INVESTIGATION INTO CUSTOMER’S SATISFACTION LEVEL OF AFTER SALE SERVICES QUALITY OF IRAN KHODRO PRODUCTS BASED ON THE INTEGRATED SERVICES’ FACTORS

*Farangis Mohammad Sadegh Gheisari
Department of Management, Payame Noor University, International Center of Assaluyeh
*Author for Correspondence

ABSTRACT
The research aims to study the relationship between after sale services quality and customer’s satisfaction level of Iran Khodro Company’s product. This research’s measurement tool is a researcher-made five-option questionnaire which was evaluated based on previous researches and in order to study the relationship between after sale services quality and customer’s satisfaction level of sample population. Questionnaire validity was computed through Alpha Cronbach Coefficient. The obtained reliability coefficient is equal to 0.97 which shows questionnaire’s appropriate validity. T-Student test has been used in order to analyze hypothesis test in line with hypotheses confirmation or rejection and Friedman test has been applied to study the level of relationship between (weights of each factor). These investigations’ results showed that from the opinion of Iran Khodro Company products’ customers in Tehran and generally consumers are not satisfied of the quality of company’s after sale services. Following computing the average factors importance, the customers’ satisfaction level of after sale services quality in the different areas is as follows: 1-Product. 2- The possibility of offering services. 3- Promotion and physical facilities. 4- Processes. 5- Personnel. 6- Price.

Keywords: Astrocytes, Cortex, Neuroprotective Factors

INTRODUCTION
The most of the companies are aware of this point that after sale services leads to loyalty and repeated purchase. But the services which are offered should be toward meeting customer’s expectation (Easa, 2012) and continuous offering services with top quality compared with competitors can bring in a powerful competitive advantage (Horotiz, 2001).
Understanding market competitive structure more than anything requires management awareness and cognition of customer’s views and wills and evaluating the method of taking advantage of integrated services in market in order to access to a certain amount of after sale services and as a result, customer’s satisfaction. In the other hand, universalization and membership in World Trade Organization is one of the biggest Iran’s present economic challenges and its industry. In the meantime, one of the most controversial industries has been automobile manufacturing industry whose relative benefit is questioned by some experts more than other industries.
The relatively low quality of vehicles made inside the country causes that universalization horrible storm breaks down this industry. In such situation, the main point of weakness of Iranian manufacturers compared with foreign competitors is to get to know the domestic market. This advantage will naturally make the Iranian manufacturers to enjoy the better potential in identifying customers’ needs and wills. In fact, respecting the market cognition and being familiarized with its angles, domestic automobile manufacturers have the opportunity to attract potential and actual customers’ trust by offering appropriate quality of after sale services (Minister et al., 2010).
Although many researchers have been took place in order to assess the customers’ satisfaction up to now, but this research has aimed to study level of customer satisfaction of quality of after sale services of Iran Khodro company which is one of the biggest domestic automobile manufacturers with the focus on integrated services factors and it suggested some guidelines for its improvement. In this research, independent variables of after sale services quality and its components are integrated factors of after sale services quality which includes: product, price, the place of offering service, promotion, physical
facilities, personnel and procedure. In the meantime, dependent variable is customer satisfaction level that the effect of independent variables on this variable is specified.

Research Literature

Today competition has been known as a key strategic issue for services quality improvement for the organizations which act in services section. The organizations which reach to a higher level of services quality will have a higher level of customers’ satisfaction as an introduction to access to sustainable competitive advantage.

Topfer has referred to an interesting subject in his definition of the concept of customer’s satisfaction: customer’s satisfaction does not depend on the kind of commercial activity of an organization or organization’s situation in market, but customer’s satisfaction depends on organization’s ability and capability in providing customers’ expected quality (Guo et al., 2008).

In the services section, evaluating its quality takes place during the services offering procedure. Each contact of customer is considered as a time for creating trust and an opportunity to make customer satisfied or dissatisfied (Fitz et al., 2003). So the quality is determined by customer’s judgment. If a service meets the customer’s expectations or it is higher than it, it is qualified. According to accomplished studies by Nissan company in 1977, when a good’s quality is weak, but after sale service is offered in exchange for that weakness, 67% of customers will again repeat that purchase. So after sale service is considered by automobile manufacturers because of its importance and it is one of the competitive factors among automobile manufacturers after extensive, various and attractive sale. Automobile’s after sale service is one of the factors which influence customers’ decision-makings and most of them evaluate the automobiles based on the quality of their services. But this point that which quality of services will be preferred by customers is one of the questions and ambiguous of services activists and automobile manufacturers.

It is obvious that marketing is part of the activities of a service institution which includes some operations like offering desirable services to customers (Yaghubi et al., 2013). Booms and Bitner have increased marketing mix’s standard factors from 4 factors or P to 7 factors which is known as 7p and they are used in this research. These factors consist of:

1- Product (service): Product is a service or even an idea that satisfies consumer’s needs. Service offering enjoys a special characteristic which in the case of offering it to customers, company’s product differentiates from other market’s goods. So the companies should pay attention to some special service features which cause the heightening the sale and consequently more profitability (Katler, 2004).

2- Price: It means whatever the customer must pay in exchange for receiving product or service. Pricing includes determining the level of prices, the method of pricing the service, strategies, pricing methods and payment condition inn services.

3-the place of offering service: The place or location of offering is one of the main topics in service management and marketing. Because it is important for accelerating and facilitating exchange and access to service in addition to its role in making the service tangible and sensible. The service distribution place should be determined by accurate study of consumers’ service expectations and wills in market and the company should minimize distribution cost for offering expected service level in each part of market (Katler and Armstrong, 2000).

4- Promotion: Promotion means all the communicative and informative activities which occur among seller and buyer. Invite, encourage and convince the contacts for purchasing the service is necessary and they require special strategy and plans. So marketing means establishing communication and the goal of promotional activities is creating demand for goods and services (Najafi, 2008).

5- Physical facilities: Each one of service organizations apply different material and physical tools, facilities and possibilities for offering their services to make the services from the potential manner to action. However these possibilities are more and more desirable, service quality and customers’ satisfaction will be increased. In service organizations, it requires that the possibilities and their desirability are considered in addition to noting to individuals and required investment must be took place for them.
6- Personnel: respecting synchronization of supply and demand of service and the relationship between service and servant, the role of each personnel in service affair is very important. So it is required that the personnel’s selection, training and stimulation and assessment are seriously considered and required criterion for them are determined (Shahamati, 2010).

7- Processes: The duty and role of this service marketing mix element is creating interaction among service supply and demand. The process of offering service and the amount of time which customer expend for receiving service and also the procedures which he/she passed are studied in this part. Simple, quick and defined process of service offering is very effective in increasing customer’s satisfaction (Rabeti, 2009).

Diagram 1: Research conceptual pattern

Easa (2012) in previous researches has studied the customer’s satisfaction of after sale service quality in Iran Khodro automobile manufacturing company and he concluded that the customers are satisfied with after sale service regarding service technical quality dimension, personnel’s attitude and the cost due to after sale services. Of course, the satisfaction with service technical quality has been more than satisfaction with costs and satisfaction with personnel’s attitude has been more than costs (Easa, 2012).

Minister et al., (2010) has assessed the customers’ satisfaction compared with marketing mixed element of after sale service in heavy vehicles industry and they stated that the customers have expressed their dissatisfied with the entire marketing mixed elements. The level of importance of marketing mixed elements is not also the same from the opinion of customers. Thus, the importance of product element has been more than other elements and the price have been preferred more than two elements including distribution and promotion and promotion element owns the least amount of importance (Minister et al., 2010). Ranjbarian et al., (2001) studied customer’s satisfaction with after sale service quality of Zirax Company in Isfahan and they have concluded that the customers are satisfied with after sale service quality regarding service technical quality dimension, personnel’s attitude and the costs due to after sale service. But customer’s satisfaction is not equal from three dimensions. So the satisfaction with service technical quality has been more than satisfaction with costs and satisfaction with personnel’s attitude has been more than costs (Rabeti, 2009).

Brito & Aguilar (2007) have evaluated customers’ expectation of licensed agencies and independent workshops and they imagined reasons of relatively weak presence of licensed agencies (with 25% share of market). These agencies were unsuccessful in long-term attracting customer in spite of the opportunity due to guarantee period. Customers had given a better score to licensed agencies regarding equipment but
they believed that independent workshops have better conditions regarding other factors. In the other words, independent workshops totally provided more value and less cost for customer (Briton and Aguilar, 2007).

Independent Variable/Dependent Variable

The Main Hypothesis
The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services.

Secondary Hypotheses
1- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of product.
2- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of price.
3- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of place.
4- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of promotion.
5- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of physical facilities.
6- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of personnel.
7- The consumers of Iran Khodro Company’s products are satisfied with quality of company’s after sale services in the area of procedure.

MATERIALS AND METHODS

Research Methodology
The present research is applied regarding classification based on goals and it is in the area of descriptive research and it is a survey research. The applied method in this research is correlation and the method of collecting information is library and field.

Research’s main tool is researcher-made questionnaire and it has aimed to propose appropriate questions which state hypothesis’s fundamental concepts respecting research’s literature and history and poll-taking of respectable professors. The present research’s domain regarding location is the owners of Iran khodro company products in Tehran and respecting time domain in 2015, the 384 number person was obtained by using Morgan table and 400 number questionnaire was distributed by random sampling method among statistical population that 385 number of questionnaire was returned totally and regarding subject domain, evaluation is respecting the relationship between after sale service quality and customer’s satisfaction level with Iran Khodro Company products.

T-Student test has been used in referential part in line with hypothesis confirmation or rejection and Friedman test has been used to study the relationship level of mentioned factors and determining rating of effect of each factor (weight of each factor).

Data Analysis

First Secondary Hypothesis

$H_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of product.

$H_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of product.

Respecting table 1, the amount of t test statistic is equal to 8.37, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of product” has been rejected with 95% confidence and its diverse hypothesis indicating that “The customers of Iran Khodro company products are satisfied with after sale services quality in the field of product” has been confirmed as correct hypothesis.
**Table 1: T-student test for first secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses number</th>
<th>average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>First secondary hypothesis</td>
<td>385</td>
<td>3.23</td>
<td>0.54</td>
<td>8.37</td>
<td>384</td>
</tr>
</tbody>
</table>

**Second Secondary Hypothesis**

H$_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of price.

H$_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of price.

Respecting table 2, the amount of t test statistic is equal to -11.81, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of price” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of price.

**Table 2: T-student test for second secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses number</th>
<th>average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second secondary hypothesis</td>
<td>385</td>
<td>2.58</td>
<td>0.69</td>
<td>11.81</td>
<td>384</td>
</tr>
</tbody>
</table>

**Third Secondary Hypothesis**

H$_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of place.

H$_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of place.

Respecting table 3, the amount of t test statistic is equal to 1.63, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of place” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of place.

**Table 3: T-student test for third secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses number</th>
<th>Average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third secondary hypothesis</td>
<td>385</td>
<td>3.06</td>
<td>0.70</td>
<td>1.63</td>
<td>384</td>
</tr>
</tbody>
</table>

**Fourth Secondary Hypothesis**

H$_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of promotion.

H$_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of promotion.

Respecting table 4, the amount of t test statistic is equal to 1.03, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of promotion” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of promotion.
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**Table 4: T-student test for fourth secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth secondary hypothesis</td>
<td>385</td>
<td>3.03</td>
<td>0.60</td>
<td>1.03</td>
<td>384</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**Fifth Secondary Hypothesis**

$H_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of physical possibilities.

$H_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of physical possibilities.

Respecting table 5, the amount of t test statistic is equal to 1.03, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of physical possibilities” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of physical possibilities.

**Table 5: T-student test for fifth secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth secondary hypothesis</td>
<td>385</td>
<td>3.03</td>
<td>0.60</td>
<td>1.03</td>
<td>384</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**Sixth Secondary Hypothesis**

$H_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of personnel.

$H_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of personnel.

Respecting table 6, the amount of t test statistic is equal to -1.04, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of personnel” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of personnel.

**Table 6: T-student test for sixth secondary hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Average</th>
<th>Standard deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth secondary hypothesis</td>
<td>385</td>
<td>2.96</td>
<td>0.77</td>
<td>-1.04</td>
<td>384</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

**Seventh Secondary Hypothesis**

$H_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of process.

$H_1$: The customers of Iran Khodro company products are satisfied with after sale services quality in the field of process.

Respecting table 7, the amount of t test statistic is equal to -1.55, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of process” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not satisfied with after sale services quality in the field of process.
Table 7: T-student test for seventh secondary hypothesis

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth secondary hypothesis</td>
<td>385</td>
<td>2.96</td>
<td>0.57</td>
<td>-1.55</td>
<td>384</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

**The Main Hypothesis**

H$_0$: The customers of Iran Khodro company products are not satisfied with after sale services quality.  
H$_1$: The customers of Iran Khodro company products are satisfied with after sale services quality.  
Respecting table 8, the amount of t test statistic is equal to -0.94, the null hypothesis indicating that “The customers of Iran Khodro company products are not satisfied with after sale services quality in the field of process” is not rejected with 95% confidence, so the customers of Iran Khodro company products are not totally satisfied with after sale services quality.

Table 8: T-student test for main hypothesis

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>The amount of t</th>
<th>Degree of freedom</th>
<th>Average difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth secondary hypothesis</td>
<td>385</td>
<td>2.96</td>
<td>0.63</td>
<td>-0.94</td>
<td>384</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

**Rating the Customer’s Satisfaction Level with after Sale Services in the Different Areas**

The most appropriate test for rating the level of effect of mentioned factors is nonparametric Friedman test respecting answers dependency.  
H$_0$: The average rank of factors is the same  
H$_1$: The average rank of factors is not the same  
Respecting table 9, null hypothesis is rejected at the level of confidence of 95%, because the value of K2 has been obtained equal to 1047.9 which are placed at the area of null hypothesis rejection.

Table 9: Friedman test statistic (K2) for comparing customer’s satisfaction level

<table>
<thead>
<tr>
<th>The variables under study</th>
<th>The numbers of samples</th>
<th>The amount of K2</th>
<th>Degree of freedom</th>
<th>Significance level</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences between factors’ average rank</td>
<td>385</td>
<td>1047.9</td>
<td>5</td>
<td>0.000</td>
<td>The confirmation of H$_1$ hypothesis</td>
</tr>
</tbody>
</table>

Table 10: Rating customer’s satisfaction level by using nonparametric Friedman test

<table>
<thead>
<tr>
<th>The areas</th>
<th>Average rank</th>
<th>The amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>product</td>
<td>5.25</td>
<td>The most</td>
</tr>
<tr>
<td>Service offering possibilities</td>
<td>3.96</td>
<td></td>
</tr>
<tr>
<td>Promotion and physical possibilities</td>
<td>3.74</td>
<td></td>
</tr>
<tr>
<td>Processes</td>
<td>3.44</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>3.37</td>
<td></td>
</tr>
<tr>
<td>price</td>
<td>1.25</td>
<td>The least</td>
</tr>
</tbody>
</table>
Research Article

It means that there is a significant difference between the levels of satisfaction in different areas and respecting table 10 from the opinion of respondents in rating the factors, the satisfaction level with product is more than others. The satisfaction level with service offering possibilities is at second rank and satisfaction level with promotion and physical possibilities are placed at the third rank. The satisfaction level with process and personnel are placed at the fourth and fifth rank. The least amount of satisfaction is among respondents to price.

Conclusion

In this research following the selecting appropriate method respecting the results of investigation into a level of customer’s Satisfaction with Iran Khodro Company products, it is concluded that:

the selected data of owners of Iran khodro products show that totally customers are not relatively satisfied with the after sale services company and it can conclude that the current condition of After sale service are not matched with its potential potencies and skills and so the management should plan in the field of promoting after sale services.

Following computing average importance of factors, the customers’ satisfaction with after sale services quality in different areas is as following: product, 2-service offering possibility, 3-promotion and physical possibilities, 4-processes, 5-personnel, 6-price.

The below strategies can be offered respecting research’s results:

- Granting especial support services to consumers and encouraging them to purchasing company’s products.
- Granting different possibilities to customers in order to implement authorized guarantees and granting distinct possibilities to large cities’ agencies to increase service centers’ potency.
- Developing common instructions in the agencies of after sale services in order to be monitored by customers in service process.
- Performing continuous training courses at technical section and necessitate agencies for participating in these classes.
- Decrease the price of services through increase the numbers of authorized guarantees and creating competition in this area of work.

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