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A dynamic analysis on implementing performance excellence model: Importance, achievement and correlations

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ABSTRACT

Performance excellence model (PEM) has become an important management pattern for many years in the world. In 2004, China issued two national standards of PEM. But at present, most researches on PEM are based on the static data on some certain time, in this way there lacks systematic research on its dynamic changes features, including the improvement of PEM implementation, the impacts of process improvement towards results improvement, etc. Hence this article conducts a research on the improvements of items' achievement levels of PEM implementation, the relationship between the improvements and items' importance levels, and the impacts of process improvements towards financial results. Through the researches on the Government Quality Award (GQA) recipients in Shandong province and Anhui province, it is found that those recipients have gained improvements with different levels in terms of item's achievement after PEM implementation and the achievement level is in positive correlation with its importance. Besides, under the control of achievement level before PEM import, the improvement rate of achievement is also in positive correlation with its importance. Moreover, the improvement of process helps to improve the financial results and each 1% increase in the process's improvement rate of achievement level per year on average will lead to a 0.605% increase in the annual improvement rate of financial results. Organization's opinion on importance level is different with the PEM criteria. And the point value gap among process categories should be narrowed down.

1. Introduction

PEM is a set of integrated approaches of organizational performance managements (Hertz, 2008). The Malcolm Baldrige National Quality Award (MBNQA), the European Foundation for Quality Management (EFQM) Excellence Model and the Deming Prize (DP) are three globally accepted major PEMs. Talwar (2011) found that there were 100 PEMs being used in 82 countries worldwide, most of which were based on the MBNQA and EFQM Excellence Model.

In 2001, China Association for Quality established the National Quality Award and introduced PEM into China. In 2004, based on the MBNQA criteria and with reference to the EFQM Excellence Model, China made the PEM criteria - GB/T 19580 "*Criteria for Performance Excellence*" after taking China's national conditions into account (AQSIQ & SAC, 2012a). Nowadays 26 provinces, municipalities and autonomous regions in China have carried out the review of the GQA based on the PEM criteria, so that thousands of enterprises start to import and implement PEM. Similar to the categories and framework of the MBNQA, the PEM criteria of China also has six process categories including leadership, strategic planning, customer and market, resources, operation management,[1] measurement, analysis and improvement, and one results category (see Fig. 1) including 23 items. By comparing the category of the PEM criteria of China, MBNQA and EFQM (like Table 1), it can be found that both of the PEM of China and MBNQA have divided each category into process and results two dimensions. While the EFQM divides the category into enablers and results. The category of the PEM of China is basically the same with MBNQA other than the resources category, which not only includes the workforce category of the MBNQA, but also corresponds to the people and partnerships & resources

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[1] Process management is one of the six process categories in the PEM criteria of China. To avoid the confusion of process management and process category, this paper has changed the process management into operation management.

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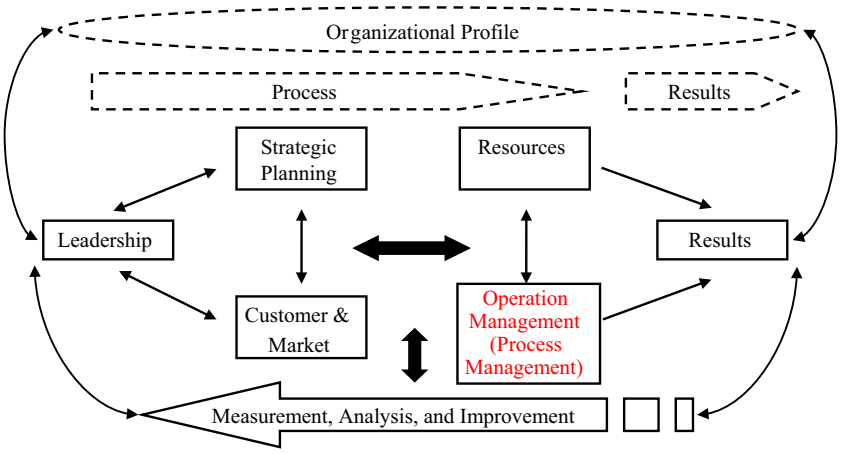

Fig. 1. PEM framework. *Source*: GB/Z 19579 "*Guildelines for the Criteria of Performance Excellence*" (AQSIQ & SAC, 2012b).

Table 1
Category comparison among the PEM of China, MBNQA and EFQM.

Dimension	PEM of China (2012)	MBNQA (2015–2016)	Dimension	EFQM (2013)
Process	1[a] Leadership (110[b]) 2 Strategic planning (90) 3 Customer & market (90) 5 Operation management (100) 4 Resources (130) 6 Measurement, analysis and improvement (80)	1 Leadership (120) 2 Strategy (85) 3 Customers (85) 6 Operations (85) 5 Workforce (85) 4 Measurement, Analysis, and Knowledge Management (90)	Enablers	1 Leadership (100) 2 Strategy (100) 5 Processes, Products & Services (100) 3 People (100) 4 Partnerships & Resources (100)
Results	7 Results (400)	7 Results (450)	Results	6 Customer Results (150) 7 People Results (100) 8 Society Results (100) 9 Business Results (150)

[a] Note: Number means the category number in the PEM criteria.
[b] Score means the point value in the PEM criteria.

categories of the EFQM. Apart from human resources item, the resources category of the PEM of China also owns five items - financial resources, information & knowledge resources, technical resources, infrastructure and stakeholders' relationship. Regarding to the score, the resources, leadership and operation management categories in the PEM of China are relatively outstanding and the other three process categories have little difference in scores. The score of leadership category in the MBNQA relatively stands out and the other five process categories have basically same scores. However, in the EFQM the five enablers categories have the same scores.

At present, researches on PEM mainly focus on the structural relationship among categories (e.g. Flynn & Saladin, 2001; Peng & Prybutok, 2015), the comparisons with other management patterns or approaches (e.g. Bohoris, 1995; Bou-Llusar, Escrig-Tena, Roca-Puig, & Beltrán-Martín, 2009), the effects of PEM implementation (e.g. Dahlgaard, Chen, Jang, Banegas, & Dahlgaard-Park, 2013; Flynn & Saladin, 2006) and quality award activities (e.g. Link & Scott, 2001, 2011a, 2011b; Wen, Dai, Chen, & Fu, 2015). But most of these researches are conducted based on the organizational survey data on some certain time and there are few researches making comparative study on the improvements after PEM implementation and the impacts of process improvement on results improvement. Moreover, the PEM criteria of China have granted some point values and evaluation methods for each item which can be used by organizations to conduct self-evaluation or the evaluation of quality award. Because the total point is 1000, different point values represent the percentage of items among the total point. However, there are few researches on the science of those point values.

This paper tries to study the changes that the PEM brought to the organization, especially the differences in management practices and business performance of the organization before and after winning the GQA, so as to present the dynamic effect and changing mechanism of the PEM with theory. In addition, it analyzes the differences and problems of the GQA recipients through the research on their evaluation on the achievement levels and importance levels of management practices, to help other organizations better implement the PEM. At the same time, the analysis of the importance levels also could provide theoretical basis for revising the scores of each category and each item in the PEM criteria of China. Based on the above purposes, this paper attempts to answer the following questions.

- Has the achievement level of each item been improved after implementing PEM? Which items are implemented with a higher improvement? Which items are implemented with a lower improvement?
- Which items are more important among the various process items of PEM? Which are less important? Could the achievement level of important items be improved higher?
- Will the improvement of process achievement level lead to the improvement of financial results? How much effect it will make?

Achievement level refers to the evaluation results of one management practice according to the requirements of approach, deployment, learning, and integration (ADLI). Importance level refers to the organization's subjective judgment of the effect of