, businesses should give ongoing review and website design optimization top priority. This will increase engagement and boost customer trust. According to Aslam et al., (2020) trust is the anticipation of one party regarding the intentions of the other side. Customer e-trust is essential to e-commerce transactions. Customer faith in the standard and reliability of the products and services offered is referred to as "customer trust." In terms of buyer intention or anticipated action, trust can be viewed as a conviction, confidence, attitude, or anticipation. Customers who had a high level of overall trust also showed a more e-commerce intent (Tandon et al.,2017). Scholars have previously contended that brand experience simultaneously influences brand familiarity and customer satisfaction, while familiarity itself raises customer satisfaction. Taken together, these three elements impact a customer's trust in a brand (Baig et al.,2015).

In light of the discussion above, the following hypotheses is put forth:

H1: Website design has a positive impact on customer satisfaction.

Reliability, Customer Satisfaction, and Customer Trust

Reliability is defined as the capacity to deliver the promised good or service within the allotted time, according to the specifications specified on the web page, and in accordance with the expectations of the client (Pansari and Kumar, 2017). Businesses aim to increase client loyalty and e-trust by offering reliable services. In ither words, these reliable offerings are fostering strong customer engagement with online retailers. Moreover, contacting clients via phone and email is a useful way to allay their concerns about purchasing online. These techniques are designed to foster strong customer engagement relationships, which in turn promote a high degree of consumer trust. The sense of confidence that results from accurate delivery and fulfillment of the requirements of purchase is linked to a product or service's reliability (Ali et al., 2017). Additionally, Ratnawati and Lestari (2018) asserted that a brand with an increased degree of reliability and a positive brand image are favorable to be chosen by customers due to their confidence in the brand, increasing customer loyalty and lowering market rivalry. Numerous studies, such as those by Marliawati and Cahyaningdyah (2020), support this claim by showing the beneficial influence of an upbeat brand perception on customer loyalty. Indeed, trust remains a key concern for consumers when purchasing online.

The nature of the relationship between reliability and client satisfaction is not a simple one, which makes it particularly significant. Several scholarly research have pointed out the evident correlation between a credible e-commerce site and high customer satisfaction rates. Customers are likely to be satisfied with the entire online purchasing process if they encounter a website with

no technology glitches (Busalim and Ghabban 2021). First of all, reliability is one of the fundamental constituents that, instantly, impacts the overall perception users have of the web page and increases the level of happiness among the target audience. Product reliability is fundamental in digital environment because it is within this context that the consumers build their perception of and trust in online service providers. When customers experience a glitch-free interface, they tend to have a far more positive outlook on the online purchasing process (Lee et al., 2020). In essence, reliability is a fundamental aspect of the website experience and plays a crucial role in consumer's overall satisfaction while engaging in online shopping. Consumers tend to be more willing to say that they are satisfied with their whole experience of shopping online especially if they are presented with an interface that is consistently good and fully functional at that. While assessing user satisfaction and reliability elements, it is noteworthy that for organizations seeking long-term loyalty and aiming to build a positive brand image, their relationship is paramount (Auf et al., 2018).

Talking about the importance of reliability, it is necessary to state that it influences the consumer trust level. A first-rate Internet site reassures the consumer and generates trust on a daily basis, offering value with few complications. Customers are generally more likely to develop confidence and loyalty toward a digital service provider if they are satisfied with the site's performance and efficiency (Tran and Vu, 2019). This trust, which originates from the platform's reliability, therefore turns into a strong drive for repeated patronage and client loyalty. Consumer satisfaction and reliability are more than just coexisting but rather, the former is higher when there is an element of the latter. Apart from that, it is crucial to achieve and sustain confidence in an e-commerce platform's operation to make users happier (Sukendia and Harianto, 2021). Thus, it is postulated that:

 H2: *Reliability has a positive impact on customer satisfaction.*

Perceived Ease of Use, Customer Satisfaction and, Customer Trust
Perceived ease of use, in this study, will assess the extent to which a user deems it easy to assimilate a website and its layout (Moslehpour et al., 2018). Based on the research done before, perceived ease of use is considered as one of the significant factors regarding customer satisfaction (Vatolkina et al., 2020). Ease of use is another aspect that has a positive effect on the shopping intentions of the clients and also their visits to a particular website. Specifically, consumers' e-satisfaction as well as their e-trust towards the store regarding future purchase transactions may increase when perceiving it to be easier to make purchases at the online store (Silitonga et al., 2020). Consumers avoid adopting a specific tech-enabled platform that is barely explainable. Instead, they will look for the alternatives capable of providing similar activities but with a lower degree of difficulty (Wilson et al., 2021).

In the online sector, for example, recent research by Balci (2021) found that perceived utility and ease of use both had a significant impact on building customers' contentment, which in turn influenced their trust. Additionally, Maryanto and Kaihatu (2021) found that customer satisfaction increases perceived utility and perceived ease-of-use in a positive and significant way. The customers' impressions of a system's or technology's utility and ease of use had a significant impact on their levels of confidence in it, which as a result affected how loyal they felt about it. A multitude of research investigations have validated the beneficial connection between the perceived ease of use and the uptake of diverse technologies, encompassing mobile applications and e-commerce platforms. Following the reduction of the users' cognitive load, users are more likely to accept the system that they find easy to use since the mean acceptability of the system increases greatly (Majeed et., 2022)

Based on the study conducted by Zaid and Patwayati (2021), perceived ease of use had a close connection with trust within the internet context. If the clients consider a website easy to maneuver, then it strengthens up a perception about its reliability and professionalism. In most of the studies, consumer satisfaction has been observed to play the role of a mediator between perceived ease of use and consumer trust. As believed by Aggarwal and Rahul (2017), it is evident that the users who found the website easy to navigate, will be likely to be satisfied with the total qualitatively measured online encounter. As a result, what renders the other party content also becomes a critical foundation for the creation and strengthening of trust. Users' trust in the system grows as they consider it to be easy to use, leading to satisfaction (Bedi et al., 2017). Long-term loyalty and engagement are predicated on trust. A platform generates a positive cycle of feedback when it effectively blends high customer satisfaction levels with perceived simplicity of use. Users who are happy with the platform are more inclined to trust it, and when that trust grows, so does the users' willingness to make repeat purchases and sense of brand loyalty (Wilis et al., 2020). Therefore, it is hypothesized that:

H3: Perceived ease of use has a positive impact on customer satisfaction.

Mediating role of Customer Satisfaction
Customer satisfaction is the result of the experiences customers feel during the purchasing process, and it has a strong impact on how customers will behave in the future, particularly online repurchases and trust (Bulut and Karabulut 2018). In the business-to-consumer (B2C) internet world, customer satisfaction represents one of the most crucial success indicators. While an unhappy customer would most likely abandon his or her online seller with or without complaining, a pleased online consumer would probably shop there again and refer them to others. Many authors believe that customer satisfaction precedes the quality of a website. Online satisfaction rises when people have favorable opinions of the web page and its contents (Afif et al.,2020). According to earlier research, trust among customers may be measured while taking satisfaction into account

(Dang et al., 2020). Along the same line, Irshad et al., (2020) and Raman et al.,(2020) pointed out that satisfaction was also significant and more dominant as the mediator that positively affected customer trust and consumer repurchase intention. Hence, this relationship through the postulating of a mediating role for customer satisfaction wherein the latter is found to have a direct beneficial effect on the level of trust. Customer satisfaction is promoted if users experienced a positive affective response to the use of digital platforms because of the enhanced designs of websites (Ayo et al., 2016). Here, customer satisfaction can be viewed as a mediating variable in the process of how website design, reliability, perceived ease of using bring about the increase in trust. The satisfaction forms a proper rapport that makes it possible to develop trust that is essential in developing strong association with clientele for the long-run (Saleem et al., 2017). Given this understanding, the following hypotheses are posited:

H4: *Customer satisfaction has a positive impact on customer trust.*

H5: *Customer satisfaction mediates the relationship between website design and customer trust.*

H6: *Customer satisfaction mediates the relationship between reliability and customer trust.*

H7: *Customer satisfaction mediates the relationship between perceived ease of use and customer trust.*

Figure 1. Research Model
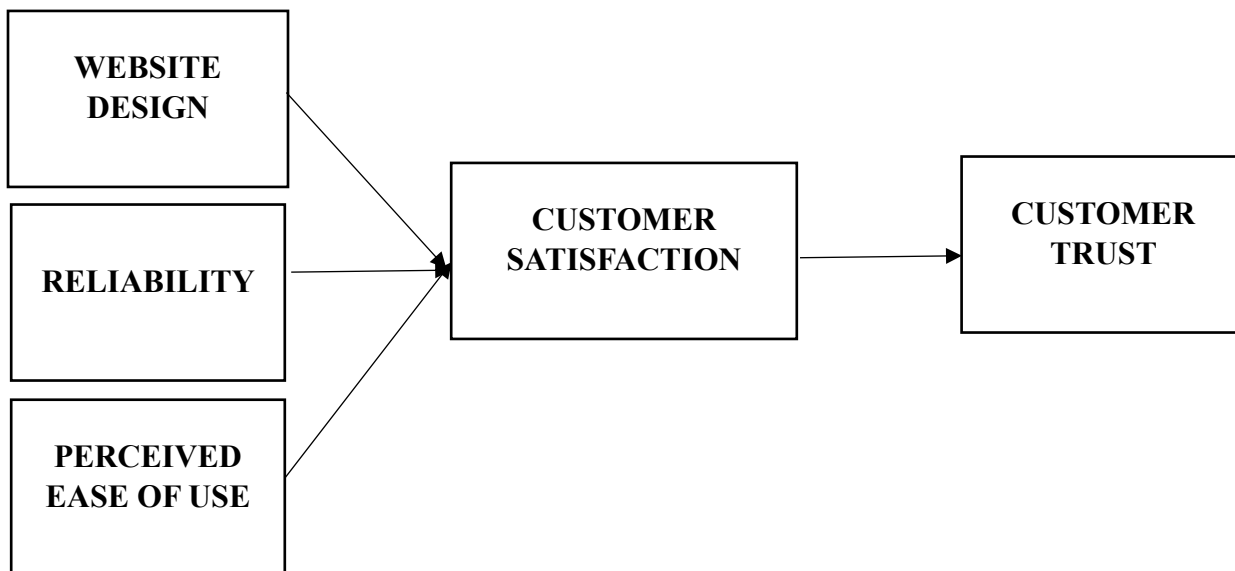
Methodology

Research Design

A cross-sectional technique based on the positivism philosophy is employed in this quantitative study to gain an understanding of how individuals situated across various cities in Pakistan perceive internet transactions. A deductive research technique has been employed which started with a broad hypothesis and progressed to findings. Among the respondents, 300 questionnaires have been distributed to gain the insights of maximum active online consumers through convenient sampling at a cross-sectional time horizon. The research choice is explanatory, seeking to understand and explain the intricate dynamics between the design of the website, reliability, the perceived ease of usage, consumer satisfaction, and trust, the study uses a standardized Likert-scale questionnaire adopted from the researchers conducted by (Tandon et al., 2017). This method is also extracted by (Saoula et al 2023).

Measurements

The measurements of this study have been appropriately chosen to ensure validity and reliability in addition to integrating all the major facets of the variables under analysis. Four questions were employed by Saoula et al. (2023) in the evaluation of the website design. Along the same line, four reliability-related questions were adopted from Saoula et al. (2023) in order to measure the degree to which the platform is consistent and there ware no technical issues that the clients come across, and the extent to which they believe in the reliability of the services offered. Perceived ease of use of the application was assessed by four questions and as noted earlier, again adopted from the study by (Saoula et al,.2023). The highlighted items were about ease and simplicity of the interface allowing conducting online shopping. The following three questions which were adopted from Tandon et al. (2017) were used to assess the level of customer satisfaction. These items provided information on the perceived images of the e-commerce platform in terms of competence, reliability and credibility. Additionally, four items on consumer's trust were adopted from the study by (Saoula et al. 2023). These items include more macro aspects of trust that is security, perceived risk or overall trust on the environment that surrounds buying online.

Sampling

Individuals who are actively involved in online shopping made up the target population for this research through convenient sampling. Those individuals who meet the criteria for participating in the study—frequent internet users who engage in online shopping—have been contacted. This sampling strategy made it easier to reach a potential three hundred participants. Data has been collected through an online survey platform and via physically distributing questionnaires among students. Participants had access to the questionnaire, which was simple to complete. Throughout the data collection process, individuals' privacy and identification has always been protected.

Data analysis

The data collected from the respondents in order to achieve the objectives of the research. This current study focuses on the mediating role of customer satisfaction between website design, reliability, perceived ease of use and customer trust and hence it is evaluated by interpreting the collected data. To achieve reliable and accurate results, the data analysis was performed using SPSS. The fundamental characteristics of the data have been summed up using descriptive statistics, which have shed light on the demographics of the participants. To evaluate the accuracy of the scale for measurement used in the questionnaire, a reliability test has been utilized. Process macro analysis has been performed to investigate the effects of these factors on consumer trust, while correlation analysis has been employed to look at the links between the various variables. Moreover, Andrew F. Hayes' PROCESS macro has been used to investigate the mediation procedure. In order to evaluate whether the questions of the survey are reliable, this study first examined the reliability and then the statistical tests were run to test the hypothesis.

The table below shows the descriptive statistical characteristics of the respondents, derived from a frequency analysis of the data.

Table 1. Demographic Characteristics of Respondents

Variable	Dimension	Frequency	Percent	Valid Percents	Cumulative Percent
	Male	183	61.0	61.0	61.0
Gender	Female	117	39.0	39.0	100.0
	Total	300	100.0	100.0	
	up to 18 years	18	6.0	6.0	6.0
	19-24 years	252	84.0	84.0	90.0
Age	25-30 years	23	7.7	7.7	97.7
	above 30 years	7	2.3	2.3	100.0
	Total	300	100.0	100.0	
	Matriculation	9	3.0	3.0	3.0

Education	Intermediate	48	16.0	16.0	19.0
	Bachelors degree	225	75.0	75.0	94.0
	Masters or higher degree	18	6.0	6.0	100.0
	Total	300	100.0	100.0	
Internet Usage Experience	1-2 Years	7	2.3	2.3	2.3
	3-4 Years	46	15.3	15.3	17.7
	5-6 Years	98	32.7	32.7	50.3
	7-10 Years	149	49.7	49.7	100.0
	Total	300	100.0	100.0	
Online Shopping Experience	1-2 Times	56	18.7	18.7	18.7
	3-5 Times	46	15.3	15.3	34.0
	6-10 Times	42	14.0	14.0	48.0
	More than 10 times	156	52.0	52.0	100.0
	Total	300	100.0	100.0	

Reliability Analysis

To make sure that the measurement scales employed in a questionnaire are reliable and consistent, reliability analysis is done (Taber 2017). It evaluates the degree to which scale items evaluate the

identical construct and produce consistent outcomes. Cronbach's Alpha, which has a range of 0 to 1, is the most often used statistic for reliability analysis. Adequate internal consistency between various components inside a construct is indicated by a Cronbach's Alpha score over 0.70, which is typically regarded as acceptable (Pallant 2010). Very good values are those that are above 0.80, while excellent values are those that are over 0.90. The following mentioned reliability test has been performed to analyse the reliability of the data.

Table 2. Reliability of scales

Variables	No. of items	Cronbach's Alpha
Website Design	4	.824
Reliability	4	.774
Perceived Ease of Use	4	.782
Customer Satisfaction	3	.797
Customer Trust	4	.786

From the above-mentioned table, it is depicted that the reliability of the data has been tested separately for each variable. All of the constructs in this study show good to exceptional internal consistency, according to the reliability analysis of the questions. This analysis confirms that the scale has been assessed correctly and thus proves that all the items are highly reliable and consistent making the research valid as well as credible because all items have met the criterion (0.7).

Correlation Analysis

Correlation analysis is performed to identify the direction and strength of relationship between variables. If the Pearson correlation coefficient shows a value closer to 1 this means that the variables are strongly positively correlated and if the value is closer to -1 this means that the correlation between the variables is strongly negative. If the observed correlation is highly significant, it is indicated by its significance level (Sig. 2-tailed), with values below 0.05 being regarded as significant. The table below displays the findings of the correlation analysis for this study, including sample mean, standard deviation, and Pearson correlation coefficients for each pair of variables.

Table 3. Correlation Analysis Table

Constructs	Mean	SD	WD	R	PEOU	CS	CT
1. Website Design	11.2133	3.36137	1				
2. Reliability	11.1167	3.02880	.580**	1			
3. Perceived Ease of Use	12.0367	3.23887	.622**	.696**	1		
4. Customer Satisfaction	9.1100	2.78395	.635**	.685**	.634**	1	
5. Customer Trust	11.2167	3.51629	.665**	.636**	.672**	.700**	1

Note. **Correlation is significant at the 0.01 level (2-tailed)

Process Macro in SPSS became the basis for analysing the direct and indirect impact of website design, reliability, and perceived ease of use on customer trust. Similarly, the same method was utilized to evaluate the mediating role performed by customer satisfaction among the variables. This method offered a detailed evaluation of mediation hypotheses and ensured that the results are consistent.

Table 4. Hypothesis Testing-mediating model (Variables Involved: WD, CS and CT).

Path Analysis Direct Effect (Variables Involved: WD, CS and CT.)

Path	Coeff (β)	Se	T	LLCI	ULCI	P
Path a: WD (IV) to CT (DV)	0.3861	0.0514	7.5082	0.2849	0.4873	0.0000
Path b: WD (IV) to CS (M)	0.5257	0.0371	14.1794	0.4527	0.5986	0.0000
Path c: CS (M) to CT (DV)	0.5882	0.0621	9.4725	0.4660	0.7104	0.0000

Path Analysis Indirect Effect (Variables Involved: WD, CS and CT.)

Path M	Coeff (β)	BootSE	BootLLCI	BootULCI
Effect of WD (IV) on CT (DV) through CS (M)	0.3092	0.0427	0.2296	0.3963

Note: WD=Website Design, CS=Customer Satisfaction, CT=Customer Trust, SE=Standard Error, t=t-statistic, LLCI=Lower-Level Confidence Interval, ULCI=Upper-Level Confidence Interval.

Table 5. Hypothesis Testing-mediating model (Variables Involved: R, CS and CT).

Path Analysis Direct Effect (Variables Involved: R, CS and CT.)

Path	Coeff (β)	Se	T	LLCI	ULCI	P
Path d: R (IV) to CT (DV)	0.3433	0.0629	5.4560	0.2195	0.4672	0.0000
Path e: R (IV) to CS (M)	0.6293	0.0388	16.2157	0.5529	0.7057	0.0000
Path f: CS (M) to CT (DV)	0.6284	0.0685	9.1787	0.4937	0.7631	0.0000

Path Analysis Indirect Effect (Variables Involved: R, CS and CT.)

Path M2	Coeff (β)	BootSE	BootLLCI	BootULCI
Effect of R (IV) on CT (DV) through CS (M)	0.3955	0.0532	0.2967	0.5050

Note: R=Reliability, CS=Customer Satisfaction, CT=Customer Trust, SE=Standard Error, t=t-statistic, LLCI=Lower-Level Confidence Interval, ULCI=Upper-Level Confidence Interval.

Table 6. Hypothesis Testing-mediating model (Variables Involved: PEOU, CS and CT).

Path Analysis Direct Effect (Variables Involved: PEOU, CS and CT.)

Path	Coeff (β)	Se	T	LLCI	ULCI	P
Path g: PEOU (IV) to CT (DV)	0.3724	0.0627	5.9440	0.2491	0.4957	0.0000
Path h: PEOU (IV) to CS (M)	0.6312	0.0338	18.6751	0.5647	0.6977	0.0000
Path i:	0.5660	0.0729	7.7641	0.4225	0.7094	0.0000

CS (M) to
CT (DV)

Path Analysis Indirect Effect (Variables Involved: PEOU, CS and CT.)

Path M3	Coeff (β)	BootSE	BootLLCI	BootULCI
Effect of PEOU (IV) on CT (DV) through CS (M)	0.3572	0.0525	0.2547	0.4610

Note: PEOU=Perceived Ease of Use, CS=Customer Satisfaction, CT=Customer Trust, SE=Standard Error, t=t-statistic, LLCI=Lower-Level Confidence Interval, ULCI=Upper-Level Confidence Interval.

First of all, it was discovered that website design significantly improved customer satisfaction (β = 0.5257, p < 0.05), proving that a well-designed website raises consumer satisfaction levels. Likewise, customer satisfaction was favourably impacted by reliability (β = 0.6293, p < 0.05), suggesting that online shoppers are more satisfied when they receive reliable services. Customer satisfaction was also significantly boosted by perceived ease of use (β = 0.6312, p < 0.05), indicating that user-friendly sites are essential for ensuring customer satisfaction. Additionally, there was a significant positive correlation between customer satisfaction and customer trust (β = 0.5882, p < 0.05), indicating that happy consumers are more likely to have faith in the online platform. The relationship between website design and customer trust (β = 0.3092, BootSE = 0.0427, p < 0.05), reliability and customer trust (β = 0.3955, BootSE = 0.0532, p < 0.05), and perceived ease of use and customer trust (β = 0.3572, BootSE = 0.0525, p < 0.05) were all mediated by customer satisfaction, according to the mediation analysis. These results highlight how important it is for customer satisfaction to act as a mediator in order to increase consumer trust via enhanced website ease of use, reliability, and design.

Discussion

According to the first hypothesis, customer satisfaction is positively impacted by website design. The present investigation, like the aforementioned scholarly works, focused on the impact that website design has on specific results, including customer satisfaction. A good and aesthetical design of the interface on an appropriate website enhances the usability and the overall satisfaction of the consumers (Giao et al., 2020). Based on the given body of knowledge, it can be argued that overall importance and perceived value is characterized by parameters of a site's aesthetics, structure and organization (Zhou et al., 2019). According to Faisal et al., (2019), it demonstrates

that effective web design results in an increase in the website's usability and consequently the consumers' satisfaction levels.

The second hypothesis stated that reliability had a positive effect on customer satisfaction with online buying. In the case of the purchase made on the Internet, the terms of 'reliability' and 'accuracy' regards stability and work predictability of the offered services, including the rapid delivery of the goods, strict compliance with the provided information on the product, and the constant functioning of the site (Pansari and Kumar, 2017). The finding of this research is in line with prior research in that well-established satisfactory online buying experience extraordinarily enhances customers' satisfaction (Busalim and Ghabban 2021).

The third hypothesis in this regard postulates that perceived ease of use has a positive and significant impact on the customers' satisfaction with the buying process over the internet. Perceived ease of use is the level of ease that a user perceives when planning to use a certain technology (Silitonga et al., 2020). Ease of use is one of the influential factors that affect the consumer acceptability and satisfaction with the technology based on the (TAM) Technology acceptability Model (Aggarwal et al., 2017). Studies show that the consumers are more likely to express satisfaction towards a system if they can easily comprehend it (TAM) Wilis et al., 2020). This evidence shows that customers' satisfaction dependent variable is significantly affected by perceived ease of use.

In support of the fourth hypothesis, this study established that there was significant relationship between customer satisfaction and consumer trust. In global and virtual place, client satisfaction is vital antecedent of trust because the clients who are satisfied with the providers' services, are likely to perceive those providers favorably (Nguyen and Khoa 2019). In their view, trust is also needed for creating long-term relationships and the trust related to the Internet transactions. The findings of this research confirm the rationale for proposing increased customer satisfaction leads to increased confidence in the context of the online store (Raman 2020).

Other past studies have also indicated that a professionally designed website enhances consumers' satisfaction, and thus enhance trust in the web page and the service provider (ThakreemBanua., 2021). As asserted in this research study, therefore, website design and customer satisfaction have a mediator effect on the level of customer trust. In particular, they prove that satisfaction, which originates from a positive user experience due to the use of properly developed elements, increases customer trust (Chakraborty et al., 2022).

The findings of the study imply the support of the sixth hypothesis stating that the relationship between reliability and consumer trust is strongly positively mediated by customer satisfaction. As for client satisfaction through reliable services, there is a formulation of trust (Tran and Vu, 2019). Closely aligned with the existing literature of this research, this study also established that

customer satisfaction serves as the intervening variable between the development of trust in consumers and website reliability (Sukendia and Harianto, 2021).

In the seventh hypothesis, it was postulated that customer satisfaction fully mediates the relationship between perceived ease of use and customer trust. Thus, the usability of an online platform influences user satisfaction, which also influences trust (Zaid & Patwayati., 2021). The results of the present study are consistent with the findings of previous empirical investigations, recommending that customer satisfaction plays the role of a mediator linking perceived ease of use and customer trust. This underlines the importance of interfaces that easily guide users in the processes of developing trust and satisfaction (Bedi et al.,2017).

Conclusion

The results of the study also highlight the necessity of ongoing innovation and development in website functionality and customer support tactics. To fulfill consumer expectations and encourage loyalty, online retailers should place a high priority on user-friendly interfaces, guarantee reliable delivery of services, and streamline the online buying experience. Online businesses may improve customer satisfaction, strengthen trust, and ultimately propel profitable growth in the competitive online retail sector by addressing these five critical areas.

Practical Implications

This study could be used to assist the online retail industry provide a resource for the significance of website design, reliability, and perceived ease of use to consumers in creating satisfaction and trust. By the help of this research, online merchants will be in a better position to design their web pages so as to enhance the area of customer service, reliability, and hence better customer satisfaction and trust. Moreover, it will be advantageous for the specific online business authorities in formulating rules to the optimisation of websites for usage, reliability, and aesthetics. These enhancements may also help the internet firm create long-term sustainable value that is linked to profitability and clients' loyalty in the intensely competitive market environment.

Theoretical Implications

In theoretical terms, the contributions to the knowledge base of trust, customer satisfaction, and e-commerce are the research's major implications. First, in the context of buying online the research extends the knowledge on how the features of the website such as the layout, credibility and perceived usefulness influence consumers' satisfaction and trust. If these elements are considered, it enlarges the traditional approach to customer satisfaction after having incorporated the digital components needed in an online context. It also introduces perceived ease of use as a first order while making it mediating variable on the customer satisfaction, portrays reliability as a first order and antecedent of Trust, and also includes both the functional and non-functional criteria of web casts in customer satisfaction models. Moreover, the study provides argument for the improvement

theoretical concepts by endorsing the role of customers' satisfaction as the mediator standing between website characteristics and trust. The study conducted in Pakistan spits out results that can also support the theories in the other cultural backgrounds, paving the way for further cross-cultural research studies.

Managerial Implications

Managers should first prioritize the appearance of the site as this will depend on how clients view the services offered so that the overall satisfaction will be tilted towards the favourable end. The functionality of the website has a big effect on the trust of the clients and thus one should ensure that one invests in a good one. It also revealed that prioritizing usability by implementing easy to navigate site design and enhancing its responsiveness for devices could enhance the level of satisfaction of the clients and ultimately build more trust. New potential should be aimed at sufficient strategies that must provide every aspect of client interactions ranging from graphic design to functional dependability since customer satisfaction occupies the position of mediator. This way, online shops might enhance the customer relationships, increase the retention rates and advance the business in general. As technology advances and customer tastes change, ongoing monitoring and modifications based on input from the community may help sustain a high degree of satisfaction and trust.

Limitations and Future Recommendations

There are a number of limitations to the study that were encountered throughout its execution. For example, only quantitative data was gathered through consumer surveys for data collecting. We may have had better outcomes if interviewing had been done. Furthermore, the study only utilized one mediator; nevertheless, the link between website design, reliability, perceived ease of use, and trust among customers may change if more moderators or mediators were used. Moderators which might have been employed were customer experience and website functionality.

The impact of website design, reliability and perceived utilitarian in customer satisfaction and trust and the mediating role of customer satisfaction have been examined in this research. The impact of these ties on actual customer behavior; for example, the purchase intention and customer loyalty are gaps that are still evident in the current study. It can thus be posited that these characteristics can be added to other research models for further analysis. Also, since the data was collected from a selected sample, several regions, sectors or population groups perhaps might have yielded different results from the study. For the purpose of exploring the impact of the website design, reliability and perceived ease of use on customers' satisfaction and trusts, other industries or regions might be chosen in the subsequent researches. Moreover, to enhance generalizability of the findings, perhaps in future studies, more diverse participants and bigger samples could be enrolled. Besides, there can be the application of some methods like focus groups and interviews can be used to find out more details regarding the customers' point of view. On the basis of the

mixed-method approach the understanding of the specified variables, influencing the customer satisfaction and trust in the conditions of the buying via the web, would be deeper.

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