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### The role of website quality specifications in reducing customer perception dissonance of the product: An analytical study of the opinions of a sample of store customers in the city of Kirkuk

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#### Abstract

The study sought to investigate the impact of website quality specifications, specifically ease of use, quality of information, quality of design, and quality of interaction, on reducing customer cognitive dissonance towards a product. The dimensions of cognitive dissonance examined include emotional dissonance, wisdom of purchasing, and anxiety about purchasing. The businesses in the city of Kirkuk were a subject of investigation. The O3 store, PUKO store, MAXI MALL store, ANKA MALL store, and KIRKUK WEEKLY MARKET were included in the study as representatives of various stores. The purpose was to assess the response of the sample group to two variables and determine the importance of their dimensions.

The two researchers employed a descriptive analytical technique to gather, characterize, and evaluate the acquired data. The questionnaire served as a data collection instrument, utilizing consumers from the establishments surveyed in the city of Kirkuk as a representative sample for the study. Considering the large population of the study, the two researchers selected a random sample of 250 clients to represent it, and handed questionnaire forms to them. A total of 228 questionnaire forms were collected, out of which 17 were damaged and unsuitable for analysis. The number of valid questionnaire forms available for analysis was 211, representing a percentage of 84.5.

The research yielded several findings, the most significant of which is the existence of a statistically significant correlation and influence between the two variables of website quality specifications and customer cognitive dissonance towards the product. Additionally, there is an inverse correlation and negative influence between each dimension of these variables. The research drew several conclusions and subsequently made a number of recommendations. The most significant recommendation is to encourage the management of the investigated stores to prioritize their websites and continuously enhance them. This can be achieved by ensuring simplicity and incorporating high-quality features through the development of their own applications and online platforms. Such measures have a positive impact on customers, the store, and its products, ultimately influencing the customer's decision-making process and the store's sales performance.

**Keywords:** Website quality specifications, customer cognitive dissonance of the product, stores in the city of Kirkuk

#### Introduction

Customers make numerous purchasing decisions every day, influenced by various factors that may differ from one customer to another. Advances in internet technologies and related applications help customers interact with stores in innovative ways. As a result, the use of the internet as a source of product information offered by stores has increased among customers. This rise in internet use has led stores to invest significant efforts in developing and managing customer-oriented websites in an attempt to avoid competitive challenges, attract new customers, and facilitate the purchasing decision process for existing customers, thus increasing their market share through their websites. It has been observed that stores apply a substantial portion of these efforts to improve the quality specifications of their websites and enhance the quality of customer experiences.

The lack of quality specifications on a website contributes to customer dissonance, which we refer to in our study as "customer perceived product dissonance," a dependent variable that explains how any conflict between thoughts or between thoughts and behaviors leads to

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dissonance and psychological tensions. These tensions, in turn, will motivate the customer to adopt dissonance reduction strategies to help achieve consistency between conflicting elements and alleviate the discomfort caused. This interesting phenomenon is a psychological issue that causes anxiety and stress for the customer due to the contradiction between their expectations and actual experience, resulting in a discrepancy between perceived value and received value. This can lead to the loss of a current customer and potentially a prospective one, thus limiting growth and sustainability opportunities in the market.

Therefore, the need has emerged to study the role of website quality specifications in reducing customer perceived product dissonance. The specifications of e-commerce websites play a vital role in providing customers with information and details about the products offered. This research will clarify this role through the various aspects it addresses.

### **First Axis: Methodological Framework**

#### **First: Research Problem**

The website, along with its attractive features, currently represents the electronic front of the store, serving as the digital value directed towards the customer. It is observed that what the customer perceives about the product through the store's website holds significant importance in conveying the value that the store aims to deliver to its targeted customers. However, this type of perception can sometimes experience dissonance among customers. Here arises the real problem: a state of contradiction between the customer's preconceived notion about the product through the website before purchasing it and what they perceive after purchasing or consuming the product. This is referred to as customer perceived product dissonance. Such a contradiction leads to limited acceptance of all the products offered by the store through its website, stemming from deficiencies in the quality specifications of the store's website. This issue has motivated the researchers to study and address it. Our study is an attempt to reduce instances of dissonance among customers and to understand the primary role of the store's website quality specifications in mitigating them.

Despite stores in the city of Kirkuk employing new shopping methods to reach the largest possible segment of customers, there is a limited perception of these methods by customers on one hand, and a lack of interest and weak adoption of high-quality applications and websites by these stores on the other hand. These high-quality features are essential for enhancing customer perception by fully informing them of product details under the umbrella of website quality specifications. From this intellectual standpoint, the research problem revolves around the main question: "What is the role of website quality specifications in reducing customer perceived product dissonance?" Based on this primary question, several sub-questions emerge, as follows.

1. Is there a significant statistical correlation between the website quality specifications and customer perceived product dissonance?
2. Is there a significant statistical correlation between the dimensions of website quality specifications and customer perceived product dissonance?

3. Is there a significant statistical impact of website quality specifications on customer perceived product dissonance?
4. Is there a significant statistical impact of the dimensions of website quality specifications on customer perceived product dissonance?

#### **Second: Research Importance**

The current research derives its primary importance from the significance of the variables it addresses, which are relatively modern: website quality specifications and customer perceived product dissonance. These are important contemporary concepts in the field of marketing management and information and communication technology systems, and they are also related to the field of social psychology, particularly concerning customer behavioral aspects. This is due to their mutual importance for the customer's shopping experience and the store's success. Therefore, the importance of the current research is highlighted in the following points.

1. Highlighting the variables of website quality specifications and customer perceived product dissonance, and explaining the intellectual and logical relationship between them.
2. Providing a set of ideas and solutions for the surveyed stores on how to manage their websites. This will attract customers and reduce the dissonance they might experience.
3. Offering guidelines to enhance customer awareness regarding store websites and the importance of only dealing with and trusting stores with certain features. For instance, the reliability feature symbolized by the blue check mark in social media applications and the certification mark in applications.
4. The importance of the current research stems from the significance of the studied field and the targeted sample, especially given the continuous interaction between the store and the customer. The findings of this research can benefit both parties by increasing the stores' ability to satisfy their customers, retain them, and establish sustainable relationships through continuous improvement of their websites.

#### **Third: Research Objectives**

**In light of the research questions and its importance, the researchers aim to achieve the following objectives**

1. To understand the nature of the relationship between the variables of website quality specifications and its dimensions and customer perceived product dissonance.
2. To uncover the impact of website quality specifications and its dimensions on customer perceived product dissonance.
3. To determine the extent to which the dimensions of website quality specifications vary in reducing customer perceived product dissonance.
4. To provide a set of conclusions and recommendations, along with implementation mechanisms, based on the research findings that will help stores optimally utilize their websites.

#### **Fourth: Research Hypotheses**

To answer the questions raised in the research problem, the following hypotheses were formulated.

1. There is a significant statistical correlation between website quality specifications and customer perceived product dissonance, with the following sub-hypothesis:
2. There is a significant statistical correlation between the dimensions of website quality specifications and customer perceived product dissonance.
3. There is a significant statistical impact of website quality specifications on customer perceived product dissonance, with the following sub-hypothesis:
4. There is a significant statistical impact of the dimensions of website quality specifications on customer perceived product dissonance.

**Fifth: Research Boundaries**

The current research has four boundaries, as follows

1. **Cognitive Boundaries:** The research is cognitively bounded by the website quality specifications as an independent variable and customer perceived product dissonance as a dependent variable, along with their sub-dimensions.
2. **Human Boundaries:** The human boundaries of the research comprise the customers of the surveyed stores in the city of Kirkuk.
3. **Spatial Boundaries:** The spatial boundaries of the research include several stores in the city of Kirkuk.
4. **Temporal Boundaries:** The temporal boundaries of the research extend from January 20, 2024, to May 18, 2024.

**Sixth: Research Methodology**

The researchers relied on the descriptive-analytical method, which aims to describe the variables of the researched problem, analyze and classify the relationship between its dimensions, evaluate and compare them according to scientific methodological principles, to reach conclusions

regarding the research problem.

**Seventh: Research Tool**

The researchers used a questionnaire form as the primary tool for collecting primary data. To enrich the theoretical framework, they relied on a diverse set of secondary data, including books, references, periodicals, scientific journals, and websites.

**Eighth: Research Population and Sample**

The research population consisted of customers of O3, PUKO, MAXI MALL, ANKA MALL, and the weekly Kirkuk market in the city of Kirkuk. According to (Tegza, 2012: 24), the researchers affirmed that in large populations, the ratio between the number of individuals to the number of questionnaire items should be no less than five individuals per item, with a preferred total sample size of 200 individuals or more. Based on the proposed ratio, the minimum sample size is 135 individuals, derived by multiplying the number of variable items (27) by 5, equaling 135 individuals. To cover this number, the researchers distributed 250 questionnaires to customers of the surveyed stores randomly to represent the population more broadly. Of these, 228 questionnaires were retrieved, with 211 valid for analysis, representing the actual research sample size of 211 individuals, constituting 84.5% of the total research sample.

**Ninth: Research Tool Reliability**

The researchers verified the internal consistency and coherence of the questionnaire items using Cronbach's Alpha coefficient. Obtaining a value of  $(0.70 \geq \text{Alpha})$  is considered appropriate in administrative sciences. Cronbach's Alpha values range between 0 and 1. Table (1) shows the reliability coefficient for the questionnaire items.

**Table 1:** Cronbach's Alpha Reliability Coefficient for the Questionnaire Items

Variable	Number of Items	Cronbach's Alpha
Website Quality Specifications	27	0.979
Easy of Use	7	0.923
Information Quality	7	0.930
Design Quality	6	0.945
Interaction Quality	7	0.943
Customer Perceived Product Dissonance	21	0.975
Emotional Dissonance	7	0.917
Purchase Wisdom	7	0.940
Purchase Anxiety	7	0.943

Source: Prepared by the researchers, based on the outputs of SPSS Version 26

It is evident from Table (1) that the Cronbach's Alpha values for all variables were higher than (0.70), indicating that the level of reliability is very good. This means that the tool used by the researchers in their study is reliable and can be depended upon to effectively achieve the research objectives, thus enhancing the reliability of the results obtained.

**Second Axis: Theoretical Framework**

**First: Concept of Website Quality Specifications**

Website quality specifications are defined as a set of features that characterize a website to meet customer needs, reflecting a comprehensive website experience. A good website has operational mechanisms that enable customers to engage in online shopping activities easily and efficiently

(Hidayah & Shofa, 2019: 4) <sup>[14]</sup>. According to Hai & Nguyen (2022: 1403) <sup>[12]</sup>, website quality specifications express the quality of services provided by the website system and its ability to enable customers to achieve their goals through system structure, information quality, and security level. Mahzan & Salim (2023: 573) <sup>[24]</sup> described website quality specifications as a set of features that attract customers to visit the site through good visual properties, such as an amazing color mix, great design, and attractive font size, meeting customer needs. Yusuf *et al.* (2023: 448) affirmed that website quality specifications include aspects like website design, reliability, privacy protection, and security, reflecting the fundamental concepts that a website should possess, which customers seek and appreciate. Chih (2020: 8) <sup>[8]</sup> explained that website quality

specifications lead to improving the store's website reputation, as customers believe the site is honest, cares about them, provides objective information instead of false reviews, and focuses on the features they seek by offering added value. Consequently, customers can obtain reliable information from a well-reputed website, perceiving the value of its products, enhancing the benefits gained during the purchasing process, reducing search time, and creating comfortable connections. Belver-Delgado *et al.* (2020: 8) <sup>[6]</sup> emphasized that website specifications reduce uncertainty by helping customers deduce information about product characteristics, influencing their expectations and perceptions regarding information credibility, and enhancing attitudes towards products and the store.

## Second: Dimensions of Website Quality Specifications

This section is dedicated to presenting the dimensions of website quality specifications, represented by four dimensions: ease of use, information quality, design quality, and interaction quality. These dimensions were identified through the researchers' field survey of the major obstacles customers face when making purchasing decisions and shopping via the websites of the surveyed stores, as these are considered obstacles that hinder the research sample customers in the shopping process and making product purchasing decisions through the website. The researchers relied on the model of FIKRI (2023: 16-17) <sup>[9]</sup> in determining the dimensions.

### 1. Ease of Use

Ease of use is defined as how easily customers can find the store's website. It is a crucial element in retaining customers, as they are more likely to visit the store's website if they find it easy to use. This increases their desire to shop from the store's site, thereby enhancing their electronic trust and retention regarding future purchase transactions. Customers might avoid a platform supported by technology that is difficult to understand, leading them to seek alternatives that offer the same features but are easier to learn and use (Saoula, *et al.*, 2023: 184-185) <sup>[31]</sup>. According to Kenyta (2022: 15) <sup>[17]</sup>, ease of use is the extent to which customers perceive that using the store's website requires less effort in shopping. When the site is easy to learn and flexible to operate, it can meet the usage requirements of customers, helping them obtain product information with minimal time and effort through a clear and easy-to-understand interface. Similarly, Abu-AlSondos *et al.* (2023: 520) <sup>[5]</sup> noted that ease of use is a form of technology that influences customer preferences and determines their purchasing stance towards the store and its products. Soares *et al.* (2023: 85) <sup>[34]</sup> described ease of use as the degree to which a customer expects that using the store's website will reduce the effort required when making a purchase decision compared to visiting a physical store. The easier it is for a customer to access the website, the more valuable the site becomes to them. Despite the widespread use of the internet by customers, the ease of shopping through store websites is not yet familiar to everyone.

### 2. Quality of Information

Quality of information is defined as the extent to which the person responsible for the store's website actively updates the site's information, including all new updates related to

the store's products, ensuring that the information received by customers is regularly updated and reflects the store's physical reality (Frederick, *et al.*, 2023: 184) <sup>[11]</sup>. Kocić *et al.* (2022: 303) <sup>[19]</sup> described the quality of information as presenting product characteristics appropriately to make the customer interested, along with visual support and detailed descriptions. Quality of information is a fundamental pillar in promotion, as content is considered king in this era. Sergius (2021: 161) <sup>[2]</sup> explained the quality of website information from two dimensions: the first is the accuracy of information, which refers to the site's ability to provide accurate and updated content about products and offers; the second is the relevance of information, which means providing information through the site that matches the varying and evolving needs and expectations of customers. Simanjuntak *et al.* (2022: 685) <sup>[33]</sup> stated that the quality of information covers the usefulness, objectivity, and integrity of the store's website for customers, relating to the availability of characteristics of that information in terms of content, form, timing, and features that can provide added value to customers.

### 3. Design Quality

Design quality of the store's website is defined by its richness in static and animated graphics, colors, icons, and integrated windows displaying products (Nguyen, *et al.*, 2020: 4) <sup>[27]</sup>. Shodiq *et al.* (2018: 746) <sup>[32]</sup> indicated that design quality is a concept that reflects the structure of the website as a feature supporting marketing and sales operations of products by stores and their purchase by customers, through providing illustrative graphics or attractive images that encourage site visitors to repeat purchases. Tarkang *et al.* (2022: 3) <sup>[36]</sup> affirmed that design quality encompasses graphic and textual features that capture customers' emotional responses, linking stimuli together to influence the customer's sense of ease or comfort when using the store's website. The design and organization of the site shape the store's atmosphere, thus design quality includes a set of features that enter customers' minds and prompt them to interact with the site and make purchasing decisions directly through it. Nwokah & Ntah (2017: 501) <sup>[29]</sup> highlighted that design quality is a term related to aesthetics, which is part of the elements that can influence customers' initial impressions. Visual aesthetic impressions are an integral part of customers' experiences before making purchasing decisions and shopping through the store's website. Therefore, attention should be paid to how aesthetic impressions are formed among customers, as the human aesthetic perception process is highly complex, involving assessments formed through all physical characteristics of perceived stimuli such as shape, color, complexity, in addition to individual customer characteristics using the store's website.

### 4. Quality of Interaction

Quality of interaction is defined as managing customer relationships through the store's website by its digital capability and usability that enable focusing on customers, and it is an important factor in the sustainability and strength of the relationship between the store and the customer (Lasrado, *et al.*, 2023: 1056) <sup>[24]</sup>. Li *et al.* (2023: 2) <sup>[22]</sup> pointed out that quality of interaction is the accurate real-time response to customers to overcome uncertainty,

through generating valuable data and information for social and behavioral analysis via the site, facilitating the flow of correct information to customers. Inan *et al.* (2023: 3) <sup>[15]</sup> affirmed that quality of interaction is the speed of response from the operators of the store's website to customers' inquiries simply during their service requests, providing them with product details and updating the information provided, and resolving problems they encounter during interaction. Kao & Huang (2023: 12) <sup>[16]</sup> added that quality of interaction is the degree to which the store's website achieves customers' perceptions of excellence in service delivery mechanisms through the site.

### Thirdly: The Concept of Customer Product Perception Dissonance

Customer product perception dissonance is defined as the customer's feeling of inconsistency and randomness resulting from the lack of harmony between their feelings, opinions, positions, and behaviors, which motivates them to reduce dissonance by seeking information that supports their perceptions (Kim, 2022: 2) <sup>[18]</sup>. Nam (2023: 60) <sup>[26]</sup> indicated that customer product perception dissonance is the contradiction between planned and actual behavior, with behavioral changes arising from exposure to strong messages. Nam emphasizes that customers tend to support information that aligns with their decisions while rejecting inconsistent information, noting that relying on unreliable information during shopping widens dissonance. Heaton & Quan (2023: 2) <sup>[13]</sup> described customer product perception dissonance as an imbalance occurring when a customer's ideas, knowledge, preferences, and actions conflict, causing discomfort or tension. Suresh (2024: 86) characterized customer product perception dissonance as a term describing the relationship between motivation, perception, and customer awareness, pointing out that when thoughts, feelings, and actions are inconsistent, it leads to a state of dissonance between perceptions, creating a feeling of discomfort. Kotler *et al.* (2024: 180) <sup>[19]</sup> clarified that customer product perception dissonance is the feeling of discomfort and dissatisfaction experienced by customers after a purchase, stemming from post-purchase conflicts such as acquiring defects in the chosen product and losing benefits from alternative products not purchased, which leads customers to experience post-purchase dissonance. Fikry *et al.* (2022: 326) <sup>[10]</sup> added that customers strive to achieve internal consistency and avoid contradictions, conflicting views, feelings, and expectations that do not align with their actual behavior. Understanding how customers perceive their self-concepts is a crucial and vital factor in evoking dissonance.

### Fourthly: Dimensions of Customer Product Perception Dissonance

Customer product perception dissonance in the minds of customers arises from conflicting elements during purchase decisions, including customer positions, opinions, and previous behaviors. Uncertainty about choices causes dissonance, leading customers to doubt their decisions. Based on the above, the most important dimensions of this variable have been identified to achieve a deep and comprehensive understanding. Therefore, a model (Nosi, *et al.*, 2022: 421) <sup>[28]</sup> has been adopted to define the dimensions of customer product perception dissonance,

represented by emotional dissonance, purchase justification, and anxiety about the purchase.

#### 1. Emotional Dissonance

Emotional dissonance was first described by Hochschild (1983), who defined it as the tension resulting from displaying emotions that do not align with one's true feelings over the long term. For instance, when a customer is compelled to feign happiness or satisfaction during a specific purchasing situation, while actually feeling sadness or dissatisfaction, this emotional dissonance occurs due to the conflict between their genuine feelings and what they display to their social environment (Nair & Sivakumar, 2020: 29) <sup>[25]</sup>. Brundin & Languilaire (2023: 4-13) <sup>[7]</sup> argue that based on Hochschild's (1983) emotional labor framework, when customers align the boundaries of their feelings with the rules of emotional display, their displayed emotions become genuine, thus achieving emotional balance. Nair & Sivakumar (2020: 29) <sup>[25]</sup> emphasized that emotional dissonance involves customers regulating their emotions and expressions to fit the negative attributes of the product, resulting in significant emotional fatigue. This fatigue is characterized by high levels of tension, leading to decreased customer satisfaction, and consequently, they may not repeat the buying experience. Expressing emotions and feelings is typically a spontaneous process that occurs sincerely and effortlessly; however, suppressing these genuine emotions leads to a conflict between perceived and expressed emotions. Younas *et al.* (2023: 2599) affirmed that emotional dissonance involves the mismatch between internal feelings and desired emotions, leading to stress and feelings such as fatigue, thus becoming a primary source of customer discomfort and diminished well-being. Fahim & Al-Sulaiti (2024: 376) <sup>[3]</sup> elucidated emotional dissonance as a form of conflict where the emotions expressed by the customer contradict their true internal emotions.

#### 2. Purchase Justification

Purchase justification refers to the process where customers make a purchase decision and execute it correctly for the right reasons, aiming to have a satisfying buying experience and consume the product in a way that fulfills their needs and desires. It involves dealing with uncertainties, providing a high-value experience in addressing fundamental issues related to purchasing behavior, and using knowledge for self-gratification. Purchase justification primarily goes beyond mere knowledge; it results from accumulated cognitive understanding and customer buying experience (Luchs *et al.*, 2021: 1-3) <sup>[23]</sup>. Nosi *et al.* (2022: 421) <sup>[28]</sup> suggest that purchase justification involves customers questioning themselves post-purchase, asking whether their purchase decision was wise and necessary. It acknowledges that customers may not have needed the product or may not have chosen the most suitable product among various alternatives, as they continuously seek to enhance the utility derived from their purchases and product choices. Yilmaztürk & Akyol (2023: 675) <sup>[39]</sup> affirmed that purchase justification involves rational reflection on the psychological discomfort associated with the purchase decision, prompting customers to ask themselves whether the purchase was necessary and whether they made the right decision. This cognitive turmoil and conscience reproach arise from the customer's buying decision. Tandon *et al.*

(2022: 2) [35] highlighted that purchase justification is the customers' realization that they made an incorrect choice or did not actually need the product at all, often leading to product returns, which is a significant challenge faced by customers and retailers when relying on digital store platforms for purchase decisions.

**3. Purchase Concern**

Purchase concern is defined as the customer's acknowledgment post-purchase that their thoughts and attitudes towards the purchase were influenced by marketers, resulting in a change in their consumption stance towards the product. This aspect of customer perception dissonance highlights coercive compliance (as elucidated in Chapter Three) or the potential persuasion of customers to act contrary to their beliefs and values, thereby depriving them of decision-making autonomy during the purchase. Due to purchase concern, customers exhibit various reactions towards store products, such as altering their personal stances, attempting to change conflicting information sources, seeking support for their views from like-minded individuals, or rejecting conflicting information about the product initially (Atai & Sahab, 2022: 949). Rolling *et al.* (2021: 7) [30] indicated that purchase concern refers to the customer's acknowledgment that their decision-making may have been influenced by attraction factors or poor recommendations from the store and other customers sharing their opinions via digital store platforms.

Ward & Mohammed (2022: 13-14) [38] clarified purchase concern as the dissonance arising from interactions with salesmen in the physical store location or operators of the store's website. It signifies the customer's post-purchase acknowledgment of being influenced by sellers or the website in a manner contrary to their beliefs, leading customers to feel deceived by sellers after purchasing products. The difficulty and anxiety in choosing a product among several alternatives often result in customer dissatisfaction with their choice, even if the product is otherwise satisfactory, due to exposure to misleading information from salesmen working in the physical store or website operators. Tandon *et al.* (2022: 2) [35] added that purchase concern encompasses customer fears about the purchasing decision influenced by external elements,

referred to as the customer's acknowledgment and belief that they were affected by their external environment during the product purchasing process. Thapa *et al.* (2022: 987) [37] noted that when customers experience purchase concern, they tend to lean towards quick activities and decisions that reduce their perception dissonance towards the product, shifting their focus from potential gains to potential losses.

**Third Axis: Field Framework**

**First: Testing for Normal Distribution:** The researchers decided to use the test for normal distribution through skewness and kurtosis. If the skewness coefficient falls within  $\pm 1$  and the kurtosis coefficient falls within  $\pm 3$ , it indicates that the research variables follow a normal distribution. Table (2) illustrates the values of the skewness and kurtosis coefficients.

**Table 2:** Testing for Normal Distribution of Research Data

S	Research Variables and Dimensions	(Skewness)	(Kurtosis)
1	Website Quality Specifications	-0.423	-0.055
1-1	Usability	-0.364	.0570
2-1	Information Quality	-0.613	.3960
3-1	Design Quality	-0.339	-0.399
4-1	Interaction Quality	-0.379	-0.267
2	Customer Perceived Dissonance	0.471	-0.204
1-2	Emotional Dissonance	.4720	0.037
2-2	Purchase Intention	.4660	-0.271
3-2	Purchase Anxiety	.4030	-0.391

*Source:* Prepared by the researchers, based on outputs from SPSS Version 26

From Table (2), it is evident that all skewness values for the research variables and dimensions in the surveyed stores are constrained between  $(1 \neq)$ , as are all kurtosis values for the research variables and dimensions, which are constrained between  $(3 \neq)$ .

**Secondly: Testing Correlation Hypotheses**

**Primary Hypothesis:** There is a statistically significant correlation between the specifications of website quality and consumer product perception discrepancy.

**Table 3:** Matrix of correlation between website quality specifications and its dimensions with consumer product perception discrepancy

Independent Variable Dependent Variable	Specifications of Website Quality	Ease of Use	Information Quality	Design Quality	Interaction Quality
Consumer Product Perception	-0.873	-0.807	-0.809	-0.848	-0.827
Discrepancy	0.000	0.000	0.000	0.000	0.000
Emotional Dissonance	-0.839	-0.778	-0.781	-0.795	-0.808
	0.000	0.000	0.000	0.000	0.000
Purchase Intention	-0.837	-0.778	-0.768	-0.820	-0.788
	0.000	0.000	0.000	0.000	0.000
Purchase Anxiety	-0.847	-0.775	-0.787	-0.833	-0.795
	0.000	0.000	0.000	0.000	0.000

*Source:* Prepared by the researchers, based on outputs from SPSS Version 26

Upon reviewing Table (3), it is evident that there is a strong negative correlation between the specifications of website quality and customers' perceived dissonance towards the product, reaching  $(-0.873)$ . The negative correlation indicates that as the specifications of website quality increase, customers' perceived dissonance towards the product decreases. This correlation is statistically

significant, with a significance level of  $(0.000)$ . Therefore, the primary hypothesis is accepted: there is a significant correlation between the specifications of website quality and customers' perceived dissonance towards the product.

**Secondary Hypothesis:** There is a significant correlation between the dimensions of website quality and customers'

perceived dissonance towards the product. This hypothesis assumes a significant correlation between the dimensions of website quality (Ease of Use, Information Quality, Design Quality, Interaction Quality) and customers' perceived dissonance towards the product. Upon reviewing Table (3), the researchers note a strong negative correlation between Ease of Use of the website and customers' perceived dissonance towards the product (-0.807). This negative correlation indicates that as the website becomes easier to use for customers, their perceived dissonance towards the product decreases, which is statistically significant (0.000). Furthermore, the researchers observe a strong negative correlation between Information Quality and customers' perceived dissonance towards the product (-0.809). This negative correlation indicates that as the information provided by the website becomes more credible, accurate, and detailed, customers' perceived dissonance towards the product decreases, which is statistically significant (0.000). Similarly, there is a strong negative correlation between Design Quality and customers' perceived dissonance towards the product (-0.848). This negative correlation indicates that as the website is designed with high

technology and an attractive appearance in displaying the products offered by the store, customers' perceived dissonance towards the product decreases, which is statistically significant (0.000).

Additionally, there is a strong negative correlation between Interaction Quality and customers' perceived dissonance towards the product (-0.827). This negative correlation indicates that as the website features flexible interactivity and high responsiveness to customer inquiries, facilitating bidirectional communication between the store and customers themselves, customers' perceived dissonance towards the product decreases, which is statistically significant (0.000). Therefore, the secondary hypothesis is accepted: there is a significant correlation between the dimensions of website quality and customers' perceived dissonance towards the product.

**Thirdly: Testing the hypotheses of influence**

**Primary Hypothesis Three:** There is a statistically significant effect of website quality specifications on customers' perceived dissonance towards the product.

**Table 4:** Results of the effect of website quality specifications on customers' perceived dissonance towards the product

Regression coefficients				Analysis of variance (ANOVA)		Model Summary			
Sig	T	B		Sig	F	Adjusted R Square	R <sup>2</sup>	R	Model
0.000	46.412	5.580	(Constant)	.0000	671.368	.7610	0.763	0.873	1
0.000	-25.911	0.901-	Website quality specifications						

Source: Prepared by the researchers, based on outputs from SPSS Version 26

According to the results in Table (4), it is evident that the coefficient of determination (R<sup>2</sup>) reached (0.763). This means that website quality specifications explain approximately 76.3% of the variations in customer perceived dissonance towards the product. The remaining percentage (23.7%) is attributed to other factors not included in the statistical model of the study. The computed value of the regression model's F-statistic was (671.368), which is statistically significant, confirmed by a significance level of (Sig=0.000), indicating the model's validity for statistical analysis.

Observing the regression coefficient ( $\beta$ ), it shows that customer perceived dissonance towards the product was present among the surveyed store customers at a rate of (5.580). However, with the inclusion of website quality specifications, this dissonance decreased significantly to a rate of (-0.901). This indicates that as the website quality specifications of the surveyed stores increase, customer dissonance decreases. These results are further supported by

the computed t-value of (-25.911), which exceeds the critical value (1.984), and is statistically significant at a significance level of (Sig=0.000), which is less than (0.05).

Therefore, increasing the website quality specifications of the surveyed stores by one unit will decrease customer dissonance by (-0.901). Hence, the primary hypothesis (H3) is accepted: There is a statistically significant effect of website quality specifications on customer perceived dissonance towards the product.

**Primary Hypothesis Four:** There is a statistically significant effect of website quality specifications dimensions (Ease of Use, Information Quality, Design Quality, Interaction Quality) on customer perceived dissonance towards the product.

There is a statistically significant effect of the Ease of Use dimension on customer perceived dissonance towards the product.

**Table 5:** Results of the effect of the Ease of Use dimension on customer perceived dissonance towards the product

Regression coefficients				Analysis of variance (ANOVA)		Model Summary			
Sig	T	$\beta$		Sig	F	Adjusted R Square	R <sup>2</sup>	R	Model
0.000	36.526	5.375	(Constant)	.0000	389.195	.6490	0.651	0.807	1
0.000	-19.728	0.828-	"Ease of Use"						

Source: Prepared by the researchers, based on outputs from SPSS Version 26

From Table (6), it is evident that the coefficient of determination (R<sup>2</sup>) reached (0.651), indicating that "Ease of Use" explains approximately 65.1% of the variations in customers' perceived conflict with the product. The computed F-value for the regression model was significant at (389.195), confirming the model's statistical significance

with a significance level (Sig=0.000). The regression coefficient ( $\beta$ ) was (-0.828), and the corresponding t-value was (-19.728), which exceeds the critical t-value (1.984) and is statistically significant at (Sig=0.000), indicating a level less than (0.05). Therefore, an increase in the ease of use of the researched stores' websites by one unit will decrease

customer conflict perception with the product by (-0.828).  
 • There is a statistically significant effect of the dimension

of Information Quality on customer conflict perception with the product.

**Table 6:** Results of the Effect of Information Quality Dimension on Customer Conflict Perception with the Product

Regression coefficients				Analysis of variance (ANOVA)		Model Summary			
Sig	T	β		Sig	F	Adjusted R Square	R <sup>2</sup>	R	Model
0.000	37.239	5.293	(Constant)	.0000	394.688	0.652	0.654	0.809	1
0.000	-19.867	-0.813	Quality of Information						

Source: Prepared by the researchers, based on outputs from SPSS Version 26

From Table (6), it is evident that the coefficient of determination (R<sup>2</sup>) reached (0.654), which means that Information Quality explains (%65.4) of the variations occurring in Customer Product Dissatisfaction. The computed value of the regression model (F) was (394.688), which is statistically significant. This confirms that the significance level was (Sig=0.000), indicating the model's validity for statistical analysis. The regression coefficient (β) was (-0.813), and this is affirmed by the computed t-

value of (-19.867), which exceeds the critical value (1.984) and is statistically significant at the (Sig=0.000) level, lower than the significance level (0.05). Therefore, an increase in the quality of information on the researched stores by one unit will decrease customer dissatisfaction with the product by (-0.813).

There is a statistically significant effect of Design Quality dimension on Customer Product Dissatisfaction.

**Table 7:** Results of the Effect of Design Quality Dimension on Customer Product Dissatisfaction

Regression coefficients				Analysis of variance (ANOVA)		Model Summary			
Sig	T	β		Sig	F	Adjusted R Square	R <sup>2</sup>	R	Model
0.000	44.637	5.099	(Constant)	.0000	535.829	.718	0.719	0.848	1
0.000	-23.148	-0.773	"Design Quality"						

Source: Prepared by the researchers, based on the outputs of SPSS Version 26

According to the results of Table (7), it is evident that the coefficient of determination (R<sup>2</sup>) was (0.719), meaning that design quality explains (%71.9) of the variations in customer perceived product dissatisfaction. The computed value (F) for the regression model was (535.829), which is significant, indicating that the model's significance level was (Sig=0.000), making it statistically valid for analysis. The regression coefficient (β) was (-0.773), and these results are confirmed by the computed (t) value of (-23.148), which

is greater than the tabular value (1.984), indicating statistical significance at the (Sig=0.000) level and less than the significance level (0.05). Therefore, an increase in the design quality of the researched stores' websites by one unit will decrease customer perceived product dissatisfaction by (-0.773).

There is a statistically significant effect of interaction quality on customer perceived product dissatisfaction.

**Table 8:** Results of the effect of interaction quality on customer perceived product dissatisfaction

Regression coefficients				Analysis of variance (ANOVA)		Model Summary			
Sig	T	B		Sig	F	Adjusted R Square	R <sup>2</sup>	R	Model
0.000	40.348	5.213	(Constant)	.0000	452.973	0.683	0.684	0.827	1
0.000	-21.283	-0.793	"Interaction Quality"						

Source: Prepared by the researchers, based on the outputs of SPSS Version 26

From the results of Table (8), it is evident that the coefficient of determination (R<sup>2</sup>) was (0.684), which means that Interaction Quality explains (%68.4) of the variations in customer perception of product dissonance. The computed value of the regression model's F-statistic was (452.973), indicating statistical significance. This confirms the significance level (Sig=0.000), indicating the model's validity for statistical analysis. The regression coefficient (β) was (-0.793), and this is supported by the computed t-value of (-21.283), which is greater than the critical t-value (1.984), confirming statistical significance at a significance level (Sig=0.000), which is less than (0.05). Therefore, an increase in the Interaction Quality of the researched stores' website by one unit will decrease customer dissonance perception of the product by (-0.793).

of all dimensions of website quality specifications on customer perception of product dissonance.

**Fourth Axis: Conclusions and Recommendations**

**First: Conclusion:** This paragraph includes presenting the conclusions reached in the research, as follows.

1. According to the results of testing the main correlation hypothesis, it appears that there is a statistically significant inverse relationship between website quality specifications and customer perception of product dissonance in the researched stores from the customers' perspective. This means that as the e-commerce website meets high-quality specifications, customer dissonance perception towards the product decreases.
2. There is a statistically significant inverse relationship between the dimensions of website quality specifications and customer perception of product dissonance in the researched stores. Usability emerged as the dimension with the highest correlation with



customer dissonance perception towards the product. This indicates that easier access to the website, finding the desired product quickly, and having a positive user experience reduce customer dissonance towards the product.

3. The results of testing the main effect hypothesis show a statistically significant impact of website quality specifications on customer perception of product dissonance. This result reflects that some of the researched stores recognize the importance of their website quality specifications, which negatively affects customer dissonance perception towards the product.
4. There is a statistically significant impact of usability on customer perception of product dissonance from the perspective of the researched stores' customers. This means that website usability contributes to reducing customer dissonance towards the product, with usability being the most influential dimension in reducing customer dissonance towards the product among other sub-dimensions.
5. There is a statistically significant impact of website information quality on customer perception of product dissonance from the perspective of the researched stores' customers. This means that the information provided by the stores through the website affects the degree of customer dissonance towards the product.
6. There is a statistically significant impact of website design quality on customer perception of product dissonance from the perspective of the researched stores' customers. This indicates that the visual, technological, and technical design of the e-commerce website has an effect on reducing customer dissonance towards the product.
7. There is a statistically significant impact of website interaction quality on customer perception of product dissonance from the perspective of the researched stores' customers. This means that website personnel engage with customers, provide them with necessary information according to their needs, do so respectfully, and facilitate information sharing among customers themselves, thereby reducing customer dissonance towards the product.

**Second: Recommendations:** In light of the conclusions presented earlier, the researchers offer a set of recommendations that can help stores improve and develop their e-commerce websites to reduce customer perception of product dissonance, as follows.

Given the strong correlation between website quality specifications and customer perception of product dissonance, there should be increased investment in developing and enhancing the store's e-commerce website.

#### **Implementation Mechanism**

- Continuously improve website design, facilitate navigation and search processes, and provide accurate and comprehensive information about products.
- Provide continuous training for customer service employees to ensure effective support and assistance to customers if they encounter any issues while browsing or purchasing on the website.

Considering the strong correlation between dimensions of

website quality specifications and customer perception of product dissonance, it is important to enhance the customer experience on the e-commerce website.

#### **Implementation Mechanism**

- Ensure consistency in quality across all aspects of the website, such as usability, information quality, design, and interaction quality, to ensure a seamless customer experience.
- Improve the search and filtering system to provide accurate and quick results and facilitate the selection of products that meet customer needs.
- Regularly monitor customer reviews and feedback to identify areas for improvement on the website and take necessary actions.
- Establish a personal relationship with customers by individually responding to their comments and inquiries.

Given the strong impact of website quality specifications on customer perception of product dissonance, continuous improvement of website quality specifications that align with technological advancements is essential.

#### **Implementation Mechanism**

- Maintain a balance between providing high-quality specifications and maintaining a cost-effective website, which helps attract customers and improve their experience.
- Use website quality specifications as part of marketing strategy to attract new customers and enhance loyalty among current customers.

Considering the strong impact of dimensions of website quality specifications on customer perception of product dissonance, simplifying the user interface and improving information quality, design, and interaction quality are recommended.

#### **Implementation Mechanism**

- Activate mechanisms to receive and effectively interact with customer feedback to identify areas for improvement on the website and develop it.
- Collect and analyze feedback by establishing a system to regularly gather customer feedback about their experience with the website and use this data to improve the services offered through the e-commerce website.
- Train employees on the importance of website quality and how to improve customer experience, ensuring the application of best practices in design and interaction.
- Offer rewards or points to customers who actively contribute to the website or write useful reviews.
- Implement a comprehensive rating system that allows customers to evaluate products and leave detailed feedback about them.

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