Exploring Effective Knowledge Management
to Improve Organizational Performance in
Globalized Environment: An Empirical Study

Mousumi Roy¹, Tilak Chatterjee² and Lassi Linnanen³

Abstract

An empirical study was conducted involving several firms based in a vast and
developing economy like India on effective knowledge management strategy. It
was observed that firms with higher orientation in system strategy attach the
highest emphasis to combination mode and, the lowest emphasis to socialization.
For the highly human strategy oriented group, socialization gets the highest focus
while the combination gets the lowest. The scenario turns the reverse for the firms
with higher orientation in human strategy where emphasis is more on extra firm
and intra-firm social information collection, gathering and transfer of tacit
knowledge. So far as knowledge creation level is concerned, a significant

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variation is noted within the firms with higher performance be in highly system strategy oriented group or in highly human strategy oriented group. The study reveals that effective knowledge management involves striking a balance between knowledge management strategy and varying knowledge creation modes such as socialization, externalization, combination, and internalization in view of their industry type.

**JEL classification numbers:** O15

**Keywords:** Knowledge management, Knowledge creation, System strategy, Human resource

1 Introduction

Knowledge is a critical organizational resource in today’s business world [1-5]. Managing knowledge is one of the most strategic weapons that can provide proprietary competitive advantage. It is very essential for any organization to manage knowledge effectively.

Knowledge creation process is a continuous process whereby a firm shares and captures tacit and explicit knowledge of employees, customers and shareholders. However, knowledge management strategy has a significant impact on knowledge management process as the dynamic characteristics these of strategies are continually changing [6-7].

The emphasis in Strategic management literature has shifted from viewing organizational performance primarily determined by environmental (industry/market) factors to a resource based view [8]. Strategy scholars suggest that today’s marketplace is knowledge based. The knowledge based view which comes from resource based view addresses performance difference between firms by addressing asymmetries in knowledge as a foundation for this argument.
Knowledge and competencies are the main factors in determining a firm’s current and future success. Knowledge management strategy may be either system-oriented or human. System-oriented strategy emphasizes on codifying and storing knowledge via information technology [9-10]. The operational focus is on degree of knowledge codification, documentation, knowledge acquisition and sharing through codified forms. Human strategy gives focus on degree of knowledge acquisition informally through interpersonal interaction from experts, co-workers. Different studies have shed light on guidelines for employing different strategies. Focused view proposes that companies should pursue one strategy, whereas balanced and dynamic views suggest that a company should utilize both system and human strategy [11-12]. Human strategy is basically employed to sharpen tacit knowledge [7] and system strategy is effective in sharing explicit knowledge. However, system strategy can be employed to facilitate tacit knowledge and similarly human strategy can be employed to sharpen explicit knowledge [13-15]. The model of knowledge creation as used by some authors [7] consists of four modes (SECI): socialization (sharing tacit knowledge through talking about personal experience and converting them in the form of shared mental models, technical skills); externalization (i.e., converting tacit knowledge into explicit concepts); combination (transferring explicit knowledge into more systematic sets); internalization (i.e. conversion of explicit knowledge into tacit knowledge). This knowledge creation process is dynamic. The most important thing is to find the link between appropriate knowledge creation process and knowledge management strategy as the fit between knowledge management strategy and knowledge creation process is able to improve corporate performance. Proper alignment of knowledge management processes and knowledge management strategies is the real challenge to an organization. Though theoretical aspects of effective knowledge management strategies and knowledge creation modes have been dealt well in literature [14], empirical studies are quite limited particularly in the context of vast and
developing economies like India. The present work is an attempt to fill this knowledge gap where the issue is explored empirically.

2 Research Design

The paper investigates 40 Indian firms empirically. Research targets were 60 middle managers who seem to play a significant role in knowledge management. Research constructs were operationalized first through a pilot test and both interview and mails were used for sampling. Based on response, 40 managers were selected for final survey. For the questionnaires, a multiple items method was used based on five point Likert scale (very low, low, moderate, high, very high). Factor analysis with varimax was conducted to check the unidimensionality among the selected items following standard of literature [16-17].

3 Main Results

Respondents belonged to different industry groups of manufacturing (45%), Financing (25%) and service (30%). The reliability were assessed by Cronbach’s alpha (Table1). A cluster analysis is performed. Firma are categorized in view of high or low level of system or human strategy by using Ward’s hierarchical technique (Table2).
## Table 1: Reliability test for selected items

<table>
<thead>
<tr>
<th>Factors</th>
<th>Items</th>
<th>Reliability (Cronbach alpha)</th>
<th>Factor loading on single factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Creation Modes¹</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socialization (S)</td>
<td>5</td>
<td>0.8583</td>
<td>0.856; 0.789; 0.753; 0.835; 0.795</td>
</tr>
<tr>
<td>Externalization (E)</td>
<td>5</td>
<td>0.8756</td>
<td>0.886; 0.897; 0.812; 0.704; 0.853</td>
</tr>
<tr>
<td>Combination (C)</td>
<td>5</td>
<td>0.8268</td>
<td>0.843; 0.815; 0.859; 0.767; 0.729</td>
</tr>
<tr>
<td>Internalization (I)</td>
<td>5</td>
<td>0.8341</td>
<td>0.859; 0.708; 0.725; 0.859; 0.729</td>
</tr>
<tr>
<td>Knowledge Management Strategy²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System (SS)</td>
<td>4</td>
<td>0.8524</td>
<td>0.710; 0.798; 0.867; 0.801</td>
</tr>
<tr>
<td>Human (HS)</td>
<td>4</td>
<td>0.8150</td>
<td>0.751; 0.867; 0.837; 0.865</td>
</tr>
<tr>
<td>Organization performance (OP)³</td>
<td>5</td>
<td>0.8845; 0.834; 0.756; 0.824; 0.742; 0.836</td>
<td></td>
</tr>
</tbody>
</table>

## Table 2: Knowledge Management Strategy (cluster Analysis)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>High</th>
<th>Low</th>
<th>Mean</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>4.05</td>
<td>3.40</td>
<td>3.64</td>
<td>0.00</td>
</tr>
<tr>
<td>No. of firms</td>
<td>(16)</td>
<td>(24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human</td>
<td>4.01</td>
<td>3.37</td>
<td>3.58</td>
<td>0.00</td>
</tr>
<tr>
<td>No. of firms</td>
<td>(14)</td>
<td>(26)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to the orientation in system and human strategy firms are divided into two groups. About 40 percent of firms are in the high performance level belonging to either in high system strategy oriented group or high human strategy oriented group. In terms of knowledge creation level significant variation is noted among these two groups. Firms with higher orientation in system strategy have given highest emphasis on combination mode and lowest on socialization. For the highly human strategy oriented group, socialization gets the highest focus and combination gets the lowest (Table 3). In the high system strategy least emphasis is on tacit knowledge accumulation and here major focus is observed on knowledge codification, synthesis, processing and dissemination. The picture is reverse for the firms with higher orientation in human strategy where emphasis is more on extra firm and intra-firm social information collection, gathering and transfer of tacit knowledge. So far as knowledge creation level is concerned, a significant variation is noted within the firms with higher performance be in highly system strategy oriented group (p=0.032) or in highly human strategy oriented group (p= 0.025). In case of firms with the low performance level, difference is almost non-existent (p=0.878 for low system strategy oriented group and p=0.976 for low human strategy oriented group).

Table 3: Knowledge creation modes and knowledge management strategy

<table>
<thead>
<tr>
<th>Modes</th>
<th>High performance</th>
<th>Low performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>System</td>
<td>Human</td>
</tr>
<tr>
<td>Socialization</td>
<td>3.70</td>
<td>4.40</td>
</tr>
<tr>
<td>Externalization</td>
<td>4.11</td>
<td>4.01</td>
</tr>
<tr>
<td>Combination</td>
<td>4.35</td>
<td>3.80</td>
</tr>
<tr>
<td>Internalization</td>
<td>4.05</td>
<td>4.00</td>
</tr>
</tbody>
</table>
Research findings confirm that for better organizational performance in the globalised environment, firms have to adjust strategies along with variation in knowledge creation process. System strategy has given more focus on combination (4.35) and human strategy has given more focus on socialization (4.40). For externalization and internalization a balance view of system and human strategy is ideal. In order to achieve sustained increase in corporate performance firms have to adjust knowledge management strategies with appropriate knowledge creation process in view of their requirement.

4 Conclusion

Firm’s performance is enhanced through acquiring and managing knowledge-based resources. Firm’s ability to create knowledge and its proper alignment with knowledge management strategy has high potentiality for higher organizational performance. Effective knowledge management involves striking a balance between knowledge management strategy and varying knowledge creation modes such as socialization, externalization, combination, and internalization in view of their industry types. Human strategy is more likely to be appropriate for socialization and system strategy seems to be more effective for combination. In order to achieve higher levels of performance, a firm is required to give more focus on combination mode when orientation is in system strategy and more emphasis on socialization when the orientation is on human strategy. A balance between human and system strategies is appropriate for the other two knowledge creation modes i.e., externalization and internalization. Firms in the effective management zone are able to improve organizational performance significantly.
References


