

## **A Comparative Evaluation of Iran's Ministry of Interior Website against Those of Countries Identified by the World Bank and IMF: Employing WQET Quality Assessment and Proposing a Novel Model**

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### **Abstract**

This study aims to evaluate the quality of Iran's Ministry of Interior website by comparing it with the websites of countries recognized by the World Bank and the International Monetary Fund (IMF), employing the Website Quality Evaluation Tool (WQET). We examined one hundred websites using WQET, encompassing nine criteria: content, functionality, currency, coverage, graphics, links, authority, style, and meta-tag use. This was affirmed through the validity of the interface-content tool (Cronbach's Alpha score of 0.91). The study revealed that Iran's Ministry of Interior website ranks 17th among the countries surveyed, positioning it robustly. The US Interior Ministry's website ranked first, followed by those of Germany, Belgium, Taiwan, Qatar, and Finland, all demonstrating excellent quality. Website designers focus predominantly on coverage, content, style, and graphics of the nine criteria under examination, leading to generally good ratings. However, the functionality and links criteria were rated average, while authority, currency, and meta-tag use were judged weak. Iran's Ministry of Interior website must focus on enhancing the factors influencing the overall quality to improve its standing. It is recommended to employ WQET to evaluate the websites of provincial governorates, organizations under the Ministry of Interior, as well as other government and non-government organizations with similar websites globally, in a bid to elevate the quality and accessibility of their online platforms.

**Keywords:** Website Quality, Quality Evaluation Tool (WQET), Ministry of Interior, Iran.

### **Introduction**

One of the characteristics of information society is "public access to information". Developing new information and communication technologies provides unique opportunities

for public and equal access to scientific information and data and increases the global stock of knowledge. Many worldwide believe that acceleration and education in exchanging knowledge and information through communication and information technologies will play a key role in achieving development, human resource development, sustainable development, and a society based on knowledge and information. It will be a model of sustainable development (Aghili, 2005).

The pervasive expansion of cyberspace has transformed the dissemination of information via the internet into a priority for both governmental and private institutions. This priority is particularly pronounced in organizations that emphasize stakeholder engagement. In the Fourth Development Plan of the Islamic Republic of Iran, the implementation of e-governance has been highlighted, with various components of the Fourth Development Law reflecting this focus (Management and Programming Organization, 2014). An organization's website should distinctly mirror its endeavors to maintain the quality standards of its domain, as it can establish a profound connection with its visitors. Modern websites demonstrate various dimensions, intricate structures, and diverse products and services. Evaluating the efficacy of these websites is a critical element of all information systems, aiding their development and application. This process, in turn, promotes user satisfaction and optimizes investment resources (Rocha, 2014). The Ministry of Interior has consistently played a crucial role in the political and social evolution of the country, making it a focal point of attention. With the aid of social and political activists and the views of parties, groups, and public institutions, the ministry has strived to facilitate the political development process in the country. This role, alongside the ministry's sanctioned duties and a wide range of responsibilities, has transformed it into an agency vital in administering the nation's socio-political and security affairs.

In this study, the choice of the Ministry of Interior, one of the largest executive agencies across the country and a potent arm of the Islamic Republic of Iran government, was deliberate. One of its essential tools in the information exchange process with stakeholders is its website, and we are evaluating this platform as significant for our research. The Ministry of Interior, represented by governorates in all 31 provinces of Iran, serves as the empowered central government representative. This ministry oversees various subordinate organizations, such as the National Organization for Civil Registration (NOCR), the Crisis Management Organization, the Police, the Iranian Rail Transportation Company, the Asian Center for Earthquake, Iran's Municipalities and Village Administrations Organization (IMO), and numerous other offices.

An integral part of the Ministry's functions is the administration of elections at various levels, including the timely dissemination of electoral bulletins to observers. Foreign migrants are informed about residency-related news and announcements via the Ministry's website. News agencies, digital news platforms, and newspapers also utilize the website to access information from the Ministry, governorates, and its affiliated organizations. Political parties, professional associations, Non-Governmental Organizations (NGOs), Islamic City and Village Councils (local parliaments), information about country divisions down to the district level, various rules and regulations within the Ministry's purview, and updates on the presence of pilgrims at holy shrines during specific periods such as Arba'een, are all provided through the Ministry of Interior's website. Additionally, the services offered by the Performance Management and Inspection Center, which has a nationwide reach and is performed electronically, is among the Ministry of Interior's tasks. This all underlines the essential nature of the Ministry of Interior and its website, and one of the Ministry's ongoing concerns is

optimizing its website to increase its impact on users and efficiently execute its legal duties.

In this paper, the researcher aims to examine different sections and subsections of the Ministry of Interior's primary web pages comparatively. The objective is to study case examples from various countries worldwide and evaluate their functionality to respond to the issue comprehensively. Based on this comparative analysis, the researcher intends to offer suggestions for the Ministry of Interior's website.

### **Literature Review**

Hassanzadeh and Navidi (2009) consider accessibility as one of websites' most important pillars and prerequisites to provide optimal services to users and audiences. This study states that due to the introduction of e-government, the importance of accessibility in government websites has become more apparent. Dragulanescu (2002) underscored in his research the importance of paying attention to the quality of websites due to the rapid speed of information provided on the internet, compared to information disseminated elsewhere. He stressed the necessity of understanding to what extent these sites meet the users' needs. Mcinerney and Bird (2005) engaged in a discourse on retrieving information concerning genetically modified food on the web, emphasizing the importance of accessibility as the sole attribute mentioned for website quality in information marketing. They posited that the Website Quality Evaluation Tool (WQET) is an invaluable instrument that can be utilized to ascertain website credibility across different topics. Noruzi 's (2005) study revealed a scarcity of links provided to Iranian university websites. He suggested that factors such as appropriate information, attractiveness, and the presence of an English language version should be considered in designing university websites to enhance the frequency of links to these sites. The websites of national and international librarianship and information associations and institutions have been studied using the webometric method (Osareh, Heidari & Farashbandi. 2007). This study analyzes total links, received links, co-links, the number of pages of each website, and the impact factor of these websites to evaluate the level of visibility, influence, and group, national, and international cooperation between library and information associations, and were analyzed. Osareh and Papi (2008) discovered in their research that audience features and website goals, loading, and structure stability were satisfactory among the studied websites. Search ease, graphics, the availability of the author's scientific background, and a defined aim for the information scope were of average standards. However, the currency of the content and internal links were below par. Their website ranking showed that the libraries for the Iran University of Science and Technology and Mazandaran University scored highest, garnering 82 out of 82 points. Following these were the University of Tehran library websites, Imam Sadegh University, Gilan University, and Tarbiyat Modares University.

In their study, Michail and Anastasius (2009) evaluated the quality of ten pharmacy websites across ten European countries, using 13 criteria. Their assessment revealed that most of these countries' websites exhibited satisfactory quality. Haneefa and Venogopal (2010) analyzed the content of national library websites in Asia, investigating 28 websites (in English) based on general website information, library collection, services, sections, Web 2.0 applications, and links. Their research indicated that nearly half of the websites (46.4 percent) adhered to the general information standards. Regarding adherence to link standards, approximately 57.1 percent are linked to other libraries, and only three websites (10.7 percent) are linked to new library updates. Almost all the websites furnished suitable information

regarding the library collections (including digital resources, books, and audiovisual resources).

In their research, Hasan and Abuelrub (2011) evaluated the quality of websites based on four dimensions: 1. Content Quality, which encompasses factors such as being up-to-date, topical relevance, accuracy, purpose, and credibility; 2. Design Quality relating to aesthetic appeal, color scheme, layout, multimedia integration, and text quality; 3. User-friendliness quality, usability, interactivity, privacy preservation, and adaptability; 4. Organizing Quality considers website features like indexing, sitemaps, stability, hyperlinks, logos, and domains. The findings revealed that, regarding their relevance to overall website quality, content quality, and user-friendliness, quality held the most significant shares at 29% and 31%, respectively, followed by design quality at 23% and organizing quality at 17%.

In another study, Jati (2012) measured the quality of e-government websites from five Asian countries using online web diagnostic tools. The research model employed a blend of excellence models and the Analytical Hierarchy Process (AHP) to generate criteria weights. Excellence models assist organizations in optimally fulfilling societal and customer needs. Organizations require a structured and reliable method to compare themselves with competitors and make informed decisions based on comparison results. The countries studied were Korea, Hong Kong, Singapore, Japan, and Malaysia. The criteria for evaluating website quality included availability, security, and cultural factors. Korea's e-government website had the highest quality score, followed by Hong Kong, Singapore, Japan, and Malaysia in descending order. The application of excellence models demonstrated their potential to solve complex decision-making problems in web analytics.

In their study, Mardaninejad, Farhadi, Khanjani, and AmiriMoghadam (2013) endeavored to scrutinize the quality of websites associated with global medical universities' virtual learning environments. Their research offers a comprehensive perspective on the implementation and quality of these websites, focusing on those belonging to Iranian medical universities. Through this investigation, the researchers meticulously analyzed these websites concerning the total volume of hyperlinks, overall web influence, and the inherent quality of the sites themselves, thereby providing an overarching representation of their current status.

Radad & Haghshenas (2013) conducted research to assess and determine the quality of criteria such as clarity of objectives and audiences, functionality, currency, authority, and navigation on the websites of Iran's public publishers using the WQET model. The study population consisted of the top 38 publishers of the year 2010. The results indicated that the functionality criteria and the navigation of internal links to logical outcomes were at an "excellent" level, the clarity of website objectives and audiences and currency were at a "good" level, and authority was at a "moderate" level.

The research conducted by NooriAfkand, Motallebi and Alipur Hafezi (2013) revealed that over 60% of the studied websites were assessed to be moderate to strong in terms of content quality, with over 80% garnering similar ratings in functionality. From an authority standpoint, all websites examined were considered moderate or above. A mere 8% were identified as strong in terms of their currency. Performance in terms of links was deemed moderate to 53% of the websites, whereas 47% obtained weak or very weak scores. Over 90% of the websites' graphic performance was evaluated as above average, while over 93% were rated as strong in style. Meta-tags were assessed as excellent in 46% of the websites, while about 54% were deemed weak.

Papi and Abazari (2014) evaluated 34 national library websites in their study. The results

demonstrated that the examined websites highly observed factors such as audience addressing, website objectives, ease of search, loading speed, currency, graphics, the scientific background of individual and institutional creators, coverage, and web structure. With a score of 80, Singapore's National Library secured the top rank, while Laos, with a score of 36, was at the bottom of the list. The National Library of Iran ranked sixth with a score of 76, indicating a trustworthy website.

Tabatabaei Amiri and Khaleghi's (2014) study evaluated the quality of Persian-language websites in the specialized field of women and family in terms of their influence on women and family culture, using the WQET quality evaluation tool. Findings showed that out of 100 websites examined, 19% received an excellent rating, 35% received a superior rating, 21% had a good rating, 20% had a fair rating, and only 5% of the websites were problematic. Overall, the results indicated a relatively satisfactory performance by designers and operators of Persian-language websites in the specialized field of women and families, with over half of the studied websites at an acceptable standard.

According to the research findings of Teimouri, Khoshnafs and Nabizadeh (2015), the quality assessment of 31 websites belonging to all public library departments affiliated with the institution of public libraries of Iran revealed that the Isfahan province's website (with a 56% score) outperformed those of other provinces. The Kurdistan province's website (with a 23% score) had the lowest quality measurement. All evaluated websites fell below average regarding functionality, graphics, coverage, and style. For other criteria, the websites of most provinces were found to be in a poor state.

### **Historical Overview**

Given the critical role of websites in disseminating information and providing electronic services and the increasing proliferation of portals and information platforms, a more extensive qualitative assessment of these websites is more necessary than before. The ongoing concern of users regarding the trustworthiness of the news, information, and statistics provided by these sites underscores the value of the Web Quality Evaluation Tool (WQET), an essential instrument in website evaluation, rendering its application increasingly imperative. Further research is warranted to identify reputable websites across various domains. Paying close attention to government institutions' websites and evaluating their quality is an undeniably crucial task due to the nature of their services. Considering the significant role and status of the Ministry of Interior as the primary ministry in Iran, coupled with the need to compare it with similar websites in other countries, a study of this nature is necessary. This research attempts to address this pressing requirement.

Given the importance of websites for informational knowledge and electronic services, the growing number of portals, and the increasing reliance on the news and statistics published on them, the necessity for their quality evaluation is more pronounced than ever. The users' heightened apprehensions concerning the confidentiality of this news and the prominence of WQET as one of the primary tools in assessing websites make these websites highly noteworthy. It appears that more research in this field should be carried out. Considering the governmental websites and evaluating their quality based on the services they offer to users is undeniably crucial. Furthermore, considering the Ministry of Interior as one of the main ministries in the country, studying and comparing it with similar websites of other countries can justify undertaking such a study.

With this in mind, the current research aims to compare the website of Iran's Ministry of Interior based on nine criteria: contact, functionality, currency, coverage, graphics, links, authority, and the use of meta-tags, with the websites of other countries.

### Materials and Methods

This study is basic in terms of its purpose, descriptive in terms of methodology, and comparative survey in terms of data collection. The statistical population of this research includes all websites identified by the World Bank and the International Monetary Fund. According to World Bank statistics, member countries count 205 and 187 are IMF members. Besides one country, the rest are the IMF and the World Bank members. Of these countries, 106 hosts a Ministry similar to Iran's Ministry of Interior in its scope of duties, all of which have been leveraged as accessible samples in this study. However, these were exempted from the analysis due to internet access restrictions regarding six countries' websites and the fact that they remained inaccessible to the researcher despite employing workaround tactics such as changing IP addresses. Consequently, the websites of 100 countries were included in the statistical population and the final analysis.

The research data was collected using a WQET checklist (Mcinerney & Bird, 2005). This tool evaluates nine criteria: content, functionality, authority, currency, links, graphics, style, coverage, and meta-tags. It comprises 35 questions (components) rated on a 7-point Likert scale (1-7) and four binary (yes/no) questions (scored 1-7).

The quality score, derived from these nine criteria, ranges from 1-7 for various sub-criteria. The scores for three criteria – content, functionality, and authority – are doubled to emphasize their importance. Here, 'content' pertains to the website's materials' intellectual substance, freshness, and clarity. 'Functionality' signifies ease of use and search capability, while 'authority' refers to the credibility of the author or the supporting organization of the website. Evaluating these factors reflects website quality specialists' collective attention to quality aspects. The potential score range for any website varies from 50 (minimum) to 82 (maximum). Moreover, websites using meta-tags for subject indexing receive 5 points to their total score.

It is worth noting that the websites evaluated in this study have been standardized with the available scores in the tool, ranging from 50 to 82. Standardization was achieved using the following formula (Osareh & Papi, 2008):

$$A = (X \times 82) / Y$$

Where:

A = website under consideration

X = score of website A

Y = score of the highest-scoring website

In this study, Cronbach's alpha was used to assess the reliability of the WQET checklist. Based on 40 questions across 100 studied countries, as announced by the World Bank and IMF, the results indicated a Cronbach's alpha of 0.91, showcasing the tool's high reliability.

In this ranking, scores are interpreted as 1 (very weak), 2 (weak), 3 (below average), 4 (average), 5 (strong), 6 (very strong), and 7 (excellent).

Given the number of components and the Likert scale range incorporated into this seven-point tool, the average score is 5.71. After obtaining the average score for each website in each component, these averages will be compared to the following predetermined ranges. If the average score falls within 5-5.71, that feature of the website is classified as excellent. If the

score is between 4-4.99, it is classified as good. If it's between 3-3.99, it is classified as average. If it's between 2-2.99, it's considered below average; if it's between 1-1.99, it is deemed very poor. The websites will be ranked at the end of the study according to the primary objective of the research.

### Research Question

How do the websites of the Ministry of Interior (MI) of Iran and the countries announced by the World Bank and IMF fare in terms of content, functionality, authority, currency, links, graphics, style, coverage, and use of meta-tags, as per the WQET?

## Results

### 1. Content

Out of the 100 websites analyzed (Table 1), 33% (33 countries) ranked top in terms of content, followed by 24% (24 countries) with a medium rank. 20% (20 countries) ranked very strong, while 11% had a medium-weak rank. Only 8% ranked excellent in terms of content among all the websites.

### 2. Functionality

Out of the 100 websites analyzed (Table. 1), 28% (28 countries) had a medium-weak functionality, and 25% (25 countries) ranked medium. 16% (16 countries) were weak regarding search ease, and 15% were very weak.

### 3. Authority

Out of the 100 websites analyzed (Table 1), 25% (25 countries) ranked very weak in terms of authority, and 24% (24 countries) were medium-weak or weak in the demonstration of scientific background. A further 14% (14 countries) ranked medium.

Table. 1

Frequency percentage of the examined criteria of Interior Ministries of countries

Ranking Scale	Excellent	Very strong	strong	Medium	medium / Weak	Weak	Very Weak
Components	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage
Content	8	20	33	24	11	4	0
Functionality	1	7	8	25	28	16	15
Authority	6	2	5	14	24	24	25

### 4. Currency

Out of the 100 websites analyzed (Table 2), 29% (29 countries) were ranked as very weak in terms of currency, while 23% (23 countries) were medium. 12% (12 countries) ranked as medium-weak.

### 5. Links

Of the 100 websites analyzed (Table 2), 36% (36 countries) ranked medium-weak in links criteria. In contrast, 25% (25 countries) ranked strong, 20% (20 countries) ranked very strong, and 17% ranked weak. Only 9% ranked medium among all the countries' websites in this

category.

## 6. Graphics

Of the 100 websites analyzed (Table 2), 27% (27 countries) ranked top in graphics criteria. 20% (20 countries) ranked as weak-medium, 14% (14 countries) ranked as medium, and 13% were very strong.

Table 2

*Frequency percentage of the examined criteria of Interior Ministries of countries*

Ranking Scale	Excellent	Very strong	strong	Medium	medium/Weak	Weak	Very Weak
Components	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage
Graphics	9	13	27	14	20	10	7
Currency	6	10	11	23	12	9	29
Links	3	4	25	9	36	17	6

## 7. Style

From the evaluation of 100 websites of different countries, as depicted in Table 3, it was found that 30% (representing 30 countries) exhibited a high style quality, while 22% (22 countries) showcased a very high-quality style. At the same time, 20% (20 countries) had a moderate style quality, and impressively, 11% demonstrated an excellent level of style.

## 8. Scope

According to the results (Table 3), out of 100 websites reviewed from various countries, 44% (44 countries) showcased a very strong level of coverage quality and range of information. On the other hand, 15% (15 countries) demonstrated an excellent quality of coverage. Interestingly, 12% (12 countries) displayed a range of quality from moderate to very weak in their coverage and information scope.

## 9. Use of meta-tags

From the 100 websites of different countries examined, only 38% (38 countries) effectively used meta-tags and received a total score. However, it was found that 62% of the countries had not used meta-tags.

Table 3

*Frequency percentage of the examined criteria of Interior Ministries of countries*

Ranking Scale	Excellent	Very strong	strong	medium	medium/Weak	Weak	Very Weak
Components	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage	Frequency percentage
Style	11	22	30	20	4	8	5
Coverage	15	44	9	12	4	4	12
Use of meta-tags	38						62



From the nine criteria and 40 components examined in this study for the quality assessment of the Ministry of Interior (MI) websites of the studied countries (Table 4), it was found that the coverage component had the highest frequency rate at an excellent level (15%). This suggests that website designers emphasize defining the scope of information. Following the coverage, the style criterion accounted for 11%, graphics for 9%, content for 8%, authority and currency for 6%, links for 3%, and functionality for 1% at an excellent level.

Table 4

*Descriptive- evaluative data and grading the quality of countries' websites*

	Country	Obtained score	Quality score	Ranking	Quality Grading		Country	Obtained score	Quality score	Ranking	Quality Grading
1	USA	329	82	1	71-82 EXCELLENT	51	DOM	219	54	51	50-56 medium
2	GER	324	80.57	2		52	ISL	218	54	52	
3	BEL	307	76.52	3		53	ITA	215	53	53	
4	THA	304	75.77	4		54	SPA	215	53	54	
5	QAT	288	71.78	5		55	GUY	214	53	55	
6	FIN	287	71.53	6		56	POR	214	53.52	56	
7	UAE	279	69.54	7	64-70 VERY STRONG	57	ECU	211	52	57	
8	CZE	276	68.79	8		58	EGY	211	52	58	
9	TUN	273	68.04	9		59	AUT	210	52	59	
10	LIT	272	67.79	10		60	MAL	209	52	60	
11	SIN	270	67.29	11		61	LBY	209	52	61	
12	PHL	268	66.8	12		62	BOL	208	51	62	
13	JPN	266	66.3	13		63	CAN	207	51	63	
14	RKS	266	66.3	14		64	MOR	206	51	64	
15	MOL	261	65.05	15		65	SUD	205	51	65	
16	KOR	261	65.05	16		66	OMN	205	51	66	
17	ZAF	259	64.55	17		67	ARG	205	51	67	
18	IRQ	258	64.3	18		68	SUD	205	51	68	
19	IRI	257	64.05	19	69	LBR	204	50	69		
20	PAK	256	63.81	20	57-63 STRONG	70	ALB	201	50	70	LESS THE 50 WEAK
21	ROM	253	63.06	21		71	NED	201	50	71	
22	RUS	252	62.81	22		72	DEN	200	49	72	
23	BOS	252	62.81	23		73	NIG	200	49	73	
24	JAM	248	61.81	24		74	PER	199	49	74	
25	TAJ	244	60.81	25		75	BLR	199	49	75	
26	FRA	244	60.81	26		76	BAR	198	49	76	
27	AZR	243	60.57	27		77	BAH	197	48	77	
28	UKR	243	60.57	28		78	URG	195	48	78	
29	KUW	241	60.07	29		79	ZMB	193	47	79	
30	SER	241	60.07	30		80	VIE	193	47	80	
31	SWZ	238	59.32	31		81	SYR	192	47	81	
32	LET	238	59.32	32	82	SLO	192	47	82		

	Country	Obtained score	Quality score	Ranking	Quality Grading		Country	Obtained score	Quality score	Ranking	Quality Grading
33	BAH	237	59.07	33		83	ALG	191	47	83	
34	POL	237	59.07	34		84	ISR	190	47	84	
35	IND	235	58.57	35		85	VEN	190	47	85	
36	AFG	234	58.32	36		86	STO	189	46	86	
37	SPA	233	58.32	37		87	CHI	187	46	87	
38	MAC	231	58.07	38		88	MOR	185	45	88	
39	COL	230	57.33	39		89	HUN	184	45	89	
40	LEB	229	57.08	40		90	CRO	183	44	90	
41	TUR	227	56.58	41		91	GHN	177	43	91	
42	IND	226	56.33	42		92	MAL	176	43	92	
43	SLO	224	55.83	43	50-56 MEDIUM	93	YEM	174	43	93	
44	MAL	223	55.58	44		94	SER	174	43	94	
45	UGA	223	55.58	45		95	KAM	173	41	95	
46	GEO	223	55.58	46		96	PAL	165	40	96	
47	JOR	222	55.33	47		97	KAZ	164	37	97	
48	GIB	222	55.33	48		98	KEN	149	35	98	
49	MON	219	54.58	49		99	MOR	143	35	99	
50	BIN	219	54.58	50		100	CYP	141	33	100	

In summary, based on the scores obtained and the quality rating each MI website of the studied countries achieved, 31% of the countries were in the medium range of quality score, 21% were in the strong range, 13% were in the very strong range, 6% were excellent, and 3% were categorized as very weak (See Table 5 for more details).

Table 5

Frequency and Ranking percentage of the Quality of Interior Ministries of countries

Statistical Properties Ranking Sclae	Frequency	Frequency Percentage	Density Percentage
Excellent	6	6	6
Very strong	13	13	19
Strong	21	21	40
medium	31	31	71
medium/Weak	23	23	94
Weak	3	3	97
Very Weak	3	3	100
Total	100	100	

### Discussion

The findings reveal that, of the 100 websites examined in countries announced by the World Bank and the IMF, the United States of America and Germany excelled in quality and accessibility, earning the highest score of 82 and placing first in the studied countries. Next in line, Belgium's website proved superior in quality, earning a score of 76.52 and outperforming the websites of the other scrutinized countries. Taiwan's website, which ranked second, scored 75.77, placing third. In the fourth rank, Qatar's website displayed a noteworthy quality score of 78.71, and Finland's website followed closely, securing the fifth position with a score of 71.53. These six countries gained the top five websites ranking in terms of quality, also ranking highly

in terms of overall position.

Further results from the study showed that the websites of the United Arab Emirates, Czech Republic, Tunisia, Lithuania, Singapore, Philippines, Japan, Kosovo, Moldova, South Korea, South Africa, and Iraq exhibited considerable quality, ranging from 6th to 15th. Moreover, Iran's website secured the 17th position among the studied countries in quality, demonstrating very strong performance with a score of 64.05. On the other hand, the lowest quality score among the 29 studied websites evaluated as the weakest in terms of quality by the World Bank and IMF belonged to Cyprus. This website earned the lowest score of 33.9, suggesting significant areas for improvement and ranking 74th among the evaluated countries.

Drawing inferences from the results, out of the 100 surveyed country websites, 31% (31 countries) possess average quality. In the next tier, 23% (23 countries) were classified as having average-weak range, while 21% (21 countries) were categorized as strong in quality. Additionally, 13% (13 countries) of the websites displayed very strong quality, followed by 6% (6 countries) that exhibited excellent quality. However, the remaining results reveal that 3% (3 countries) of the studied countries have websites of weak to very weak quality.

The research's first question pertains to content criteria, with Germany taking the lead in this category. Germany, Belgium, Taiwan, and Iran rank third, scoring 73.37 and in the excellent range (Table 4). This data suggests that Iran's Ministry of Interior (MI) website has achieved a commendable position globally regarding content quality, audience targeting, and website objectives. The designers' attention to users and their importance has significantly improved the website's quality. This improvement aligns with the findings of this study and previous studies conducted by Papi and Abazari (2014) and Michail and Anastasios (2009), which demonstrated good performance in this area by most websites.

In response to the second question regarding functionality criteria, only the United States achieved an excellent rating, with a score of 82. Belgium, Germany, and Finland ranked next with very strong ratings, while the website of Iran's MI found itself in the medium range, placing 13th among the examined countries (Table 4). Despite the impact of internet speed and bandwidth on the website's loading speed in Iran, it is vital to consider that modern users lack patience and time. Therefore, successful websites must minimize this waiting time. Website designers should restrict the use of high-volume images and Flash-based pages that slow down site loading. Moreover, ease of search can enhance the quality of the functionality criteria. Consequently, the findings regarding functionality criteria and components, such as ease of search and loading speed, are consistent with the reports obtained.

The websites of the USA, Germany, and the Czech Republic, which received a score of 82, are among those rated excellent for authority criteria in response to the third research question. Iran, scoring less than 50, has a weak standing in this category, ranking 12th (Table 4). This outcome signifies the crucial role of acknowledging the author's scientific background and providing email and contact information on the main webpage to affect website accessibility and quality. The designers of Iran's MI website should aim to enhance their site's authority by including an email address and providing an easy and quick link to it, especially on the first page. This action will encourage users to return to the site sooner. These findings align with the results of the study by Osareh and Papi (2008), which also identified a weak performance in this area among the websites they studied. The lack of contact and communication in the websites makes the feasibility poor and makes the informational website not a good representative for e-government in the web world (Hassanzadeh, Navidi, Hosseini, 2009).

In response to the fourth research question concerning the currency criteria, Qatar was ranked first among the studied countries, followed by Germany and the United Arab Emirates. Iran, with a score of 59.92 in the strong range, was among the high-performing countries in this area, securing the eighth rank (Table 4). Taking into account the loading speed contributes to rapid data retrieval by website users. The findings of this study align with other research reports, indicating that most countries rank low on this criterion, while Iran stands out as a high-performing country (Table 4). In response to the fifth research question regarding the links criteria, the United States' Ministry of Interior website obtained the highest rank with a score of 82, followed by Germany and Taiwan. Iran's Ministry of Interior website also demonstrated strong performance, achieving a score of 61.5 and a fifth-place ranking (Table 4).

The more links a website contains, the more importance and authority it attains, increasing its visibility. However, given that most countries fall within the average-to-weak spectrum, it suggests a lack of attention to this criterion, implying it does not meet users' needs as anticipated. These findings are consistent with those of Osareh and Papi (2008), NooriAfkan et al. (2013), and Haneefa and Venugopal (2010), which also demonstrated that most countries perform average in this regard. In response to the sixth research question about graphics criteria, Finland's Ministry of Interior website was ranked first with a score of 82, followed by Taiwan and Belgium. Iran scored 68.33, placing it in the very strong category and ranking sixth among the studied countries (Table 4).

The website's graphics significantly increase user retention and decrease bounce rate. If a website's graphics are off-putting, it can prompt users to leave the page prematurely. Website graphics have a substantial impact on attracting users. Although the website of Iran's Ministry of Interior falls within the very strong category, its designers and operators should note that the site's visual appearance significantly influences initial user engagement. Utilization of necessary standards and cutting-edge technology in this area seems essential. These findings align with Papi and Abazari's (2014) study, which found that websites have satisfactorily adhered to graphics criteria at a very strong and strong level. Regarding the seventh question about website style criterion, Germany, Taiwan, and Finland claimed the top rank in this area, positioning themselves in the excellent category. Iran, scoring a quality point of 66.38, was in the very strong category, securing fifth place (Table 4).

A high percentage of countries were placed in the strong category, indicating that the web designers of the studied websites utilized an appropriate interface environment to enhance communication with users, facilitating accessibility during each user visit to the website. If the visual layout of a website doesn't align with the user's objectives, or, to put it differently, if there is no style stability, it leads users to abandon the site and diminishes its quality. Iran's fifth-place ranking illustrates that the designers have given due attention to style stability, but additional efforts should be made to improve its position. This aligns with Papi and Abazari's (2014) study, which found that many websites at very strong, strong, and excellent levels complied with this factor, enabling convenient accessibility to their websites at different times.

In response to the eighth question concerning coverage criteria, the United States and Germany, with the highest score of 82, secured the top rank in the excellent category. Iran also placed in this excellent category, scoring a quality point 73.37 (Table 4). Iran managed to rank among the countries that fell into the excellent category in the coverage evaluation. The designers have successfully defined the aim of the information coverage and should strive to maintain this ranking and even enhance it. They were improving website quality, resulting in

consistent user access to information. The findings of this study are in line with the results obtained from the studies of Mardaninejad et al. (2013), Papi and Abazari (2014), and Hasan and Abuelrub (2011), reporting that this criterion has been adhered to in excellent and very strong level.

Concerning the ninth question about using meta-tags, our research findings reveal that 38% of the studied countries employed this criterion. It was predominantly used among European countries, while African nations reported the most minor usage, at a frequency of only 9%. Iran was amongst those countries that did not use meta-tags in subject indexing. The use of meta-tags serves as a factor that could enhance the website ranking for search engines. The use of meta-tags amongst the countries surveyed aligns with the findings of Osareh and Papi's 2008 study, which showed that only 7 out of 41 websites used meta-tags. In our research, 38 out of 100 countries utilized meta-tags. Responding to the central question and purpose of this study, considering the results obtained, the United States, with a score of 329, ranked first in terms of website quality amongst the world's Ministry of Interior websites. Germany, Belgium, Taiwan, Qatar, and Finland followed in the rankings, falling into the excellent category. Iran, with a score of 257, ranked seventeenth globally, falling into the very strong category.

This study's findings, which compare the Ministry of Interior websites of various countries, showed that overall, most websites were ranked as average (Table 5). This is in line with the studies by Osareh and Papi (2008), NooriAfkand et al. (2013), and Michail and Anastasios (2009), which also noted that the overall attention to quality evaluation factors by these websites was average level.

### **Evaluation of Iran's Overall Performance in Assessment Components**

Iran's website is classified within the third category for content quality, earning an average score of 5.14 and a total score of 77.68. This positioning indicates a high standing in the ranking.

Regarding user-friendliness, specifically search accessibility, Iran's website demonstrates an average performance.

About authority quality, the Iranian website holds a twelfth place amongst the studied countries, scoring an average of 3, and a total score of 41. This suggests a relatively weak standing concerning the quality.

Iran's website achieved an average score of 8.56 for information updates, which translates to 4.75.

Considering preserving internal links, the Iranian website holds a robust fifth rank amongst the five studied countries, scoring 61.5.

Alongside the websites of two other countries, Germany and Portugal, Iran's website ranks sixth in graphics quality, with an average score of 4.16. This result suggests a very strong performance, as indicated by a total score 68.33.

Iran's website shares its average score of 4.25 for style quality with the websites of eight other countries, displaying a very strong performance with a total score of 66.38.

In the third category, Iran's website, with an average score of 5.67, aligns with the websites of 11 other countries, including Pakistan, South Korea, Singapore, Iraq, Russia, Tajikistan, Indonesia, Finland, the Bahamas, Tunisia, and Kuwait. They demonstrate excellent performance in terms of coverage quality and range of information, as evidenced by a score of 37.73.

In line with the websites of 62 other studied countries, Iran's website also shows no use of

hyperlinks.

### Conclusion

Given that currency is a unique feature of each website, the rapid evolution of information and modern technologies in the information technology field necessitates the utilization of special software applications. Features such as font size magnification, the ability to customize the page color, availability of a child-friendly portal on the Ministry of Interior websites of the studied countries, advanced search engines, screen reading application, visibility of visitor count, ratings, audio recitation of news, indicating number of online users, availability of RSS feed for other news and information portals, electronic bulletins and publications, sitemaps, responsive mode (mobile versions), and other applications significantly enhance a website's rating, usability and quality.

While Iran's MI website's global ranking may be acceptable, there's always room for enhancement. Various factors influence the accessibility and quality of Iran's MI website, which designers and stakeholders must consider if they aspire to improve Iran's standing relative to other countries. A well-implemented and launched website can significantly improve organizational efficiency, productivity, and cost management. It achieves this by providing appropriate information promptly for critical decisions and operations. Such an approach promotes business execution and enhances the experience of stakeholders, including employees, customers, and managers, in fulfilling their respective mission objectives.

In an information society, all decisions are made based on the available data, rendering swift access to current, accurate, and reliable information invaluable. Users sift through a wealth of information according to their specific needs, enabling them to make informed and timely decisions.

In conclusion, the following recommendations for improvements to the website can be presented based on the findings of this evaluation:

1. The overabundance of news, information, and numerous images on the homepage reduces the website's loading speed, hindering users from finding the information they require. Website designers should be mindful of this. While low internet speed and internet filtering in Iran also contribute to the issue, it is advisable to enhance the internet speed while also paying attention to other factors affecting the loading speed.

2. It's essential to optimize websites' compatibility with various updated browsers. Although security concerns may limit the use of specific browsers, it should be noted that users from different parts of Iran and the world access the website through diverse browsers.

3. Light background colors, like light blue, white, or gray, is recommended. These colors are part of the website's graphic standards and prevent users from fatigue during prolonged and repeated use.

4. Including an email address or an email link on the homepage allows users to access the site as quickly as possible.

5. Inadequate categorization of news, information, and menus hinders users in finding the desired information. An improved classification system could rectify this issue.

6. Incorporation of specific features, such as font size magnification or adjustable menu or background colors, can enhance the user experience, particularly for those with visual impairments or older users.

7. An up-to-date English version of the website should be maintained, given that the

Ministry of Interior of Iran provides various services to nationals in different parts of Iran and the world and has relationships with countries in the region and globally.

8. It's crucial to augment the website's search functionality and provide users with advanced search options. The Ministry of Interior of Iran's website is rich in content and information, and creating such facilities is necessary to prevent user confusion.

9. For visually impaired users, producing audio versions of the website can be a beneficial feature that site designers should consider.

### Suggestions for Future Research

For future investigations, it is recommended to assess the web portals of provincial governorates and subordinate organizations of the Ministry of Interior, utilizing web analytics and website quality evaluation with the WQET tool.

Given the Ministry of Interior caters to a broad audience, it is imperative to emphasize quality in website design during comprehensive planning. Consulting with specialists in information management and librarianship, as well as computer science and web design experts, would significantly enhance the development process. Search Engine Optimization (SEO) and utilization of experiences of other countries will also help.

The qualitative components suggested in this study could provide beneficial insights for website designers. Since the WQET has already undergone standardization and reliability testing, it can be a dependable instrument for assessing website quality. This tool could be of significant value for evaluating various ministries' websites and other service-providing websites, assisting website designers and information specialists.

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