“Knowledge Sharing, Knowledge Stickiness and its Impact on Empowerment of Employees and Study the role of Knowledge Sharing as a Mediator (Case study: Andimeshk Cement Unit)”

1Fatemeh Kowsari, 2Abbas Talebbeydokhti and 3Hassan Soltani

1Department of Management, Fars Science and Research Branch, Islamic Azad University, Marvdasht, Iran.
2Department of Management, Fars Science and Research Branch, Islamic Azad University, Marvdasht, Iran.
3Department of Management, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran.

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ABSTRACT

This thesis is aimed at studying the effect of knowledge stickiness on knowledge sharing and staff empowerment of Andimeshk Cement Unit and also the effect of knowledge sharing on the staff empowerment of this unit. In this study, we used a random sampling of the types of samples is possible. In this study both library and field methods for collecting data and questionnaire as tool of data collection was used. The results show that in general, there is negative and meaningful relationship between knowledge stickiness and staff empowerment, and there is also negative and meaningful relationship between knowledge stickiness and knowledge sharing. However, it become distinct that there is a positive meaningful relationship between knowledge sharing and staff empowerment.

INTRODUCTION

One of the most important and valuable asset of any organization is knowledge. Rapid changes and increasing growth of the knowledge and information persuade the organization to keep up its efforts for correct application. Recognition the type and extent of useful and affective information for organisation, procedure of acquire, collection and organisational, procedure of managing and transormation of data and information and finalay, procedure of distribution and correct utilization of them is one of the perior concept of any organisation. which today, it seeks not only for duration but for develop and all of theses activities can be summed up in a concept called knowledge management. So, for this cause that organizations follows the identification of effective and basic factors of creation knowledge management for requiring the utilization from their knowledge resources and environment [1].

However, one of the important factors in the survival and viability of the organizations is quality of human resources capabilities. In other words, the importance of human resources is more frequent the new technology, financial and material resources. It means the main difference of organizations is knowledge and ignorance not poor and asset. The role of efficient, competent and knowledgeable human resources is undeniable in organizational goals. Human resource can be considered as the most important, expensive and valuable asset of an organization. The capable human forces create a capable organization. A capable organization is an environment in which employees in different groups to work together for accomplish tasks. One of the affecting factors on employee empowerment concludes information, knowledge and job skills [8].

One organization should be develop and increase the human resources and extent of available information and knowledge for overcome to other organizations. Knowledge management, creation, acquisition, collection, sharing knowledge to enhance learning and improve the performance and thereby, enabling employees. Staff and knowledge in their mind, are very valuable resource for the organization. Knowledge and understanding are strategic resource that must be managed and developed. Staff through knowledge, experience and their motivation owner of hidden power and in fact, empowerment free up this power. Use the potential capabilities of human resources is a major advantage for any organization. Studies show that capable people are big budget

Corresponding Author: Abbas Talebbeydokhti, Department of Management, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran.
E-mail: f_shab2007@yahoo.com
for organization and management because they are self-directing and reliable and able to adapt themselves with changing internal and external of organization [2].

Statement of the Problem:
Today, organisations should be managed in a competitive environment completely and with surprisingly large changing. Today’s organizations have found a different way from traditional organizations. Due to rapid changes and accelerated human knowledge environment is changing drastically and organizations as an open system and the interaction with the environment has need to respond to environmental changes [5]. Under these conditions not only of command-control hierarchy would not be appropriate, but employees must show their own initiative and act quickly to solve their problems [7]. The use of management traditional practices in these conditions can lead to the loss of the sense of innovation of staff, increase workload and restrictions for employees. Granting freedom to work also led to chaos and disorganization of the field. In fact, both of them is a waste of material and spiritual organization [7]. The need to foster self-management employees who have the ability to be led to the empowerment of human resources management as a new paradigm to attract the attention of many scholars [11]. New paradigm is based on empowering the individual. In this regards, organizations are designed to power and ability of individuals to carry out their tasks and goals. It is natural that if managers can to increase the ability of staff causes to develop and improve their organization [5].

Bowen and Lawler know empowerment to share the employees in front line of organisation in the four elements of information, knowledge, bonuses and power (1992). Thus, understanding, knowledge management, implementation and institutionalization of the organization and its impact on empowerment is very important.

Significance of the Study:
Knowledge sharing is a complex activity, but this item is as a valuable and basis of many strategies of organizations knowledge management [10]. In a knowledge-based economy, intangible assets of organizations are increasingly has become a competitive factor. These assets such as trademarks, company reputation, skills, technical knowledge of staff and … to be seen as the essence of competitive advantage [6]. Attention to the process of knowledge formation reveal that knowledge is produced primarily in mind then people to participate by making it able to convert this knowledge into organizational knowledge. Thus, institutional investor mainly lies in the minds of people.

This critical and important knowledge undertaken by organistaion when the employees are willing to collaborate and share knowledge in addition it measures and effective mechanisms in this regard is provided by organisation.

This importance and role of the human factor in effective performance of knowledge management measures and especially, knowledge creation and knowledge sharing has been caused creation the necessity preparations for active participation in the measurement management knowledge [2]. Also, active participation of staff will be depending to capability and necessity desire [13]. Today’s organizations influenced by factors such as increased global competition, suddenly changes, the need for quality and service after the sale and limited resources and these organizations are under a lot of pressure. After years of experience, the world came to this conclusion if an organization want pioneer in economy and affairs without fall should be have human resource professionals and creative with high motivation. Human resources constitute the real wealth of the organization.

One of the major concerns of successful businesses of micro-manipulation is collection of wisdom and knowledgeable human capital that are able to creation of changing the organization to which they belong. A successful organization is set of composition of organizational knowledgeable people, common mind and goals.

A successful organization is a set composed of organisational cultured human, thought and common goals with group work in flexible teamwork of organization give their experience and knowledge to their manger along with growing love for the improvement of the organisation.

So, every person will be feel ownership to the organization and the responsibility is done [9].

Cement Andimeshk factory as an industrial unit is required essential to have a capable staff to advance the goals and reduce the time to bring the plant into production. Due to the current sanctions and lack of resources and new technologies to accelerate this process requires local knowledge and sharing of knowledge in this unit more glaring. Other staff can develop new ideas, to create new knowledge and increase their own capabilities in order to complete faster, and increase efficiency and help achieve production phase.

Main Research Questions:
1. Is there a significant relationship between knowledge stickiness and empowerment of employees?
2. Is there a significant relationship between knowledge stickiness and knowledge sharing?
3. Is there a significant relationship between knowledge sharing and empowerment of employees?

Secondary research questions:
1. Is there a significant relationship between the dimensions of stickiness and empowerment of employees?
2. Is there a significant relationship between explicit knowledge stickiness for individual and empowerment of employees?
2. Is there a significant relationship between explicit knowledge stickiness in the field of organization and empowerment employee?
3. Is there a significant relationship between the implicit knowledge stickiness and empowerment employee?
4. Is there a significant relationship between explicit knowledge stickiness to organisation and empowerment employee?
2. Is there a significant relationship between stickiness dimension and knowledge sharing?
1. Is there a significant relationship between explicit knowledge stickiness and knowledge sharing?
2. Is there a significant relationship between explicit knowledge stickiness in the field of organization and knowledge sharing?
3. Is there a significant relationship between implicit knowledge stickiness to individual and knowledge sharing?
4. Is there a significant relationship between implicit knowledge stickiness to organisation and knowledge sharing?
1. Does sharing of knowledge between knowledge stickiness dimension and empowering employees plays a mediating role?
2. Does sharing of knowledge between knowledge stickiness dimension and empowering employees plays a mediating role?

Research Background:

Theoretical Background:
Knowledge Management: it is a process by which organizations have found the ability to transform data into information and information into knowledge and also be able to effectively share knowledge in their decision to operate [3].

Stickiness of Knowledge: Additional costs for transfer and sharing of special information in a usable form to the information seeker [12].

Sharing knowledge: knowledge sharing concludes sharing of correct information, ideas, suggestions and expertise with others in an organization [5].

Empowerment of Staff: empowerment concludes encouraging people to participate in making decisions that affect their activities. This provides an opportunity to present their ideas and run [5].

Experimental Background:

Ghorbanzadeh and colleagues in a study entitled "The role of explicit knowledge transfer in empowerment of staff," concluded that there is a positive and significant relationship between the transfer of explicit knowledge on the one hand and the ability of employees in decision-making responsibilities acceptance of staff, access of staff to associated tools with decision making and run and finally, acceptance the responsibility for the consequences of decision-making related to staff on the other hand which all of these items lead to increasing the employee empowerment.

Yaqubi and colleagues in a research entitled "consideration the role of knowledge management dimension on empowerment of Sistan and Baluchestan University administrative staff concluded that there is a significant relationship between dimensions of knowledge management (creation, application, transfer and sharing) and employee empowerment."

Qalei and colleagues in a research entitled role of knowledge management in employee empowerment consider overview of knowledge management and its impact on empowerment. In this paper paid to a brief reference to knowledge management, knowledge management processes and its role in empowering employees. Also, type of present research is applied development which have attempted to present a good model for impact of knowledge management on employee empowerment by study library.

Von Hippel in a study entitled sticky knowledge and location of the problem solving, concepts for innovation pay to consideration the affective role on knowledge stickiness and finally, study present some resolves for innovation problems and sticky required information. The results indicate a negative effect on the stickiness of knowledge sharing and transfer of knowledge.

Mostajeran Gurtani in a study entitled factors affecting on the ability of experts in educational institutions to investigate about factors influencing the psychological empowerment of staff in Tehran educational institutions. The statistical populations of 1500 were selected 150 samples and by using Friedman’s rank and correlation test discussed data analysis. The results showed a significant and positive correlation between the managerial factors and psychological empowerment of employees. Also, the use of participatory management can more empower employees.

Research Methodology:

According to this study, the first step is to describe the characteristics of knowledge sharing, knowledge stickiness and empowerment of employees in cement factory Andimesh unit is a descriptive, co-relational study.
Required information for doing of this research collected by two ways: library and field. To ensure the validity of the research were used qualitative methods it means the expertise of professors and experts in the theory and the study of books, articles and questionnaires. In this study, Cronbach’s alphas were used to assess reliability. The reliability of the test results show that the range of Cronbach’s alpha coefficients obtained from these tests is variable between 0.69-0.81 ranges, which all of them have acceptable range. Table 1 shows the results:

Table 1: Cronbach's alpha coefficients.

<table>
<thead>
<tr>
<th>Spectrum</th>
<th>Cronbach's alpha coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge stickiness</td>
<td>0.78</td>
</tr>
<tr>
<td>explicit dimension to individual</td>
<td>0.71</td>
</tr>
<tr>
<td>explicit dimension to organization</td>
<td>0.72</td>
</tr>
<tr>
<td>implied dimension to individual</td>
<td>0.70</td>
</tr>
<tr>
<td>implied dimension to organization</td>
<td>0.69</td>
</tr>
<tr>
<td>knowledge sharing</td>
<td>0.81</td>
</tr>
<tr>
<td>empowering employees</td>
<td>0.79</td>
</tr>
</tbody>
</table>

After distributing questionnaires and collected them were used descriptive and inferential statistics for extraction, coding and data described in this study. Inferential statistics and Pearson correlation tests and method of path analysis were used to answer the research questions.

Findings of the Study:

The first research question: Is there any relationship between knowledge stickiness and empowerment of employees?

Given that both variables are measured at one distance measurement and both and both are normally distributed so, to answer this question Pearson correlation test was used. Obtained results show that there is a negative and significant relation ship between knowledge stickiness and empowerment of employees (sig=0.000, r= -0.61). This result indicate that increasing of knowledge stickiness causes decreasing the empowerment the employees. Result can be generalized to the entire target population.

Table 2: Correlation coefficient between knowledge stickiness and empowerment of employees.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>r</th>
<th>sig</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>empowerment of employees</td>
<td>-0.61</td>
<td>0.000</td>
<td>98</td>
</tr>
</tbody>
</table>

The second research question:

Is there any relationship between knowledge stickiness and knowledge sharing?

Obtained results shows that there is a negative and significant relation ship between knowledge stickiness and knowledge sharing (sig=0.000, r= -0.61). This result indicate that increasing of knowledge stickiness causes decreasing the knowledge sharing. Result can be generalized to the entire target population.

Table 3: Pearson Correlation coefficient between knowledge stickiness and knowledge sharing.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>r</th>
<th>sig</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge sharing</td>
<td>-0.67</td>
<td>0.000</td>
<td>98</td>
</tr>
</tbody>
</table>

The third research question:

Is there a relationship between knowledge sharing and employee empowerment?

Obtained results from Pearson correlation test shows that there is a positive and significant relation ship between knowledge sharing and employee empowerment (sig=0.000, r= -0.61). This result indicate that increasing of knowledge sharing causes increasing the employee empowerment. Result can be generalized to the entire target population.

Table 4: Person Correlation coefficient between knowledge sharing and employee empowerment.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>r</th>
<th>sig</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>empowerment of employees</td>
<td>0.637</td>
<td>0.000</td>
<td>98</td>
</tr>
</tbody>
</table>

The first sub-research question:

Is there any relationship between dimension of knowledge stickiness and empowerment employees?

Table 5 shows Pearson correlation coefficients between dimension of knowledge stickiness and empowerment employees.
1. There is a negative and significant relationship between explicit stickiness dimension to individual and empowerment employee (sig=0.000, r=-0.476) and this means that by increasing the stickiness of explicit knowledge to individual, empowering employees to reduce finds. This result can be generalized to the entire target population.
2. There is no significant relationship between explicit stickiness and empowering employees. So, significant level of this result indicates 0.342 which is more than normal range of 0.05.
3. There is no significant relationship between implied stickiness and empowering employees. So, significant level of this result indicates 0.067 which is more than normal range of 0.05.
4. There is no significant relationship between implied stickiness to organization and empowering employees (sig=0.000, r=-0.506) so, and this means that by increasing the stickiness of explicit knowledge to organization and empowering employees to reduce finds. This result can be generalized to the entire target population.

The second sub-research question:
Is there any relationship between knowledge stickiness dimension and knowledge sharing?

Table 6: Pearson correlation coefficients between stickiness dimension of knowledge and knowledge sharing.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Explicit stickiness dimension to individual</th>
<th>Explicit stickiness dimension to organization</th>
<th>Implied stickiness dimension to individual</th>
<th>Implied stickiness dimension to organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge sharing</td>
<td>r= -0.0509, sig=0.000, N=98</td>
<td>r= -0.03, sig=0.762, N=98</td>
<td>r= -0.365, sig=0.000, N=98</td>
<td>r= -0.465, sig=0.000, N=98</td>
</tr>
</tbody>
</table>

Table 6: Pearson correlation coefficients between stickiness dimension of knowledge and knowledge sharing a cording to Table 5, the results are as follows:
1. There is a negative and significant relationship between explicit knowledge stickiness to individual and knowledge sharing (sig=0.000, r=0.509) and this means that by increasing the stickiness of explicit knowledge to individual, empowering employees to reduce finds. This result can be generalized to the entire target population.
2. There is no significant relationship between explicit knowledge stickiness dimension to organization and knowledge sharing. So, significant levels of this result indicate 0.762 which is more than normal range of 0.05.
3. There is a negative and significant relationship between implied knowledge stickiness dimension to individual and knowledge sharing (sig=0.000 ,r= 0.365) and this means that by increasing the explicit knowledge stickiness dimension to individual, knowledge sharing to reduce finds. This result can be generalized to the entire target population.
4. There is a negative and significant relationship between implied knowledge stickiness dimension to organization and knowledge sharing (sig=0.000 ,r= 0.465) and this means that by increasing the explicit knowledge stickiness to organization, knowledge sharing to reduce finds.

8-2-6 third research sub-question: Is knowledge sharing between knowledge stickiness dimensions and empowering employees plays a mediating role?

To answer this question it is necessary to use the path model test. Table 10 shows the structural equation of the path model

Table 7: structural equation of research model variables.

<table>
<thead>
<tr>
<th>Depended variable name</th>
<th>In depended variable name</th>
<th>Coefficient</th>
<th>T-measurement</th>
<th>Sig</th>
<th>2R</th>
<th>2R-1</th>
<th>F</th>
<th>df</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowering employees</td>
<td>Knowledge sharing</td>
<td>-0.37</td>
<td>3.57</td>
<td>0.001</td>
<td>0.508</td>
<td>0.492</td>
<td>18.99</td>
<td>5.92</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Explicit stickiness</td>
<td>-0.23</td>
<td>-2.71</td>
<td>0.008</td>
<td>0.508</td>
<td>0.492</td>
<td>18.99</td>
<td>5.92</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>dimension to individual</td>
<td>-0.08</td>
<td>-1.05</td>
<td>0.297</td>
<td>0.508</td>
<td>0.492</td>
<td>18.99</td>
<td>5.92</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Implicit dimension</td>
<td>-0.024</td>
<td>0.24</td>
<td>0.309</td>
<td>0.508</td>
<td>0.492</td>
<td>18.99</td>
<td>5.92</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>to organization</td>
<td>-0.395</td>
<td>-3.48</td>
<td>0.01</td>
<td>0.508</td>
<td>0.492</td>
<td>18.99</td>
<td>5.92</td>
<td>0.000</td>
</tr>
<tr>
<td>Knowledge sharing</td>
<td>Explicit stickiness</td>
<td>-0.396</td>
<td>-0.53</td>
<td>0.000</td>
<td>0.502</td>
<td>0.498</td>
<td>23.5</td>
<td>4.93</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>dimension to individual</td>
<td>-0.048</td>
<td>-0.647</td>
<td>0.000</td>
<td>0.502</td>
<td>0.498</td>
<td>23.5</td>
<td>4.93</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Implicit dimension</td>
<td>-0.312</td>
<td>-4.2</td>
<td>0.000</td>
<td>0.502</td>
<td>0.498</td>
<td>23.5</td>
<td>4.93</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>to organization</td>
<td>-0.396</td>
<td>-5.3</td>
<td>0.000</td>
<td>0.502</td>
<td>0.498</td>
<td>23.5</td>
<td>4.93</td>
<td>0.000</td>
</tr>
</tbody>
</table>

On the basis of table 7 , variables of knowledge sharing, stickiness dimension of explicit knowledge to individual and implied to organisation have a significant effect on empowerment employee. These variables
have a direct impact on empowerment employee, but two stickiness dimension of explicit knowledge to organisation and implied to individual have no direct impact on empowerment employee. Also, explicit dimension to organisation has no significant effect on the knowledge sharing. Figure 1 shows the results.

**Fig. 1:** final model of research.

As can be seen in figure 1, explicit dimension to organization has no direct impact on empowerment employee and no direct impact on knowledge sharing, so this variable has no direct impact on empowering employees, and should be removed from the model.

Although implied dimension to individual has no direct impact on empowerment employee but implied dimension has indirect impact on knowledge sharing on empowerment employee by mediation role. But two stickiness dimension of explicit and implied knowledge to organization has direct impact on empowerment employee and also, indirect impact should be removing from the model in second phase for obtaining the final model.

**Fig. 2:** final model of research.

According to Figure 2: knowledge sharing in relationship between dimension of explicit knowledge stickiness to individual and implied to organisation by empowering employees plays a mediating role. Based on the above, coefficients, direct impact, indirect and total ultimate model variables of this research can be seen in Table 8.

**Table 8:** Coefficients of direct effect, indirect and total variation model of research on employee empowerment.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Knowledge sharing</th>
<th>Explicit dimension to individual</th>
<th>Implicit dimension to individual</th>
<th>Implicit dimension to organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct impact coefficient</td>
<td>-0.384</td>
<td>-0.234</td>
<td>-0.138</td>
<td>-0.289</td>
</tr>
<tr>
<td>Indirect impact coefficient</td>
<td></td>
<td>-0.154</td>
<td>-0.038</td>
<td>-0.138</td>
</tr>
<tr>
<td>Overall impact coefficient</td>
<td>0.084</td>
<td>-0.388</td>
<td>-0.0138</td>
<td>-0.441</td>
</tr>
</tbody>
</table>

According to Table 8, however, the direct impact of knowledge sharing on empowerment employee more than any other variable, but the overall effect of the implicit dimension to organization and explicit dimension to individual, the effect of stickiness of knowledge more than the effect of knowledge sharing. But explicit knowledge stickiness to individual has only indirect impact on to the tacit knowledge of the indirect effect of empowering employees which its effect lesser than other variables.

**Conclusions and recommendations:**

Given that the maximum knowledge stickiness belongs to the organization's explicit knowledge so, plant’s management should seek to create a flexible and ruled structure in organization and procedures appropriate to prevent the sticky knowledge to organization level. Also, the use of incentive mechanisms can reduce the stickiness of knowledge sticky in the field of organization. For reducing the sticky level Bonding can be used 4 strategies:

- We use first strategy for search a place to find knowledge when the knowledge stickiness is too low and too little.
We use second strategy when the knowledge stickiness which is repletion and practice when knowledge stickiness is moderate.

We use third strategy which is repletion and practice when knowledge stickiness is high level which is split function.

When the knowledge stickiness is too high we use investment strategy for reducing the stickiness of use.

So that, extent of knowledge sharing is a little more than moderate level, so, management can maintain past procedure for creation of improvement in motivation ways and decreasing the knowledge sharing barriers such as giving opportunities exchange views to employees, use of appropriate technologies to facilitate knowledge sharing, pay attention to knowledge sharing regarding culture and emphasize the benefits of knowledge sharing to maximize the amount of individual to share their knowledge with other colleagues.

Based on the results from the final model due to the impact of knowledge sharing on the empowerment of management has high level, so, management should be pay more attention to this category and by considering factors of knowledge sharing in 3 barriers categories (individual factors, organizational factors and technological factors) have tried to increase the amount of this items because the flow of information in individual organisation can be benefited from new information and technologies and done their properly. This cause that individuals feel empowered and have more passion to advance organizational goals.

REFERENCES