

WEBSITE QUALITY ASSESSMENT. A CASE STUDY OF GSM HOSTING FORUM

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Abstract. *The ever-growing amount of data on mobile phones, tablets, and smart electronic devices on the Internet and the need to use this data to address problems highlight the importance of the evaluation and validation of data-sharing websites. The GSMHOSTING website plays a key role in communicating and providing services to its users in terms of repairing mobile phones and smart electronic devices. The purpose of this study was to determine its quality from the perspective of mobile phone repair technicians. These technicians were 100 people from Birjand in South Khorasan province (Iran) who used GSMHOSTING website as a reference. The website quality assessment study was conducted in the summer of 2020. The study applied a descriptive survey and cross-sectional method based on a questionnaire. The questionnaire included 11 website dimensions: Routing, Information, Delivery, Apparent Features, Security, Reputation, Society, Entertainment, Provided goods and services, Reliability, Trust. Scores were given on a Likert scale. The validity of the questionnaire was determined using the opinions of web experts. The SPSS software and descriptive and inferential statistics methods were used to analyze data. The results indicated that the average quality of this website was acceptable in terms of technicians' goals. Addressing problems highlighted some of the website dimensions that will increase the overall quality of the website to support technicians in their activities.*

Key words: *Website, Web User, Internet, User satisfaction*

1. INTRODUCTION

The use of the Internet and the increasing growth of online customers and the transactions carried out in this way indicate that the Internet is at the center of today's commercial transactions. In this condition, Internet has become an effective channel for e-commerce [1]. From the companies' perspective, websites are useful for promoting products and services as well as generating income. Given the highly competitive environment, websites have become a dynamic marketing tool whose optimization is an effective tool in customer

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acquisition. Website quality is vital for businesses to attract and retain loyal customers. The quality of website services plays a key role in determining the success or failure of e-commerce [2] [11]. The quality of e-services refers to customer evaluations and general judgments about the quality of service provided to customers in virtual markets. When providing quality service to online customers, they tend to stay loyal to the service provider's website. The quality of Internet services also improves customer satisfaction, and satisfied customers will have more loyalty to the website. Repeated purchases by loyal customers generates income as well as profitability for web businesses.

Due to the following reasons, organizations and managers need to have quality websites: first, there is no face-to-face communication on a website and the interactions are going on through technology. Some aspects of human interactions cannot be replaced by technology and the lack of these aspects should be compensated by improving website quality [3]. Research also showed that in 60% of cases, people cannot find what they want on websites, which results in a significant number of unwanted and repetitive visits to a website. The result is a waste of time and energy [4]. Therefore, regularly reviewing and evaluating websites, and then identifying their strengths and weaknesses will provide appropriate strategies for policy making and decision making. [5]. Websites quality assessment to discover their problems may be very productive. Content and textual assessment have been around for a long time, but websites have brought new aspects and applications, including rapid updating and dissemination of information, each requiring a separate opportunity for study [6].

Focusing on the mobile and electronics repairs domain, many people are not familiar with the basics of starting repairs, and the lack of knowledge about the basics of repairs may lead to wasted time and money. In many parts of the world, people try to share experiences and knowledge in the field of electronics repair, especially mobile by creating specialized forums and launching websites and groups in cyberspace. These forums work in several areas: firstly on the parts, accessories, and boxes needed to solve hardware and software problems; secondly, in the development of various operating systems, e.g. the Android operating system (From February 2021 to February 2022, more than 40% have used the Android operating system [7]), thirdly, providing a place for review and solving software and hardware problems and sharing people's experiences across different fields; fourthly, making an environment for questions and answers on problems related to electronics, especially mobile, and answering problems by webmasters or other users. Creating good quality web-based environments is an increasing necessity. On the whole, a person in such environments has both the ability to procure the required equipment through such websites, and to acquire the necessary training and share information and also acquire information about maintenance of electronic components in such an environment. One of the websites that can help a lot in this regard is the GSMHOSTING (gsmhosting.com) website which has a lot of users in different countries, especially the Median East (see: <https://www.alex.com/siteinfo/gsmhosting.com>).

There is a lot of information and tips on the Internet for mobile phone repair technicians that can be in the form of blogs, videos, or even step-by-step tutorials. One of the best resource is specialized forums. These forums are a great source of information because they are full of people, including professionals, amateurs, or even salespeople. These forums provide a unique perspective on the solution to a problem; therefore, it offers users with a comprehensive list of resolutions to these problems. The GSMhosting.com website known as the GSM Forum, is one of the most comprehensive associations for mobile phone repair technicians which has a great source of information on how to fix mobile phone problems.

This website is one of the oldest mobile phone repair platforms having members from all over the world who use regularly updated posts on this website. Almost every type of mobile phone and their problems are reviewed and answered on this website. This website has sections for mobile phone topics and various types of problems for repairs that technicians may need. The data on this website is also categorized to allow users to simply move from one post to another, thus people can easily find solutions to their repair problems. There are also various discussions about different hardware and software, and people can find thousands of topics about each of the major mobile manufacturers. There is a section on this website for the latest technology news and other interesting items regarding the sale of the latest achievements in the field of mobile phones. The internal forum of this website is a great forum for membership and exchange of information for people who are looking for information about mobile phone repair. Also, having a search option without registering on this website makes it easier for people who only want to follow the discussions. This study examines the quality of the GSMHOSTING website from the perspective of mobile phone repair technicians in Birjand, South Khorasan province (Iran).

In this paper, the definition of quality, user satisfaction, and website evaluation models are introduced in the second section. Literature reviews and other works on the quality evaluation of different websites are discussed in the third section. The research method is illustrated in the fourth section and the fifth section gives the descriptive findings. The sixth section presents the inferential findings. Research hypotheses, conclusions, and comparisons with similar work are discussed in the seventh section, giving recommendations to improve the website and there are suggestions for future research.

2. THE DEFINITION OF QUALITY AND WEBSITE QUALITY EVALUATION MODELS

Literature review shows that there is no standard definition of the quality of website due to the large variety of existing websites and also the dimensions of service quality vary depending on the type of website. For example, dimensions such as reliability, ease of use, and security are especially of great importance for websites selling physical products, and the search capacity and reliability of digital information are important for those offering products or services. Quality is a set of features and specifications of a product or service which can meet explicit or implicit needs [8]. In most definitions, customer satisfaction and meeting their demands are considered the most important factor of quality. Based on research on website requirements [9], all the needs of stakeholders (owners, users, developers) should be considered. This research focuses on the users of the website. User satisfaction is the perception that a user has regarding the extent of meeting his/her needs. According to Parasuraman [10], service quality is the extent and direction of the difference between customers' perceptions and expectations of service. Kotler in 2000 described satisfaction as a person's pleasant or unpleasant feeling as a result of comparing the performance or perceived results of a product in relation to their expectations [11]. Customer satisfaction is the motivation that customers gain from products or services. Customer satisfaction is based on past experience and the evaluation of service effectiveness [12]. Zeithaml, (2002) [13] introduced the quality of provided services as the difference between customers' expectations and their perceptions of received services. They developed an e-SERVQUAL tool to measure the quality of electronic services in their research. This model includes seven dimensions: efficiency,

reliability, implementation, privacy, responsiveness, compensation, and contact. Four dimensions - efficiency, reliability, implementation, and privacy, constitute the main e-SERVQUAL scale [14]. The main scale is applied for the lack of any trouble using the website for users. The other three dimensions - responsiveness, compensation, and contact, create a recovery scale for e-SERVQUAL. A recovery scale is applied when users have difficulty using the site. Service quality can be defined as the difference between customer expectations of pre-service performance and their perceptions of received services [15]. Lee et al. define the quality of received service as a general belief and attitude towards service excellence and that the attention to service quality is a reflection of the extent and direction of differences between customer perceptions and expectations [16]. The ServQual questionnaire was designed by Parasuraman et al. [17] to compare customer expectations and their perception of actual performance to measure service quality. Five dimensions have been considered in the questionnaire:

- Perceptible factors: physical facilities, equipment, and the appearance of employees.
- Reliability: The ability to deliver the promised services with complete confidence and accuracy.
- Responsiveness: willingness to help customers and provide services, without delay.
- Confidence: Employees' knowledge, politeness, and humility in addition to their ability to convey a sense of trust and confidence to customers.
- Empathy: Paying attention to each customer, availability, sensitivity, and effort to understand customer needs.

Kang & Bradley (2002) [18] presented a process model based on the conceptual gap of information technology (IT) quality which determines seven distances between users and IT service providers. This model is developed based on the main model of service quality distance (SERVQUAL). Moreover, their model tests the applicability of SERVQUAL, whether this standard and popular guideline designed to measure service quality can also measure IT service quality, and ultimately the performance of an IT department using a modified three-column SERVQUAL model. In their questionnaire, 13 questions have been applied instead of 22 questions related to SERVQUAL, eliminating perceptible factors. They used two factors including the skills of IT service providers and IT service characteristics and estimated 7 defined distances. The study introduces three levels of IT service quality based on the difference in 3 levels of users' behavioral perspective for IT services: ideal level, acceptable, and the perceived level. A new conceptual model has been developed by integrating these three levels with the main distance model. The model identified seven gaps between suppliers and IT service users. The study indicated that there are two separate service factors including individual and IT service features for the three to four criteria evaluated in the proposed model. Moreover, it presented that the three-column SERVQUAL model is more efficient than the original model. Parasuraman et al. [19] experimentally used multiple scales to evaluate the quality of electronic services. This is an e-s-Qual quality assessment scale of electronic service which is provided through the website to customers. This approach has four general factors: efficiency, compliance, system availability, confidentiality. Most conducted studies on the quality of websites have focused on their dimensions. For example, the Web Qual measuring tool has twelve dimensions: work-relevant information, interaction, trust, response time, design, conjecture, appearance, innovation, flow, coherent communication, business process, and substitutability. This set of characteristics also has some limitations [20]. Yang et al. extracted the following model from the existing literature reviews and assessed it [20] (Fig. 1).

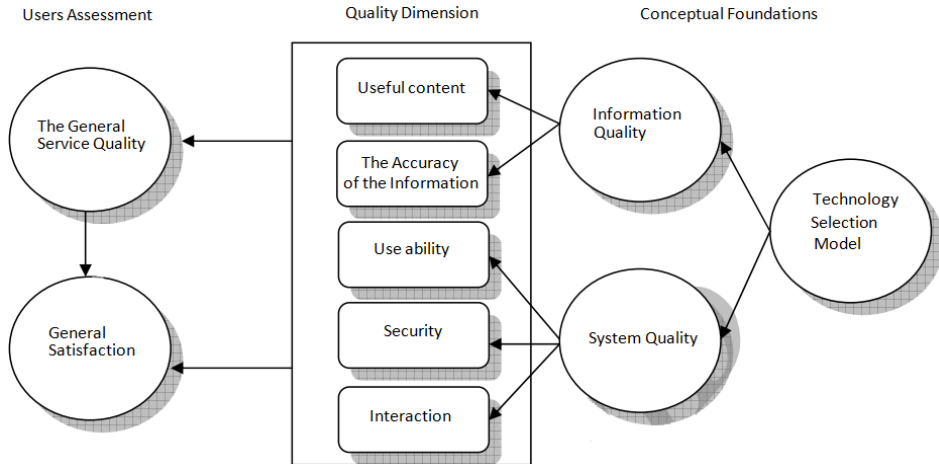


Fig. 1 Model Yang et al. [20]

Reichheld and Schefer state that customer loyalty plays an important role in online shopping which relies on the customer's satisfaction with the online seller [12]. Loyalty refers to the customer's frequent intention to purchase products or services through a particular online retailer. Loyalty is assessed through many behavioral criteria such as total share of purchase, repurchase, and probability of purchase [21]. Satisfaction is considered as the overall satisfaction of the service provider technology where online transactions have been conducted. Customer satisfaction is the key indicator of the company's profitability and market share and the company's financial health index. Satisfied customers tend to repurchase products, which increases the company's market share [22]. Customer loyalty is defined as the spent time to purchase similar products from a particular category relative to the total number of purchases made by the buyer in that category. Accordingly, maximizing loyalty and the long-term value of customer purchases are the most important goals of the website [11]. Internet loyalty known as electronic loyalty is in fact a developed form of traditional loyalty to explain online customer behavior. E-loyalty is defined as the desire to view and revisit a website or exchange in the future. Electronic loyalty is different from traditional loyalty and emphasizes customer loyalty in Internet-based business. Electronic loyalty is defined as the perceived desire to visit or reuse a website and purchase from that website in the future [22]. Zeithmal [22] defined website quality as the domain in which the Internet facilitates the use and effectiveness of purchasing, delivering real products, and completing the purchasing process. Jeon and Jeong (2017) [23] assessed the effect of the website services quality (efficiency, system accessibility, implementation, and privacy) on the satisfaction and loyalty of Internet customers. The relationships between variables of this research are shown in Fig. 2.

WebQual is a tool to assess user perceptions of service quality [24] which is based on Quality Function Deployment (QFD). QFD is a systematic and structured process that always determines and accepts the user needs at each stage of production, implementation, or development of information services. The use of QFD begins with the registration of user needs as the basis for determining quality needs. Understanding the customer language and its explicit and implicit desires is one of the most important concerns of this step in QFD. The determined quality criteria in QFD are presented to users and its feedback is received. Then

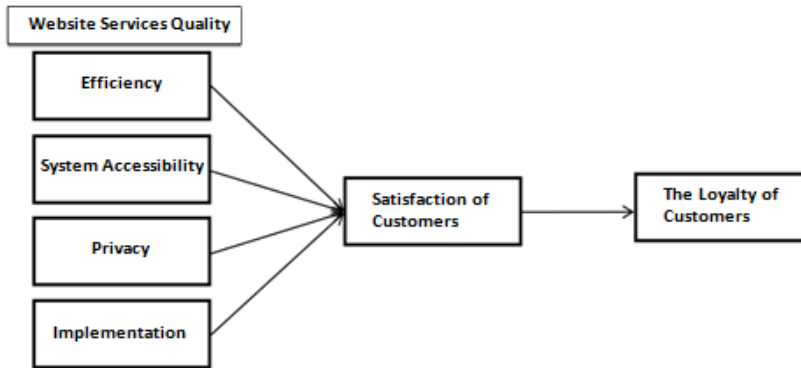


Fig. 2 Website Services Quality based on the Jeon and Jeong Concept Model [23]

the quality of a product or service is measured. Barnes & Vidgen (2005) [24] applied an online questionnaire with a modified list of criteria affecting website quality to evaluate the quality of four UK Business School websites. Fink & Nyaga (2009) [25] used WebQual guidelines to evaluate a website adding a dimension called risk. They assessed the quality of the websites of major public accounting firms by searching among potential employee opinions and analyzing data to build the best quality practices for public accounting websites. In this study, a modified WebQual questionnaire was used to evaluate the websites of six public accounting firms. Data analysis obviously displays the highest quality for the usability structure at all levels while the risk is a characteristic with the lowest quality level. This study applied multiple models (design knowledge, constructivism, and expediency). Dimensions included usability (learning, setting up services, ease of use, design appropriateness, competence, attractive appearance), interactivity (personalization, service search, credibility (reputation), search facilities, convenient communication, interactive efforts), information (level of detail, reliability, relationship, acceptability, useful to understand contents, appropriate format), risk (access security, communication security, transaction security, service delivery safety, information security, private criteria). The risk dimension is added and can be considered as the other three main WebQual. Findings are discussed using both statistics and researcher values. Webb & Webb (2004) [26], presented a conceptual model (Site-Qual) of factors affecting consumer perception of Business to Customer (B2C) websites. The fundamental hypothesis of the Site-Qual model consists of two main criteria: information quality and process quality. Information quality includes accessibility, content, proper presentation, display, and intrinsic quality. Process quality includes stability, responsiveness, reliability, empathy, and the quality of tangible system components. In another study, Davidson & Joan (2005) [27] presented a process model to evaluate the quality of e-services with the following features: 1. Website evaluation requirements 2. Management beliefs about customer requirements 3. Web design and implementation.

Golovkova et al (2019) [28] presented an e-service satisfaction model having features of: 1. Easy to use; 2. Resolution; 3. Consistency; 4. Composition and structure; 5. Content. The ACSI indicator (American Customer Satisfaction Index) provides an appropriate statistical model to predict customer behavior. There are indicators such as the probability of the customer returning to the website in the ACSI model. The statistical community is randomly selected from among the website visitors. Each website is categorized based on the views of

its visitors in different spectrums of satisfaction. Satisfaction indicators of ACSI are content, performance, site traffic, site performance, understanding, and searching any website, which will ultimately result in a score between 0 and 100 for the website. The main inputs are expectations, perceived quality, and perceived value, and the outputs are the main consequences of customer satisfaction, customer complaints, and customer loyalty in the ACSI model. The output of the ACSI model is developed based on the general marketing model. The immediate consequence of growing customer satisfaction will be a reduction in complaints and improvement in their loyalty based on this model. Therefore, two indicators of complaints and customer loyalty are determined as the output of the ACSI model [28]. The quality of website services plays a leading role in the success or failure of e-commerce. The quality of e-services refers to the overall evaluation and judgment of customers regarding the superiority of the quality of delivered service to customers in virtual markets. The superior quality services are provided to online customers, the more loyal they tend to stay to the service provider's website. The quality of Internet services also improves the level of customer satisfaction. Satisfied customers will also have more loyalty to the website [29].

3. BACKGROUND

Hasan and Abuelrub emphasized that for designing a comprehensive framework for evaluating websites, the dimensions of content, design, organization, and user-friendliness must be considered [30]. Yang et al. [31] in their study stated that active, helpful and useful links are important in website design. Using a conceptual model, Robbins SS [32] examined the structural and content characteristics of 90 business websites based on culture and type of occupation. The results showed that the websites studied were not significantly different in terms of structural features, but in terms of content, there was a significant difference between most of the content features of the websites in different cultural groups. McInerney, C. & Bird, N., *ibid.* [33] evaluated the quality of the content of genetically modified food web sites using the WQET tool. The results showed that in data retrieval, accessibility is the only considered feature of the quality of the website. Finally, a model was developed to evaluate the quality of websites. Hill et al. [34] looked at physics education websites for middle school. Using a checklist, they surveyed 285 school websites in Southern California for structure and content. The findings showed that most of the physics education websites are incomplete in terms of structure and content. Carlos and Vera Silva [35] have evaluated the websites of higher education institutions and have concluded that they must try yet to be able to play a role in today's competitive and competitive world. In his study, Sugak [36] examines the reasons why Russian universities' websites have a low rank. He found that the content of these websites did not have a good quality.

Many studies have been carried out in Iran on the websites of university libraries, from different aspects [37] [38] [39] [40]. These studies showed that Iran university libraries are of poor quality in terms of criteria such as home-page content [40] and up-to-date material and interlinks [38], and the performance of these websites is very different from ones in advanced countries [41]. Mohamadesmaeil S, Movahedi in their study stated that the websites of the National Medical Libraries of Iran were poor compared to the same websites in the United States in terms of criteria such as being up-to-date, efficiency and reliability of information [42]. Ahmadi N. and Hosseini (2014) [43] evaluated the websites of central libraries of Iranian state universities. The results showed that the highest score belonged to "trust" and the lowest score to "response time" in the "useful" dimension in all libraries studied. Parvin et al. [44]

conducted a study aimed at evaluating the quality of the Ministry of Sport and Youth Affairs' web site through a survey on 31 experts in sport media management using the analytical hierarchy process (AHP). The results show that the usability weight of the website of the Ministry of Sport and Youth is 0.62 and its attractiveness is 0.38, and the content of the website has the highest weight and interaction has the lowest weight. The research [45] evaluated the quality of the web sites of Iranian research institutes of medical sciences. The checklist used in this study consisted of 4 dimensions including content quality, design, organization and user-friendliness of the websites. In the websites surveyed in this study, on average, 81% of the content criteria, 85% of the design, 89% of organization and 77% of user-friendliness were satisfied, and the results of this study indicated that the websites of research institutes of Iran universities of medical sciences were at a good level in quality assessment. The results of the study by Karkin and Janssen [46] have shown that the websites studied are not satisfactory in terms of questions and answers, frequently asked questions and user interaction.

The research [47] evaluated the quality and ranking of Persian Websites in the field of diabetes (12 websites), based on Qualitative WebMedQual Scale, which included all Iranian Diabetes Websites in Iran. Persian diabetes websites have gained about 50% of the WebMedQual score and are generally in the Median level. These websites, with the score more than 50%, were ranked above average, in terms of 3 indicators including information content, design, and links. Their score was less than 50% in terms of other indicators such as source credibility, accessibility and usability, user support and confidentiality. Fathi [48] examined the quality of the websites of selected sports federations in terms of attractiveness and usability, according to students and graduates of physical education and sports sciences in Iran. The research was carried out through Internet using a questionnaire completed by 521 statistical samples. The findings showed that the websites of the selected federations were at a medium to low-medium level, both in terms of attractiveness and usability.

Kriemadis et al., 2010 [49] assessed the websites of Greek and English football clubs and presented many differences between these websites. The quality of the English club websites was superior to the Greek clubs by providing more marketing opportunities. Websites were also compared in terms of features such as information, communication, promotion, sales form, user information collection and website design. Gonzalez et al. (2015) [50] used Web Qual tools to evaluate the quality of sports websites and also applied the QFD approach. They analyzed the customers' websites of the most popular and famous teams including Barcelona, Manchester United, Liverpool, and LA Galaxi. The results displayed that the official website of Barcelona overtook its competitors in providing highly qualified services. Also, this website had a higher average in terms of information appropriateness, being up-to-date, and beautiful design from customers' perspective. Di Fatta et al. (2016) [51] assessed and classified the quality dimensions of the virtual education website of a university-based on a combined model of WebQual and Kano satisfaction. The standard WebQual 4 questionnaire was used as the research tool. A multiple regression analysis statistical test was applied to assess the effect of asymmetric performance. Pamučar et al. (2018) [52] evaluated the performance of websites in several organizations using AHP method. They prepared a list of the most important criteria for evaluation and the weight of each criterion calculated by AHP method. Choi and Kim (2019) [53] evaluated e-commerce websites using the AHP and Servqual models, focusing on service provided by mobile operators and improving their services. Singh & Prasher (2019) [54] conducted a similar study on the development of a service quality model in the field of hospital web portals based on the same model (AHP and Servqual). Efe (2019) [55] applied a combination of TOPSIS and Servqual models

for the evaluation and improvement of website quality. They prioritized the quality evaluation criteria to provide improvement solutions.

Numerous studies have been conducted in the field of website evaluation. Also, several approaches have been applied to measure the quality of websites and assess their structural and content features, including determining factors, link analysis, and the quality website evaluation using various tools. The literature review indicated that there is no conducted study on evaluating websites related to mobile phone repair technicians which highlight the importance of current research.

4. RESEARCH METHOD

In terms of purpose, this research is in the category of applied research and in terms of data collection method is in the category of descriptive-survey research. In this research, a random sampling method is used for sampling. The questionnaires are printed and offline in the summer of 2020 for mobile phone repair technicians in Birjand city in South Khorasan province (Iran). After collecting and reviewing the questionnaires, finally, 100 questionnaires were analyzed. In this study, the standard quality questionnaire of Rosenbaum website (2005) was applied which has 58 questions in 11 dimensions (Routing, Information, Delivery, Apparent Features, Security, Reputation, Society, Entertainment, Provided Goods and Services, Reliability, and Trust) to collect data. A five-point Likert scale (from 1 strongly disagree to 5 strongly agree) was used in the questionnaire. Having used the opinion of professors and experts in the field of web and management, the face validity and content of the questionnaire were confirmed. Moreover, its reliability was obtained using Cronbach's alpha method (0.841). Rosenbaum's model has several advantages in terms of theoretical foundations. It considers all the sections about the quality of a website and covers all the sections of the user's intuitive understanding. This model that was used in our research also had the necessary reliability. SPSS and Excel software were used for descriptive statistics, and also for inferential statistics to analyze the data obtained from the questionnaires. The questionnaire used in the study has been applied in other works, including [56] and [57].

5. DESCRIPTIVE FINDINGS

Frequency distribution of the subjects was 89 (89%) male and 11 (11%) female, 45 people (45%) from whom were single and 55 (55%) married. The frequency distribution of the study population is shown in Table 1; as can be seen, 38 subjects (38%) were 25 years old or younger, 44 (44%) were 26-30 years old, and 18 (18%) were older than 30 years.

Table 1 Distribution of Absolute and Relative Frequency of the Studied Subjects by Age

Age	Number of Respondents	Percentage
25 years and younger	38	38
26-30 years	44	44
Older than 30 years	18	18
Total	100	100

The education level of the study population was as follows: 40% of the subjects of those studied had middle school degree or diploma, 15% had an associate degree, and

45% had a bachelor's degree or higher. Table 2 shows the frequency distribution of the study population in terms of income per month.

Table 2 Distribution of Absolute and Relative Frequency of the Study People by Monthly Income

Income (per month)	Number of Respondents	Percentage
800,000 tomans and less	31	31
800,000-1500,000 tomans	42	42
More than 1500,000 tomans	27	27
Total	100	100

As the table above shows, most of the study population income (42%) ranged between 800,000 tomans (\$1=13000 tomans) to one million five hundred thousand tomans monthly.

Years of working and experience in the mobile market is one of the most important dimensions to use and get acquainted with above mentioned websites which is distributed in accordance with Table 3.

Table 3 Distribution of Absolute and Relative Frequency of the Individuals Surveyed by Years Working in the Field of Mobile

Percentage	Number of Respondents	Experience
1-2 years	33	33
3-4 years	32	32
5-6 years	20	20
More than 6 years	15	15
Total	100	100

As the table above shows, the highest frequency (33%) was for people with 1-2 years of work in the field of mobile and the lowest frequency (15%) was for people with more than 6 years of work in the field of mobile. In terms of descriptive indicators, the quality of the considered web site was in accordance with Table 4.

Table 4 Descriptive indices related to the GSMHOSTING website quality variable as a whole and its components (with a range of 0-5)

Variable	Mean	Standard deviation	Median	Mode
Routing	3.55	0.32	3.40	3.40
Information	3.93	0.18	3.94	4.00
Delivery	4.20	0.24	4.17	4.33
Apparent Features	2.44	0.34	2.50	2.50
Security	3.57	0.29	3.50	3.50
Reputation	4.47	0.21	4.40	4.40
Society	4.23	0.33	4.25	4.25
Entertainment	4.11	0.36	4.00	4.00
Provided goods and services	3.77	0.32	3.83	3.83
Reliability	3.83	0.34	3.80	3.80
Trust	4.28	0.23	4.25	4.25
Website quality as a whole	3.87	0.12	3.89	3.91

As the table above shows, according to the users' viewpoints, the highest mean of quality score for the GSMHOSTING website was related to the reputation component (4.47 ± 0.21) and the lowest mean was for the apparent features' component (2.44 ± 0.34). The mean score of the quality of the GSMHOSTING website was 3.87 ± 0.12 , in terms of subjects' viewpoints.

6. INFERENTIAL FINDINGS

Inferential findings, the viewpoints of mobile phone repair technicians referring to this website in Birjand, South Khorasan province (Iran) were in accordance to Table 5.

Table 5 Comparison of the mean scores of the surveyed people regarding the quality of the GSMHOSTING website as a whole and its components by gender

Variable	Gender	Mean	Standard deviation	t	df	p
Routing	Male	3.56	0.33	1.24	98	0.22
	Female	3.44	0.22			
Information	Male	3.93	0.18	0.38	98	0.70
	Female	3.95	0.15			
Delivery	Male	4.21	0.25	1.12	98	0.27
	Female	4.12	0.17			
Apparent Features	Male	2.45	0.34	1.03	98	0.02
	Female	2.34	0.30			
Security	Male	3.58	0.29	1.06	98	0.29
	Female	3.48	0.34			
Reputation	Male	4.47	0.22	0.35	98	0.73
	Female	4.49	0.10			
Society	Male	4.21	0.34	1.23	98	0.22
	Female	4.34	0.26			
Entertainment	Male	4.09	0.36	1.04	98	0.30
	Female	4.21	0.31			
Provided goods and services	Male	3.77	0.31	0.18	98	0.86
	Female	3.79	0.35			
Reliability	Male	3.81	0.34	1.55	98	0.12
	Female	3.98	0.26			
Trust	Male	4.27	0.23	0.31	98	0.76
	Female	4.30	0.22			
Website quality as a whole	Male	3.87	0.12	0.12	98	0.91
	Female	3.87	0.08			

The result of independent t-test in the above table shows that the mean score of the surveyed subjects' viewpoint regarding the quality of the GSMHOSTING website as a whole and its components was not significantly different by gender ($p > 0.05$).

However, the mean score of physical features was significantly different ($p = 0.20$) in the studied subjects. To determine which difference was significant for these groups, Tukey's Pairing post-hoc test was used. The result showed the mean score of apparent features of females was significantly higher than men ($p < 0.05$).

Table 6 Comparison of the mean scores of the studied people viewpoints regarding the quality of the GSMHOSTING website as a whole and its components by education level

Variable	Level of Education	Mean	Standard deviation	F	df	p
Routing	Middle school degree and diploma	3.55	0.33	0.03	(97,2)	0.03
	Associate Degree	3.53	0.34			
	Bachelor's degree and higher	3.56	0.51			
Information	Middle school degree and diploma	3.93	0.18	0.01	(97,2)	0.99
	Associate Degree	3.93	0.17			
	Bachelor's degree and higher	3.93	0.19			
Delivery	Middle school degree and diploma	4.16	0.22	2.48	(97,2)	0.09
	Associate Degree	4.32	0.18			
	Bachelor's degree and higher	4.19	0.27			
Apparent Features	Middle school degree and diploma	2.39	0.34	1.56	(97,2)	0.22
	Associate Degree	2.38	0.36			
	Bachelor's degree and higher	2.51	0.32			
Security	Middle school degree and diploma	3.61	0.25	1.01	(97,2)	0.37
	Associate Degree	3.57	0.31			
	Bachelor's degree and higher	3.52	0.32			
Reputation	Middle school degree and diploma	4.49	0.14	0.30	(97,2)	0.74
	Associate Degree	4.45	0.14			
	Bachelor's degree and higher	4.46	0.28			
Society	Middle school degree and diploma	4.18	0.40	0.76	(97,2)	0.47
	Associate Degree	4.25	0.16			
	Bachelor's degree and higher	1.26	0.31			
Entertainment	Middle school degree and diploma	4.05	0.44	1.08	(97,2)	0.34
	Associate Degree	4.20	0.25			
	Bachelor's degree and higher	4.13	0.30			
Provided goods and services	Middle school degree and diploma	3.77	0.30	1.31	(97,2)	0.27
	Associate Degree	3.89	0.29			
	Bachelor's degree and higher	3.74	0.34			
Reliability	Middle school degree and diploma	3.82	0.37	0.40	(97,2)	0.67
	Associate Degree	3.91	0.27			
	Bachelor's degree and higher	3.82	0.33			
Trust	Middle school degree and diploma	4.26	0.25	0.62	(97,2)	0.54
	Associate Degree	4.33	0.18			
	Bachelor's degree and higher	4.27	0.23			
Website quality as a whole	Middle school degree and diploma	3.86	0.11	1.03	(97,2)	0.36
	Associate Degree	3.91	0.10			
	Bachelor's degree and higher	3.87	0.12			

The result of the one-way ANOVA test in the table above shows that the mean score of the views of the study subjects regarding the quality of the GSMHOSTING website as a whole and its components was not significantly different based on the education level ($p > 0.05$).

However, the mean score of route determination in the studied subjects was significantly different in terms of education degree ($p = 0.03$). To determine which difference was

significant for each of the groups mentioned, Tukey's post-hoc test was used, which shows the mean score of rout determination of those with a middle school degree or diploma was significantly higher than those with a bachelor's degree or higher ($p < 0.05$).

7. DISCUSSION AND CONCLUSION

Hypothesis 1: The Quality of a Website Depends on the Gender

Cell phone repair technicians, also called support specialists, are primarily concerned with repairing and troubleshooting parts when they break down or malfunction. Since most mobile phone repair technicians are men and the population of female technicians is much smaller, and the interest and ability of men in technical work is higher, it has caused that most of the population of this group are men (in this the frequency of research for women who use the site is about one-eighth of men), and most users of the website are men. Except for the component of characteristics, there is no significant difference in this study between the sexes of men and women in other components. The site's appearance was less detailed from the women's point of view, and the men's view of the site's features was more superficial than the women's. So in this website, more attention should be paid to appearance features based on men's views.

Hypothesis 2: The Quality of a Website Depends on the Age

There is no significant difference between different ages and components, so the site does not require changes in the investigated components.

Hypothesis 3: The Quality of a Website Depends on the Income

Since almost no site customers have a certain income, then the site must comply with all of their requirements, both low-price and high-price products. Although, the number of high-income customers is lower than the average total income of customers, the site should focus on offering cheaper products as well as seasonal incentives and discounts.

Hypothesis 4: The Quality of Website Depends on the Education

Web site customers with various degrees purchase from the site, so practically, education doesn't really have much impact on the components of the web site. Because, in fact most of the site's customers are mobile phone repair technicians with at least a diploma and they have learned their technical knowledge from companies in special education and vocational classes. But the routing for those with an associate degree or higher is different from those with diploma and middle school degree, so the site must be modified to enhance the routing for all of its clients regardless of literacy level.

CONCLUSION

Websites play a key role in disseminating information. The most important goal of any website is to provide information that meets the expectations of users. Website evaluation methods are used to more accurately identify and control the content produced on websites. Evaluating websites based on principles and standards and using valid scientific tools seems to be essential. Each website evaluation method has its own characteristics that can be used in evaluative research according to the conditions and objectives of evaluation. Users go to websites to meet their needs. When a website is of good quality it provides users with easy use of the site. This will attract the user and increase the time of using the site which ultimately encourages the user to use the

website, as well as buy from that site. The higher the quality of the website, the easier and more useful it is to use the site; As a result, the user's desire to stay and use the site increases and people gain trust and the probability of buying will increase. In today's marketing, retaining existing customers costs less than attracting new customers; therefore, all actions should be planned to improve the quality of website performance; to satisfy the user and turn him into a customer. If the user interface of a website is very neat and carefully designed, in addition to making the user a customer; it can make him a regular and loyal customer. Many people who search for a problem on the web do not even know enough about the features of their question or the answer they are looking for. They hope to find the answers they want by going to different websites and getting answers to the questions they have in mind. This brings a lot of time and money for many people. The existence of GSMHOSTING website plays an important role in communicating and providing services to users in the field of mobile and electronic and smart device repairs. Through this website, people can share their knowledge, information and experiences related to products and services with other people. Most mobile phone repair technicians use this website as a reference, so this website has great potential and can become one of the largest markets in the world in the field of mobile and smart devices. According to the results of this study, users' satisfaction with the site is high, but there are shortcomings in the appearance and Routing of the site. Their acceptability should also be considered and by more careful review and also general changes in these components can increase site performance. The administrators of this website are advised that in addition to making changes in the appearance of the website, by creating personal pages in social networks, interaction and communication between potential users, as well as past users are possible. Appearance is one of the most important factors in user satisfaction. Even if a website offers the best products, if you cannot display site graphics and quality images of your products, it will not be very successful in attracting user satisfaction. The appearance of a website introduces the brand of that website. Users understand the features better. By creating attractive appearance features, users will trust the website more. The mean score of the subjects' views on the quality of this website as a whole and its components did not differ significantly in terms of gender, age, income, education level, number of households and marital status, but the mean score of physical characteristics in the subjects. There was a significant difference in terms of gender and the mean score of physical characteristics of females was significantly higher than males in this study. The Routing score of people with a cycle and diploma degree was significantly higher than that of people with a bachelor's degree or higher. Comparison of the results of this research with other in terms of website quality shows that in most cases the obtained results are consistent [58-63]. None of the marketing and advertising strategies will be effective if users are not satisfied with the quality of the website. Brands that do not try to satisfy their users may disappear very soon. For this reason, many webmasters try to check the quality of their sub-websites at different times. In fact, users are the focus of a business and the existence of a successful website. Low quality website support and customer service in the long run creates more costs for the webmaster. Users are the focus of any business, users trust websites that provide up-to-date information and are up to date with the latest technologies. When users are satisfied with the quality of a website, they are more likely to return to that site. To strengthen the public image of the website in cyberspace, observance of the rules related to the ranking of the website should be considered so that users can without the need for a precise website address and simply by

entering the words related to mobile phone repair to the website link in the initial search engine results reach. According to the research findings, it is recommended that the website's hands-on-the-business practitioners in this research provide promotion of their website, according to scores earned in each section and identify the weaknesses of the website. This study suggests future researchers pay more attention to partnership factors as well as factors related to the technology acceptance model and fuzzy-based website quality assessment methods [64-66]. Also, the application of other models for evaluating the quality of website services can test the reliability of the results of this research.

The researcher faced some limitations due to the small sample size. The results will probably be more accurate if there was a larger sample size. The present study was conducted on the quality of the GSMhosting.com [67] website among mobile phone technicians in Birjand in South Khorasan province in Iran. The generalization of the results of this study to other mobile phone technicians should be cautiously taken place with sufficient knowledge. More importantly, this research considered mobile phone repair technicians in Birjand, eastern Iran; thus, it is not possible to generalize to the whole community of mobile phone repair technicians in Iran. Another limitation of this study was the lack of similar research on the quality of the website from the perspective of mobile phone repair technicians to compare the results. It is recommended to evaluate the quality of other websites related to the field of mobile phones such as GSM Lover.com, Howardforums.com, Cent.com, Cellphoneforums.net, Androidcentral.com, imore.com, XDA-Developers.com in future research to provide a comprehensive and complete review and comparison in this regard.

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