



## Analysis and evaluating of quality of Tehran university cohesive training systems

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### ABSTRACT

The aim of present research is to determine and prioritize criteria and scales of evaluating cohesive training systems. Present paper attempts to provide a paradigm for better devising of universities' cohesive training systems by identifying such scales. In terms of its aim, this research is an applied one and in terms of data collection method, it is descriptive and survey one. Its population includes elite training experts in the colleges and institutes affiliated to University of Tehran. It attempts to study domestic and foreign papers and to identify criteria and scales for evaluating cohesive training systems. Library method is used to gather information on theoretical basics, literature and to identify aspects and scales. Identified aspects include: content, flexibility, organizational structure, usage convenience, usage services and apparent form. By using the experts opinions, importance ratio of each one of scales and aspects is determined. Also for evaluating the status of this scales in golestan system of Tehran university a questionnaire is compiled. that its admissibility and permanence is confirmed. Then the questionnaire in a sample (of our case) is distributed. In data analysis, T-test: statistical test is used to examine the status of scales and aspects. The results of this test indicated that the organizational structure scales and usage convenience have middle status, the status of flexibility, usage services and apparent form is undesirable, and the content have a desirable status.

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### Introduction

Over a decade, web converted from a theory into a reality so that one can claim that web is now obvious in all areas of our social life. Hence, public and nonpublic companies and organizations, schools and universities have websites. The aim of designing web pages in such institutes particularly in high education and research centers is an important added-value role in public awareness and to achieve existing information in such centers more effectively, rapidly and with the lowest cost (Khanlarkhani *et al*, 2008, p. 67). Naturally, an organization whose users are facing with problems in using and networking its web pages exposes a poor image and weakens organizational status. Therefore, it is necessary that any organization evaluates its web pages by considering its users' perceptions and benchmarks (Khanlarkhani *et al*, 2008, p. 67).

The services provided by university have extended well beyond those offered at an on-site facility. The design, usability {"defined as the capacity of a system to allow users to carry out their tasks safely, effectively, efficiently, and enjoyably"} (Li, 2005, p.253)}, and functionality of the website university are critical if the to continue providing essential services to their patrons in a timely and efficient manner (Carole, 2005, p.167). According to ISNA<sup>1</sup>, in terms of web measuring indicators, Iranian universities do not enjoy high ranks so that the ranks of top universities in terms of such indicators include University of Tehran (873), Tehran Medical University (1266), Sharif

Industrial University (1560) and Mashhad Ferdousi University (1671) (<http://www.modir.ir/News/2602.aspx>).

Since there has not been yet provided any model to evaluate cohesive training system, in present study the main question is that: "which are the main aspects and scales to evaluate cohesive training system And in what status is the Golestan system of Tehran university, from point of view of these scales and aspects?"

In below, the paper introduces Iranian Universities Training System (Golestan System), mentions the aspects and scales of evaluating websites and information systems. Finally, considering the importance ratio of each one of aspects, we examine the status of either of scales and aspects in Golestan system of Tehran university.

#### Defining websites and information systems:

Websites are a set of current pages in world web network which may be backed by people or different trading, scientific, thematic, national and international organizations (Heydari, 2005, p. 18).

#### Website components include:

Home Page: it is an entering point to website and other pages are shaping around it. In a hierarchical structure, home page is the top component of the structure and all internal pages have a direct link to home page.

Menu and submenu: right, rational and frequent classification of menus, using graphics and icons, rational attractiveness and using cursors and java scripts to open/close menus can help the fascination of a site as well as access convenience.

<sup>1</sup> - Iranian Student's News Agency

Site internal pages: these pages involve aims and contents of the site. Numbers and subjects of internal pages are directly related to site theme and usage.

Since websites are considered as information systems in organizations, the advantages of information system are represented below.

There are paramount definitions on information systems in disciplines such as management, computer sciences, software engineering, librarian sciences and public awareness. A definition in US Librarian Association encyclopedia is a comprehensive definition of information system (a complete devised system to produce, gather, process, store, recover and disseminate information in an institute, organization or any other defined area of community" (Omidvar, 2006).

Today, managers recognize the strategic and competitive value of information system well. Cross an organization's capitals such as HR, financial, machineries, and equipment, the most valuable one is information since all physical and environmental facilities are justified by information. An organization should be able to establish an information system capable to meet most information needs inside the organization. Such a shared system enjoys following advantages: mitigating repetitive works in maintaining databases, representing data more carefully (since data are stored in one place and they only need to be updated), better communications inside the organization so that everyone can access his/her needed information, and harmonic treatment with inter-organizational information needs (Zavareghi, 2006).

General criteria on evaluating websites and information system:

By comparing used models and methods throughout the world, we extracted some common aspects and scales some of which are evaluated here. Achieved aspects and scales can be used in our final paradigm. Some models are important for general usages and others for special ones. For example, it may be important to determine the validity of current information in the site in evaluating a website while access to information is more important for someone who uses FTP achieves (Heydari, 2005, p. 18).

Pointed criteria in evaluating e-resources in most websites and Internet networks include:

1. Correctness (e.g. broadness, carefulness and correctness of information)
2. Competency (author's credit in his/her specialized area)
3. Thematic coverage (broadness and coverage of observed, analyzed and reported themes)
4. density and intensiveness (relevant information provided in each page of the site)
5. newness (mutual impact and updated information in the site)
6. interaction (mutual impact or performance of mutual relations between authors and users)
7. goal (author's objectiveness vs. his/her mindset)
8. velocity (needed time to call for the site and displaying its pages) (Dragolanesco, 2002)
9. usage convenience and users' satisfaction (resources availability, information representation and sorting, the possibility of navigating through all resources, searching possibility and resource navigation, clear and simple links between pages, the possibility of returning to home page by a click (Heydari, 2005, p. 24).
10. Content (including carefulness, author's credit, newness, uniqueness of resources and real information)
11. Website structure (harmony between site apparent form and aim, audiences and site theme) (Heydari, 2005, p. 27).

12. Objectiveness (clarified evidences and limits) (Heydari, 2005, p. 28).

Webqual model that involves paramount versions and its elements are changing in adopting with each version, one can provide paramount elements in a qualitative evaluation by considering varied edits. In initial webqual versions, these elements include 4 aspects, 12 structures and 35 factors while these factors and structures are changed in new versions. These aspects include:

1. Profitability: information proportionate to needs, proper relations, confidence, responding time
2. Usage convenience: conceiving convenience, internal performances
3. Amazements: including apparent attractiveness, innovation and affective attractiveness.
4. Mutual communications: including homogenous pictures, no deficiency in terms of continuance, relative advantage (Khanlarkhani *et al*, 2008, p. 68).

In the most recent researches, a new version of webqual titled Aqual is introduced. This model attempts to evaluate the quality of websites from users' perspective in 4 aspects and 34 factors at two status qua and expected status. The aspects include content quality, application, service interaction quality, interactions quality and security (Khanlarkhani *et al*, 2008, p. 68). An interesting point on this model is an applicable aspect in evaluating the quality of pages along with its factors and e-commerce factors in web quality services concept (Khanlarkhani *et al*, 2008, p. 68).

Leo's measures to evaluate the site include: content, structure (in terms of visual designing), structure (in technical terms), author's right and applied scales (Baradar and Najafzadeh, 2008, p. 23).

"Software engineering: an approach to a technician" book also provides following software quality measures: Rightness, Maintenance ability, Comprehensiveness And Usability (Prisman, 2008, pp. 134 – 135).

In paper on identifying portal social health training sites, following items were identified as effective parameters to evaluate training portals:

1. System required requirements such as programming, database management system, code access permission and management access
2. Security
3. Management
4. Efficiency
5. User friendliness
6. Built-in applications
7. Flexibility
8. Trading such as credit cards in portal sites and Internet sale/buy
9. Interoperability: such as archiving,
10. Support: including online guidance book, user training, management, expansion.

Huizingh (2000) distinguishes design from the information content, and identifies three dimensions: quality of navigation structure, multimedia capabilities and the presentation style. Paynter *et al*. (2001) take four categories into consideration: information, transaction services, trust, and non-functional requirements. Jenamani *et al*. (2002) present a thorough classification of the web site features, relating to marketing features, functional features, innovative features and accessibility features. However, important factors such as privacy, credibility, security and trust are missing from their classification, some of which are taken into account by Zhang

and von Dran (2002). All these studies admit that the success of a web site design relies on the provision of a user-friendly environment for visitors. Sowards (1997) evaluates the effectiveness of the web sites from the user's perspective and suggests that layouts, design, content and speed of a web site are important success factors. (Li & Holeckova, 2005, p.78). Zhang and von Dran's study was motivated by Herzberg's hygiene and motivator factors and suggested that certain website features are necessary but not sufficient to elicit positive perceptions or prevent negative perceptions of website quality, while other features are not necessary, but do increase positive perceptions of website quality. They compiled an extensive list of 42- scale items grouped a priori into eleven dimensions: (1) information content, (2) cognitive outcomes, (3) enjoyment, (4) privacy, (5) user empowerment, (6) visual appearance, (7) technical support, (8) navigation, (9) organization of information, (10) credibility, and (11) impartiality. Student respondents ranked the importance of website features for an online news service to validate the measures. A second group of students assessed six types of sites (selling and non- selling) and analysis showed that different dimensions were important for different types of sites. For example, the navigation dimension was important for all sites, whereas privacy was critical only for e-commerce. Lin and Lu tested the effect of website quality on student perceptions of usability and usefulness of an electronic newspaper. They operationalized web-site quality as a three-dimensional construct composed of (1) information quality, (2) response time, and (3) system accessibility. Path analysis supported the effect of the three website quality dimensions on usability and usefulness as antecedents of intention to reuse the site in the future (Kim & Stoe, 2004, p.620).

The quality of a website must be evaluated with a number of different criteria according to Thewall: Site visibility in search engines, Ease of use, Design quality, Ease of site maintenance and updating (Thewall, 2000, pp.151- 154).

Cox & Dale (2002) suggested that Key quality factors (KQFs) include: Clarity of purpose, Design, Accessibility and speed, Content, Customer service (Cox & Dale, 2002, pp.863-870).

In web-measuring (web-metric) evaluations which are a branch of measurement science, global universities and high education institutes are categorized in terms of evaluation top trainings in web, volume, size, observations and impact of web pages published by universities and information resources.

Other scales by which university and research centers can increase their ranks in global well-established categorizations systems are as follow: web pages and contents – affected by potential author numbers such as instructors, students and employees, resource access rate and the flexibility of institute's internal/external policies on facilitating free access; resource quality – evaluated by scales such as authors' credits, resource manufacturing universities, scientific judgment process for online resources, various resources formats and resource languages; and observation – evaluated by cross-contextual networks, resource extent and free access.

#### **Research background:**

In this section, we address to conducted researches on websites and information systems evaluation. Hence in this paper either the evaluation criteria and scales of training systems have identified, and also the quality of the Golestan system has evaluated, the first category, researches whose aims are to identify the evaluation criteria and scales of websites and information systems. and in the second and third category

pointed to researches that have evaluated the universities web sites. One can divide conducted researches into three categories: **External researches whose aims are to identify the aspects and scales of website and information systems evaluation as follow:**

The total of 31 of evaluation criteria that used by Li & Holeckova in Evaluation of UK car insurance brokers' web sites are organized into five categories:

- (1) Search: search (SEA);
- (2) Site characteristics: information (INF), system quality (SYQ), design (DES), navigation (NAV), credibility (CRE), privacy (PRI) and security (SEC);
- (3) Quality of access: quality of access (QUA);
- (4) Price: quote (QUO); and
- (5) Purchase: purchase (PUR).

(Li & Holeckova, 2005, p.79)

Liu and Arnett surveyed webmasters of Fortune 1000 companies about factors that contributed to website success. They originally proposed six dimensions of website quality, but exploratory factor analysis revealed four: (1) quality of information and service, (2) system use, (3) playfulness, and (4) system design quality (Kim & Stoe, 2004, p.621).

Aladwani and Palvia also examined website quality from a user perspective, but used student samples in a two-phase study. They proposed three dimensions of website quality: (1) technical adequacy, (2) web content, and (3) web appearance. In the first phase of the study, respondents evaluated websites in general to generate valid scale items. In the second, respondents evaluated two selling and two non-selling sites to confirm the scale items. Exploratory factor analysis in the first phase found four dimensions: (1) technical adequacy, (2) content quality, (3) specific content, and (4) appearance. These dimensions accounted for 67% of the variance in perceived website quality. Their second phase confirmed the reliability and convergent and discriminate validities of the four dimensions. In addition, the four factors were correlated with a rating of overall quality of the website (Kim & Stoe, 2004, p.621).

Barnes and Vigden have conducted extensive work on an instrument to measure web site quality of both non-selling and selling websites. Early efforts focused on technology and information as indicators of quality for university websites. Five dimensions were proposed a priori and reliability analysis showed four dimensions to emerge: (1) ease-of-use, (2) experience with site, (3) information, and (4) communication and integration. However, as work continued to apply the scale to selling sites, the authors recognized a need for more items capturing the service provided by the site, or the interaction between the customer and the site (Kim & Stoe, 2004, p.621).

To address this need, development incorporated elements of the ServQual instrument at the expense of information items. Reliability analysis confirmed that the five dimensions were acceptable: (1) tangibles (of aesthetics and navigation), (2) reliability (reliable and competent), (3) responsiveness (responsive and accessible), (4) assurance (credible and secure), and (5) empathy (communication and individualization) (Kim & Stoe, 2004, p.621).

Loiacono explicitly measured website quality of sites selling goods and services (books, music CDs, airline tickets, and hotel reservations) and suggested that website quality is represented by 12 unique dimensions. In her study, 14 dimensions of website quality were originally proposed as a result of an extensive review of the marketing and IS literature

and interviews with shoppers and website designers (Kim & Stoe, 2004, p.621).

Confirmatory factor analysis, however, provided evidence that the 36 items assessing website quality converged into 12 dimensions and these showed predictive validity for purchase intention. The dimensions included: (1) informational fit-to-task, (2) tailored communication, (3) ease of understanding, (4) intuitive operations, (5) response time, (6) visual appeal, (7) innovativeness, (8) emotional appeal, (9) trust, (10) online completeness, (11) relative advantage, and (12) consistent image (Kim & Stoe, 2004, pp.621 & 622).

#### **Researches which address to foreign universities' websites such below two instances:**

The results of the redesigning Carnegie Mellon University Libraries website indicated several key weaknesses with respect to navigation, screen design and labeling, leading to more revisions and the final release. Testing indicated that color and graphics attract attention; font, labels, and placement increase visibility; chunking and leading with keywords increase readability; and consistency increases usability (Carole, 2005, p.167).

Shelstad (2005) examined the work of the University of Wyoming's American Heritage Center (AHC) to revamp its website during 2003-2004. The task force analyzed the structure and content of the site to improve navigation, prioritized the presentation of content, and also researched the costs and benefits of outsourcing the design and maintenance of the site. The AHC also identified opportunities for expanding useful content with a relatively small investment of staff time and budgetary resources. (Shelstad, 2005, p.210) Some of the less successful areas of the redesign included user feedback indicating that some portions of the site were not entirely up to date: this has been a great frustration, for the areas referred to ought to be in the forefront of providing archival services via the web. AHC's user testing did not include more of the general public, but the AHC's efforts to include them went unanswered (Shelstad, 2005, p.223).

#### **Researches which address to evaluate Iranian universities' websites and categorize them based on their web quality.**

In web-measuring (web-metric) evaluations which are a branch of measurement science, global universities and high education institutes are categorized in terms of evaluation top trainings in web, volume, size, observations and impact of web pages published by universities and information resources. The results are indicated below.

1. University of Tehran
2. Hawza and University Research Center
3. Iranian Sciences and IT Research Center
4. Scientific database, Academic Jihad
5. Hawza website
6. Tehran Medical University
7. Payam Noor University (main portal)
8. Shahid Beheshti University
9. Mashhad Medical University
10. Firdausi Mashhad University
11. Iran Science and Industry University
12. Shahid Beheshti Medical University
13. Iran Medical University
14. Shiraz Medical University
15. Shiraz University
16. Amir Kabir Industrial University
17. Tarbiat Modares University
18. Applied Scientific University
19. Stem Sciences University

#### 20. Sharif Industrial University

Based on this categorization of designing, observation, scientific docs (PDS), size and traffic, the ten top institutes in terms of acquired scores in above five scales include University of Tehran, Hawza and University Research Center, Iranian Sciences and IT Research Center, Scientific database, Academic Jihad, Hawza website, Tehran Medical University, Payam Noor University (main portal), Shahid Beheshti University, and Mashhad Medical University.

#### **Research goal:**

- 1-Identification the evaluation criteria and scales of training cohesive systems website.
- 2-determining importance ratio each one of these criteria and scales.
- 3-Examine content status in Golestan system of Tehran university.
- 4-Examine flexibility status in Golestan system of Tehran university.
- 5-Examine apparent form status in Golestan system of Tehran university.
- 6-Examine usage services status in Golestan system of Tehran university.
- 7-Examine usage convenience status in Golestan system of Tehran university.
- 8-Examine organizational structure status in Golestan system of Tehran university

#### **Research questions:**

- 1-What are the scales and aspects of evaluating training cohesive systems website?
- 2-How much the importance ratio of each one of these aspects and scales?
- 3-How is the content status in Golestan system of Tehran university?
- 4-How is the flexibility status in Golestan system of Tehran university?
- 5-How is the apparent form status in Golestan system of Tehran university?
- 6-How is the usage services status in Golestan system of Tehran university?
- 7-How is the usage convenience status in Golestan system of Tehran university?
- 8-How is the organizational structure status in Golestan system of Tehran university?
- 9-At all ,How is the quality of Golestan system of Tehran university?

Methodology, sample, population and data gathering method:

In terms of its aim, this research is an applied one and in terms of data collection method, it is descriptive and survey one. Its population includes elite training experts at University of Tehran who work a training cohesive system.

For sampling, the following sampling formula is used: in this research, statistical community are all Tehran university officers who use Golestan system. The statistical community is limited and the number of the statistical community is 235 persons. For sampling we use the classify incidentally sampling method. The following formula to determine sample volume is used: that in it:

$$n = \frac{NZ^2S^2}{(N-1)d^2 + Z^2S^2}$$

Sample volume=n

success ratio in statistical Community=p

Un success ratio in statistical community=q

Error rate=d

Normal community distribution =  $Z^2_a / 2$   
 $0/5=q$  ,  $0/5=p$  , is considered.

The samples whole number by above formula , with confidence level: 95% , and 0/05 Error become: 146 the size(Number) of statistical community and the sample size is presented in Table No.2

**Table No.2: statistical community size and sample size**

Sample size	Community size	Pardises and colleges	range
11	13	Literature and humanities	1
1	4	Economics	2
2	2	Theology and Islamic culture	3
6	7	Geography	4
3	3	Veterinary	5
7	10	Law and political sciences	6
5	6	Psychology and education sciences (page8)	7
11	18	Pardis sciences	8
4	8	Social sciences	9
8	21	Management	10
4	4	Environment	11
7	9	Abo reihan pardis	12
4	10	Foreign languages college	13
19	39	Technical pardis	14
15	23	Qom pardis	15
15	20	Agriculture pardis	16
3	3	Universe studies college	17
11	14	The fine arts pardis	18
3	4	Karaj pardis	19
4	7	Physical education college	20
3	4	entrepreneurship college	21
146	229	totally	22

Library method is used to gather information on theoretical basics, literature and to identify aspects and scales. The number of elite experts in University of Tehran is 27. Elite experts were selected from Pardis Qom, Sciences Pardis, art Parsdis, agricultural and natural resource Pardis as well as social sciences, technical, law, political sciences, environment, liberal arts, literature, management, foreign languages, entrepreneurship, psychology, economy, physical education, theology, Islamic sciences and geography. Field study method was used to gather information and the tool to gather information was questionnaire. The questionnaires were distributed among training experts in University of Tehran who work a training cohesive system

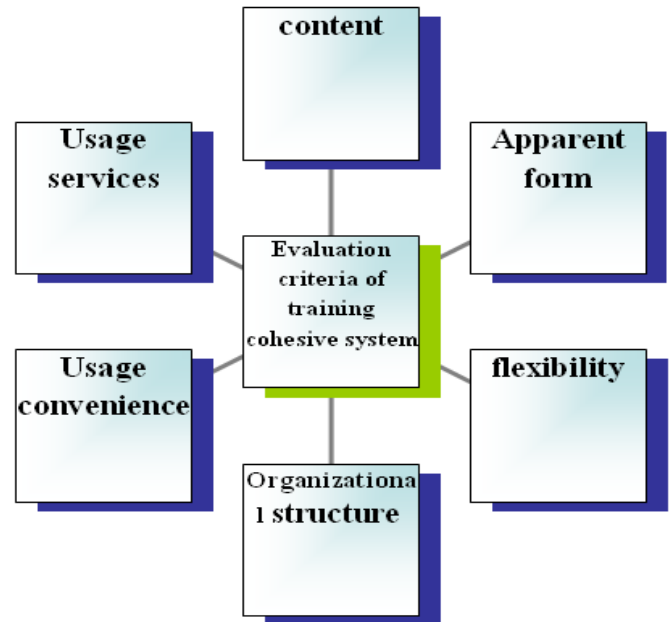
The questionnaires were given to 30 training experts and based on their opinions , the necessary reformations were done. And the questionnaire admissibility was confirmed. Also, to examine its permanence, its Cronbakh Alfa was measured. And where as the cronbakh Alfa was obtained: 0/9 , so the questionnaire has the necessary permanence too.

**Scales and aspects of analysis and evaluating training cohesive system:**

To answer the research first question (what are the scale sand aspects of evaluating training cohesive systems website?) we proceed with examining and expanded studying the probe literature and research background , that related to the scales and aspects of evaluating training cohesive system. All used aspects in this research are documented and each one is used in paramount researches as the measures to assess websites. As mentioned in previous section, the apparent form is use in studied by Lin and Arnt, Zhang & Von Dran and Loiacono and flexibility is used in a study by Hejazi and Movahedi. They are also seen in Leo's measures (in visual terms at structural aspect). Organizational structure is also seen in Leo's model (in technical

terms at structural aspect) and Heydari's research. Application convenience is used in studies by Hang *et al*, Barns & Wigden, Hejazi & Movahedi. An aspect of webqual is application convenience. Content is both seen in both webqual and Leo's model. Heydari, Lin and Arnt, Cox and Dal and Swardes have used content in their studies. Finally, usage services are used in studies by Hejazi & Movahedi and Cox & Dal.

Based on scales presented for evaluating training cohesive systems, the research understanding model is as follows:



To answer the second research question (How much is the importance ratio of each one of these scales and aspects?) The following formula is used. To facilitate calculation the soft ware SPSS is used. Columns (a/b, c/d) are the proportional abundance percent of each one of these choices.

$$\text{importance ratio of aspects} = (a)^4 + (b)^3 + (c)^2 + (d)^1$$

The recognized aspects and scales to evaluating training systems, beside importance ratio of aspects are presented in

**Data analysis:**

In this paper, the descriptive statistics and deductive statistics include mean test of a statistical community , for data analysis is used. In descriptive statistics segment, sexuality abundance, education , record of service and organizational post is used , that its results presented in table No.4

As seen in table No.4, nearly 68% of the respondents are women , about 30/6% are men, and 1/4% of them didn't answer to the question related to sexuality In education : 61% of the respondents have diplomaorless,41,3% are superior to diploma ,48,3% are licentiate(B.A) , and 29/9% are superior to licentiate or above that , 1/4% didn't answer to the question related to education . the data related to organizational post show that 10/9% of the sample are manager and 81% expert , 14/3% didn't answer to the question related to organizational post, too (page No.13)

Also in record of service: 20/4% have had less than 5 years , 38/1% 5 to 15 years , 36/7% 15 to 25 years, and 3/4% more than 25 years, record of services. Also 1/4% didn't answer to the question that is about record of services.

Also to examine the quality of Golestan system of Tehran university ( to answer the questions 3 to 9) the mean test of a statistical community is used. Worthy to say that the importance ratio of aspects is considered in information analysis. The results of this test presented in tables 5 and 6.

Table 5: the importance ratio of scales of each aspect, %

Aspect	Row	Scales	Very important (a)	Important (b)	Relatively important (c)	Un important	Importance ratio
Apparent form	1	Picture and text coordination	18.2	63.6	13.6	4.5	73.825
	2	Proper fonts	36.4	54.5	9.1	0	81.825
	3	Proper colors	18.2	68.2	9.1	4.5	75.025
	4	Attractive logos and pictures	22.7	40.9	13.6	22.7	65.85
	5	Attractive designing	22.7	59.1	4.5	13.6	72.675
	6	Attractive environment	27.3	50	9.1	13.6	72.75
	7	Welcoming	4.5	50	22.7	22.7	59.025
	8	Animation	9.1	36.4	18.2	36.4	54.6
	9	Using multimedia tools	27.3	45.5	4.5	22.7	69.35
Aspect	Row	Scales					
Flexibility	1	The possibility to change fonts and color	18.2	68.2	9.1	4.5	75.025
	2	The possibility to change language	40.9	45.5	4.5	9.1	79.55
	3	The possibility to convert into home page	9.5	42.9	33.3	14.3	61.9
	4	The possibility to ass sound	13.6	45.5	13.6	27.3	61.35
	5	The possibility to change background color	9.1	50	22.7	18.2	62.5
	6	The possibility to transfer and store information with different formats (word, PDF, excel, etc)	90.9	9.1	0	0	97.725
	7	The possibility to change page size	40.9	40.9	18.2	0	80.675
	8	The possibility to return desired page from any point or navigating the pages	72.7	27.3	0	0	93.175
	9	The possibility to link with other dates	31.8	59.1	9.1	0	80.675
	10	The possibility to attach and send via email	40.9	40.9	9.1	9.1	78.4
	11	The possibility to look at content without image or color	28.6	47.6	9.5	14.3	72.625
Aspect	Row	Scales					
Organizational structure	1	Components integration	54.5	40.5	0	0	84.875
	2	Section interdependency	59.1	31.8	9.1	0	87.5
	3	Totally principle: full menu and needed lists in any section	50	36.4	13.6	0	84.1
	4	Proper structure of menus, hierarchies, ...	54.5	31.8	13.6	0	85.15
	5	Menu title relevance to considered usage	63.6	31.8	4.5	0	89.7
	6	Convenient communications	63.6	36.4	0	0	90.9
	7	Proper layout	36.4	54.5	4.5	4.5	80.65
	8	Proper input/output	59.1	40.9	0	0	89.775
	9	Proper information structure	59.1	31.8	0	4.5	86.325
	10	Logic volume and relevance of menus and information	54.5	45.5	4.5	0	88.625
Aspect	Row	Scales					
Usage convenience	1	Information access velocity	81.8	13.6	0	4.5	93.125
	2	Menus accessibility from any section	77.3	136	0	9.1	89.775
	3	Search and survey convenience	72.7	22.7	0	4.5	90.85
	4	Proper (low) interactions	30	65	5	0	81.25
	5	Different access (direct search)	59.1	27.3	4.5	9.1	84.1
	6	Effective search in site	59.1	40.9	0	0	89.775
	7	The convenience to modify programs when facing with errors	59.1	31.8	0	9.1	85.255
	8	System loading velocity	86.4	4.5	4.5	4.5	93.15
	9	Certain loading period of each page	36.4	36.4	18.2	9.1	75.075
	10	Download time	50	36.4	4.5	9.1	81.825
Aspect	Row	Scales					
Content	1	Information relevance to needs	72.7	27.3	0	0	93.175
	2	Menus cohesiveness	59.1	40.9	0	0	89.775
	3	Information clarity	72.7	27.3	0	0	93.175
	4	Menus clarity	68.2	31.8	0	0	92.05
Aspect	Row	Scales					
Usage services	1	The possibility to print information from any section	54.5	36.4	4.5	4.5	85.175
	2	The possibility to copy and share data	68.2	22.7	4.5	4.5	88.6
	3	The possibility to import and export data by everyone	50	36.4	13.6	0	84.1
	4	The possibility to edit information in any page	45.5	40.9	0	13.6	79.575
	5	The possibility to share information in official automation environment	68.2	27.3	0	4.5	89.8
	6	The possibility to share information in e-government	50	31.8	9.1	9.1	80.675
	7	Complete public awareness in each section	36.4	63.6	0	0	84.1
	8	The possibility to register and enter the system outside the university	68.2	22.7	0	9.1	87.5
	9	The possibility to issue forms like certification and so on by user	40.9	54.5	0	4.5	82.9
	10	The possibility to change information by user in any time	45.5	31.8	9.1	13.6	77.3
	11	The possibility to prepare structured reports	61.9	28.6	4.8	4.8	86.95
	12	Poll (feedback) system	40.9	50	0	9.1	86.75
	13	Search engine in the system	59.1	36.4	0	4.5	87.525
	14	Site efficient map	33.3	38.1	14.3	14.3	72.6

**Table No.4: recognition population status of statistical sample**

Record of service					Education					Organizational post			sexuality			Variables
Un answered	More than 25 years	15 to 25 years	5 to 15 years	Less than 5 years	Un answered	Superior to licentiate and up	Licentiate (B.A)	Superior to diploma	Diploma and less	Un answered	Expert	Manager	Un answered	man	woman	
%1.4	3.4%	36.7%	38.1%	20.4%	1.4%	29.9%	48.3%	14.3%	6.1%	8.2%	81%	10.9%	1.4%	30.6%	68%	percent

**Table No.5: The statistics of mean test of a statistical community**

one- Sample Statistics					
Std. Error Mean	Std Deviation	Mean	N	variables	
0.04712	0.56745	3.2094	145	content	
0.05286	0.63427	2.7401	144	Flexibility	
0.0419	0.50626	2.9407	146	Organizational structure	
0.05275	0.63076	2.9007	143	Usage convenience	
0.05393	0.64261	2.6789	142	Usage services	
0.05175	0.60572	2.1253	137	Apparent form	

**Table No.6: mean test of a statistical community**

One-Sample Test						
Test Value=3						
%95Confidence Interval of the Difference		Mean Difference	-2)tailed.( Sig	df	t	variables
Upper	Lower					
4.445	144	0	0.20945	0.1163	0.3026	content
-4.917	143	0	-0.25988	-0.3644	-0.1554	flexibility
-1.416	145	0.159	-0.05931	-0.1421	0.0235	Organizational structure
-1.883	142	0.062	-0.09931	-0.2036	0.005	Usage convenience
-5.955	141	0	-0.32112	-0.4277	-0.2145	Usage services
-16.902	136	0	-0.87469	-0.977	-0.7724	Apparent form

If the test meaningful number considered from meaningful level is bigger than (0/05), Zero assumption is confirmed and the variable amount equals (3), that is variable status is in the middle limit. If the test meaningful number considered from meaning level is smaller than (0,05), Zero assumption is not confirmed. To determine about being bigger or smaller than mean amount (3) , we must consider the limit sign (up and down) If both limits have negative signs, mean amount is smaller than (3) and variable status is un suitable. If both limits have positive signs, mean amount is bigger than (3) and relevant variable status is suitable. As presented in table No.6, the results of T-test indicated that the scales of organizational structure and usage convenience have middle status, the status of flexibility , usage services and apparent form is un desirable and the content has desirable status.

**Suggestions:**

To improve the Golestan system of Tehran university it is necessary to observe the following points:

- The experts access being logical (user access to menus in their duties not less)
- Decrease response time.
- Make objection to grade (mark) systematic.(page14)
- The possibility to connect from out of the university.
- Establish meeting with training , anformatic, financial experts to inform the difficulties and removing it.

-Use of expert and specialist training ( predominant to training laws and formality) in anformatic.

- Arrange menus
- Use system guide and more and better in form the students
- Use suitable colors and motivated environment.
- The possibility to link to office automation.
- Eliminate un necessary menus and reports , and security code.
- Information loading of the student dormitory in system.
- Link the training to dormitory and financial affairs, extra....
- Eliminate unnecessary columns in print time.
- Decrease the phases of entering to system
- Keep the system open to reform personal and file information of the student.
- Change information to word and transfer the information by automation and email
- Reports Excel output
- The possibility to vary color, change back ground, graphic, animation and font.
- Present a number of additional units and observe unit level or conditional and important training cases, in message form for student.
- The possibility to make the excess menus for each user un active.
- The possibility to correct error by user.



-As soon as the student registered, be able to see and print: lessons and professor and chair number and exam class and other necessary cases for entering exam card.

#### Conclusion:

The aim in this paper was Identification the aspects and scales of evaluation training cohesive systems and measure the quality rate of Golestan system of Tehran university based on these aspects and scales. So by studying internal and external papers that identified the aspects and scales of evaluation websites and information systems, we identify the aspects and scales.

Identified aspects are: content, flexibility, organizational structure, usage convenience, usage services and apparent form. Using experts opinions, importance ratio of each one of the aspects and scales is determined. To measure the quality rate of Golestan system of Tehran university, the statistical test (T-test) is used. Results of this test indicated that the aspects of organizational structure and usage convenience have middle status, the status of flexibility, usage services and apparent form is undesirable and the content has a desirable status

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