THE AFFECTION EVALUATION OF SERVICE QUALITY THROUGH THE USAGE OF KNOWLEDGE MANAGEMENT FACTORS ON CUSTOMER LOYALTY: THE CASE STUDY OF INSURANCE INDUSTRY IN GUILAN PROVINCE

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Abstract
The competition intensification in the manufacturing and services areas can be seen in the worldwide. Increasing competition is quite obvious in services, in industries such as hospitality, banking, insurance, and this factor is getting more difficult to retain customers and increase their loyalty in this situation. So providing quality services is a major and future challenge of active companies in this field. In addition, in the new business environment characterized by volatility and increasing complexity, a company's ability in create and keep a company's competitive advantage is hidden in its knowledge. In today's competitive world, customers are the main focus of companies and their loyalty is the main factor in gaining competitive advantage of organizations. Today, communities are increasingly moving towards being knowledge-based. Therefore, it can be said that the dynamic knowledge implementation and management for organizational performance enhancement and decision-making is essential. This research written with purpose acquaintance and focusing on service quality management and knowledge management and their interaction with customer loyalty of various insurance products. Also the current study purpose is to investigate the effect of service quality of customer on loyalty due to the role played by knowledge management and Due to intensification of competition in the insurance organization is obvious, this research has been implemented in insurance companies of Gilan province and the results showed that the proposed model of research were confirmed at the level of 99% assurance.

Keywords: knowledge management, dynamic insurance products, loyalty, organizational performance - management
Introduction

Nowadays, with the development of technology and facilities, the companies with large advertising of their brands are seeking stability between individuals. In the meantime, companies are more successful that have methods for their customers' loyalty to the brand. Awareness of the brand effects on customer understanding quality and directly leads to their loyalty, as well as, brands have found a way in many aspects of human life nowadays, (Rashidi, Rahmani2013).

With regard to that organizations are always influenced by their surroundings, if organizations identify and controls the environmental factors can better sustain life and survival. Nowadays, the organization's environment is becoming more unstable and complicated because of scientific and technological developments day by day, but environmental factors are threatened existence of the organization. In such cases organizations which are rare and winner that while get extensive knowledge and awareness of environmental factors, their survival and existence, improve and promote terms of development and dynamics and increase organizational performance. Knowledge management is a way of researching this article (Rajaeepour and Rahimi, 2008). Also, over the past two decades, the increasing volume of information in the organization and the need to effective use of them in organizational decision cause the rise of knowledge management (Taghi-Zadeh et al., 2010). Knowledge is multifaceted concept and there is in many organization identity including culture, policies, documents and members of the organization and purpose of its activities in the organization is: continuous acquisition of knowledge, development of new knowledge through learning, ensure the growth and continuation of activities at all levels in order to maintain vital knowledge, applying of available knowledge in all cycles and combination knowledge in order to synergistic (Raeesi et al., 2013). Interest in knowledge management is rapidly growing in industries of various countries and academies. So that knowledge management has the key role in many organizations. Knowledge management solution makes organizational knowledge in all sections organized and used well (Ngai & Chan, 2005). At the moments, knowledge management has critical and main role in managing and economy of the world; this has led many knowledge management experts to try for Knowledge management capabilities in order to develop competitive success according to the progress that has been made in information technology(Lin et al, 2007 :and (gilaninia,2015) It can be firmly said that the most important factor knowledge management is the implementation in organization because all other issues related to knowledge management are as an introduction to preparation and their use for the practical realization of knowledge management. Organizations should try as much as possible to use available techniques and plans of knowledge as the levers for setting up their knowledge management. Due to the variety of knowledge management projects is necessary to identify the commonalities of these projects because using mix of different designs is more effective rather than focus on a specific project. It means due to current conditions, Common items in the projects that have already been implemented successfully be operated appropriately. (Davenport and Pursak 1999).

What is important in decision for selecting the knowledge management approach is find a way compatible with the organization's culture and knowledge managers should need to know that follow up on several category of culture, human, technology, and organization is more effective than focus on one category for progress in the field of knowledge management. Knowledge-oriented culture, human infrastructure and support senior management are at the forefront of all the
key elements. An organization that is not governed by these conditions should start Knowledge management work on a small scale and set up their purpose on effective and efficiency of an act or process limited knowledge-based. The implementation of knowledge management must start the issue by knowledge strategy and also its management and key selection that the organization should do about these issues firstly. In other words, the fundamental first step is in the implementation, development and formulation of appropriate strategies (Rading, 2009).

This fact that the perceived product quality is becoming the most important competition factor in the business world, cause to call the current age of business (quality time) (Piller, 1996).

Due to the increasing role of service organizations in the different areas of economic, importance of quality issue in competition ring, services quality issue are recognized as one of the strategic levers and key elements in the competition ring. And recently it has been of considered to managers and experts in many researches. Nowadays, any organization, public or private, cannot be successful in their business and in fact doomed to disappear without notice to improving services quality. For this purpose, any organization primarily must to identify needs and expectations of its customers for evaluation and improve the quality of their services And study their customer satisfaction of their services in specific interval and try their best for improving it. (Musharraf Javadi et al., 2007). With Competitive insurance industry and the lack of product differentiation, quality of service has been recognized as a competitive advantage and has direct effect on customers’ satisfaction. Knowing of organization mental image beside the customers and their relations provide the background for taking appropriate strategies and improve performance while Reveals the strengths and weaknesses of an organization (Farhad Ghafari et al., 2012).

**Background research**

Musharraf Javadi and colleagues in 2007 set to evaluate the quality of services in a research. this article goal identify and determine the quality gap in relation to the 5 domains of quality of services, the tangible factors, responsiveness ability, empathy ability by using the model of service quality (SERVQUAL) which from insurer of Iran Insurance Company view, what service quality is in connection with the greatest gap.

Shahin and Abolhasanid evaluated the differences in the specifications of services quality and the services provide in the insurance industry in 2010. In this research has been recognized modified model of services quality gaps, main seven gaps (lack of) about service quality. Three gaps of this model is related to domestic market of organization. Thus, this research has been formed in insurance industry due to the role importance of internal gaps of services quality in the organizing the domestic market of organizations, with the purpose of measuring the 3 gap (deficit) of services quality (the difference between offered services quality specification provided and services offer) in the insurance industry. It was used to collect information from the library (books, theses, etc.), and questionnaires. The population of this research is all employees of insurance companies in the Isfahan province from April to June 2008. Due to the low number of statistical population, sampling has not been done and statistical analysis was performed on the total population.

Bahram Ranjbaran in a research entitled comparing the nature of services quality with customer satisfaction in 2010: Application of gray system theory to study a service pivotal role in the success of organizations in developed countries and in this research, the nature of the perceived quality of service were compared with customer satisfaction. For this purpose, customers of Iran Khodro authorized repair shop in Isfahan were selected as the research community. Then the effect level of each 10 aspects of Parasuraman quality were evaluated on satisfaction and perceived
overall quality. In this regard, the gray theory system is used. The results show that customer satisfaction and perceived overall quality have two completely different structures.

Seyed Ameri and colleagues done a research in 2012 entitled the relationship between the services quality and satisfaction and loyalty of public and private Urmia city indoor sports facilities customers. This research is descriptive, correlation and done by field study. The statistics population of this research included all public and private sport facilities customers with at least three months of physical background in Urmia. Data were analyzed using the Pearson correlation coefficient and multiple regression analysis. Results of the analysis showed there is significant relationship between services quality and its subscale contains “program quality, facilities quality, the interaction quality “with satisfaction and loyalty customer.

Ghaffari and colleagues done a research in 2012 to determine the most important factors affecting the quality of banking services and finally the relationship of these aspects was done with customer satisfaction and provide a solution. For this purpose, a questionnaire was designed using SERVQUAL model and the use of variables that influence on electronic services and in Tehran with a sample size of 384 customers of Iran top three private banks was collected and was analyzed with method of structural equation modeling using LISREL software. The results showed that a positive impact on customers' perceptions of service quality rather than traditional services and also influence customers' perceptions of quality electronic services than the traditional perception of service quality on customer satisfaction Customers.

Hussein Ali Agha-Jani in 2013 analyzed the services quality in public and private insurance companies based on integrative approach of multi-criteria decision-making models and Servqual and discussed and the purpose of this research was to determine the degree of importance of aspects and affecting factors for upgrading services quality of public and private companies and prioritizing the company's insurance. In order to achieve this purpose, the comprehensive review on the relevant literature related to current research will be used 10 experts opinions in this field. Results showed that the five aspects of SERVQUAL model using phase analytical hierarchy process sort by aspects; reliability, empathy, assurance, desire and willingness to response and appearance and the facilities have first to fifth priority.

Rifua and et al in 2013 examined condition of infrastructure factors of implement knowledge sharing in the insurance industry. Research method was survey-descriptive and data gathering tool of questionnaire. Research community was active headquarters top managers of insurance companies in the Iran insurance market in Tehran. In this research, after examining the related literature, key variables affecting the implementation of the knowledge sharing was identified and was approved by experts by Delphi method and finally 68 were identified, which were used at 8 operating groups of characteristics of human resources, attitudes and management support, knowledge sharing strategy, structure and organizational relationships, organizational culture, organizational rewards and evaluation, corporate strategy and information and communication technology. From the evaluated component; the generally component of commitment to the organization, believe to increasing organization success through knowledge sharing, training newly recruited staff, beside staffs, open communication between managers and employees, mutual trust of staffs to each other and use staff intranet, showed the weakest conditions.

Ismaili and colleagues did a research in 2014 as assessing the quality of rehabilitation services using the importance-performance analysis in Tehran selected rehabilitation centers. The results of this research, all the aspects of services quality in selected centers were in the first area of importance-performance matrix means in desired level. Also, there were observed no difference between importance and performance scores for services quality in selected centers and also
between age and sex various groups (P> 0/05). But there was signification difference between different educational groups with significance (P = 0/04) and function (P = 0/03) the tangible aspects and the importance of the assurance (P = 0/01). This research was a cross-sectional study that was performed among 196 patients referred to four of the rehabilitation center in Tehran (Hilal Ahmad, Maulavi, Imam Khomeini and Shafa).

Research questions
This article purpose is looking for scientific and convincing answer the following questions:
1.) Is the quality of customer service through knowledge management component affects on customer loyalty?
2. Is services quality affects on customer loyalty?
3. Is knowledge management affects on Loyalty?

Research purposes
- The main purpose of the research
  Evaluating services quality factors on customer loyalty through knowledge management

Research secondary purpose:
1. Evaluating the impact of reliability of service quality considering knowledge management on to increase customer loyalty.
2. Evaluating the empathy impact of insurance employees considering to customer knowledge management on increase insurance customer loyalty.
3. Evaluating the impact of the service warranty according to knowledge management on increase insurance customer loyalty.
4. Evaluating the impact of respond to customers need on increase insurance customer loyalty.
5. Evaluating the impact of services dimension and physical appearance due to knowledge management on increase insurance customer loyalty.
6. Evaluating the impact of reliability of service quality on increase insurance customer loyalty.
7. Evaluating the impact of empathy of insurance staffs with clients on increase insurance customer loyalty.
8. Evaluating the impact of guarantee of insurance services on increase insurance customer loyalty.
9. Evaluating the impact of meet the needs of customers on increase insurance customer loyalty.
10. Evaluating the impact of services dimension and physical appearance on increase insurance customer loyalty.
11. Evaluating the impact of knowledge management on increase insurance customer loyalty

Research Hypothesis
1. The main hypothesis of the research
Service quality factors affect on insurance customer loyalty through knowledge management.

Research secondary Hypotheses
1. Reliability of service quality affects increasing insurance customer loyalty due to knowledge management
2. Insurance staff sympathy affects increasing insurance customer loyalty due to customer knowledge management
3. Services guarantee affects increasing insurance customer loyalty due to knowledge management
4. Meet the needs of customers affects increasing repurchase Insurance due to knowledge management
5. Services dimension and physical appearance affects increasing insurance customer loyalty due to knowledge management
6. Reliability of service quality affects increasing insurance customer loyalty
7. Insurance staff sympathy with customers affects increasing repurchase Insurance
8. Services guarantee affects increasing insurance customer loyalty
9. Meet the needs of customers affects increasing insurance customer loyalty
10. Services dimension and physical appearance affects increasing insurance customer loyalty
11. Knowledge management affects increasing insurance customer loyalty

**Research methodology**

In general research methods in the behavioral sciences can be divided into two sample of the purpose of research and data collection method. Scientific research based on the purpose divided into three categories: basic, practical and research and development (Sarmad and Bazargan, 2006). The purpose of functional research is the development of practical knowledge in a particular field. So we can say that this research has a practical purpose.

Research on how to obtain the needed data to be divided into two categories: descriptive (non-testable) and testable research. Descriptive research includes methods which the purpose is to describe the conditions or studied phenomena (Sarmad and Bazargan, 2006). Therefore, this research is a descriptive research. In the other side, descriptive research be divided into five categories that include: survey research, correlation, research action, case studies and causal-comparative research (Sarmad and Bazargan, 2006). Current research is a descriptive – survey research as study the property of the population and examine the current state of the society in the form of some attribute or variable.

**Statistical population**

The statistical population is a collection of individuals or entities that have at least one common trait. Usually in each research, the studied population is a population that researcher intend to study about variable property. The study population included all individuals, groups, events and researcher interested phenomena hat he has decided to review them (Scaran, 2011). The population in this research is all users of two brands Nokia and Samsung in the Rasht city. That content of the population considered to be unlimited approximately.

**Statistical Sample and determine the volume**

The sample consists of a number of people that they have similar property with society and represents it and have the community of heterogeneity with society people. Sampling is one of the most important steps of scientific research that allows researchers to spend less possibility to reach the desired results (Khaki, 2011). The researcher should select the samples which represent quality and quantity of the society due to the demands of research method, the nature of data, the type of data gathering and statistical population structure (Hafeznia, 2005).

Some of the most common methods are: simple random sampling, systematic sampling, sorted sampling, cluster sampling multi-stage sampling.

Sampling in this research is done with simple random sampling method. Considering that the population content is unlimited, sample content was estimated 384 people using Cochran sampling formula.

Cochran sampling formula to determine the sample content in unlimited community is as follows:
n=\frac{Z^2}{d^2} = 384

N- Sample volume

Z- The normal variable value of standard unit, which is at 95 percent, is equal 1.96

P- Available Quality ratio in the community. If not available, it can be considered 5/0. In this case, the amount of variance reaches to its maximum level

q- Percentage of people who are lacking the attribute in the society (q =1-p)

d- The amount of allowable error (between 0.05To 0.1) in this research is considered 0.05

Since it was believed some of the questionnaires are not returned, the number of 450 questionnaires was distributed among a statistical sample which finally 420 questionnaires were returned.

Data gathering was field method that has been used to measure and evaluate o f items from distance of five-point Likert scale.

**Questionnaire Validity**

Generally, the purpose of validity or reliability of the measurement scale method is accuracy of measurement scale, in other words, the problem is whether this tools really evaluated the attribute which made to measure it or not? (Hafeznia, 2005). There are several types of validity included nominal validity, content validity, predictive validity, construct validity, etc. (Momeni, 2007) Nominal Validity shows that evaluating elements have apparently capable of measuring the targeted concept. For measuring nominal validity was used the professors and experts opinion and as a result structural problems identified and needed reforms was done to meet the validity.

Reliability of questionnaire was calculated through Cronbach's alpha coefficient that the result is shown in Table 1.

In which:

- J= Number of sub-questionnaires or tests.
- \( S_j^2 = \) sub –test variances J
- \( S^2 = \) The total variance test

Usually for the test with research purpose, reliability test is sufficient between 0.6 to 0.8 (acceptable value in most sources is 0.7 ). SPSS software was used to calculate Cronbach's alpha

<table>
<thead>
<tr>
<th>Research variables</th>
<th>Cronbach's alpha</th>
<th>Question quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>0.789</td>
<td>8</td>
</tr>
<tr>
<td>Empathy</td>
<td>0.711</td>
<td>8</td>
</tr>
<tr>
<td>reliability</td>
<td>0.816</td>
<td>5</td>
</tr>
<tr>
<td>Warranty</td>
<td>0.801</td>
<td>6</td>
</tr>
<tr>
<td>appearance factors</td>
<td>0.711</td>
<td>8</td>
</tr>
</tbody>
</table>
Statistical methods of Data analysis

Data analysis is done in two parts: descriptive and inferential statistics. Descriptive statistics to describe obtained that these information are: demographic property of the sample and statistical analysis such as frequency and statistical charts presented. While the inferential statistics used to evaluate the main assumptions research. It has used Mann-Whitney non-parametric test to check the assumptions.

Each statistical analysis included descriptive statistics and inferential statistics, which in descriptive statistics examined tendency criteria to center such as median, mode, mean and .... And dispersion measures such as variance, standard deviation, range and all more importantly, charts and frequency tables. The inferential statistics is including hypothesis testing and confidence intervals and to find the relationships between variables.

In this research in the inferential statistics to test the hypothesis is used of multiple linear regressions and to evaluate the reliability of the questions in the questionnaire used Cronbach's alpha index. The research result will be presented in two parts: descriptive and inferential statistics.

<table>
<thead>
<tr>
<th>Questions quantity(sample)</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>(384 ) 66</td>
<td>0.971</td>
</tr>
</tbody>
</table>

Descriptive Statistics

In this section is described frequency table with demographic information. Examine the demographic property of respondents

Table 3: Distribution of respondents by age

<table>
<thead>
<tr>
<th>Age (Year)</th>
<th>Frequency</th>
<th>Frequency percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30 years old</td>
<td>100</td>
<td>98.2</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>110</td>
<td>80.2</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>90</td>
<td>86.2</td>
</tr>
<tr>
<td>50 years and above</td>
<td>84</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>384</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Above Table and below graph shows that among 384 people respondents to a questionnaire the highest percentage are aged less than 30 years with 98.2% percentage.
Table 4.: Distribution of respondents by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Frequency percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>150</td>
<td>16.2</td>
</tr>
<tr>
<td>male</td>
<td>234</td>
<td>83.8</td>
</tr>
<tr>
<td>Total</td>
<td>384</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Above table and below chart shows those 150 people equivalents to 16.2 were female and 253 people equivalent to 83.8 were male among 384 people respondent to questioner in term of gender.
Table 5. Distribution of respondents by education

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Frequency percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under middle school diploma</td>
<td>13</td>
<td>4.3</td>
</tr>
<tr>
<td>Middle school diploma</td>
<td>52</td>
<td>17.2</td>
</tr>
<tr>
<td>Diploma and Associate Degree</td>
<td>73</td>
<td>24.2</td>
</tr>
<tr>
<td>Bachelor and higher</td>
<td>164</td>
<td>54.3</td>
</tr>
<tr>
<td>Total</td>
<td>302</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The above table and below chart show that among 302 respondents to the questionnaire in term of education, 13 people equivalent to 4.3 percent have under middle school diploma, 52 people equivalent 17.2 were middle school diploma, 73 people equivalent to 24.2 have diploma and associated degree and 164 people equivalent to 54.3 percent have bachelor and higher degree.

Chart.4-7 dispersion, central index of research variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>sample size</th>
<th>Range</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>organizational commitment</td>
<td>302</td>
<td>2.67</td>
<td>3.0916</td>
<td>.53865</td>
<td>.290</td>
</tr>
<tr>
<td>job satisfaction</td>
<td>302</td>
<td>2.68</td>
<td>3.1201</td>
<td>.46693</td>
<td>.218</td>
</tr>
<tr>
<td>External environment</td>
<td>302</td>
<td>3.00</td>
<td>3.0737</td>
<td>.72948</td>
<td>.532</td>
</tr>
<tr>
<td>Job Stress</td>
<td>302</td>
<td>3.26</td>
<td>3.1016</td>
<td>.68559</td>
<td>.470</td>
</tr>
<tr>
<td>tend to leave job</td>
<td>302</td>
<td>2.34</td>
<td>3.1024</td>
<td>.49571</td>
<td>.246</td>
</tr>
</tbody>
</table>

Organizational commitment variable had a mean 3.09 standard deviation is 0.53 and variance 0.29. So this variable among respondents average level has been considered on due to Likert scale (compared to 5).

Job satisfaction variable is with mean 3.12, Standard Deviation 0.47 and the variance 0.22. So this variable among respondents on average level has been considered due to the Likert scale (compared to 5).

External environment variable is with mean 3.07, Standard Deviation 0.73 and variance 0.53. So this variable among respondents on average level has been considered due to the Likert scale (compared to 5).

Job stress variable is with mean 3.10, Standard Deviation 0.68 and variance 0.47. So this variable among respondents on average level has been considered due to the Likert scale (compared to 5).
Tend to leave job variable is with mean 3.10, Standard Deviation 0.49 and variance 0.25. So this variable among respondents on average level has been considered due to the Likert scale (compared to 5).

Inferential statistics
In this section in order to test hypothesis was used in regression method and correlation coefficient. But the default of these two methods was data normalization, which are as follow:

Normality test variables
To perform statistical methods and calculating statistic of the appropriate test and logical reasoning about research hypotheses, the important act before any action is selecting statistical methods for research. For this purpose, awareness of the data distribution is the main priorities. So, it has been used Kolmogorov-Smirnov valid test for examine the assumption of data normality of research. This test based on the following assumptions is testing the normality of the data.

**H₀: Data distribution is normal**
**H₁: Data distribution isn’t normal**
The judgment method due to Kolmogorov-Smirnov test table is that if signification level (sig) is bigger than test level for all variables, the data distribution is normal.

**First hypothesis: Reliability of service quality affect to increasing repurchases due to knowledge management**

<table>
<thead>
<tr>
<th>variable</th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.810</td>
<td>10.553</td>
<td>0.166</td>
<td>0.656</td>
<td>0/000</td>
<td>1.559</td>
<td>Accept</td>
</tr>
</tbody>
</table>

According to a calculation error level for the first hypothesis (0.000), is less than 0.05. Therefore null hypotheses to be accepted. So we can say that reliability of service quality has a significant effect on knowledge management. In addition to the above issue, according to the coefficient of determination, variable of physical property of services explain 65% of dependent variable variance, which means the knowledge management and repurchase. Also, according to information on the first hypothesis for significant test of above hypothesis that the correlation is 0.65 is, research variables obtained the value of 10.553 due to confidence level of 95% by using T test statistic. and because the calculated T for physical property variable of services are not between +1.96 and -1.96, so we can say that this is a significant coefficient and knowledge management property variable has a significant effect on repurchase.

According to the coefficient B (slope of the regression line) for variable reliability 1.559 T 608 KM. The results showed that for one unit change in the variable reliability, the stability of other variables variable loyalty 0.671 unit is changed in the same other variables Hayek unit change in Mtghyrmdyryt of loyalty 0.723 unit is regression equations between these variables as follows:

\[\text{KM} 0.608 +1.559 \text{reliability} + 0.166 = \text{loyalty}\]

\[\text{Reliability} 0.166 + \text{repurchase} 0.608 +1.559 \text{knowledge management}\]
The second hypothesis: the empathy of insurance staffs affect to increasing repurchases due to customer knowledge management.

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.990</td>
<td>15.429</td>
<td>0.648</td>
<td>0.979</td>
<td>0/000</td>
<td>0.660</td>
<td>Accept</td>
</tr>
<tr>
<td>Second</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.343</td>
<td></td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase variable. Also, according to information of hypothesis 2 for test the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 15.429 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the coefficient B (slope of the regression line) for variable staff empathy 0.660 achieved, shows that sympathy for a change of staff, customer loyalty is 3/1 unit

For a unit change in the management of customer knowledge to 0.343 by Wholesale, loyalty variable 0.991 unit changes and regression equation between these two variables will be as follows:

Empathy insurance staff (0.660) + Customer Knowledge Management (0.343) + 0.648 = loyalty

3- Warranty services affect to increasing repurchases due to knowledge management.

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.970</td>
<td>9.429</td>
<td>0.860</td>
<td>0.870</td>
<td>0/000</td>
<td>0.417</td>
<td>accept</td>
</tr>
<tr>
<td>Second</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase variable which means repurchase. also, according to information of hypothesis 3 for test of the above hypothesis significant that the correlation is 0.81. Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 12.942 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.
According to the coefficient B (slope of the regression line) for variable-warranty service and knowledge management 0.417 to 0.596 results show that in the same other variables for a single dependent variable warranty service (loyalty) 1.27 unit changes and other variables constant, if changing one variable KM 1.277 loyalty is the dependent variable of the regression equation as follows:

Warranty service (0.596) + KM (0.417) + 0.860 = loyalty

4-responsiveness to customers' need affect to increasing repurchases due to knowledge management.

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.920</td>
<td>8.529</td>
<td>0.561</td>
<td>0.840</td>
<td>0.000</td>
<td>0.651</td>
<td>Accept</td>
</tr>
<tr>
<td>Second</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.380</td>
<td></td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 4 for test of the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 8.529 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the coefficient B (slope of the regression line) for knowledge management variables that meet the needs of customers 0.38 and 0.651 results show that if the other variables constant for a unit change in response to changing customer needs 0.561 loyalty of the independent variable and the other variables constant for a unit change in the variable KM 0.941 of change in the dependent variable (loyalty) will be created The regression equation between these two variables wifollows:

Meet the needs of customers (0.651) + KM (0.38) + 0.561 = loyalty

5-physical appearance and dimension affect to increasing repurchases due to knowledge management.

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.910</td>
<td>11.564</td>
<td>0.551</td>
<td>0.969</td>
<td>0/000</td>
<td>0.691</td>
<td>accept</td>
</tr>
<tr>
<td>Second</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.720</td>
<td></td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase
variable which means repurchase. Also, according to information of hypothesis 5 for test of the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 11.564 and because calculated t for physical property variable is not between +1.96 and –1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the coefficient B (slope of the regression line) for variable size and physical appearance 0.720 and for KM 0.691 results show that for a unit change in physical appearance Mtghyrbad and other variables in the same loyalty 1.242 customer unit will change if the other variables constant increase of one unit of knowledge management variable, dependent variable (customer loyalty) 1.27 of change and regression equation as follows:

\[
\text{Size and physical appearance of service (0.720) + KM (0.691) + 0.551 = loyalty}
\]

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 7 for test of the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 12.942 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for services physical variables that obtained 0.941, shows that shows that If other variables have the stability and for one unit change in the physical variable services, variable repurchase is changed 1.468 units and the regression equation between these two variables will be as follows:

\[
\text{Repurchase} = 0.810 + 0.658 \text{ physical property of Services}
\]

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that empathy have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the service physical property is explained 81% of the variance of the repurchase
variable which means repurchase. Also, according to information of hypothesis 7 for test of the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 10.642 and because calculated t for physical property variable is not between +1.96 and –a.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for services physical variables that obtained 0.964, shows that shows that If other variables have the stability and for one unit change in the physical variable services, variable repurchase is changed 1.779 units and the regression equation between these two variables will be as follows:

\[ \text{Repurchase} = 0.964 + 0.815 \text{physical property of Services} \]

### 8-services warranty affect to increasing repurchases

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.994</td>
<td>12.845</td>
<td>0.765</td>
<td>0.989</td>
<td>0.000</td>
<td>0.884</td>
<td>Accept</td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis IX (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that customer need property have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of customer need property is explained 98% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 10 for test of the above hypothesis significant that the correlation is 0.978, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 12.569 and because calculated t for customer need variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of customer need property has a significant effect on repurchase. According to the B coefficient (slope of the regression line) for customer need variables that obtained 0.884, shows that shows that If other variables have the stability and for one unit change in the customer need, variable repurchase is changed 1.787 units and the regression equation between these two variables will be as follows:

\[ \text{Repurchase} = 0.884 + 0.978 \text{customer need property} \]

### 9-Responsiveness to customers' need affect to increasing repurchases

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.978</td>
<td>7.735</td>
<td>0.166</td>
<td>0.957</td>
<td>0.000</td>
<td>0.957</td>
<td>Accept</td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that customer need property have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the customer need property is explained 93% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 10 for test of the above hypothesis significant that the correlation is 0.978, Research Variables due to
95% of confidence level using T-test statistic was tested and its value is obtained 7.357 and because calculated t for customer need property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of customer need property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for customer need variables that obtained 0.166, shows that If other variables have the stability and for one unit change in the customer need variable services, variable repurchase is changed 1.935 units and the regression equation between these two variables will be as follows:

\[ \text{Repurchase} = 0.957 + 0.978 \text{ customer need property} \]

10- Physical dimension and appearance affect to increasing repurchases

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.964</td>
<td>15.698</td>
<td>0.405</td>
<td>0.830</td>
<td>0/000</td>
<td>0.789</td>
<td>accept</td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that physical property of services has significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the physical property of services is explained 93% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 10 for test of the above hypothesis significant that the correlation is 0.964, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 15.698 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for services physical variables that obtained 0.941, shows that If other variables have the stability and for one unit change in the physical variable services, variable repurchase is changed 1.6691 units and the regression equation between these two variables will be as follows:

\[ \text{Repurchase} = 0.941 + 0.405 \text{ physical property of Services} \]

11- Knowledge management affect on increasing repurchases

<table>
<thead>
<tr>
<th>XI test</th>
<th>correlation coefficient</th>
<th>T-values</th>
<th>Fixed value</th>
<th>coefficient of determination</th>
<th>Significant level</th>
<th>B</th>
<th>accept or reject the hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>XI test</td>
<td>0.941</td>
<td>10.232</td>
<td>0.555</td>
<td>0.886</td>
<td>0/000</td>
<td>0.672</td>
<td>accept</td>
</tr>
</tbody>
</table>

According to a calculation error level for the hypothesis XI (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that knowledge management property have significant effect on repurchase increase. In addition to the above issue, according to the coefficient of determination obtained, variable of the knowledge management property is explained 88% of the variance of the repurchase variable which means repurchase. Also, according to information of hypothesis 11 for test of the above hypothesis significant that the correlation is 0.941, Research
Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 10.323 and because calculated t for knowledge management property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of knowledge management property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for knowledge management variables that obtained 0.941, shows that If other variables have the stability and for one unit change in the knowledge management variable, variable repurchase is changed 1.613 units and the regression equation between these two variables will be as follows:

\[
\text{Repurchase} = 0.941 + 0.405 \text{ knowledge management property}
\]

**Results and Discussion**

The results of research hypotheses test are as follow and it was suggested that due to limitations in the software, the other analytical methods should be used. However according to the calculated error to test the first hypothesis (0.000), is less than 0.05 therefore null hypothesis to be accepted. So we can say that reliability of services quality have significant effect on knowledge management. In addition to the above issue, according to the coefficient of determination obtained, variable of the physical property variable is explained 65% of the variance of the repurchase variable which means repurchase and knowledge management. Also, according to related information of first hypothesis for test of the above hypothesis significant that the correlation is 0.65, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 54.525 t and because calculated t for knowledge management property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of knowledge management property of the services has a significant effect on repurchase.

According to the B coefficient (slope of the regression line) for knowledge management variables that obtained 1.55 and repurchased 0.608, shows that If the stability of other variables and one B unit change in the services reliability variable, variable repurchase is changed 1.55 units.

According to the calculated error to test the 11th hypothesis (0.000), is less than 0.05 therefore null hypotheses to be accepted. So we can say that staff empathy quality have significant effect on knowledge management. In addition to the above issue, according to the coefficient of determination obtained, variable of the physical property variable is explained 81% of the variance of the repurchase variable which means repurchase. Also, according to related information of 7th hypothesis for test of the above hypothesis significant that the correlation is 0.81, Research Variables due to 95% of confidence level using T-test statistic was tested and its value is obtained 12.942 and because calculated t for physical property variable is not between +1.96 and -1.96, therefore it can be said that this coefficient is significant and variable of physical property of the services has a significant effect on repurchase. According to the B coefficient (slope of the regression line) for knowledge management variables that obtained 0.941 shows that If other variables have the stability and one B unit change in the services physical variable, variable repurchase is changed 0.810 units.

In relation to the test results of research hypothesis effect of all variables on dependent variables has been confirmed and compare the results with other studies shows their alignment.
References

Gianinia,2015,production Engineering, published by Islamic Azad University, Rasht branch