Creation and Improvement of the System of customer satisfaction in the Social Security in Iran according to SERVQUAL model

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Abstract

World economic market has entered the competitive era. In all over the world, commercial organizations and institutes try to take precedence of their competitors by offering unique advantages. One of the main changes in attitude toward improvement of quality in late decade of twentieth century was consideration of customer satisfaction as important component in quality management systems in all business institutes. In this research, Create and improve System of customer satisfaction in the Social Security in Iran According to SERVQUAL model, The research method is descriptive and survey and it is applied according to goals. The data were collected by questionnaire and observation of social security branches in Zanjan province. The questionnaire was tested by software SPSS and the data were analyzed by descriptive and inferential statistics. The results show that it can be claimed there is no significant difference between social security customers’ expectation on organization quality and their account on services quality in five dimensions. Also, %74.38 of offered services in this organization is confirmed according to expectations of insured and employer and real exceptions of insured and employer is %26 (based on 7) less than management inference about their expectations. Also, %70.51 of current performance of the organization can be measured by management inferred expectations. The employees of this organization substantiate %71.13 of current performance standard. It was concluded that the organization stuff offer %69.65 of services that this organization obliged to offer.

Keywords: customer, customer satisfaction, measuring satisfaction, satisfaction index

Introduction

Undoubtedly, customer satisfaction is one of the key strategic subjects in recent decade. Now, customers determine companies’ survival in world economic and companies no longer could be indifferent toward their customers’ expectations. The organization should satisfy their customers since they are only resource of capital return, so the primary principle in today business is creation of value attracted by customers (Nigel Hill, 2005:8). Increase of customer preservation even in five percent could enhance profit to 25-30 percent and a business that reduces customer losing in five percent it increases final customer value about 75 percent (Hapson and et al, 2005:4). Customer satisfaction is operational goal of most of organizations. These organizations have invested on items that impact significantly on customer satisfaction (quality and customer services). Loyalty has been increased in retailers’ level and now it moves toward commerce sector. Organizations invest on marketing, data bases, and customer relations and planning management in order to increase their customers. Organizations have used customer charter in public sector for showing their commitment and service to customer and this charter involves customer satisfaction and content (Kavousi, 2009:3). What is the result of these efforts and investment? How we could percept our achievement in customer satisfaction and content? Indeed, most of the organizations do not evaluate their
success. According to a proverb, if you could not measure something you could not control and manage it. This rule is true in customer satisfaction. Of course, most of companies do not measure their production relative to customer satisfaction although they claim this evaluation (Knot Blanchard, 2009:13).

**Literature Review**

In most countries, value added of service offering sector is higher than value added of other economic sectors. These small and big institutes develop modern economic and services offering sector is responsible for establishment of new jobs. Service offering sector possesses high number of employees in the world relative to other sectors (Iwanson, 2006:7). In addition, in today world competitive economic quality has broken past exclusive atmosphere in production and service offering scopes so that in universal economic activities, attitude toward customer and customer satisfaction is considered as main principle in business and inattention to this issue leads to omitting in market; since goods and customer expectations meet customer needs and satisfy them and this trend helps to repurchase and encouragement to buy and finally survival of organization (Dadkhah, 2009:41). Generally speaking, every customer after purchase and receiving services and utilization of a good is satisfied or dissatisfied. Customer satisfaction is a positive feeling created in consumer. Indeed, customer satisfaction is achieved by meeting needs and expectations of goods and services and performance of supplier. If customer expectations, received services and goods are in the same level or goods and services are in low level than expectations the customer is satisfied or dissatisfied (Burgers, A, 2000:146). Lingenfeld defines customer satisfaction from psychological perspectives as result of comparison between specifications of received goods and services and customer demands and social expectation related to products. Rapp defines customer satisfaction as personal viewpoint toward customer resulted from permanent comparison of real agency performance and customer expected performance according to above definition (Kang, GJ, and 2004:269). ISO 9000 standard version 2000 defines customer satisfaction as “customer account toward meeting customer needs”. These standard points to this fact that: “customer complaint is common index of less satisfaction of customer; but lack of complaints does not mean high customer stratification”. Indeed, the primary goal of an organization should be achieving high customer satisfaction level not more profits, since customer satisfaction increases profits (Kavousi & Saghaei, 2009, 383).

**Definitions and components of customer satisfaction culture**

Customer satisfaction involves all values and knowledge common in an organization by the aim of meting common needs and satisfaction of customer. Factors like speed, accuracy in customer affairs, quality of conduct, behavior and contact with customer, transparency and honesty in offering information increase reliability of organization efficiency and expansion of customer satisfaction (Mohammadi Ismail, 2005:185).

**Steps of creation and expansion of customer satisfaction culture in organization**

- Identification of customer
- Classification of customers
- Interaction with customers
- Coordination of organizational and customer behavior
- Valuation of customer
- Effort to creation and continuity of loyalty in customers

**Main steps for establishment of customer satisfaction management system**

For establishment of customer satisfaction management system steps shown in figure (1) are necessary. (Paradigm used in this research is SERVQUAL model. Preparation, classification and
importance of dimensions, planning, implementation and analysis of results and execution of improvement projects are explained in following sections) (Petra, Permud, 2004:152).

**Figure 1: Steps of Customer satisfaction management system**

Before implementation of customer satisfaction assessment plan it is necessary to determine following items:

1. Determination of specified periods for questioning customers
2. Determination of questioning respondents in target customers
3. Determination of time and place of questioning
4. Determination of questioning methods (Forest, F, 2000: 364)

Note: different methods like observation, sending questioners, phone contact and electronic post can be used. Different parameters impact on asking questions: a-cost, b-efficacy, c-access, d-speed, c-diversity, e-market type, f-size and expansion of customers, g-information classification level (information security)
Effective factors on customer support services
A customer expectation is multidimensional construct and it depends on different services. Parson man and et al consider ten elements in direct questioning:
1. Reliability: item defect level (health factor) and trust by fidelity
2. Responsiveness: feeling responsibility, speed and flexibility in need to customer
3. Assurance: after sale obligations and creating reliability by establishment of mobile services team
4. Empathy: empathy and attention to customer personal characteristics
5. Intangibles: physical possibilities and human force and appearance of stuff and equipments
6. Access: being readiness and on time delivery and establishment of local cooperatives for easy access
7. Communications: hearing different customers with artistic creativity and talent
8. Competence: competency and meritocracy
9. Courtesy: humble and courtesy and respect
10. Credibility: promise less than ability and act more than promise (Hapson, 2004:125).

Relationship between quality and customer satisfaction
Professor Noryaki Kano from as Japanese famous theorist believes that quality is inseparable element in commerce and universal competition. According to expansion of world trading meeting customers’ needs is impossible only with current products so it is necessary to respond to customer needs by production of new and innovative products and this trend requires to perception of needs and variable demands. Thus he defines quality as meeting needs, demands and expectations of customer and even customer satisfaction so it leads to:

a) customer satisfaction
b) organized production
c) long term profit

In Kano model customer services are divided into three categories:
1- Must be services
2- One dimensional services
3- Attractive services

![Figure 2: The Kano model](http://www.european-science.com)
1. Must be services: involve all services that are necessary so, they do not lead to satisfaction but lack of them cause to dissatisfaction like lack of auxiliary item in car.

2. One dimensional services: services that are not offered due to limitation in generally, but in case of demand they are offered proportionate with possibilities only for customer satisfaction so they are directly related to satisfaction and in other case they lead to dissatisfaction.

3. Attractive services: attention to invisible demands of customers and any services that are not considered at present but they will be offered in near future. These services lead to satisfaction and in other case they will not lead to expectations since there is no legal demand. These systems indicate importance of customer so they satisfy customers (ibid). The difference between first and second parts is that in first part in case of lack of offering the customer becomes dissatisfied but in second part customer does not expect any services so they are attractive.

Motivational and health factors in customer satisfaction

SERVQUAL and quality of services

Quality technique means quality of services and it is a tool for determination of gap between mentioned levels and real performance level in service offering organization or Production Company. Designing questionnaire and measuring viewpoints is basic of quality of services. So a researcher should be aware of these principles. Achieving this goal needs to tools to measure customer, employees and managers expectations and perceptions with personal judgment and this tool is questionnaire. Thus preparation of tangible tool for customer valuation and satisfaction is necessary (Alipour Mehrdad, 2010:267).

High qualitative services and measuring customer satisfaction in service offering scope

Customer respect and improvement of administrative system particularly in state organizations considered by the aim of customer satisfaction in different organization indicate the position and importance of customer in our country. By glance on history of quality assurance activities in recent years it is concluded that attention to quality of goods dates back to one century ago but concept of quality in services dates back to early eightieth decade. Lack of awareness on manner of assessment of services quality and different aspects of quality and lack of need to specification of standard in services offering scope are the main factors in this relation (Hagman, 2005:175). At first, services are intangible. Secondly, services required to hardworking were heterogeneous and diverse. So, individuals’ performance is separable from one supplier to other and one customer to other customer. Thirdly: production and consumption steps are separable in services offering sector. Quality of services is measured during services offering process and when there is tendency between customer and supplier while quality is offered to customer (ibid).

Effective factors on customer satisfaction

Word of mouth is the first factor that determines customer expectations and it is words heard from other customers. The second factor that adjusts customer expectations is result of particular conditions and needs considered as personal needs.

The third factor is prior experiences that affect on customer expectations. External communications by supplier plays an important role in this case and it is the fourth factor. One of the main factors in external communications is cost and price of services that affects on future of organization (Broth Andy, 2005:75).
SERVQUAL as tool for measuring customer satisfaction from quality of services

It is a result of research and studies and it involves two sections: customer expectation measuring contains 22 statements and it is used for identification of customer satisfaction related to services and customer perception section involves 22 statements and it is used for measuring customer perception from revived services.

By merging some dimensions and formation of two new dimensions a new definition is offered:

- **Tangibles**: statues of physical facilities, equipments and communicative tools
- **Reliability**: ability to do committed services in correct and reliable way
- **Responsiveness**: tendency toward help customers and on time services offering
- **Assurance**: possessing knowledge, courtesy of stuff and their ability to create trust and reliability during services offering
- **Empathy**: importance and attention to customers

<table>
<thead>
<tr>
<th>Ten dimensions for measuring quality of services</th>
<th>tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill, courtesy, reliability and security</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access, communication and perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Five aspects of this model obtained by systematic analysis of customers’ scores of interviews in services industries indicate main criteria for assessment of quality of services. So it seems rational to consider all mentioned aspects. Services is main aspect of quality and in other hand, tangibles and appearance is less important aspect and even customers attitude is changed in near future but recently reliability is prior and appearance is less considered.

**Methodology**

This research is descriptive and survey and it is applied according to research type. The statistical population involves all insured and employer and retired using social security services in Zanjan province. The simple random method was used for sampling. In estimation of volume from managers and employees society and according to known volume following formula has been used (Hafezniya, 2005:86).

Openly accessible at [http://www.european-science.com](http://www.european-science.com)
n = \frac{Nz^2pq}{(N - 1)d^2 + z^2pq}

Where
N: population
n: sample
p: ratio in population and q=1-q
d: maximum determined estimation error
z: amount of normal distribution according to confidence level

Since we do not have any information about p value we assume it 0.5 so, maximum values are achieved.

The hypotheses have been considered according to SERVQUAL model so that first hypothesis is based on the main gap of this model as gap 5 and others are as follows: hypotheses 2 to 5 are based on gaps 1 to 4 of the model.
1. There is a difference between insured and employer view points on quality of services of social security organization in Zanjan province.
2. There is a difference between social security organization management inference about insured and employer’ expectations and their real expectation.
3. Functional standards of Zanjan social security organization (defined standards for measuring quality of services) cannot be measured by management expectations.
4. employees of Zanjan social security organization are not capable to substantiate functional standards (they do not observe functional standards)
5. There is a difference between obligated services offered by social security organization and offered services.

Results
In estimation of sample size of Zanjan social security organization statistical population and according to unlimited population following formula is used:

\[ n = \left( \frac{z}{d} \right)^2 \times p(1 - p) \]

Table 1: estimation of employees and managers number

<table>
<thead>
<tr>
<th>Statistical population</th>
<th>N population</th>
<th>n sample</th>
<th>Relative error of d</th>
<th>Confidence level</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangers</td>
<td>30</td>
<td>25</td>
<td>0.10</td>
<td>0.95</td>
<td>1.96</td>
</tr>
<tr>
<td>Employees</td>
<td>200</td>
<td>65</td>
<td>0.10</td>
<td>0.95</td>
<td>1.96</td>
</tr>
</tbody>
</table>

Table 2: estimation of insured and employers sample

<table>
<thead>
<tr>
<th>N population</th>
<th>Relative error of d</th>
<th>Confidence level</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>385</td>
<td>0.5</td>
<td>0.95</td>
<td>1.96</td>
</tr>
</tbody>
</table>

Most of the questionnaires were distributed in different branches in Zanjan in different zones in different hours and foreign and domestic articles and books and journals were studied .Alpha value in different dimensions ranges from 0.794 to 0.893. The lowest value belongs to tangibles and highest one belongs to empathy. Finally according to calculated coefficient it was found that the mentioned question is valid.

Calculation of customer satisfaction index (CSI) based on questionnaire dimensions
In order to identify classification of offered services by more satisfied customers in this organization; CSI was calculated based on SERVQUAL. According to table, the highest index belongs to assurance and lowest one belongs to responsiveness.
Table 3: CSI based on questionnaire dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>CSI index</th>
<th>CSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>5.42</td>
<td>74.89</td>
</tr>
<tr>
<td>Reliability</td>
<td>5.14</td>
<td>73.39</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>5.03</td>
<td>71.87</td>
</tr>
<tr>
<td>Assurance</td>
<td>5.36</td>
<td>76.58</td>
</tr>
<tr>
<td>Empathy</td>
<td>5.25</td>
<td>75.06</td>
</tr>
<tr>
<td>Total</td>
<td>5.20</td>
<td>74.38</td>
</tr>
</tbody>
</table>

**Kolmogorov–Smirnov test**

By this test normality of the studied samples is investigated. The results show normality of the selected samples.

Table 4: Normality of the selected samples.

<table>
<thead>
<tr>
<th>Result</th>
<th>customers</th>
<th></th>
<th>Employees</th>
<th></th>
<th>Mangers</th>
<th></th>
<th>P-value</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td>Normal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal distribution</td>
<td>0.127</td>
<td>1.174</td>
<td>385</td>
<td>0.074</td>
<td>1.282</td>
<td>65</td>
<td>0.415</td>
<td>0.872</td>
</tr>
<tr>
<td>Normal distribution</td>
<td>0.342</td>
<td>0.938</td>
<td>385</td>
<td>0.187</td>
<td>1.089</td>
<td>65</td>
<td>0.278</td>
<td>1.014</td>
</tr>
<tr>
<td>Normal distribution</td>
<td>0.184</td>
<td>1.091</td>
<td>385</td>
<td>0.345</td>
<td>0.936</td>
<td>65</td>
<td>0.101</td>
<td>1.169</td>
</tr>
<tr>
<td>Normal distribution</td>
<td>0.872</td>
<td>0.432</td>
<td>385</td>
<td>0.232</td>
<td>1.038</td>
<td>65</td>
<td>0.305</td>
<td>0.985</td>
</tr>
<tr>
<td>Normal distribution</td>
<td>0.097</td>
<td>1.432</td>
<td>385</td>
<td>0.402</td>
<td>0.513</td>
<td>65</td>
<td>0.472</td>
<td>0.613</td>
</tr>
</tbody>
</table>

Table 5: Sample for test of hypotheses of independent variables in table 1

<table>
<thead>
<tr>
<th>T combinatory test</th>
<th>P-value</th>
<th>d.f</th>
<th>(t)</th>
<th>SD</th>
<th>mean</th>
<th>n</th>
<th>Hypotheses statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejected</td>
<td>0.000</td>
<td>384</td>
<td>22.536</td>
<td>1.050</td>
<td>5.206</td>
<td>385</td>
<td>There is a significant relationship between customer expectations of Zanjan social security organizations services and received services.</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.226</td>
<td>408</td>
<td>12.07</td>
<td>0.212</td>
<td>4.85</td>
<td>410</td>
<td>Customer expectation and manger perception is significantly different(mangers and customers 140 individuals)</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.000</td>
<td>384</td>
<td>5.2</td>
<td>0.932</td>
<td>4.93</td>
<td>385</td>
<td>functional standards is capable to measure expectations by management</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.000</td>
<td>63</td>
<td>6.42</td>
<td>1.222</td>
<td>4.979</td>
<td>64</td>
<td>Zanjan province social security organization stuff cannot substantiate functional standards(64 employees)</td>
</tr>
<tr>
<td>Accepted</td>
<td>0.388</td>
<td>63</td>
<td>0.870</td>
<td>1.140</td>
<td>4.876</td>
<td>64</td>
<td>There is difference between obliged services and offered services in Zanjan social security organization(64 employees)</td>
</tr>
</tbody>
</table>
Discussion and conclusions

According to the results of analysis of data in the first hypothesis that difference between insured and employer expectations of quality of services it can be claimed that there is no significant difference between customer expectations of quality of services and their account of services in five dimensions. Also, approximately %74.38 of offered services in Zanjan is confirmed by insured and employer expectations.

The result of the second hypothesis showed that there is no significant difference between customer expectation and management perception of customer tendencies by higher than %5 error levels. So this difference is insignificant. So this hypothesis is rejected in significance level of %5.

In third hypothesis % 70.51 of functional standards is capable to measuring expectations by management. Null hypothesis is rejected in error level of %5 and mean of observations is higher than 4 significantly. In other words, in error level of %5 the hypothesis is rejected in four dimensions. So, it can be claimed that Zanjan province social security organization functional standards can be measured according to management perception except tangibility.

According to the fourth hypothesis that Zanjan province social security organization stuff cannot substantiate functional standards it was found that stuff can substantiate %71.13 of functional standards. So null hypothesis is rejected in error level of %5.

In fifth hypothesis %69.65 of employees are successful in their commitments and null hypothesis is accepted in error level of %5. Mean of observations is higher than 4 significantly. In other words, in error level of %5 the hypothesis is rejected in five dimensions. So, it can be claimed that there is a difference between Zanjan province social security organization offered services and practical services.

According to priority of variables and CSI it was found that assurance is main dimension and tendency to responsiveness is final dimension. It is recommend using internet to facility assurance affairs (lack of receiving list, announcing of record, observation and inspection, workshop debates and payment of insurance) and showing advantages and persuading the customer to use internet instead of physical attendance in branches. SERQUVAL by appropriate confirmation could be used in departments and sectors for determine quality of services.

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