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THE ROLE OF ELECTRONIC SERVICE QUALITY ON STUDENT SATISFACTION OF BAHONAR UNIVERSITY OF KERMAN

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ABSTRACT
Modern societies with expertise and manpower training in various fields and motivating these sources at work are trying to promote all aspects of their work. Human resources of organizations according to external and internal environment changes, especially strategic changes need to prepare and develop their organization. This preparation can be supplied by fostering and strengthening the insight, knowledge and professional skills of students. The present study was designed to investigate the effect of the quality of electronic service on student satisfaction of Bahonar University. The study population of the present study is composed of Bahonar University students among which 186 students were selected using random sampling and RST model was used to discuss the components of e-service quality on customer satisfaction. Components of electronic service quality are performance, availability and reliability. The results showed that students are satisfied of performance, reliability and availability of systems and this satisfaction is positive and upward positive. Therefore directors can make decision and increase the level of student satisfaction in relation to the improvement of electronic services based on these results.

Keywords: Electronic Service Quality (E-Service Quality), Student Satisfaction and RST Model

INTRODUCTION
By the Quick changes in the use of techniques and tools, energy sources and increased investment in recent centuries, varieties with the growing diversity and increasing "this or that" have emerged in the structure of markets for customers and this variety of choice and also expanse of conditions for customers can be said has appeared differently; but these developments have not accompanied the growing demands of customers. It should be noted that with the advent of new horizons for the methods and ways of thinking, a high coefficient of specialization has emerged. Thus organizations in the world of rapid changes in today's business have no choice other than learning permanently and being careful of the key factors in the environment of the inside and outside of their organization, and identify, respond and timely act on the opportunities and threats, because they know that ignoring the increasingly global competitive world of business, will have nothing but loss of opportunity (Saeedi, 2010).Each activity and durability to survive in this competitive world and enjoy its benefits need attention to two essential points, first experience in the business and the market has undeniable role and the other is that for success in each service activity must be material, human, information and technological capital for the managers and owners of the business, In view of today's executives, including the development of customers, meaning satisfaction and the quality in the view of customers and their loyalty and effective relationship with them, as a result organizations put effort. Growth and development of information technology, has made a revolution in organizations in various aspects of human life and performance. Explosive emergence of the Internet as one of the main worldwide channels for distribution of goods, services and even managerial and professional occupations (Druker, 2004) on the one hand, and the increasing demand for public Internet access to receive information and services that will impress the methods of work and life, On the other hand, it has also caused phenomena such as e-business, e-commerce and e-banking. In E-commerce also exchange money for goods and services over the internet happens (Sakavis, 2004) and can serve as an important factor in the organizations that need to interact with a wide range of stakeholders (Bran and Robins, 2003). Also today's identifying and anticipating customer needs, is essential for competitive advantage and market segmentation. Customer is a key and pivotal factor in enhancing agility in

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organization and orientation of all the objectives, strategies and resources is around attracting and keeping customers. Maintaining and strengthening customer loyalty for companies which concern about maintaining and developing their competitive position in the market, is considered as a strategic challenge; therefore customer loyalty is the key to business success in the sense that by increasing customer loyalty, it is expected that market share and profitability of firm will promote. Market understanding by planning strategies for making customers loyal and increasing their loyalty will enhance long-term interest rates for enterprises (Hamidizade and Ghamkhari, 2009). By internet influence and innovation in new processes in customer service through electronic media, customers increasingly trust online vendors and service providers for even the most basic tasks and services (Sahdev and Purani, 2008).In Both online and off-line environment, marketers face challenges to identify the factors that lead to customer satisfaction and retention, and understanding the implications of the relationship between satisfaction and word of mouth advertising (Bensal *et al.,* 2004). On the other hand, due to changes in recent years and the increasing role of capital markets in corporate finance broker's performance is necessary as an intermediary between companies and investors in order to enrich the quality of their services (Mohammad, 2006). By the means of RTS theory proposed as tools to answer the research questions, the main purpose of applying this theory, is identifying stable patterns that can predicted students' behavior as a rule. These rules not only specify the relationship between quality of service and students final response but also can identify the halo effect or the most important characteristics that directly affect students in the final response, or do not affect decision variable factors (final response). This study follows the main question, whether there is relationship between electronic service quality and student satisfaction of Bahonar University of Kerman?

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Udo *et al.,* (2010) discuss the effect of perceived satisfaction and intentions of public university in America and they showed that Internet service facilities have impact on student satisfaction. Preda Luis Kasalo *et al.,* (2007) studied the role of customer satisfaction and loyalty, trust and usability of the websites. In this study, a correlation analysis and chi-square test, variables such as usability, faithfulness and trust were studied. Shadow and Purani (2008) assessed the impact of the quality on customer trust and satisfaction, and indicated that the quality has impact on customer satisfaction. Vali (2006) checks the effects of e-business success in this study, and studies the quality of the website including information quality, system quality, service quality and vendor-specific quality. Finally, when a website offers a higher level of quality among alternative websites; e-business is more likely to be successful. So Kim and Stoel (2004) evaluate the quality of web sites and customer satisfaction, the study was conducted on clothing retailers and the most important variables in this study are: Web appearance, entertaining website, needed information, financial capability, response time, reliability and customer satisfaction.

Trocchia and Janda (2003) studied how to evaluate the quality of service customers from online retailers and by using in-depth interviews were able to identify four-quality Internet services: performance, availability, feelings and information. Kupin (2002), the use of ATM machines has reduced the productivity of banks primarily because of the cost of staff training programs and informing customers program, but after the technology was used fully and effectively, productivity increased from 3 percent to 17 percent. Snerimanski Vhays (2000) suggest e-satisfaction primarily on studying e-satisfaction as an overall component that reflects effect of the collective set of discrete experiences about the supply over a period of time. Thus, this criteria measures, overall satisfaction, dissatisfaction and happiness, unhappiness of customers of e-shopping. Shahrokhi (2009) investigates the factors that affect the adoption of electronic banking among clients of Parsian Bank and their results showed that the security and confidentiality of information in the field of Electronic Banking have positive affect on ease of use and usefulness of the quality of the connection and finallyis enjoyable among bank clients. Qholipur (2009), examines barriers of creating electronic government in Iran with a focus on issues relating to monetary transactions through the banking network in the country. Their results showed that coordination of necessary administrative and technical services to update the inventory between the government and the banking network is the most important obstacle. Yaghoubi (2009) evaluated the adoption of electronic

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banking based on developed model DTPB. The study suggests that attitude, subjective norm, perceived behavioral control and trust are main factors affecting the intention of customers to use Internet banking. Molavi (2009), concluded in a research on the relationship between satisfaction and service quality of e-satisfaction of users of Tabriz Branch of Agricultural Bank that there is a significant relationship between electronic service quality and its dimensions (performance, reliability, secure ordering, Privacy, response, recovery, and contact) with the users of central branch of Tabriz Agricultural Bank. Also the efficiency of electronic service quality dimension has maximum communication with the user's satisfaction. Babazade (2005) studied the barriers of developing electronic banking in Iran and concluded that the low level of awareness of the benefits of electronic banking, poor legal structure in entering to the electronic environment, state structure of commercial and professional banks, poor infrastructure, low levels of demand for electronic banking, and inadequate supply of electronic banking services, are the main obstacles to the development of electronic banking in Iran.

MATERIALS AND METHODS
The purpose of this study is application and the research methodology is a survey. In the following, more variables, data collection tools and methods, validity and reliability, the population and the sampling and data analysis are discussed.
Research variables
In this study the electronic service quality and the variable components include: performance, reliability and availability of the systems of Bahonar University and also student satisfaction is another variable in this study.
Data Collection Tools and Methods
Researchers used different tools for collecting intended data. In this research according the purpose and posed questions, library and field research methods were used.
1. Library method: for data collection and research background many specialized books and articles have been used.
2. Field method: Two questionnaires are used in this study. One of questionnaires is related to electronic service quality and customer satisfaction. It should be noted that service quality electronic components are: performance, reliability and availability of the systems of Bahonar University, measuring each component is done through few questions and for answering the questions the Likert scale is used.
The Research Population and Sample
The population of this study consisted of all students of Bahonar university of Kerman. In this study, a simple random sampling method is used and sample size equals to 186 people.
Data Analysis Method
RST (Rough Set Theory) method of inferential statistics is used to examine the relationship between variables. Rough set theory was developed in the early 1980s by Pawlak. This outlook is for expressing and exploring issues of uncertainty and ambiguity. It provides powerful ways to eliminate and reduce data redundancy and irrelevance of the database. Including the approximation of the low and the high side for a collection of objects based on the properties of the objects. To use this theory, we define information system as a flat table. Rows in this table are the objects and elements, but columns of the table include the conditional features and characteristics of the decision or the decision making. Therefore, <U, AUD>=IS is an information system/decision making in which D= A and mainly D is a single element set and {a1, a2,…,ak}=A is not null. The set of A components are called conditional features. For each not null components B⊆Aan equivalence IB on in the form of IB⊆× = $\cup^2$ And is defined as follows:

1)
$$(x,y) \in IB \equiv_D \forall a \in B(a(x) = a(y))$$

In which a (x) shows the value of (a) property on an object of (x) of .it could be easily showed that this relation includes equivalent of. In fact, this means that the two objects x and y of B are equivalent in every respect to the features for such a feature, Where to such features, these two are the same thing.

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Equivalence class x to IB element is defined as follows:

2) $x/IB = [x] \, IB = (y \in U| \, \forall \, a \in B(a(x) = a(y))\}$

And the set of all equivalence classes of elements x in U has the following form:

3) $U/IB=\{ \; x/IB \mid x \}$

Obviously, this collection gives a partitioning of U. In addition to the partitioning P of U can be an equivalence E(P) consisting of pairs (x, y) is defined by 2 so that the two elements x and y be an element of the partition P.

To be more precise, if P = {p1, p2, ...pk}is a partition of. Then:

4) $(P_j \times P_j)$

$R=U_{j=1}^{k}$

The partition equivalence P of U induced by.

Equivalence class x / IB are called preliminary sets and X   equivalence class x / ID for x, are called concept sets.

The general trend is the sets of: (5)

$X_1=\{x \in U \mid d(x) = d_1\}$

$X_2=\{x \in U \mid d(x) = d_2\}$

$X_3=\{x \in U \mid d(x) = d_3\}, \ldots$

$X_r=\{x \in U \mid d(x) = d_r\}$

Where { dr, ..., , d2, d1} = Vd, set the values for all objects are . Discernibility Matrix resolution in RED are defined as usual in the theory of Rough.

Suppose: B = Red, RED is set, we set the following account: (6)

I$\underline{B}$(X1) , IB(X1)

I$\underline{B}$(X2) , IB(X2),… I$\underline{B}$ (X$_r$) , IB(X$_r$)

Then some decision based rules and a strong rule by using the software ROSE2 is obtained and necessary conclusions are made (Beaubouef, 1998).

Validity and Reliability

The reliability is one of the technical characteristics of the measuring instrument. This concept deals with the measures mentioned in the same condition to what extent provide same results. Cronbach's alpha was used to determine the reliability and validity or reliability of the questionnaire was calculated as 0.89. Its validity has been confirmed by scholars and is valid.

CONCLUSION

Discussion and Conclusion

According to survey data collected from 186 questionnaires, classified information shall take the form below:

No.	Name of variable	Number of questions	Verbal values	class	Classification range
1	Efficiency	11	low	0	6 t0 21
			average	1	22 to 37
			high	2	38 to 55
2	Reliability	6	low	0	6 to 14
			average	1	15 to 23
			high	2	24 to 30
3	Access to system	4	low	0	5 to 12
			average	1	13 to 20
			high	2	21 to 25
4	Student satisfaction	9	low	0	8 to 18
			average	1	19 to 29
			high	2	30 to 40

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Table 2: The final table has been classified in accordance with the details as follows:

Efficiency(A1)	Reliability (A2)	Access to system(A3)	Student satisfaction (D)	Abundance(F)
0	0	0	0	2
0	0	0	1	2
0	0	0	2	4
1	0	0	0	4
1	0	0	1	2
1	0	0	2	1
1	0	1	1	3
1	1	1	0	6
1	1	1	1	46
1	1	1	2	22
1	2	1	1	8
1	2	1	2	4
1	2	2	1	5
1	2	2	2	1
2	0	0	1	2
2	1	1	1	22
2	1	1	2	5
2	2	1	1	10
2	2	1	2	14
2	2	2	1	11
2	2	2	2	12
total				186

Using Rough Sets principles and application of Rose 2 software, the rules governing variables were obtained as follows:

```
#       LEM2
#       C\:Program Files (x86\(ROSE2\examples\asna11.isf
#       objects = 186
#       attributes = 4
#       decision = d
#       classes= { 0,1,2}
#       Sat Dec 13 14:47:35 2014
#       0 s
```

Rule 1. (a2 = 0) & (a3 = 1) => (d = 1); [3, 3, 2.70%, 100.00%][0, 3, 0]
[{ },{16,17,18},{ }]
Rule 2. (a1 = 2) & (a2 = 0) => (d = 1); [2, 2, 1.80%, 100.00%][0, 2, 0]
[{ },{40,41},{ }]
Rule 3. (a1 = 2) & (a3 = 2) => (d = 2); [77, 77, 83.70%, 100.00%][2, 3, 22]
[152,151,150,149,148,147,146,145,144,143,142,141,140,139,138},{24,23,22,21,20,19}]),172,171,170,16
9,168,167,166,165,164,163,162,161,159,158,157,156,155,154,153,121,121,119,118,117,116},{186,185,1
84,183,182,181,180,179,178,177,176,175,174,173,},{137,136,135,134,133,132,131,130,129,128,127,126
,125,124,123,122}
 #Approximate rules

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Rule 4. (a1 = 1) & (a3 = 0) => (d = 0) OR (d = 1) OR (d = 2); [7, 7, 7.61%, 100.00%] [4, 2, 1] [{15},{13,14},{9,10,11,12}]

Rule 5. (a1 = 2) & (a3 = 1) => (d = 1) OR (d = 2); [51, 51, 57.30%, 100.00%][0, 32, 19] [{ },{47,48,49,50,51,52,53,54,55,56,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,11 1,112,113,114,115},{42,43,44,45,46,57,58,59,60,61,62,63,64,65,66,67,68,69,70}]

Rule 6. (a2 = 2) => (d = 1) OR (d = 2); [62, 62, 69.66%, 100.00%][0, 31, 31] [{ },{25,26,27,28,29,30,31,32,37,38,47,48,49,50,51,52,53,54,55,56,71,72,73,74,75,76,77,78,79,80,81},{3 3,34,35,36,39,57,58,59,60,61,62,63,64,65,66,67,68,69,70,82,83,84,85,86,87,88,89,90,91,92,93}].

**END

The first rule states that if reliability for a student at the University is low, and the availability of the system is assessed average so that they will have an average satisfaction.

The third rule proves that if the efficiency and availability of the system are assessed highly by students, then the student will have high levels of satisfaction.

The fourth rule states that if efficiency is average, and access to system is low then student satisfaction will be low or average.

The fifth rule shows that if the efficiency is high and access to the system is average, student satisfaction will be average and high.

The sixth rule proves that if the reliability is assessed high by students, then the student satisfaction will be high.

According to the results, managers can decide more effectively in relation to the promotion of student satisfaction and reach desired results faster.

Conclusion and Discussion

To identify customer satisfaction, research scholars have done a lot of statistical approach researches in order to help managers make better decisions. The approach of these researches are mostly based on electronic service quality components which is related to student satisfaction and is positive and average to high for student satisfaction of Bahonar University. By increasing the efficiency of university, student satisfaction can also increase. One way to increase the efficiency of bank is to improve the quality of e-services that meet the needs and expectations of students. When universities are electronic processing speed increases so that students can carry out their administrative and research affaires in the minimum possible time. If the system is in electronic form, a large change in the efficiency and performance of the network is created and we also concurrently and quickly run with the organization, causing unprecedented pace in the provided services and this will increase student satisfaction. Each electronic payment system should be able to have the best performance in every step of the process. To achieve an acceptable level of performance, issues such as speed of loading site, traffic control systems, information processing is critical.

For reliability, secure communication and personal data protection are considered and it is believed that for providing reliability in website, purpose of creating and maintaining the security of personal data should be considered. Also In the absence of adequate safety, individuals may reserve for transactions on the Web site when a student feels insecurity while having access to the Internet and feels that his/her personal information during data transfer will be trapped, obviously, have the feeling of uncertainty and unreliability while using of e-services.

Ease of use is the degree to which the user expects to achieve its goal without effort, by speeding up customer service and timely and appropriate response student satisfaction can be obtained. Therefore, the universities will provide services by using modern technologies and believe that for increasing student satisfaction high quality e- services is required.

In this area there is a relationship between these two variables, meaning that by development of human resources and improvement of the education system to promote technical knowledge and expertise of staff in the provision of electronic services, planning for continuous improvement through the identification of factors affecting the quality of services delivered electronically, planning and coordination in order to respond to the sets of internet and electronic units compared to students in the form of direct and mediated

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through quality assessment, review and modify practices to student complaints are handled quickly and shorten the verification process are conducted, therefore, the universities will provide services by using modern technologies and believe that for increasing student satisfaction high quality e- services is required.

Suggestions

1- University system upgrades to increase system speed and save students time and cost.

2- Problems and issues related to electronic service delivery infrastructure to increase the speed of service without difficulty.

3- Identifying hidden needs and expectations of students and extend the range of services.

4- Development and introduction of students to use all features of Electronics, custodians, should be addressed through free education of these methods.

ACKNOWLEDGEMENT

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