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Rearranging criteria of the EFQM Excellence Model: An empirical assessment in the Iranian Rubber industries

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Abstract: European Foundation for Quality Management (EFQM) is an approach to management embracing both social and technical dimensions aimed at achieving excellent results, which needs to be put into practice through a specific framework. Nowadays, quality award models, such as the Malcolm Baldrige National Quality Award (MBNQA) and EFQM Excellence Model, are used as a guide to improvement by a large number of organizations. The purpose of this paper is to analyze the extent to which the EFQM Excellence Model captures the main assumptions involved in the Iranian organizations. It will be Rearrenging criteria of the EFQM Excellence Model, and it applies in the Iranian Rubber industries. We find that: (a) social and technical dimension is embedded in the model; (b) both dimensions are intercorrelated; (c) they jointly enhance results. These findings support the EFQM Excellence Model as operational framework iraninan organizations, and also reinforce the results obtained in previous studies for the MBNQA. It verifies and validates with a case study in the Iranian Rubber industries.

Key words: EFQM Excellence Model, MBNQA, Structural equation models, Empirical research.

INTRODUCTION

Since the 1990s, most firms have used the models underpinning quality awards, such as the Deming Prize (DP Model) in Japan, the Malcolm Baldrige National Quality Award (MBNQA) Model in the USA, and the European Quality Award (EFQM Excellence Model) in Europe, as a framework for implementing QUALITY initiatives. Many researchers have considered quality models as operational frameworks for organizations (e.g., Bohoris, 1995; Ghobadian and Woo, 1996; Curkovic *et al*., 2000; Van der Wiele *et al*., 2000; Yong and Wilkinson, 2001; Lee *et al*., 2003). These authors consider that quality award models reproduce Quality by capturing its main constituent parts and by replicating its core ideas in clear and accessible language. Nevertheless, the empirical validation of the extent to which these models reproduce Quality is scarce, partial, and limited to some empirical studies such as Curkovic *et al*. (2000), who conclude that MBNQA and its criteria do capture Quality core concepts. In the context of the EFQM Excellence Model, this question remains unanswered and, therefore, more research is needed.

The purpose of this paper is to understand the EFQM model as a framework for Quality improvement, that is, to analyze whether the internal structure of the EFQM Excellence Model takes into account the basic Quality assumptions. As McAdam and Leonard (2005) point out, there is a paucity of studies on the effectiveness of quality award models for developing Quality in organizations. By improving the understanding of the internal structure of quality award models, there is an opportunity to assess the application of QUALITY.

The paper is structured as follows. In the next section, we present a review of previous literature in order to present quality award models as QUALITY implementation frameworks. Based on the review of the literature, a research model to assess the capability of the EFQM Excellence Model to reproduce the QUALITY concept is offered in Section 3. Section 4 describes the methodology, and attention is paid to the survey procedure and the construction of measures. Finally, Sections 5 and 6 present the results of the empirical study carried out and the main conclusions and implications stemming from this research.

2. Review of the literature:

Quality award models there are a general agreement that a systematic method or framework is needed to put QUALITY into practice. However, there is no universally accepted QUALITY framework (Yusof and Aspinwall, 2000), and different approaches coexist in the literature, including consultants-based frameworks (Juran and Gryna, 1993), standardized frameworks such as the ISO 9000:2000 series (Kartha, 2004); and other models based on critical factors of QUALITY (Dow *et al*., 1999). In addition, several authors (Yong and Wilkinson, 2001) have proposed that models based on quality awards fit the definition of QUALITY, take into account itsmajor constituents, and could therefore be considered valid frameworks forQUALITY. This assumption is based on the correspondence between award criteria and QUALITY core concepts. However, studies that have assumed quality award models as QUALITY frameworks have not validated empirically this

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assumption. The studies that have analyzed quality award models have generally focused on examining their internal structure, adopting a causal approach and testing only isolated associations between certain criteria while ignoring the interrelationships between all their dimensions; or a factorial approach, when all the elements of the model are intercorrelated, which shows the existence of a common approach to implementing a QUALITY initiative. However, with the exception of Curkovic *et al*. (2000) for the MBNQA, none of them have analyzed whether the internal structure of the models matches the definition of QUALITY. Additional research is therefore needed, mainly in the case of the EFQM Excellence Model, to empirically assess whether quality award models represent QUALITY.

3. The EFQM Excellence Model:

The EFQM Excellence Model was created in 1991 by the European Foundation for Quality Management (EFQM) as a framework against which applicants for the European Quality Award are judged, and to recognize organizational excellence in European companies. Nowadays, EFQM brings together more than 700 members located in many countries across the world. The EFQM Excellence Model is made up of nine elements grouped under five enabler criteria (leadership, policy and strategy, people, partnerships and resources and processes) and four result criteria (people results, customer results, society results and key performance results) (Fig. 1). The enablers represent the way the organization operates, and the results concentrate on achievements relating to organizational stakeholders (EFQM, 2003). Each criterion is broken down into several sub-criteria and each sub-criterion is illustrated with various ‘‘guidance points’’ exemplifying what the organization has to do in order to develop the criteria. In the European context, the EFQM Excellence Model is considered to constitute a valid representation of QUALITY (Westlund, 2001); however, there are no studies that have addressed this question empirically. To investigate this important issue, we need to test whether the internal structure of the EFQM Excellence Model captures the main assumptions of QUALITY: the distinction between technical and social QUALITY issues, the holistic interpretation of QUALITY in the firm, and the causal linkage between QUALITYprocedures and organizational performance.

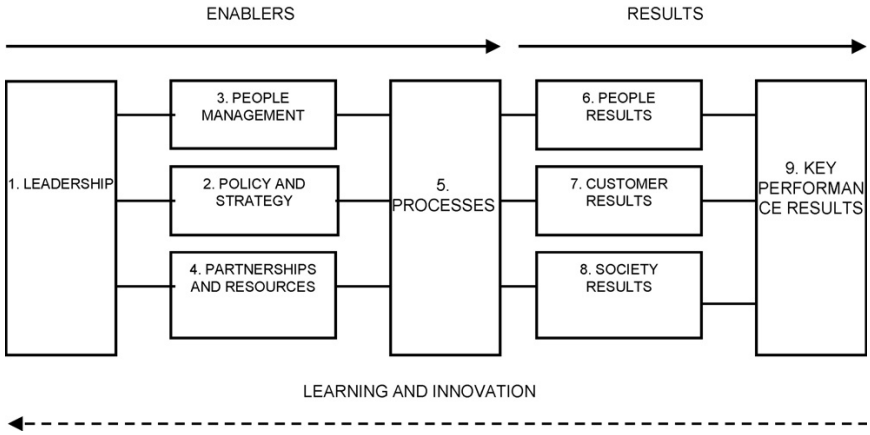

Fig. 1: EFQM Excellence Model

Scores in EFQM Model has shown in figure2.

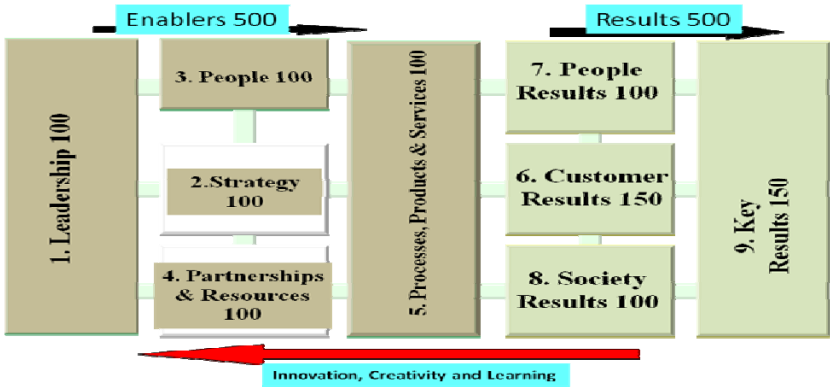

Fig. 2: EFQM Scores

4. Methodology:

It was decided to adopt a case study approach for this paper as there is little existing research on analysis of EFQM model. It has been based on the descriptive Research. This descriptive type research has been carried out using the questionnaire as the research tool for gathering the required data. Data's gathering involved both reference material and a questionnaire survey. Sampling was simple random sampling and the data gathering instrument was the questionnaire. The author had already undertaken research in this field, which had stimulated the measurement tools and the theoretical framework used to analyze this case study, based on EFQM Method.

In November 2006 a request for interviews and questionnaires was sent to a number of the strategic managers (60 persons, 40% Male and 60% Female, 65% over 15 year's experience) and strategic staff (60 persons, 35% Male and 65% Female, 65% over 20 year's experience) in the Iranian rubber industries. Prior to the interview and fill the questionnaire, the author explained the purpose of the research and made it clear that this information would be in the public domain, so any confidentiality concerns could be noted. The interview and questionnaire, from December 2007 to April 2009, lasted ten hours per week. The interview and questionnaire was semi-structured in nature, starting off with general questions on the company background and EFQM model to put the respondent at ease. Detailed questions based on the EFQM model and related frameworks were then used to gather information, with other questions included so as not to limit the information collected. Care was taken not to produce expected answers and flexibility was allowed in the process which enabled an effective two-way dialogue to emerge. To ensure internal validity the interview and questionnaire was transcribed and sent to strategic managers and staff in the Iranian rubber industeries for conorganizationation of accuracy and to check that no commercially sensitive information had been included.

Generalizability of the research has been based on Partial generalizations, it is possible to similar populations, and the knowledge generated by qualitative research is significant in its own right. Problems related to sampling and generalizations may have little relevance to the goals of the study and the reality of the situation. In this situation, a small sample size has been more useful in examining a situation in Company from various perspectives. The goal of a study has been be to focuses on a selected contemporary phenomenon such as EFQM model or measurement addiction where in-depth descriptions would be an essential component of the process.

5. Results analysis:

We rearranged efqm scores for Iranian rubber industries; it was shown in figure 3.

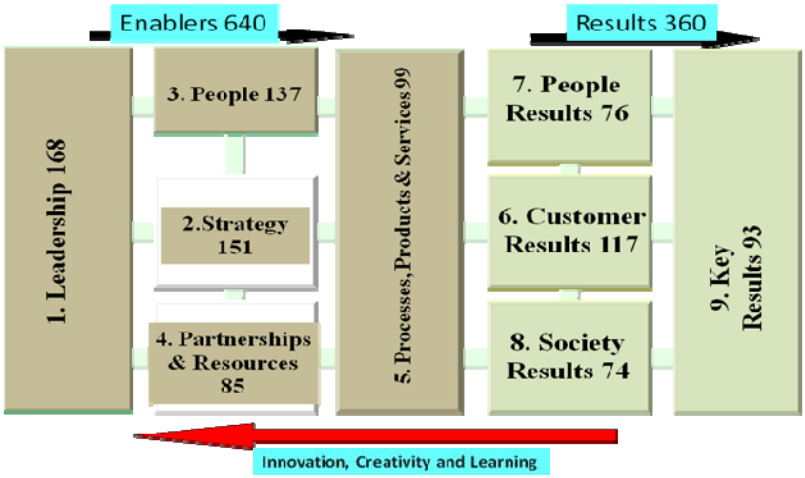

Fig. 3: Rearenging EFQM Scores in the Iranian rubber industries

In the EFQM model, Enablers and results have equally scores (500 points), while in the rearrangement EFQM (for rubber industry), Enablers has 640 points and results has 360 points. It shown enablers' field has more important then results field in Iranian rubber industeries.

6. Discussion and conclusion:

This paper introduces a multidimensional structural model to explore the internal structure of the rearranged EFQM Excellence Model in order to analyze this model as an operational framework for QUALITY. Our model assumes that the rearranged EFQM model takes into account the social and technical dimensions of QUALITY and that effective QUALITY implementation requires a common (or balanced) approach that

manages all the enabler elements in the EFQM model in order to enhance results. The empirical validation of the proposed model for a sample of Iranian rubber industeries that: (a) the rearranged EFQM enablers capture both the technical and social dimension of QUALITY; (b) both dimensions are interrelated, reflecting the existence of an overall approach to QUALITY represented by the enabler excellence construct; (c) there is a result excellence construct that underlines the level of deployment obtained by each result criteria; (d) enabler excellence has a strong positive influence on results excellence. The results obtained lead us to conclude that the rearranged EFQM Excellence Model reproduces QUALITY and that a firm could achieve QUALITY implementation by adopting the rearranged EFQM framework. They also reinforce the results obtained in previous studies for the MBNQA. Below, we extend the discussion of these results.

Limitations and future research:

As in other empirical studies, the findings and implications in this study should be interpreted with caution, due to their limitations. Firstly, in our study the model was developed and tested using the same data set. Although the model is suitable for both service and manufacturing firms, and the results obtained remain stable across sub-samples, the application of the model to other data will help to validate our results and to assess its generality in other contexts. Secondly, we use perceptual data to measure the rearranged EFQM criteria and it is worth recognizing the possibility that the perceptions of those surveyed do not provide a completely accurate view of reality. So, a logical extension would be to use multiple informants to verify perceptions. Flynn and Saladin (2006) have reported evidence about the strong role that national culture plays in the effectiveness of the MBNQA, and the need for countries to adapt quality initiatives to their national cultures. A natural extension of this paper would be to analyze the existence of differences between countries in the rearranged EFQM Excellence Model.

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