A Presentation of Evaluating Knowledge Management Level in Iran's Insurance Companies.  
(A Case Study of Iran and Asia Insurance Companies.)

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Abstract: Scientific and intellectual assets are the only ways of making a fortune in organizations and societies. Science, information, intellectual asset, expertise, professional jurisdictions are all considered to be influential factors of wealth production. Societies which suffer the paucity of such elements are considered to be poor. Organizations have found that, application of all innovative mental capacities which can lead to influential amelioration. As a result, organizational employees who seem to be owners of knowledge and the most important assets of organizational competitions have become of prime significance and center of attention. Managing knowledge as a tool that can compile available activities and generalize the knowledge to whole organization is playing a significant role to this end too. Considering previous studies, effective factor of science management had been assigned in this article. These components were then used as a basis to introduce a role model for evaluating knowledge management in Insurance companies. (Iran Insurance co. and Asia Insurance co.) In addition, level of science management is assigned by using the same model. These components are: distinguishing knowledge, educating knowledge, knowledge application, and knowledge participation, ameliorating knowledge and maintaining knowledge. A couple of insurance companies which have had the highest production and stock in insurance market of the country were chosen among several others in Iran's Insurance industry. After collecting information and performing statistical analysis on given data the net study was conducted and the results were presented in form of a final model.

Key words: Knowledge management, distributing knowledge, organization performance quality

INTRODUCTION

Knowledge is the only source which not only doesn't lose any value after using it, but also gains a lot of value. (Glaser, 1998, P: 175) Graph 1 illustrates that distribution of knowledge in organization level can have positive effects on both performance speed and organization performance quality.

Fig. 1: relationship between knowledge and customer satisfaction.

Source: Probst and et al, 2000

Significance of knowledge as an important and valuable asset for contemporary organizations has risen to change its development, exploitation, appropriate management and promotion into one of the main responsibilities and challenges of organization.

This article aims to present an appropriate model for evaluating level of knowledge in our country's insurance companies by recognizing elements and components of knowledge management process since presenting an appropriate model for evaluating knowledge that embraces major components of knowledge management can also give us a hand in optimum usage of knowledge management.

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Knowledge Management:

Prosak\(^1\) defines knowledge management an effort to discover potential assets in people's mind and converting it into organizational assets. So that a vast collection of people who participated in decision makings can access these assets and are able to use it.

Handley\(^2\): knowledge management is a general description of culture, processes, substructures and available technologies of organization that makes absorption, development and optimizing of organization knowledge asset to achieving strategic goals possible.

Skyrme\(^3\) recognizes knowledge asset a potential and hidden organizational asset that can lead to competitive advantages through managing it.

Braddock sees knowledge management a practical usage of a series of significations and scientific matrixes.

Knowledge Management Evaluation:


If organizations lack the ability to measure their knowledge and evaluate the changes in knowledge level, then the knowledge management cycle will not be completed. that's because without evaluation no feed back will be established. So that necessary modifications could be performed in different components of knowledge management. (Probst and et al 2000).

In this study the following model that is based on studies on subject's literature toward presenting a local model and practical knowledge management and its evaluation in Iran insurance company was presented to evaluate knowledge management level. (Graph 2). According to the designed model, in a knowledge directed organization, knowledge management components change the level of knowledge available in that organization.

Postponing modification of organization's knowledge level would result in changes of organization's functional characteristics that are performance speed, and quality of organization performance. This will spawn the seeds of increasing costumers' level of satisfaction.

To indicate appropriate indexes for measuring each of the six knowledge management items, some indexes were indicated on scientific and theoretical basis of each of these components. These seem to be a criterion for compiling questions of the questioner.

A questioner was designed in six parts and each part was used to measure a component of knowledge management. And then was distributed among responders of two companies of Iran's Insurance Industry, Iran and Asia Insurance companies, which owned about 97 percent of production and Insurance coverings in 2009. The questioner was completed for two periods of time. Beginning of 2004 and the end of 2009 just for a 5 year period. Moreover, some studies were done on human forces of the two abovementioned companies. It leads to this conclusion that: first, selected people are to be familiar to knowledge and knowledge management for being able to express their ideas. Second, atinge of those selective human forces are to be fixed and the same in 2004-2009. It means they are to be those who have worked in the organization since 2009.

Data Statistical Analysis:

Different stages of statistical calculation of each knowledge management criteria is shown as following

To show the differences between levels of answers and that all answers haven't got the same value for responders (sigle 1993).

\[
x^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i} \quad \text{df}=N-1
\]

In this test \(H_0\) and \(H_1\) premises are compiled as following:

\(H_0\) premise: there isn't any difference between selections of each level of questioner answers.

\(H_1\) premise: there is a difference between selections of each level of questioner answers.

Had premise zero been rejected, a suitable result would be accomplished.

The abovementioned test was a help for each question in questioner of each component.

Premise \(H_0\): in responders' point of view all questions have got the same situation.

Premise \(H_1\): in responders' point of view not every question has got the same situation.
This test was also used to indicate consolidation of each component of knowledge management in the two organizations. H₀ premise was that the level of aforesaid component was the same in each organization. In H₁ premise the level of aforementioned component was different in each organization.

B. Percentage of Congenial Answers:

To have a precise evaluation of the results, each of the components of knowledge management is to be considered. Its level was also assigned after indicating the percentage of agreeing answers in case of evaluating knowledge management.

C. Macknmar Test to Make the Changes Meaningful:

MackNmar test was used to show the changes between 2004 - 2009 Were meaningful. (sigle 1993).

To measure significance of changes between 2004-2009, in this method a chequered table was used in which initial collection of answers, 2004, and secondary answers, 2009, of each test was shown. Table1 shows the general characteristics of such a table in which minimum and maximums are used to distinguish different answers. Tests which show the changes are located in squares A and D. If the changes in 2004 change into little or very little and 2009 much or very much, square A will be considered. If it changes from very much or much into very little or little, square D will be considered. Had no changes been viewed, squares A and D would be used to make the changes meaningful; we use formula 2 for calculating it.

\[ X^2 = \frac{(d-2)(1-1)}{a+b} \]

\[ df=1 \]

Table 1: Macknmar table

<table>
<thead>
<tr>
<th>2004</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

Premises Are Also Indicated as Following:

H₀: there isn't any meaningful difference between changes in 2004-2009.

H₁: there is meaningful difference between changes in 2004-2009.

Rejecting premise zero, we get to this conclusion that there is a meaningful difference between 2004 and 2009, therefore agreeing answer's percentage which were considered as an evaluation criteria could be used meaningfully.

A synopsis of the general changes of levels in knowledge management component between 2 insurance organizations (Iran Insurance Co. and Asia Insurance Co) is illustrated in table2 with two research periods that is between 2004-2009.

Table 2: Net results of the comparisons of knowledge management level in 2004 and 2009 in Insurance Co.

<table>
<thead>
<tr>
<th>Knowledge management dimension</th>
<th>2004</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Insurance CO</td>
<td>I ran Insurance CO</td>
<td>Asia Insurance CO</td>
</tr>
<tr>
<td>Knowledge devoting</td>
<td>%15/5</td>
<td>%15</td>
</tr>
<tr>
<td>Knowledge acquisition</td>
<td>%15/5</td>
<td>%24</td>
</tr>
<tr>
<td>Knowledge applying</td>
<td>%15</td>
<td>%12/5</td>
</tr>
<tr>
<td>Knowledge sharing</td>
<td>%15</td>
<td>%13</td>
</tr>
<tr>
<td>Knowledge developing</td>
<td>%14</td>
<td>%16</td>
</tr>
<tr>
<td>Knowledge maintaining</td>
<td>%14/5</td>
<td>%16</td>
</tr>
</tbody>
</table>

Table 3: Changes resulted in organization dimension in related with knowledge management level aspects.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>2004</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Insurance CO</td>
<td>I ran Insurance CO</td>
<td>Asia Insurance CO</td>
</tr>
<tr>
<td>Knowledge level</td>
<td>14/9</td>
<td>16/1</td>
</tr>
<tr>
<td>Organizational performance level</td>
<td>97/20</td>
<td>179734</td>
</tr>
<tr>
<td>Organizational performance quality</td>
<td>65</td>
<td>64/4</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>50</td>
<td>60</td>
</tr>
</tbody>
</table>
As it is stated in above mentioned tables, knowledge management level in Asia Insurance Co. increased more than Iran Insurance Co. Despite this increase the level of knowledge recognition in both organizations is approximately at the same level through considering the test of knowledge management component's coequal level. Coequal test of knowledge management component's level shows that level of knowledge education and level of maintaining knowledge is different in both organizations. But the level of knowledge application, level of knowledge participation, level of knowledge development is not very different in both organizations. The results would also confirm it.

Fig. 2: Evaluation model of knowledge management level and its relationship with other elements of the organization in Iran Insurance Co.

Considering the results of evaluating level of knowledge management in abovementioned organizations (table2) the above study's model is illustrated for each organization studied in following graph.

**Conclusion:**

According to this study's model, a group of factors and components are available about in organization (Iran Insurance Co., Asia Insurance Co.)

This can affect knowledge performance at that organization. These factors are categorized into six main components of knowledge management.

Each of them is to have special characteristics to help knowledge and knowledge management in organizations. In this study the characteristics are thoroughly recognized and some methods were invented to evaluate each abovementioned component. Another measure taken information process of artificial model is indicating how the six components of knowledge management is related to an organization's performance.

These components affect both organization performance speed which is distinguished through offering Insurance coverage and organization performance quality (speed and accuracy in offering services). However the effect is usually delayed. And following a change in speed and organization performance quality customer satisfaction level will also change. Therefore, according to the model an increase in knowledge management level follows an effect on speed and organization performance quality and finally increasing customer satisfaction.

Results of this study and information related to each of the organizations such as variety in Insurance coverage, quality of services and customer satisfaction between 2004 and 2009 confirms the fact.

**REFERENCES**


