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# The Effect of National Culture on the Definition of Process Ownership as a Requirement for Effective Business Process Reengineering

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## ABSTRACT

One of the main requirements for a successful implementation of a process reengineering effort is the appropriate definition of process owners. Such ownership is intended to determine responsibilities and accountability over process performance. The purpose of this paper is to analyze the impact that Geert Hofstede's dimensions of national culture have on the definition of process ownership. It is hypothesized that cultural dimensions will make a difference in the ability and manner to attain this goal across different nations. A survey method is intended for data collection to assess the proposed model. Depending on the nature of the data, the appropriate lineal or non-lineal statistical method will be employed to assess the strength and directions of causality in the proposed model. Furthermore, since it is intended to collect data in, at least, two different nations, a deeper analysis will be required to determine significant differences between the two groups in the sample.

## Keywords

Business process reengineering, national culture, cross-cultural research.

## INTRODUCTION

A lot has been said about the factors that are required to capitalize on the use of information technology (IT) and impact the competitiveness of organizations. Classical studies of competition address the importance of managing efficiently the value chain of organizations. Also, many theories have been developed to improve such management. That is the case of the Resource-based view of the firm (see Wade and Hulland, 2004, for a comprehensive analysis of the use of this theory in the Information Systems discipline), the different theories of strategy (Porter, 1985), and Business Process Reengineering (BPR) (Grover and Kettinger, 1998; Davenport, 1999; Tsai, 2003).

Business process reengineering has drawn more attention as the role of IT has become more strategic. Similarly, globalization has called for new ways of competition, including value chain integration among business partners. There are strong limitations for those organizations whose IT implementations are oriented to the efficiency of current processes, rather than having the vision to reengineer processes to capitalize IT benefits in the search for increased competitiveness.

However, there are many factors that affect a successful BPR effort to capitalize IT potential. One of the most important is the need for new ways of doing management, allowing for participation and coordination. Those requirements are basic for any IT adoption, as illustrated in the web assimilation study undertaken by Chatterjeem, Grewal, and Sambamurthy (2002).

Cooperation, coordination, and also accountability are objectives hard to obtain, especially when team work is expected. This situation can be more complex when companies have operations across many cultures. Processes need some time to cross borders, and so there is a need to have a multi-national team declared as the owner of the process. Cultural differences need to be taken into consideration for a successful process redesign and implementation, with the appropriate IT deployment.

## BUSINESS PROCESS REENGINEERING AND PROCESS OWNERSHIP

For companies of any kind to stay competitive, work practices have to be reviewed. The division of labor and the command and control hierarchical functional structures are no longer responding to the turbulent business environment.

The process vision, according to Hammer and Stanton (1999), has not been implemented completely. Many companies have integrated their core processes, combining related activities and eliminating those that do not add value, but only a few have changed the way they are administered. The power still resides in the vertical departments, sometimes focused on regions, or

products, or functions retaining the people and resources. The previous combination of integrated processes with fragmented organizations has created a form of cognitive dissonance. The horizontal processes pull the people in one direction, and the traditional administrative system pulls them in the other direction. This confusion generates conflicts and low performance levels.

We believe the traditional organizational units oppose to integrated processes, because they represent a threat to the existing power structure. The main difference between a company that is managed by processes and the those with traditional management is the existence of business process owners. These are process groups, composed of people with ample process knowledge, that are evaluated on the basis of the process performance, and do not need supervisors due to the fact that they become accountable. Supervisors, in turn, become “coaches”. In a company that is oriented towards processes, it is not important to establish a centralization of power. Instead, decisions are based on standardizing or diversifying processes.

This seems to be consistent with what is reported by Reich and Benbasat (2000). They hypothesized that, in order to attain a real alignment between IT and organizational objectives, there were four factors that required to be addressed: shared domain knowledge, IT implementation success, communication between IT and business executives, and connections between business and IT planning. Those factors were found to be significant on the short run. Furthermore, the only one that was also significant on the long run was shared domain knowledge. Such requirement can only be met in a cooperative environment, where knowledge and responsibility are shared beyond the hierarchical structure.

The successful management of individual processes and process centering depends on leadership by accountable members, leading well-trained, competent and experienced process teams. The functional organization is partially replaced by a set of cross-functional business process management teams operating at the individual process level, led by their respective process owners, and an organization-wide process management infrastructure for the coordination of the various reengineering efforts and for overseeing the transformation of the enterprise (Pall, 2000). Process-centered management represents a unique infrastructure including a key set of managerial roles, some enterprise-wide and some related to individual business processes.

Process View	Functional View
Emphasis on improving “how work is done”	Which products and services are delivered
Cross-functional coordination, team work stressed	Frequent “hands-offs” among functions which remain largely uncoordinated
“Systems view” i.e. entire process is managed	Pieces of the process are managed
Customer orientation	Internal company orientation

**Table 1. Process and Functional Views (McCormack and Johnson, 2001)**

Milan Zeleny (2000) discusses that in business, management and economics, the production process has been unchanged. The final product was more important than the production process for the business administrators. The processes were a concern for the engineers and technicians. This explains why the key players prior to the reengineering era were engineers, like Taylor, Gilbraith, Deming, Juran, etc. Until recently, the production processes were designed by engineers and accepted as such by the administrators.

Global competition has made evident the importance of an integrated view of processes and products. The technological processes now have to be improved and integrated, the number of operations and parts, costs have to be minimized and non-added value activities have to be suppressed. Also, minimizing the division of labor and the specialization, and reducing delivery times has become crucial. A reengineering effort is geared at asking “Why do I have to perform the task?” instead of asking “How can I improve the operation?” The essence is about reintegrating and not specializing and dividing labor even further.

First, the tasks have to be reintegrated, combining tasks of smaller processes in bigger ones, so that a reduction in the number of parts and components can be attained. Second, the work itself has to be reintegrated, by permitting the workers to coordinate bigger processes. This results in multi-functionality, job rotation and the creation of process owners. Third, the knowledge has to be reintegrated, which results in knowing how to coordinate bigger portions of processes.

An essential discussion centers on the role of the current processes.

- Should the current processes be the basis for the newly redesigned processes?
- To what extent should the current processes be understood?
- Should a company start with a blank sheet of paper, ignoring the current process at all? (Hammer and Stanton, 1995)

Ignoring the current process is risky, because the knowledge and experience is not taken into consideration, with a high chance of falling into known errors. If the current processes do not work, it is evident that we need to rethink the way we do the job. If the current processes are identified and understood before the reengineering effort starts, the changes can be made incrementally with less risk. The study of the current process is used to implement performance improvements in the short run, whereas the blank sheet of paper method is preferred to make the company more competitive in the long run.

## **NATIONAL CULTURE**

One of the most relevant and classic studies in cross-cultural research is that made by Geert Hofstede in 1980. He undertook a work that led to the identification of four National Cultural dimensions that affect the way people work: (1) Power distance is the degree of inequality among people which the population of a country considers as normal; (2) Uncertainty avoidance is the degree to which the people in a country prefer structured over unstructured situations. Structured situations are those in which there are clear rules as to how one should behave; (3) Individualism is the degree to which people in a country prefer to act as individuals rather than as members of groups. The opposite can be called collectivism; and (4) Masculinity refers to the degree to which values like assertiveness, performance, success and competition prevail over values like the quality of life, maintaining warm personal relationships, service, care for the weak, and solidarity (Femininity). A fifth dimension, Confucian dynamism, was later identified and found relevant, particularly for Asian cultures.

Hofstede’s dimensions have been widely used in both qualitative and quantitative studies that relate to cross-cultural research. One of the main issues that makes these dimensions so attractive for research, besides the richness of its theoretical grounding is the fact that scores are provided by Hofstede for each dimension in a large list of countries that were involved in the original study.

## **RESEARCH MODEL**

Our research strategy aims at attaining two main objectives:

1. Understanding the role of the definition of process owners in an effective implementation of BPR to deploy appropriate IT
2. Understanding the impact of Hofstede’s dimensions for national culture on process ownership.

As stated above, coordination, cooperation, and accountability are crucial for effective IT deployment and adoption. An appropriate IT deployment, in turn will leverage the impact of a BPR implementation effort. These characteristics are fostered naturally by process ownership. Therefore, our first hypothesis is:

*H1: Process ownership will have an enhancing effect on effective BPR implementation*

We now focus on the effects of national culture on process ownership. For uncertainty avoidance, there is a tendency to avoid change. Thus, there is also a tendency in cultures with high uncertainty avoidance to oppose new responsibilities and roles. This is likely to affect negatively the effort for process ownership definition. Therefore, the second hypothesis is stated as follows:

*H2: High uncertainty avoidance will result in a weaker process ownership*

Process ownership requires high levels of teamwork, coordination, and cooperation. It is then more likely to find better conditions in cultures where collectivism is high. The third hypothesis is:

*H3: High individualism will result in a weaker process ownership*

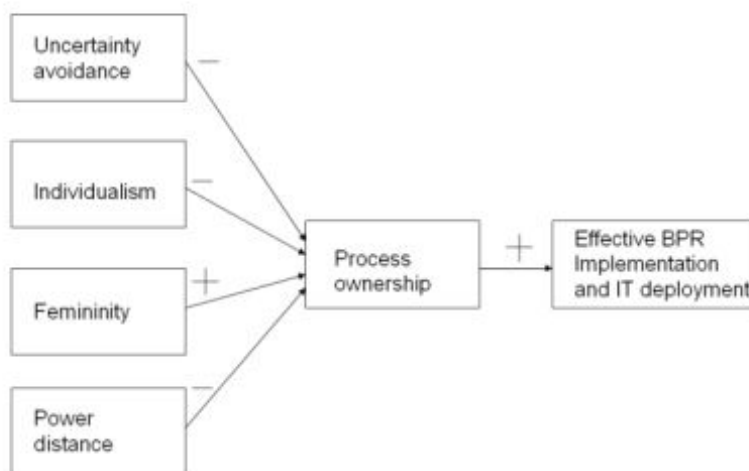
Even though some masculinity traits, such as assertiveness and competition may be favorable to foster process ownership, those of femininity related to the nurturing and empathic condition present in a particular society foster understanding and collaboration. These latter characteristics, are definitively important to process ownership. Thus, our fourth hypothesis states the following:

*H4: High femininity will result in a stronger process ownership*

Finally, process ownership requires challenging hierarchical structures and finding new ways of doing work where knowledge is shared. Centralized companies whose management do not accept giving away control, tend to implement modified versions of methodologies that seldom succeed. Therefore, it is reasonable to believe that lower levels of power distance enhance process ownership. The last hypothesis states:

*H5: High power distance will result in a weaker process ownership*

The directed graph for this research model is depicted in figure 1.



**Figure 1. Research Model**

The strategy for validating the research model is the following:

1. Instruments will be validated from McCormack and Johnson (2000) for process ownership and BPR implementation, and from Dorfman and Howell (1988). They will be based on 7-item Likert scales.
2. There will be a stratified sample for two sets of respondents. They will be people who have been working for a minimum of two years, and are familiar with initiatives of change in processes in their organizations. The sets of respondents will be located one in Mexico, and one in the United States. These countries conform a nice start given their geographical proximity and intense interaction, but also their divergent culture scores.
3. Once the data have been collected, the appropriate linear model will be applied for testing the direction and significance of the relationships theorized. Also, we will look for significant differences between the national groups in the study.
4. Conclusions, recommendations, and directions for future research will be generated.

## CONCLUSION

Many IT deployment efforts may have disastrous results given the lack of consideration for issues that pertain to work traditions and national membership. It is important to understand that companies cannot compete in the same way they used to a decade ago. Agility is only obtained when organizations reinvent themselves and acquire a process orientation. But a good BPR effort can only achieve success when there is a definition of process ownership, cooperation, coordination, and accountability. National culture may play a significant role in increasing the complexity level to achieve a real international teamwork for efficient process ownership definition. We expect to obtain valuable insights from this research for both academicians and practitioners.

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