

Evaluation of customer satisfaction about Bank service quality

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Abstract

This research has studied and ranked the service quality and its relation with customers' satisfaction in a bank in Iran. In the theoretical principles section, the concepts and definitions related to services, satisfaction, banking and research background have been studied. The statistical community of the study was all the bank customers that have referred to the bank and have had interest-free loans savings accounts or current accounts. The study statistical sample was calculated using the formula; then a questionnaire was designed and distributed among sample members and finally, the research hypotheses were examined using collected data. Pearson correlation coefficient test was used to test the first hypothesis and specifically related hypotheses. Also, the Friedman ranking test was used to test the second hypothesis. The first hypothesis test results showed that there is a positive and significant relationship between service quality and customers' satisfaction. The second hypothesis test results also showed that there are significant differences among the priorities of the constituent elements of service quality.

Keywords : Quality; Service; Customers' satisfaction; Quality of Banking services; Bank.

1 Introduction

One of environmental factors is the customers of an organization. Management experts consider achieving the customers' satisfaction as one of the most important tasks and priorities of companies' managements, and have mentioned the need for ongoing and sustained commitment of senior managers for customer satisfaction as the main prerequisite to success. One of the important requirements in the development of organizations and companies is to consider the customers and their satisfaction achievement as the heading of their goals and activities.

Banking and financial services form a very important part of the service industry [17]. The financial services landscape in the world is rapidly

changing [16]. Many modifying, structural and technologic changes have occurred in the world's banking industry in order to move toward an integrated global banking environment [5].

Fully understanding of the customer, considering him/her as the priority and providing quality services are as the assuring factors of success in the today's business market. Today's interpretation made of a customer is quite different to what has prevailed in the past. This means that a customer is not a mere purchaser of goods or services any more, but he is rather considered as an active and influential member in all business activities. Thus, having new strategies, paying attention to key points in establishing, maintaining and expanding relationships with customer and trying to satisfy him in all stages will increase the efficiency and effectiveness of an organization in achieving the customer-based goals and will result in a base of loyal customers in long-term. Many companies have realized the fact that con-

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tinued providing top quality services can bring a strong competitive advantage over competitors [12]. The customer and customer satisfaction terms in service providing organizations, especially banks due to their complete dependence for survival, become much more important. Providing different products by various banks (banking services), in order to retain existing customers and attracting new customers and ultimately gaining a greater share of the competing banking market indicates such an importance. Therefore, knowledge of the organization image in the customers' opinions in order to identify the strengths and weaknesses and improve the performance level is considered as the key priorities of all organization, especially banks. This study seeks to investigate the issue of customer satisfaction and evaluation the importance of customer satisfaction in receiving banking services.

2 The concept of satisfaction

It can be defined as the cognitive or emotional reactions that occur in a person in response to service encounters [1]. It should be noted that customer satisfaction is influenced by several factors that one of the most important of these factors includes the quality of product or service. In fact, the customer satisfaction has a close relationship with providing quality or service.

3 The concept of services

Due to the variety of services, defining them has been always difficult. What makes this complicated is the fact that because of the intangibility of most data and outputs, understanding and identifying the ways to perform and provide the services would not be often easy [15]. The term of service has a wide variety of meanings, and this feature has led to much ambiguity in its concept in management texts [13]. Groner defines service as: "A service is a more or less intangible activity or set of activities that are usually but not necessarily performed in the interactions between customers and service providing personnel and/or physical resources or goods or service providing systems as well as offering solutions to customer problems" [9].

The concept of quality

Quality is determined by the customer neither by the manufacturer nor the service provider. In clear words, the quality includes a set of services and characteristics of a good or service that provides the needs and satisfaction of the consumer [10]. The quality starts from the customer and paying attention to goods or services, regardless of the customer opinion, is not necessarily accompanied by quality [7]. Usually, the quality is defined based on the product compatibility with the customer's considered characteristics or based on the rate that the product can meet the previous expectations of the customer [14].

4 The concept of services quality

Since the day that the role of the service in everyday life became evident, the services quality issue was considered as the main feature of competition among organizations so that given the quality of services, the organization can be become different from its competitors and this results in achieving competitive advantage [8].

5 The concept of banking services quality

The tendency to services quality play an important role in service providing industries such as insurance services, banking, etc., since the quality of services is considered crucial for the survival and profitability of the organization [22]. In the field of banking services, the quality of services is defined as the customer's belief or opinion about the level superiority of service offered in the bank [4].

Therefore, as mentioned above, the quality includes a set of features and characteristics of goods and services that supply the customer satisfaction. In this study, the researcher has considered the quality in six dimensions, including:

1. Acceptance of Islamic rules
2. Confidence
3. Credit
4. Tangible factors
5. Sympathy

6. Accountability

6 Background of research

In the service quality literature, the most common model for measuring service quality is Servqual scale that was developed in 1988 by Parasuraman, Zeithamel and Berry [18] based on gap model. Assessment of services quality in this model is done based on the customer's actual perception of service quality provided in comparison with the ideal situation [11].

Bahia and Nantel have noted some points in their model in 2000 [6] about the Servqual model and its deficiencies. Their main objection was related to the lack of comprehensiveness and holistic vision of this scale, and they believed that other dimensions are added to the Servqual scale in some services.

Aldigan and Butell [2] presented a scale in their model as the scale of equivalence system of banking services quality that was included 21 components.

7 Methodology

Based on methodology, this research is a two variables descriptive-correlative study. The study can be performed for further understanding of present conditions on the quality of services and to assist the bank management in decision-making process. In this study, a series of banks located in the city of Zahedan in Sistan and Baluchestan province in Iran were considered.

8 Data collection methods

Collection of required data and information is a key issue in any research. In choosing the collecting tool, the researcher must take into consideration two vital points. First, he has to choose the right approach with enough knowledge and secondly, he would rather use a combination of several solutions in stead of one single solution [20].

Two methods have been used in this study.

In the library method, various related policies were used as well as using numerous Persian and Latin books, pamphlets and articles in order to better understanding of the issue and keeping up with new topics.

In field method, instruments including interviews, questionnaires and observation have been used. In the beginning of the research, to increase the accuracy of issue in the service quality area, a limited number of experts in the province's bank were visited and interviewed along reviewing documents and records. While compiling the questionnaire, an interview was also done with some of the bank's costumers. Finally, during the survey performing and completing the questionnaires, because of the attendance of the researcher in most of questionnaires fulfillment, the people who were willing to have an interview were interviewed. It has to be said that the observation tool was used during multiple referrals and visits of customers to the bank.

Data collection methods are summarized in the following table:

The research hypotheses

This study has two main hypotheses that the first hypothesis includes six specific hypotheses. The research hypotheses are:

1. There is a significant relationship among the determined factors in the research model and the customer's satisfaction.
 - (a) There is a significant relationship between acceptance of Islamic laws and acting based on them and the customers' satisfaction
 - (b) There is a significant relationship between the bank confidence and the customers' satisfaction
 - (c) There is a significant relationship between the bank credit and customers' satisfaction
 - (d) There is a significant relationship between the tangible factors in the bank and the customers' satisfaction
 - (e) There is a significant relationship between the empathy and customers' satisfaction
 - (f) There is a significant relationship between the bank accountability and the customers' satisfaction.
1. There are significant differences among the priority of constituent elements of services quality in the province banks.

9 The conceptual model of the research

To present the research hypotheses, a model was used based on that the researcher intended to identify the constituent indicators of service quality in the bank of province. Based on this, the preliminary conceptual model of research was designed by the researcher, which is seen in Figure 1: Thus, the conceptual model forms the foundation of all the research.

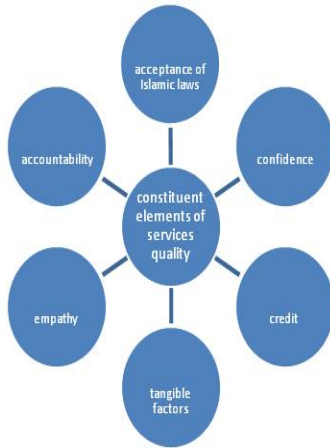


Figure 1: The preliminary conceptual model of the research

However, the conceptual model in this study has been designed based on kiwi and Kampenhout model and is a deductive type. So, at first the dimensions and then the concept, components and indicators have been designed respectively. In this study, the constituent elements of service quality have been classified into six categories based on library studies and literature review, review of studies related to the constituent elements of service quality, interview with experts and distribution of the initial open questionnaire among bank managers and experts in the province; these six classes form the preliminary conceptual model of the research. Identifying the constituent elements of service quality in the banks of Sistan and Baluchestan province requires more detailed investigating of collected literature, conducted exploratory interviews and distributed preliminary questionnaires, so that they can be measured by questionnaire tool as well as prioritized and ranked based on their intensity and degree of impact. The final conceptual of this model (dimensional model) is formed as follows. This model that includes constituent indicators elements of the bank

services quality proportional to the factors including acceptance of Islamic laws, confidence, credibility, tangible factors and accountability is seen in Figure 2.

It should be noted that this diagram is the basis for next steps in research and the researcher intends to complete it in continue. In the first, the measuring instrument in the survey, meaning the questionnaire, is introduced. This tool is a suitable means for gathering information on relevant topics as well as a good tool to identify the constituting factors of services quality in banks of the province.

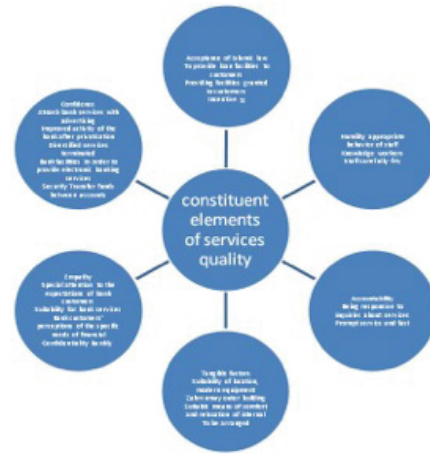


Figure 2: The final conceptual model of the research (dimensional model)

10 The research measurement instrument

A questionnaire was used to measure the research variables. In this regard, two types of questionnaires have been designed: Preliminary and final survey questionnaires. In the preliminary questionnaire, after modifying comments of experts, the final questionnaire was developed and distributed among 400 costumers of bank branches of the province that finally based on these questionnaires and exploratory interviews, the desired parameters or dimensions for designing the final conceptual model of this study were determined. In the final questionnaire, initially through a series of exploratory interviews with experts and professionalsof the bank as well as studying books, magazines, and Persian and Latin texts, several key factors were collected to design the appropriate questions. Then, an

initial questionnaire was prepared, and after consulting with experts, the final and main questionnaire for the research was designed; this questionnaire was called a survey and ranking questionnaire of service quality and its relationship with customers' satisfaction in the bank of Sistan and Baluchestan province, which the researcher distributed it in the statistical population of the survey.

11 The content of the final questionnaire

The questions of the questionnaire have been designed in two sections including questions related to individual features of the sample and questions related to test the research hypotheses. The questions related to individual features of the audience or the so-called demographic characteristics are six questions that describe the selected statistical samples, while the questions related to the research hypotheses including 20 questions devote to clarify, describe and finally test the research hypotheses. These questions have been designed based on the SER VPERF questionnaire, and five options have determined for each question (very high, high, moderate, low, very low); the respondent has been asked to select one of them by marking a X symbol. Also, to prevent the confusion of the respondent, questions related to each category of hypotheses have been separated from each other.

The validity of the questionnaire

Validity or credibility means that the measuring tool can measure the desired property. In other words, the validity concept answers to this question that how much the measurement instrument can measure the studied property [21].

In the present study, the researcher-made questionnaire was used to do the pilot test; meaning that, the preliminary questionnaires were distributed among 20 percent of samples in the first phase and collected after completion; then the irrelevant and unintelligible questions were basically reviewed. Then, the final questionnaire with a new edition (result of modifications and correction of the preliminary questionnaire) was developed and distributed the second phase. Obviously,

the selected questionnaire has been provided using reliable sources related to the bank services.

12 The reliability or constancy of the questionnaire

Another item that should be considered in research works is the constancy or reliability of the measurement instrument. The reliability of a measurement tool means that if such a questionnaire is measured in another place and in similar conditions, the achieved results will be similar, accurate and reliable. The measurement reliability of an instrument is conducted with the aim that instrument can be applied in different times and places, and if the research is done by another individual or researcher in other times and places, the same results can be achieved [21]. This feature is related to the measurement tool, meaning that, the obtained results from the questionnaire in similar conditions to what extent will be achieved. To determine and calculate the final coefficient, different methods are being used, including test repeating method, equivalent-making method, Tensief method and Coder- Richardson method, of which the best known is the alpha Cronbach's method [3].

Therefore, in this research, the questionnaire constancy or reliability was calculated using the alpha Cronbach's measurement method, which is used to measure the internal consistency of a questionnaire or tests that measure various features. In this study, the mentioned alpha value calculated by SPSS software that its value is equivalent to 937/0, which is statistically considered as an optimal value.

Scale measurement of the research

One of the most common scales of measuring views about a subject is the Likert scale. In this study, to measure the respondents' views about the constituting indicators of services quality in banks of Sistan and Baluchestan province, the respondents are measured over a five-score spectrum Likert ranking scale. The questionnaire response spectra consist of very high, high, moderate, low and very low, for which the codes including 1, 2, 3, 4 and 5 have been considered to analyze them. The example of used scale in questionnaire is seen in Table 1.

Table 1: The initial values of weights.

| Options | Very much | much | average | low | Very low |
|------------------------|-----------|------|---------|-----|----------|
| Specific code analysis | 5 | 4 | 3 | 2 | 1 |

13 Statistical population

In this study, the statistical population includes all the customers of Sistan and Baluchestan province bank that are located in the branches of Zahedan city; according to this definition, the only factor to put an individual in the sample population is being a bank customer and using the bank services. In other words, in this particular case, factors such as age, gender, education, housing location, etc. are not important.

14 Sampling method

In this study, the stratified random sampling is used. In this study, based on stratified sampling, the studied population units, meaning the bank costumers, are grouped into groups that are more homogenous in terms of the feature (the quality of services) to lower their variations within the groups. Then, from each class, some examples are chosen proportionally. Therefore, the total bank branches in Zahedan were classified in two supervisory units, and a number of branches were selected from each branch based on the ratio of branches in that supervisory unit to the total branches in Zahedan city. Also, the number of chosen costumers in each supervisory unit was selected according to the branches ratio in each supervisory unit to the total branches.

15 Sample size

To determine the number of samples required to estimate the studied parameter using the Cochran sampling method, the size of allowable error in the estimation of the parameter should be considered. The error size (d) is usually expressed as the difference between the parameter value and its estimate. $|M - Y'|d =$.

To estimate the P parameter than to the population members that have a special characteristic, the following equation is used:

$$n = \frac{z_{\alpha/2}^2 pq}{d^2}$$

Where, the "p" is the estimated ratio of variable attribute using the previous studies and $q = 1-p$. If p value is not available, its value can be considered equal to 5% p. In this case, the variance value appears to its maximum, meaning 0.25.

Since, the ratio of variable attribute can be estimated in this study, we consider the p value as 0.5. Also, the allowable error value is considered as $d = 5\%$. Also, we have:

$$z_{\alpha/2=5\%} = \pm 1/96$$

Therefore, the sample size or the number of selected costumers is as:

$$n = \frac{(1/96)^2 (0/5) (0/5)}{(5\%)^2} \cong 384$$

The most important statistical methods used in this study are as following:

K2 Test:

To use this test, the statistic value that is shown by "t" is used; the statistic of K2 test is as follows:

$$t = \frac{\bar{x} - \mu_0}{s_{\bar{x}}}$$

Friedman test:

As there is a need to corresponding nonparametric method of "one-way variance analysis", in some cases it is necessary to analyze the statistical data in a two-way classification corresponding to the two-way variance analysis. The test that is used under these conditions is the "analysis of variance using the ranks" or Friedman's analysis of variance [19].

$$x^2 = \frac{12}{nk(k-1)} \sum_{j=1}^k R_j^2 - 3n(k-1)$$

Data analysis:

Analysis of demographic data

In this study, demographic data include gender, age and education, which will be examined. According to that three questions of job, bank account type and account period time are optional, we will ignore them in the study.

1. Gender

As it is seen in Table 2, 64% of costumers referred to the bank are men and 36% are women. This suggests that most of bank customers are men. See Table 2.

1. Age

According to figures contained in Table 3, the ages of 13.1% of customers are less than 25 years old, 41.3% between 26 to 35 years old, 19.1% between 36 to 45 years old, 17.4% between 46 to 55 years old, and 3.9% are older than 56 years old. Also, 5.2% have not answered to this option. Thus, the minimum and maximum numbers of the province bank are respectively in the age group over 56 years old and age group between 26 to 35 years old.

1. Education

According to Table 4, the education levels of the province bank costumers are as following: 15.2% under diploma; 22.2% had a diploma; 17.8% had a junior college; 13.7% had a bachelor's degree; 8.3% had an M.A; and 3.1% had a P.H.D. The 7/1% has not responded to this option. Thus, we can conclude that most of the bank customers have undergraduate education.

16 Research findings

Statistical hypothesis test is used for data analysis. The used tests in this regard include K2 and Friedman tests, based on which the research hypotheses have approved or rejected. Note that the computing operation of statistics of the statistical assumptions test has been performed through SPSS software. The study includes two main hypotheses that the first hypothesis consists of six sub-hypotheses, which have been analyzed in the following in this chapter.

In order to test the first hypothesis, initially testing of sub-hypotheses is performed that only

testing of the first section of the first hypothesis is mentioned as an example.

Testing the 1-1 hypothesis

1. Hypothesis title:

There is a significant relationship between acceptance of Islamic laws and acting based on them and customers' satisfaction.

1. Study method:

To run and test this hypothesis, the researcher has designed three questions.

Then based on Likert spectrum, the options including very high, high, moderate, low and very low have been considered for each question. In continue, for evaluation of the answered questions, the coding of 1 to 5 has been dedicated respectively to the mentioned options. There is no significant relationship between acceptance and acting based on Islamic laws and the costumers' satisfaction. H0

There is a significant relationship between acceptance and acting based on Islamic laws and the costumers' satisfaction. H1 Testing the first hypothesis

The hypothesis title

For the customers' satisfaction, the level of constituting factors of services quality in the Sistan and Baluchestan province bank is enough. To achieve the results of this hypothesis, the Pearson correlation coefficient test was used. Based on Pearson correlation coefficient test, this hypothesis was confirmed. The obtained correlation coefficient is $r = 0.532$ that by the 95% confidence level, this hypothesis was accepted. Thus, it can be concluded that there is a direct and positive relationship between the services quality of province bank and the costumers' satisfaction. This means by increasing the quality of services, the costumers' satisfaction will increase.

This means:

For the customers' satisfaction, the level of constituting factors of services quality in the Sistan and Baluchestan province bank is enough.

Testing the second hypothesis

Table 2: Sample number and sex.

| frequency | sex |
|-----------|--------|
| percent | number |
| 64 | |
| 36 | |
| 100 | 146 |
| 84 | |
| 230 | male |
| femal | |
| Total | |

Table 3: Distribution of respondents comments based on age group.

| frequency | Age group |
|-----------|------------|
| percent | number |
| 13.1 | |
| 41.3 | |
| 19.1 | |
| 17.4 | |
| 3.9 | |
| 5.2 | |
| 100 | 30 |
| 95 | |
| 44 | |
| 40 | |
| 9 | |
| 12 | |
| 230 | Less to 25 |
| 26-35 | |
| 36- 45 | |
| 46- 55 | |
| Top to 56 | |
| No answer | |
| Total | |

The hypothesis title:

There are significant differences among the priorities of constituent elements of services quality in the province bank.

Based on the computer output, the order of priorities of constituent elements of services quality is as follows:

17 Conclusion

As previously mentioned, there are two main hypotheses in this study that the first hypothesis consists of six hypotheses. Here, initially the results of sub- hypotheses and then the results of main hypotheses are presented.

The 1-1 hypothesis.

There is a significant relationship between acceptance and acting based on Islamic laws and the costumers' satisfaction.

Based on the existing findings in the research, 144 persons (63%) of the population sample have answered to this hypothesis questions by the options including moderate, high and very high; thus, there is a direct and positive relationship between the acceptance and acting based on Islamic laws and the costumers' satisfaction. It means that by increasing in operating based on Islamic laws in the province bank, the satisfaction of costumers' increases. The mean of responses given to

Table 4: Distribution of respondents' opinions based on education.

| frequency | Education |
|-------------------|---------------|
| percent | number |
| 15.2 | |
| 22.2 | |
| 17.8 | |
| 31.7 | |
| 8.3 | |
| 3.1 | |
| 1.7 | |
| 100 | 35 |
| 51 | |
| 41 | |
| 73 | |
| 19 | |
| 7 | |
| 4 | |
| 230 | under diploma |
| diploma | |
| junior college | |
| bachelor's degree | |
| M.A | |
| P.H.D | |
| not responded | |
| Total | |

Table 5: Questions about acceptance and acting based on Islamic laws.

| | Indicators considered |
|---|----------------------------------|
| 1 | Encourage people to loan account |
| 2 | Loan facility |
| 3 | Providing facilities |

Table 6: Calculations of statistics and critical values for hypothesis 1-1

| results | Asymp.sig | test | Critical valu | a |
|-------------------|-----------|--------|---------------|---|
| Error level | | | | |
| Reject Ho 0.05 | 0 | 29.616 | 991.5 | 2 |

the questions about confidence dimension is equal to 4.22. Therefore, it can be concluded that the province bank costumers believe this bank acts based on Islamic laws in the range of high to very high options.

The 1-2 hypothesis:

There is a significant relationship between the bank confidence and the costumers' satisfaction.

Based on the research findings, 48 cases

(21%) have answered to the questions of this hypothesis by options including moderate, high and very high. Therefore, there is a direct positive relationship between the confidence and costumers' satisfaction of the bank. It means that by increasing the confidence level of the province bank, the costumers' satisfaction increases. Meanwhile, the mean of responses given to the questions of confidence dimension is equal to 4.06. Thus, it can be concluded that in

Table 7: The Priority of constituent elements of services quality in the province Bank

| state | mean | Row |
|-------------------------|------|-----|
| acceptance Islamic laws | | |
| Confidence | | |
| Accountability | | |
| Empathy | | |
| Tangible factors | | |
| Credibility | 22/4 | |
| 06/4 | | |
| 99/3 | | |
| 98/3 | | |
| 83/3 | | |
| 47/3 | 1 | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

the customers’ view, the confidence level of the province bank to the customers is in high level.

The 1-3 hypotheses

There is a significant relationship between the bank credibility and the customers’ satisfaction. Based on research findings, 105 persons (46%) of the sample population have answered to this hypothesis questions by options including moderate, high and very high; thus, there is a direct and positive relationship between the bank credibility and the customers’ satisfaction. It means that by increasing the province bank credibility, the customers’ satisfaction increases. Meanwhile, the mean of responses given to questions of credibility dimension is equal to 3.74. Therefore, it can be concluded that the costumers of province Saderat bank believe that the bank operates based on credit from moderate to high level.

The 1-4 hypotheses

There is a significant relationship among the tangible factors of the bank and the customers’ satisfaction.

Based on the findings of the study, 98 persons (43%) of the sample population have answered to this hypothesis questions by options including moderate, high and very high. Thus, there is a direct and positive relationship between the

tangible factors in the bank and the customers’ satisfaction. It means that by increasing the province bank the tangible factors, the customers’ satisfaction increases. Meanwhile, the mean of responses given to questions of tangible factors dimension is equal to 3.83. Therefore, it can be concluded that the tangible factors in the bank are considered more than average by the costumers.

The 1-5 hypotheses

There is a significant relationship between the bank empathy and the customers’ satisfaction.

Based on the findings of the study, 93 persons (41%) of the sample population have answered to this hypothesis questions by options including moderate, high and very high. Thus, there is a direct and positive relationship between the empathy in the bank and the customers’ satisfaction. In other words, by improving the empathy in the province bank, the customers’ satisfaction increases. Meanwhile, the mean of responses given to questions of empathy dimension is equal to 3.98. Therefore, it can be concluded that in the costumers’ view, the empathy in the province bank is considered high.

The 1-6 hypotheses

There is a significant relationship between the bank accountability and the customers’ satisfaction. Based on the findings of the study,

57 persons (25%) of the sample population have answered to this hypothesis questions by options including moderate, high and very high. Thus, there is a direct and positive relationship between the bank accountability and the customers' satisfaction. In other words, by improving the accountability in the province bank, the customers' satisfaction increases. Meanwhile, the mean of responses given to questions of accountability dimension is equal to 3.99. Therefore, it can be concluded that in the costumers' view, the accountability in the province bank is considered high.

Hypothesis 1

For the customers' satisfaction, the level of constituting factors of services quality in the Sistan and Baluchestan province bank is enough. Based on Pearson correlation coefficient test, this hypothesis was confirmed. Thus, it can be concluded that there is a direct and positive relationship between the services quality of province bank and the costumers' satisfaction. This means by increasing the quality of services, the costumers' satisfaction will increase.

Hypothesis 2

There are significant differences among the priorities of constituent elements of services quality in the province bank.

Based on the computer output, the order of priorities of constituent elements of services quality is as follows:

1. Acceptance and acting based on Islamic laws
2. Confidence
3. Accountability
4. Empathy
5. Tangible factors
6. Credibility

In general, each of the above components, respectively, has obtained the average values as 4.22, 4.06, 3.99, 3.98, 3.83 and 3.47. Thus, it can be said that the acceptance and acting based on Islamic laws is the most important and strongest component of the province bank. Also, other components of services quality in this bank are higher than moderate level.

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