

ANALYSIS OF THE RELATIONSHIPS BETWEEN QUALITY, CULTURE AND ORGANIZATIONAL LEARNING: AN EMPIRICAL APPROACH FROM THE EFQM EXCELLENCE MODEL.

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ABSTRACT

The European Foundation Quality Management (EFQM) Excellence Model is a non-prescriptive management framework that is widely used in the world. This model is built on nine criteria grouped into two sections: enablers and results criteria. Besides, It can be used to gain a holistic overview of any organization and helps managers to identify the main aspects to be improved for attaining excellence. Among these, it highlights the organizational learning that enhances the effect that the enablers have on the results criteria. Besides, organizational culture is a key factor for organizational excellence and in the success or failure of quality management systems implementation. Despite its relevance, there are few studies that analyze the suitability of the model empirically and there is not yet an integrated framework that links organizational culture, learning and the EFQM Excellence Model.

The aim of this study is to analyse precisely what kind of culture is best suited to the EFQM Excellence Model, using an empirical study to demonstrate the links. To this end, it is proposed a model whose relationships have been tested using structural equations.

The results support the established relationships. So, this is very important for managers who want to implement EFQM Excellence Model, because they must develop an appropriate organizational culture and learning for it.

Keywords: Exploration and Exploitation Learning Competences, Organizational Culture, EFQM Excellence Model, Organizational performance, Structural Equations Model.

INTRODUCTION

Nowadays, the organizations develop their activity in a more and more demanding and competitive environment, besides organizational culture allow companies to differentiate from competitors and help them to be competitive [1]. These facts have impelled the development of programs and models of quality. Among the most important is the EFQM Excellence Model. These quality management systems provide competitive advantages to the organizations and provide a way to measure the results.

To implement these models and improve performance, companies develop appropriate types of cultures and promote organizational learning. So, now it is considered that organizational learning is a key success factor for companies because it allows developing exploration and exploitation competences which can improve quality and organizational performance.

However, there are no studies that examining the relationship between organizational culture, this type of learning competences and results.

This investigation seeks to fill this gap.

This objective is very important for managers because excellence has become an important factor in recent decades.

CONCEPTUAL FRAMEWORK

Organizational culture and performance.

The organizational culture is usually defined as a "the set of norms, beliefs and values shared by members of the organization" [2]. In order to empirically assess this variable we have used the model of Cameron and Quinn [3]. This model is based in two dimensions (focus on control, stability and order vs flexibility; tendency towards the interior vs exterior). The four culture types (clan, adhocracy, market and hierarchy) reflect different values.

Generally, the effect of each culture type on the results is different [4]. Thus, as in this research results have been measured using the EFQM Excellence Model, then we expose its main characteristics.

The EFQM Excellent Model is built on nine criteria grouped into two sections, five criteria for enablers (Leadership, Policy & Strategy, People, Partnership & Resources, Processes) and four criteria for results (Customer results, People results, Society results, Key performance results). In this model leadership drives people management, strategy and policy and partnerships and resources, and these three criteria influence the performance through processes [5]. Although the literature indicates that organizational culture is the key to organizational excellence [6], there are not studies that analyze what culture type is the most appropriate to the implementation of the EFQM Excellence Model.

To get the excellence that outlines this model the organizations should foster enablers criteria that possess certain characteristic. Of these, those that are more relevant to the model of Cameron and Quinn [3] are the market orientation and emphasis in the control of the processes management [7]. Therefore, we proposed that:

H1a: Clan culture is not related to organizational performance.

H1b: Adhocracy culture is positively related to organizational performance.

H1c: Market culture is positively related to organizational performance.

H1d: Hierarchy culture is positively related to organizational performance.

Organizational culture and learning competences.

Huber [8] believes that "*a company learn when members change their ways to get useful information*". He y Wong [9] distinguish two types of learning skills, competencies exploration and exploitation. Atuahene-Gima [10] defines exploration learning competence as "*the acquisition of new knowledge by the organization from experimenting with new alternatives, skills, abilities and processes.*" However, exploitation learning competences consist "*in the redefinition and extension of knowledge, skills, paradigms and technologies in the organization*".

Besides, Cameron and Quinn [3] note that building a hierarchy culture requires an administrative specialist who focuses on reengineering processes. So this culture can generate exploitation competences [2]. However, market culture requires the human resource manager to be a strategic business partner in the organization, aligning HR with business strategy and facilitating financial impacts of all HR activities. Also, the top

management develops initiatives such as continuous improvement in quality [11]. So, these organizations generate exploitation and exploration competences.

Adhocracy culture is externally oriented but its processes management is not based on control but in creating new standards or finding creative solution. On the other hand, in this culture employees work on projects independently and they are empowerment for them. In addition, the organization offers resources to train employees so as to enhance their knowledge and skills [12]. So, these companies only generate exploration competences.

On the other hand, the Clan culture requires an employee champion who responds to employee needs and fosters commitment, so it does not use process management or reengineering processes. For this, we propose that:

H2a: Clan culture is not positively related to both exploitation and exploration

H2b: Adhocracy culture is positively related to exploration

H2c: Market culture is positively related to both exploitation and exploration

H2d: Hierarchical culture is positively related to exploitation

Thus, He and Wong believe that exploration and exploitation competences of organizational learning can strategically differentiate firms and be a source of competitive advantage to improve its performance. For this reason, we think that:

H3: Exploration and exploitation learning competences mediate the relationship between organizational culture and performance

4. Research methodology.

4.1. Sample and data collection.

The population used includes Spanish manufacturing organizations with more than 100 employees. 3814 companies, from the SABI database, were located. We randomly contracted with 1.154 companies in order to get 200 questionnaires.

The information was collected with a structured questionnaire via a webpage. In this case, we have directed our research focus to quality, operation, human research and marketing or innovation managers. We got 200 valid questionnaires that were answered by 4 managers of each of the 200 organizations. In this data resides one of the stronghold of this research.

4.2. Measures.

For all the measures we have used a Likert scale of 5 points based on the literature (1="strongly disagree"; 5="strongly agree").

Organizational culture: was measured using four constructs (Clan, adhocracy, market and hierarchical culture), based on the scale of [10]. These constructs were computed as formative ones from four items for each culture.

Performance: Eskildsen and Kanji [13] argued that the information estimated in the EFQM Excellence Model is appropriate in order to develop scales of measurement. With this idea, four items for each one of the results criteria of the Model: customer, people, society and key performance results. This construct was computed as reflective.

Exploitation and Exploration Competences: we have been operationalized using two separate indicators each composed of five items taken from the scales used by [10].

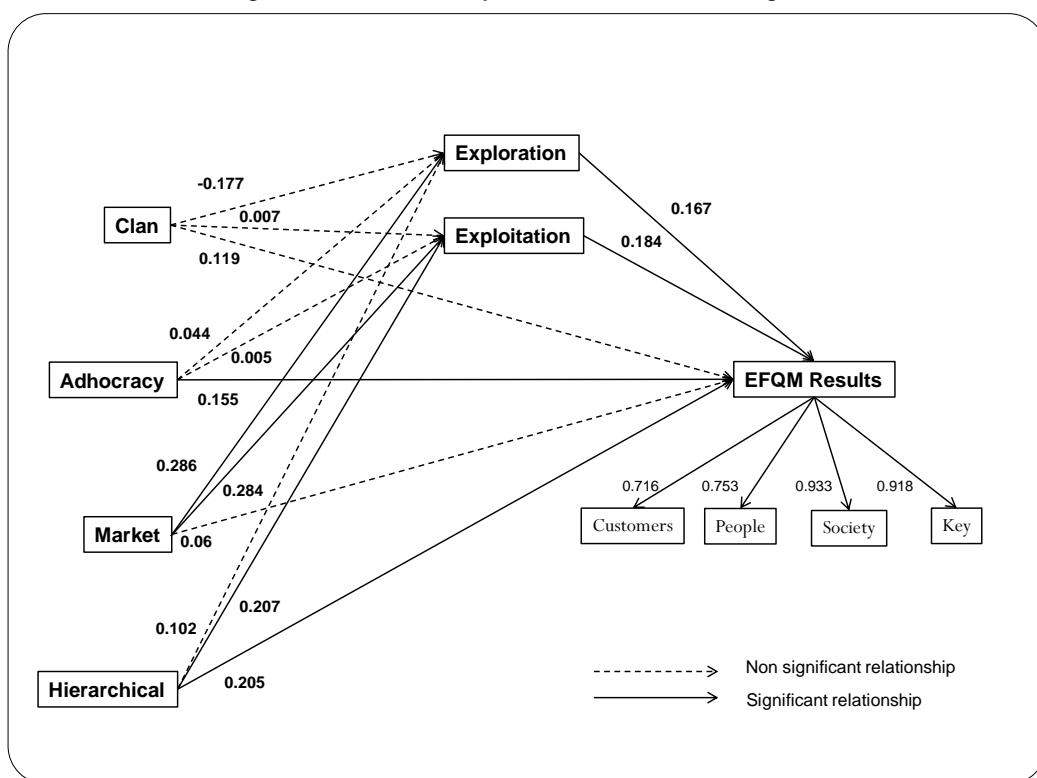
4.3. Data analysis.

Hypotheses were tested simultaneously using partial least squares (PLS) because our model uses formative indicators and our data is non-normal.

We confirmed the validity of the formative dimensions. They have values for both Cronbach's alpha coefficient and for a composite reliability greater than the value of 0.7 required in the early stages of research, and the stricter value of 0.8 required for basic research [14]. The AVE should be greater than 0.5. All constructs of our model exceed this condition. For discriminant validity, we have compared the square root of the AVE with the correlations among constructs. On average, each construct relates more strongly to its own measures than to others.

5. Results.

The structural model resulting from the PLS analysis is summarized in Figure 1.



Source: Author's own.

The results support partially H1 indicating that adhocracy and hierarchical cultures have a positive effect on performance ($\beta=0.155$ and 0.205). Also, market culture has an indirect effect on results through exploration and exploitation competences. However, unlike as we expected, this culture has no direct effect on results, despite having the two characteristics that requires the model.

Besides, H2 is only partially supported. First, the clan culture is not related to learning competences ($\beta=-0.177$, $t\text{-value}=1.637$; $\beta=0.007$, $t\text{-value}=0.045$), what it sustains our H2a. Contrary, we have not found a positive relationship between adhocracy culture ($\beta= 0.044$,

t-value=0.445) with exploration competences. We have found evidence for H2c since market culture is positive related to exploration and exploitation competences ($\beta= 0.286$, t-value=2.946; $\beta=0.284$, t-value=2.904) and H2d because hierarchical culture is positive related to exploitation competences ($\beta=0.207$, t-value=2.655).

Also, the hypothesis three meets as the exploration and exploitation competences exert a mediating effect only for two of the cultures that enhance that, this is the market ($\beta=0.1$, t-value=2.393 and hierarchical cultures ($\beta=0.055$, t-value=2.156).

DISCUSSION, CONCLUSION, AND IMPLICATIONS

The main contribution of this paper is that organizational culture positively contributes to improve results and develops exploration and exploitation competences. However, only adhocracy, hierarchy and market culture are crucial for this purpose. Besides, these competences also improve performance. This is especially relevant for managers who will try to stimulate organizational learning in order to increase their results and develop appropriate organizational cultures. Therefore, if a manager wants to develop both types of competences in his company, this must have a market culture. Whereas if he only wants to develop exploitation competences, his organization must have hierarchical culture.

Finally, the study is not without limitations. One of them, is the linearity of the relationships between the latent variables determined by the technique used. Other is that the sample used is cross-sectional, while learning management requires a longer period of time.

For these reasons, other futures research should investigate the relationship between the organizational culture and others types of organizational learning. Besides, development learning competences require a substantial long term, so a longitudinal study could tell us about the culture required by the organization at every stage of the implementation of the learning processes.

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