Impact of Social and Human Factor on Knowledge Creation

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Abstract

The human and social factors have a positive impact on the creation of knowledge specifically in the knowledge based organizations. The human and social factors are both are those which is playing very important role in the process of knowledge creation within an organization. The study found that one of the most important aspects of knowledge creation is the social computing and knowledge socialization within an organization, due to this the people share professional interests, which shows the area of interest where those can create the knowledge.

Key Words: Social Factors, Human Capital, knowledge Creation, and knowledge socialization

Introduction:

Many organizations have turned to team-based work systems to swell their knowledge and their talent to promote innovation (Mohrman, Cohen, & Mohrman, 1995). Such organizations not need only with promoting creativity and innovation among employees, but also need to develop the creative and innovative teams, and these teams play a very important role in sharing and creation of knowledge. Different people are having different backgrounds working within one organization. Many Researchers have said that these teams contributing a lot in sharing and creation of knowledge (e.g., Scott & Bruce, 1994, Bain, Mann, & Pirola-Merlo, 2001; Burningham & West, 1995), or by investigating the relations among employees and team contributions (e.g., Taggar, 2002); these individuals share their own knowledge with their teams’ members and have a tendency to utilize as outcomes either individual employee creativity or team creativity (Kozlowski & Klein, 2000). The present research uses both individual and team compute of creativity to examine the connection between creativity at employee and team levels. Human and social factors are very important resources that firms must deal with and put together to produce, create and maintain competitive advantage (Conner & Prahalad, 1996; Grant, 1996; Gupta & Govindarajan, 2000; Spender, 1996).
Creativity is a judgment of the novelty and usefulness (or value) of something (Bailin, 1988; Ford, 1996; Mumford & Gustafson, 1988). Psychological research on creativity has leaned to focus on individuals and intra individual factors (e.g., motivation; Amabile, 1982). Innovation involves novelty and effectiveness; it can be seen to incorporate creativity, in calculation to implementation/achievement (Ford, 1996). The researchers write different definitions of creativity and innovation. In research and development (R&D) organizations, ‘innovation’ is something that is new, useful, effective, efficient, helpful, supportive, loyal, reliable and valuable. There are few papers that include a discussion of creativity of more than one page in length (Couger, 1990; Elam and Mead, 1987; 1990; Nunamaker, et al., 1987; Telem, 1988; Zmud, 1983). Many researchers have been conducted study that an individual creativity based on personality traits (Feist, 1998). Identifying, capturing, organizing and disseminating the human and social factors that are critical to an organization are very hard and difficult to understand and alien in a way that produced expected results for an innovative and creative knowledge within an organization. Human and social factors have been considered as a primary source of contribution to more than 70 percent for the knowledge creation and use. Amabile. (1996) conducted a study on creativity in an organizational social psychology context. Personal contact, trust and willingness are required for the sharing of tacit knowledge (Davenport & Prusak, 1998; Tobin, 1998; Bertrams, 1999). Human and social factor are historically important as are main content in every organization.

This research paper will cover the areas that contribute in creation of knowledge. These two factors, human and social play vital role in the development of knowledge in an organization. Without considering and investigating these two factors you can’t develop a sound organizational infrastructure. So it is most important that you have to know that what kind of people you have, how you interacts them understand them and develop healthy, trust worthy and friendly relationships. You have to know what are their customs, traditions, values, religion, understanding level, experience and mentality. Understanding these elements (social and human) is also main hurdle as every person has different understanding level, background, customs, and mentality so you have to mold yourself for different background peoples, which is very difficult. Human and social factors plays very important role because humans are the source of knowledge and a society, or a human society, is a cluster of citizens linked to each other. So these factors are more important than others. Human and Social Factors are the technical application of knowledge to implement in an organizational environment for the safe, efficient and easy creation.
The main objective of this note is:

- What is the role of human and social factors in knowledge creation?

The human and social factors are not properly utilized for the efficient knowledge creation. The reason is that the humans have different behaviors, understanding, thoughts, judgments, attitudes, beliefs, norms, custom, values, traditions, ethnicity, civilizations, ethics etc...

Human plays very vital role because humans are the source of knowledge, so this is very critical issue for an organization to look or manage the humans and all related issues like direct or indirect to humans or to their surroundings or environment. If these factors are not properly aliened, this will heavily affect the performance of an organization. In fact the whole organization is highly dependent on these two factors. Every organization needs to properly identify, capture, organize and disseminate these factors to achieve the proper creation of knowledge. As mentioned above that the studies of human and social factors are very important, that will help to a very good practice of knowledge within an organization that will results in a form of high performance for an organization.

**Literature review:**

A very low level of study conducted to develop creative and innovative solutions of problems. First the Organizations must ensure that their individuals and teams are creative and also adopt the techniques to improve the creativity and sharing within organization. Six cases are discussed in this article that how critical techniques (progressive abstraction, interrogatories, and force field analysis) and sensitive techniques (associations/images, wishful thinking, and analogy/metaphor) have been used in a number of industries to answer a different problems and opportunities. The managers can improve and implement the creativity within organization while knowing that when and where to use creativity techniques (Daniel, Higgins and McIntyre, 1993). There are number of potentials limitations like environmental, economic, ethical, political and social etc… that can create hurdles in creativity and sharing of knowledge. The social, environmental and ethical factors are more critical to the creativity and sharing of knowledge (Anna, 2003). Knowledge refers to a competency; it may exist in individuals, groups (i.e., social systems), files (documents), processes, policies, and systems. Different approaches are used to deal with the variety of knowledge types (Alavi and Leidner, 2001). Both individual and team based environment influences creativity; there is still a major variation in the creativity of individuals within teams. This variation is not discussed in this article, but the characteristics, roles, capabilities and motivations are the major reasons (Amabile, 1997; Ford, 1996). The creativity is based
on teams oriented environment as the hypothesis shows ($r^2 = 0.71$). However, this research can’t conclude the complete correlation between team creativity and team member creativity; further added that all variation is not depended on teams’ members; the available data related to teams are not complete and there are also chances of an error in the measurements of rating based on single item scale (Andrew and Leon, 2004). Three aspects are discussed by (Carlile and Rebentisch, 2003), First, that the new requirements forced the previous knowledge to reuse. Second, that how previous knowledge is accumulated and developed for the new solution of the newly acknowledged problem. Third, that how knowledge is stored, recovered, and transformed to meet the requirement of acknowledged problem. One of research goals is to identify critical ethical issues related to behaviors used to increase creativity. A second objective is that how to generate the interest in these issues to be identified and covered. Finally the relationship and interaction is developed among ethics and creativity. The ethical researchers believe that there is a strong relationship between creativity and ethics which create the valuable creativity. The main objective of this study is that how to encourage the managers to identified the critical problems taking employees on board and find
out the ways to achieve new solutions supportive to ethical standards. Further the Managers need to develop the creative behaviors among employees which are productive for them as a leader (Melissa, William, David and Sherrie, 2008). The employees play role in setting goals, objectives and priorities, making decisions, and evaluate that how high creativity can be achieved. The use of same respondents, point of time, variables at the individual level, present sample that for the measurements of variation which were the limitations to this study. Today’s’ economy is based on the click and go concept of employees (Paul and Peter, 2007). It is a challenge that how to identified, create, protect and properly use of knowledge.

The seven schools defines that knowledge management is the way that what and how to manage the knowledge (Michael, 2001). Organization can enhance creativity and performance if there is a strong relationship among knowledge identification, creation, and disseminating (Lee and Choi, 2003). Purpose of study was to shrink the extent of the diversity between machine and human factors. The limitation of the study was self-serving biases; people attributes themselves more open, ongoing, responsive, social, pleasant, encouraging, constructive, and positive than others see them. The second limitation was the general question asked from respondent instead of specific questions (Poppy, 1992). The human and social factors are taken into account in the paper and recommended that how we manage the knowledge that is created by human and social factors (Thomas, Kellogg and Erickson, 2001). Another research suggests that the managers might predict the employees' willingness by making tricky direction as a base for knowledge sharing based (Chung, 2008).

Most of the Organizations Use Tacit And Explicit Knowledge for Solving Problems, Achieving Goals and Competitive Advantage. Through this the organizations can moves to knowledge creation by improving supportive and interactive learning environments and giving value to the worth full individuals, groups and intellectual assets (Smith, 2001). Building a healthy relationship is very difficult between individuals' creativity and their daily ethics that they follow in their jobs. The creative individuals mostly harm their ethics to find out an innovative solution for the problem (Paul, Robert and Charette, 2009). The transferring of knowledge may be made easy like; identify the key variables that are moderate to the transfer of knowledge between home, social and work environments and the time of sending or transferring, receiving, and decoding of knowledge, it can be easily done when the sender and receiver having the same backgrounds (Oddou, Osland and Roger, 2009). Social capital and intellectual capital have a very vital role for the organizational advantage, which help in the reduction of transaction and coordination cost that results in high efficiency and growth, but the understanding and developing of different structures are very difficult to create the knowledge (Janine and Ghoshal, 1998). Organizational knowledge creation depends upon
organizational learning because the organizational learning is not limited to organization only the society is also affected and help in creation of knowledge for organizations (Nonaka, 1994). Good knowledge sharing is possible if there is a good formal and informal networking system within an organization (Hansen, 2002). As we already know that the resources allocation is very difficult its needs more research to make it understandable but The recourses of the firm play a very vital role in the creation of knowledge within an organization and if the sources are external that result in high creativity and performance (Kotabe, Hinkler, Ronaldo and Mishra, 2007). One of the important contributions of the social exchange theory is to find out the significance of social structures in ethical discussions (Chen and Choi, 2005). The model of this research paper provides the criteria through which managers and workers can create knowledge by using organizational and economic theory (Andrew and Edgington, 2005). The transfer of knowledge intend the organizations to knowledge incentive and give a hint to the organizations to adopt the knowledge sharing for achieving innovation and competitive advantage (Jasimuddin and Zhang, 2009). Social capital is the key source for creation, use, and maintaining the knowledge within an organization but it is still a black box which needs further study (Dolfsma, Eijk and Albert, 2009). Organizations have different capabilities like critical skills of employees, management systems, rule, median, custom, ethics, morals, norms and values. But the main focus of any organization will be the sharing of knowledge to promote knowledge creativity in the organization (Swap, Leonard, Shields and Abrams, 2001). This research develops a model having seven variables, and also finds that through processes like socialization, externalization, combination, and internalization the knowledge can be created (Lee and Choi, 2003). This study provided help to understand the link between creativity and problem solving; any decision making regarding to problem solving need to focus on creativity and originality (Elam, 1997). Teachers, networks and webs plays very important role in knowledge creation (David, 1999). The people connected socially can contribute more in knowledge creation and sharing (Melissa, Ogden and Neale, 2003). Organizational knowledge is the potential of an organization to create something new in extrinsic form. The researchers define that the human justification to his belief, faith, trust, fact, reality and truth. The social interaction between tacit and explicit knowledge can create and prolonged the human knowledge (Nonaka, Takeuchi, 1995). The knowledge based competitions stress the organizations to work or spend more on knowledge creation keeping social relation and human resources in balance (Kang, Morris and Snell, 2007). Innovation, creativity and High performance of any organization is directly linked with human capital and social environment (Li-Yun Sun, Samuel and Kenneth, 2007).
Methodology:

Instruments:

Questionnaire is used to collect data from different respondents. The questionnaire includes the demographic information of the respondent and ranks the questions about I.V and D.V on a five liker scale which is as below:

1. SA=strongly agree
2. A=agree
3. N=neutral
4. D=disagree
5. SD=strongly disagree

Population and Sample size:

Employees of different service oriented organization in twin cities were the population. Study took 114 employees as sample to measure the impact of human and social factors on the creation of Knowledge. Simple random sampling has been used as the population has a known and equal chance of being selected.

Procedure and Time Frame:

Data is collected through questionnaire. Cross sectional time frame is applied because data is collected only once due to time limitations.

3.1 Theoretical Framework:

![Diagram showing the relationship between Human Factor, Social Factor, D.V, and Creativity]
Hypothesis:

\( H_{h0} \): There is a positive impact of human factor on the creation of knowledge.

\( H_{h1} \): There is no impact of human factor on the creation of knowledge.

\( H_{s0} \): There is positive impact of social factor on the creation of knowledge.

\( H_{s1} \): There is no impact of social factor on the creation of knowledge.

Results:

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
</tr>
<tr>
<td>.857</td>
</tr>
</tbody>
</table>

The above table shows that the instrument having 57 questions (variables) used for the collection of information is 85.7% reliable.

<table>
<thead>
<tr>
<th>Scale Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>148.7719</td>
</tr>
</tbody>
</table>

The above table shows the mean, variance and Standard deviation of the instrument which is used for the collection of information.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td>2.5042</td>
<td>.50581</td>
<td>114</td>
</tr>
<tr>
<td>Humanfactor</td>
<td>2.8991</td>
<td>.42395</td>
<td>114</td>
</tr>
<tr>
<td>Socialfactor</td>
<td>2.5843</td>
<td>.45760</td>
<td>114</td>
</tr>
</tbody>
</table>

**Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Creativity</th>
<th>Humanfactor</th>
<th>Socialfactor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td>1</td>
<td>.268**</td>
<td>.570**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.004</td>
<td>.000</td>
</tr>
<tr>
<td>Humanfactor</td>
<td>.268**</td>
<td>1</td>
<td>.320**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.004</td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Socialfactor</td>
<td>.570**</td>
<td>.320**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The above two tables presents the descriptive statistics and a correlation matrix for the variables used in our analyses. The correlation of dependent variable with human factor is 0.268 and with social factor is 0.57. The correlation between independent variables is 0.32.

**Variables Entered/Removed**

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Socialfactor, Humanfactor</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. All requested variables entered.
b. Dependent Variable: Creativity
Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.577&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.333</td>
<td>.321</td>
<td>.41672</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Socialfactor, Humanfactor

ANOVA<sup>b</sup>

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>9.635</td>
<td>2</td>
<td>4.817</td>
<td>27.741</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>19.276</td>
<td>111</td>
<td>.174</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>28.911</td>
<td>113</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Socialfactor, Humanfactor

b. Dependent Variable: Creativity

Coefficients<sup>a</sup>

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.631</td>
</tr>
<tr>
<td></td>
<td>Humanfactor</td>
<td>.115</td>
</tr>
<tr>
<td></td>
<td>Socialfactor</td>
<td>.596</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Creativity

Model summary table shows that the relation of independent variable is 57.7% is explained by dependent variables while the remaining is explained by the other variables. The ANOVA table shows the significance level and the last table shows the B value. The regression line is

\[ Y = 0.631 + 0.115X_1 + 0.596X_2. \]

**Discussion:**

Given the potential value to the knowledge creation research need to be more devoted to the process through which the knowledge creation becomes easier. Research used the model to
find the relationship among creativity, human and social factors. This study find that the human factor have low relation with creativity as compared to social factors. Further find the correlation but the personal willingness of toward the work that creative is also a very important factor. The organizational incentives, altruism, rewards, collaborative leadership, trust, team work and the tools for creativity is also important factors to promote the creativity within an organization. It is very simple and clear from results because the correlations of the two independent variables are very understandable, and the human factor having a weak correlation and the reason behind is that the human factor is not as important as the others factors are. But if look to the correlation of creativity and social factor that is much high positive correlation. The interactions are very important for the creativity of knowledge. The hypothesis \(H_0\) and \(H_0\) is accepted because the significance level of both Variables are below 0.01 and the hypothesis \(H_1\) and \(H_1\) are rejected because the significant value \(p > 0.01\). Both human and social factors have a positive correlation but social factors have high correlation as compare to human factors as shown above in correlation table. The impact of social factors are very high as compare to human factors as shown above in ANOVA \(b\) table.

**Conclusion:**

The human and social factors have a positive impact on the creation of knowledge specifically in the knowledge based organizations. The human and social factors are both are those which is playing very important role in the process of knowledge creation within an organization. As mentioned in introduction and literature review above. The humans are the source of knowledge and social factor is source for sharing and the social factors have a very strong impact on knowledge creation as compared to human factors. In each knowledge based organization there should be a culture of collaboration, open communication, flexibility and willingness to trust each other which will results in form of knowledge creation. The organizations must take human and social factors into account. This study clearly defined that how much human and social factors are important for the knowledge creation within an organization. In the future it will become more and more important across organization to support knowledge creation within an organization through human and social factors. This study believe that one of the most important aspects of knowledge creation is the social computing and knowledge socialization within an organization, due to this the people share professional interests, which shows the area of interest where those can create the knowledge. As study discussed above that the group interaction enhance creativity and support for expressive communication. This well-built social capital, including trust and cooperation among colleagues. Study believe that understanding of human and social factors well results.
in better creating, sharing, and reusing the knowledge that is critical to survival in the twenty first century.

**Recommendations:**

- Organizations should provide the culture of collaboration in the organization.
- Organization should support the employees who have making error in the innovation.
- Organization should provide the guideline to employees about creativity.
- Organization should promote knowledge sharing order to enhance the creativity.
- Organization should provide the technological infrastructure to the employees.
- Every employee has a set of skills, knowledge and attributes which helps in creativity.

**References:**


