The Impact of Defensive Barriers on Organizational Performance and Learning

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Abstract After more than a decade of considering organizational knowledge as a strategic asset, serious problems have been detected in its management. This article brings a socio-cognitive approach to knowledge management and organizational learning problems. The objective of the investigation is to study the manner in which certain behaviour acts as a defensive barrier and the possible influence on organizational performance.

Résumé Après plus d'une décennie au cours de laquelle la connaissance a été considérée comme une ressource stratégique pour les organisations, de sérieux problèmes apparaissent dans sa gestion. Le présent article apporte une approche socio-cognitive aux problèmes de la gestion de la connaissance et de l’apprentissage dans les organisations. L’objectif de la recherche est d’étudier comment certains comportements agissent comme barrières défensives et d’envisager leurs possibles influences sur la performance de l’organisation.

Organizational learning and knowledge management are terms commonly used in the field of strategic management, and generally associated with projects aimed at obtaining a competitive advantage through the capacity of an organization in learning more quickly than its competitors (De Geus, 1988).

It was around the 1990’s when the subjects of knowledge management and organizational learning began to capture the attention of academics, consultants and managers. Some paradigmatic works to stand out in this field are by Senge (1990), Nonaka and Takeuchi (1995), Szulanski (1996) and Vera and Crossan (2004).

In developing a theory about the creation, transfer and application of knowledge, the investigators sparked a debate about the concept of knowledge and which
form or type is most interesting (Collins, 1993). The various conceptual paradigms offer different perspectives on what knowledge is and how it can be studied, based on various assumptions, both epistemological and ontological. These same assumptions form the basis on which the efficacy of the process of knowledge creation, transfer and application is determined, justifying the difficulty of the process based on its tacit nature, or attributes such as velocity and viscosity (Davenport and Prusak, 1998; Szulanski, 1996; Szulanski and Winter, 2002).

This article proposes that the efficacy of the knowledge transfer process (considered as a process of organizational learning) may be strongly related to external factors instead of the nature of knowledge. Certain social conditions may exert an influence on the behaviour of individuals in such a way that barriers appear which limit the development of the learning process. In this article they are referred to as defensive barriers. Their characterization and consequences are described in the rest of the article.

1. Theoretical framework

Certain patterns of behaviour, named organizational defensive barriers, have been identified as the cause of serious inefficiencies which destroy the bonds between the people who make up an organization (Argyris and Schön, 1974). A defensive barrier can be defined as any obstacle which makes learning in the business environment difficult.

The purpose of defensive barriers, and the reason for their existence, is that defensive barriers are aimed at protecting the self-image and control of those who do not wish to confront the gap between their words (exposed theory) and their actions (theory-in-use). Organizational defensive barriers are the strategies whereby people or groups avoid the feeling of being exposed to shame. These barriers allow people to shirk responsibility for the inconsistency between their words and their actions and for this reason they have been self-protective to those who use them. In trying to reaffirm personal and team security, organizational learning is prevented. In such a context, the members of the organization are interested in keeping up appearances rather than solving the true problems. The main objective is not to avoid making mistakes, but to hide them. It is normal not to call attention to one’s own actions and to look for fault in the actions of others or non-controllable circumstances.

Defensive barriers are hidden because the actors who create them have acquired a special ability in passing on incoherent messages while acting as though they were coherent. They succeed in making their actions indisputable and act as accomplices if they find themselves on the receiving end. Weick (1995) concludes that this behaviour is automatic and shared, that the actors cannot foresee their
behaviour because it occurs unconsciously in the face of concrete situations. Having arrived at this point, individuals hold the group or the organization responsible for the situation and none of them feel responsible as an individual.

Other authors considered in this investigation on placing the theoretical framework concerning learning barriers are Senge (1990), Probst and Buchel (1995), Watkins and Marsik (1993) and Savall and Zardet (1995). Nevertheless, their approach to the research object is qualitative. In this investigation, the authors approach is quantitative, as a mean to consolidate previous theoretical research empirically and contribute to cumulative scientific knowledge.

The explanatory theory of the existence of defensive behaviour places the individual as the designer of the action. To understand the individual and his conduct under the focus of an action based theory, it is necessary to analyse the individual as an agent made up of intentions and shared meanings. In such a way, the agents will design their actions in order to achieve the desired results and learn about the degree of effectiveness of the decisions they have made and the actions they have undertaken. The agent will give sense to his environment, building on the hoped for meanings, and these meanings will guide his future action. By way of learning from the effectiveness of his actions, the agent can also sustain the sense built on the environment.

To design actions, the agent needs to build a simplified representation of his environment, in the form of a set of casual theories governable as regards its dimension. Causal theories allow the agents to prescribe their actions in order to achieve the desired results. It would be rather inefficient to build these representations and theories beginning from zero each time. Instead, the agents learn a series of concepts, schemes and strategies and they maintain master programmes which help them to design actions for each specific situation (Bateson, 1972).

The lack of harmony between the results obtained through their actions and the desired results may produce two types of behaviour: learning behaviour, which implies taking responsibility for failure, objectively analyzing the mistakes made, revising ambiguous reasoning and trying to avoid making the same mistakes in the future. The alternative is, defensive behaviour, which prevents the agent from putting himself in risky situations, trying to hide mistakes so as to avoid the possibility of being held accountable, and in the case of not being able to hide them, trying to blame the failure on external causes.

Based on these ideas, three kinds of learning behaviour have been defined, as opposite to three kinds of defensive behaviour:

*Expression of ideas* (in matters which could become conflictive). The concept *Expression of ideas* refers to the capacity of a group in keeping an open mind to various points of view and allowing a critical and objective analysis of these.
expression of ideas may be considered the exposition of individual mental models that would guide further actions of a group. Reviewing individual mental models through discussion may facilitate a more complete comprehension before taking any decision or acting.

Keeping an open mind in face of error. Under the point of view of the theory on organizational learning, a mistake is defined as the lack of harmony between an anticipated situation and the situation when realised (Argyris and Schön, 1974). Any error is an opportunity that feeds-back the learning cycles but, at the same time, to admit an error could mean having to face up to an awkward situation and assume the responsibility of its consequences. Many times errors are overcomed to avoid shame or risk, impeding objective analysis of its causes and learning.

Coherence between thought and action. Argyris and Schön (1974) maintain that the gap which exists between the stated values (exposed theory) and the values which drive action (theory-in-use) generates a lack of coherence between speech and conduct. The gap may be perceived by others but the existence of collective defensive routines advises them to maintain their perceptions unexpressed.

2. Methodology

On one hand, this investigation aimed to find empirical evidence of the existence of causal relationships between context factors and the degree of defensive behaviours. The context conditions considered for study form a group of five constructs covering a wide range of social aspects of the work environment. The constructs considered were satisfaction, trust, efficiency of communication, hierarchical distance and labour stability. Those constructs subject to study appeared to be influential in the general bibliography of organizational learning (Daft and Huber, 1987; Hofstede, 1991; Isaacs, 1993; Nonaka and Takeuchi, 1995; Weick, 1995; Crossan et al., 1999; Kofman, 2001; Mundet, Suñé, Sallán and Fernández, 2003).

On the other hand, the investigation tried to find possible relationships between learning behaviour and organizational performance. Organizational performance has been characterized by two dimensions which correspond to the factors of efficacy and efficiency (Hannan and Freeman, 1977). Efficacy was considered the degree in which organizational objectives are achieved. Efficiency was considered the degree in which available resources are taken advantage of.

Hypothesis H1: The conditions of context decrease the intensity of learning barriers.

Hypothesis H2: The existence of learning barriers decreases organizational performance.
2.1. Questionnaire design and selection of sample

In order to test the suggested hypotheses, the authors opted to design a questionnaire by means of the use of techniques in the construction of psychometric tests.

The methodology used in the process of drawing up the questionnaire has been adapted from that proposed by Churchill (1979).

The definitive questionnaire consists of 30 items, of which 9 correspond to defensive barriers, 17 to context and 4 to organizational performance. Each item could be evaluated by a 5 points likert scale according to the opinion of the asked person. Some items are included in the appendix I as an example.

In this investigation, 110 valid questionnaires were collected, giving a more than satisfactory sample to carry out the analysis. The individuals making up the sample come from the middle management from several companies. Many of them were involved in management courses and had the opportunity to ask researchers about the questionnaire personally. Sample individuals belonged to different organizations to avoid biases and only job position was considered to be included into the analysis process.

After data collection, factor analysis has been used to elicit a new reduced set of variables, which contain a large amount of the initial information, to be used in the subsequent analyses of multiple regressions. The study considered 10 factors related to the initial constructs defined above. Three factors defined the dimensions of defensive barriers, five factors defined the dimensions of context and three factors defined the organizational performance.

2.2. Regression models

To be able to contrast hypothesis H1, it was necessary to construct three multiple regression models where the dependent variables were the learning barrier factors (FBD1, FBD2 and FBD3). And as independent variables, the context factors (FSAT, FCNF, FCOM, FDSJ and FESL corresponding to satisfaction, trust, communication, hierarchical distance and labour stability factors respectively) were used.

The general model of the regression equation is as follows:

\[ F_{BDi} = \beta_0i + \beta_{1i} \cdot FSAT + \beta_{2i} \cdot FCNF + \beta_{3i} \cdot FCOM + \beta_{4i} \cdot FDSJ + \beta_{5i} \cdot FESL + \epsilon_i \]

For \( i = 1, 2 \) and \( 3 \)

In order to demonstrate H2, it was necessary to construct two multiple regression models where the dependent variables were the organizational performance factors (FREN1 and FREN2). As independent variables the factors associated with defensive barriers (FBD1, FBD2 and FBD3) were be used.
The general model of the regression equation was as follows:

\[ FREN_i = \beta_{0i} + \beta_{1i} \cdot FBD1 + \beta_{2i} \cdot FBD2 + \beta_{3i} \cdot FBD3 + \varepsilon_i \]

For \( i = 1 \) and \( 2 \)

The results of regressions models are included in table 1 and table 2 in appendix II.

3. Empirical results and discussion

Figure 1 summarizes the significant results about relationships between defensive barriers, context and performance factors. Detailed information is expressed in tables 1 and 2 included in the appendix II. With the results in view, it can be concluded that statistically significant connections exist between defensive barriers, context and performance factors. However, the influence of context does not affect equally, so that it can be concluded that developed barriers are specific to the context.

An examination of table 1 also permits the extraction of the following results:

The hypotheses H1 is confirmed with level of significance superior to 99%. By model I it can be confirmed that coherence between speech and facts increases when the context brings an atmosphere of trust, better paths of communication and less hierarchical distance. Model II confirms that barriers to expressing one’s
own ideas in public, although supposes having to face a majority opinion, are fewer if a state of trust exists between employees. This influence can be interpreted in the following way: if the employees feel that they are well-treated and perceive a sufficient level of trust, they feel more at liberty to express their opinions even though they go against the opinion of the majority. Trust acts as a protecting network in the face of the risk of a potential confrontation of ideas. The results obtained from model III can be interpreted as meaning that in the extent that labour stability or satisfaction improves, open mindedness towards committing errors also increases, as does the objective search for their causes. On the other hand, it can be interpreted to mean that in the extent that employees are not assured of labour stability or insatisfied; they tend to hide their mistakes, not making them public and, therefore, making difficult the search for learning in analysing their causes.

Table 2 shows that significant connections exist between defensive barriers and organizational performance. Nevertheless, the existence or absence of defensive barriers explains with more precision the efficiency factor rather than that of efficacy.

From the detailed analysis of Table 2 results, it can be concluded that:

Hypothesis H2 is confirmed with a level of significance of 99%. Model IV is also considered significant, but the coefficient of adjusted determination indicates that the variance explained by the model is low. The last confirmation indicates that defensive barriers can predict a small amount of efficacy (objective achievement). It is supposed that there will be other factors beyond the defensive barriers which will determine the efficacy factor to a great extent. Nevertheless, through model IV, it can be concluded that defensive barriers which favours hiding errors and avoids in-depth analysis of their causes, significantly limits organizational efficiency.

Defensive barriers are shown to be particularly connected to organizational efficiency, as seen in the results of model V. Model V confirms that defensive barriers have a bigger influence on efficiency than efficacy, as can be seen in the coefficient of adjusted determination. It can be significantly construed that in the extent of coherence between speech and facts increasing, there is also an increase in the taking advantage of organizational resources. In addition, the efficiency of an organization increases when the expression of confronted ideas is favoured.

4. Conclusions and managerial implications

It can be concluded that coherence between speech and facts is better when the context provides an atmosphere of trust, better communication channels and less
hierarchical distance. Barriers against expressing one’s own ideas in public, although they suppose facing up to the opinion of the majority, are reduced if a sense of trust between employees exists. In the extent that labour stability improves, open-mindedness towards the exposure of mistakes and the objective search for their causes is also increased.

Consequently, defensive barriers are shown to be especially related to the efficiency of the organization, to the extent that if the coherence between speech and facts increases, employees take more advantage of organizational resources. It is also justified that organizational efficiency increases when the expression of all ideas is favoured.

An additional conclusion of the research is that middle managers may easily identify defensive behaviours on their team members. Much of the studied behaviours seemed to be familiar to them. On the other hand they felt involved on those collective behaviours and found it difficult to unlock them. The authors of this research propose that middle managers should be the keystone on the organizational behaviour evolution related to defensive barriers. As team leaders, middle managers have the right position to embody exposed values and build trust through coherent communication. They reactions to mistakes would clearly exemplify further behaviours of their team members. Consequently, more attention should be paid at considering human relationships as knowledge management constraints.

References

C. Argyris (1999), On organizational Learning (Second edition), Blackwell Publishers Ltd..
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M. Easterby-Smith, and M. A. Lyles (2003), *The Blackwell handbook of organizational learning and knowledge management*, Blackwell Publishing Ltd.


Appendix I: Some examples of considered items

Each item could be responded from 1 (strongly disagree) to 5 (strongly agree).

Item 1 of Expression of ideas:
- I think that this company’s people use to keep their opinions if they are opposite to the majority opinions.

Item 2 of Keeping an open mind in face of error:
- Politeness prevents us to re-evaluate mistakes objectively.

Item 2 of Coherence between thought and action:
- A clear difference exists between public and private opinions.

Item 1 of Satisfaction:
- I consider that interpersonal relationships are satisfying.

Item 3 of Trust:
- I can not trust my colleagues completely.

Item 2 of Communication:
- We do not have enough time to discuss important subjects.

Item 2 of Hierarchical Distance (inversely):
- Managerial style is authoritarian

Item 1 of Labor Stability:
- I feel secure about my job actually.

Item 1 of Efficacity:
- Organizational objectives are completely reached.

Item 1 of Efficiency:
- I consider that organizational resources are used optimally.

Appendix II: Results of regression models
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Table 1. Significant results of the relation between defensive barriers and context factors.

<table>
<thead>
<tr>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficients</td>
<td>FBD1 “Coherence Speech/Facts”</td>
<td>FBD2 “Expression Of Ideas”</td>
</tr>
<tr>
<td>FSAT “Satisfaction”</td>
<td>b1</td>
<td></td>
</tr>
<tr>
<td>FCNF “Trust”</td>
<td>b2</td>
<td>0.2942**</td>
</tr>
<tr>
<td>FCOM “Communication”</td>
<td>b3</td>
<td>0.3070**</td>
</tr>
<tr>
<td>FDSJ “Low hierarchical distance”</td>
<td>b4</td>
<td>0.2933**</td>
</tr>
<tr>
<td>FESL “Labour stability”</td>
<td>b5</td>
<td></td>
</tr>
</tbody>
</table>

R² adj. 43.1%** 12.5%* 15.9%**

*p<0.01
**p<0.001

Table 2. Significant results of the relations between defensive barriers and organizational performance.

<table>
<thead>
<tr>
<th>Model IV</th>
<th>Model V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficients</td>
<td>FREN1 “Efficacy”</td>
</tr>
<tr>
<td>FBD1 “Coherence Speech/Facts”</td>
<td>b1</td>
</tr>
<tr>
<td>FBD2 “Expression of Ideas”</td>
<td>b2</td>
</tr>
<tr>
<td>FBD3 “Open mind to mistakes”</td>
<td>b3</td>
</tr>
</tbody>
</table>

R² adj. 8.2%* 22.7%**

*p<0.01
**p<0.001