A Study of Assessing “Business Excellence” Performance for Industrial Sectors in Taiwan

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ABSTRACT

Business excellence can be understood as an effort of business management following the principles and tools of quality management. Business Excellence models have been commonly recognized as a working basis for program awards to encourage full scale quality management in industrial organizations in some developed world. Based upon the consensual principals of customer interests, stakeholder value and process administration, business excellence is emphatic of systematic improvement of business performance and a sustainable organizations’ culture. The tools that are often quoted as instruments include balanced scorecard, the Six Sigma statistical tools, process management and project management.

However, when it comes to self-assessment of one’s own sector with unique cultural background and different economic context in Taiwan, pure mimic effort does not suffice. Some forms of strategic management in relation to best practice as the goal have to be in place. But how can industrial sectors and government organizations in Taiwan marry the two criteria?

To address this concern, the paper started its research from the hypothesis that benchmarking may be an applicable process to fill in the gap. This hypothesis is set based upon two observations: first, that ever since the early 1990s there have already been many enterprises to seize a strong position of comparative advantage by applying the qualification of Taiwan National Quality Award (TNQA), and second, by applying benchmarking for process reengineering, history witnesses a lot of companies in Taiwan that survived economic crisis regionally or globally.

Competing with all the enterprises with business excellence worldwide, an integration of current TNQA with the BE is an important milestone for the industry development for Taiwan companies. However, It is also found that the unique model developed by the customized Taiwan model for improving the performance of industries, including the specified category of R&D directly contribute to business result, while in the old model of TNOA model, only one category directly contributes to business results. The result is supported by a few previous studies and literatures. Hence, it is rarely pointed out that this finding is
different to the general principle of the latest US Quality Award framework where a R&D focus directly contributes to business results while a customer-focus does not. The result will trigger future research on the validity of quality award models, especially for the countries with different characters other than the USA.

Keywords: business excellence, benchmarking, assessing performance

1. INTRODUCTION
The achievement and experiences of Taiwan's economic development serve not only as a worldwide example for other developing nations, but also provide Taiwan itself with a good opportunity for promoting from where it is right now to another milestone. Taiwan's future challenge is already striding toward liberalization and internationalization [1]. Although many other factors can also influence economy growth, a good technique of transforming Taiwan industries into worldwide competitiveness is definitely a prerequisite to knock the door for stepping into the stage of developed countries. In light of this, Taiwan’s industry development has to faces a number of major challenges:

- Taiwan has already lost the comparative advantage of inexpensive labor.
- When an economy approaches a stage of maturity, the revolutionary uprising of high value-added to Taiwan enterprises is inevitable.
- Taiwan will have to rely on the continuous improvement of technology, skills, and techniques in order to cope with the worldwide competition. If these improvements are not made, Taiwan will be unable to compete with other developing nations and developed ones. Only when these key successful factors are well organized and implemented will Taiwan be able to take advantage of its strength of competency to sustain the expected growth.

In any case, if during the current stages of a Taiwan's economic development, the competitive cores of the enterprises are not applied, or if the government does not find a proper course to follow, then a high price has to be paid in initiating a globalization competition. Right now, the role that government plays is extremely important. Such role includes the implementation of a stable and legal policy to sustain the growth of country-wide enterprises and to promote the total quality of enterprises thorough exploring the justified model to distinguish the performance of companies countrywide. Coping with such continuous competition worldwide, the government should then step in to involve, adjust, regulate or rectify matters when the enterprises are in the middle of intersection. Henceforth, the Taiwan National Quality Award (TNQA), established in 1990 by the Taiwan government, has been successfully conducting such responsibility for more than 18 years. With the encouragement of the government over the past decades, many Taiwanese companies have dedicated much effort to quality enhancement in competing for the TNQA. Su (2003) pointed out that winning the TNQA has generally been considered a guarantee of business growth. After employing total quality management (TQM) programmers, many companies not only made improvements in quality of products and services, but also recognized the importance of TQM as a business model. However, with the fierce competition from the other countries, especially for the emerging industries in the Asia area or specialized industries in western world, Taiwan industries should seek another blue ocean strategy to distinguish themselves from the survival techniques in the red ocean. The integration of BE (business excellence) into the TNQA has become the key to promote the competency for Taiwan’s industries and mark revolutionary milestone for the sustainable development of Taiwan’s enterprises. Therefore, the research explores the buildup process and practices of the new model with the special characters of Taiwan and also concludes certain observations of the performance for the implementation of new TNQA in Taiwan.

2. LITERATURE REVIEW
Many experts and scholars in different field have offered their opinions on how Taiwanese companies might achieve success through the implementation of TNQA. The TNQA criteria examined whether the companies were operating appropriately and smoothly. By applying the TNQA criteria, it was argued that companies not only enhanced the quality of their products, but also increased the productivity and loyalty of employees [2], [15] stated that companies would adopt the correct perspective and learn know-how of sustainable improvement of their total quality when they apply the procedures ruled by the TNQA. The winners of the TNQA suggested that strategic planning, process improvement, job assignment, and training were critical factors in
companies winning the TNQA [11]. In 2001, the TNQA was first modified, based on the 2000 Malcolm Baldrige Award, the 1998 Deming Award, the 1999 European Quality Award, and ISO 9000–2000 (CSD, 2001). At the same time, the non-manufacturing sector also became eligible to compete for the TNQA [9]. How to justify the new one with the fair criteria and also reach the goal of evolving Taiwan enterprises become a main issue in the public and argument among policy makers and experts. As regarding to the necessary categories that should be surely included in the new TNQA model, [8] drew the distinction between quality implementation content ‘the what’ and quality implementation process ‘the how’. This formulation was adapted to form a basis for evaluating implementation success. A measure of implementation process was determined based upon the difficulty with which the business excellence system was implemented into the organization. For a measure of content, award models, and the EFQM Business Excellence model in particular, included the idea of self-assessment. Porter & Tanner [4] stated self-assessment systems provided an opportunity to design in quality on an organization-wide basis. Moreover, Van der Wiele et al. [12] suggested using the score a company achieves in relation to the European Quality Award as an indicator for quality maturity. This was reinforced by their finding that subsequent self-assessments had higher mean scores than the first self-assessment [12]. Based on the concerns of the loss of cooperative low labor cost advantage, the R&D hereby plays a key role to its strength and the engine to boost the productivity value for the enterprises across the country. The balance of leveraging necessary components, especially the inclusion of R&D and the knowledge to R&D in the TNQA, to maintain the competitiveness for enterprises comes to a dilemma for government. What Taiwan government is going to especially include in the new setup model and How Taiwan government successfully implement with new elements in the model? It was also claimed that superior performance within the ‘enablers’ criteria would ultimately lead to excellent performance in ‘results’ criteria. Successful new product development is a significant managerial topic for firms, especially for a technology-oriented company. New product development performance will be outstanding if a company makes good use of information in a market to understand what customers want, and then makes proper strategies to meet the desires of its customers; moreover, if a company is willing to make investment in marketing and its managers can fully support its employees to achieve new product development, then new product development performance would be excellent [6]. The importance of product development and the management of knowledge to distinguish have long been emphasized by the enterprises to sustain their growth. However, both of them are not explicitly listed as the key elements or criteria to evaluate the performance of enterprises. TNQA, as the first government unit in the world, exclusively include two of them as the key components in the model, then followed by the self assessment technique to build up its own model.

3. THE COMPARISON OF THE BE IN DEVELOPING COUNTRIES AND DEVELOPED COUNTRIES

The economic development experience of the United States has already had a great impact on the rest of the world. Japan, too, has made a mark with its post-war economic development. Indeed, Japan's development has not only been emulated by many developing countries, it has also gained a great deal of respect and notice from the US itself [9]. So what about Taiwan's economic-development experience? Does it deserve the attention of the developing nations of the world? Overall, while it is widely acknowledged that the US is a nation with abundant resources, it has little experience struggling through times of extreme hardship and poverty. And Japan, despite its considerable experience with management and administration, is hardly a suitable model for developing nations to emulate in terms of its developmental tactics and strategies. Taiwan, on the other hand, is an island of limited natural resources. Furthermore, the numerous hardships and struggles that were overcome to rebuild its war-torn economy are apparent. Therefore, many areas of Taiwan's economic-development experience are worth the examination of developing nations. After a detailed analysis among 17 national quality awards (NQAs) worldwide, Tan & Lim [10] noted certain variations in award criteria. Having reviewed these variations, we note that the TNQA differs from other NQAs in terms of: (i) the influence of globally recognized pioneering NQAs; (ii) differences in corporate culture and social climate; (iii) the market structure of the economy; and (iv) the emergence of more small and medium enterprises. Although other NQAs, such as the Malcolm Baldrige National Quality Award (MBNQA) and the European Quality
Award (EQA), were already well established, it was necessary for the TNQA to be renewed and customized for Taiwanese companies to reflect the spirit of TQM as well as the characters of enterprises in Taiwan. The objectives of the research are therefore

Table 1. The Comparison of Model’s Content among Developing and Developed Countries

<table>
<thead>
<tr>
<th>Developed Countries</th>
<th>Developing Countries</th>
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<tbody>
<tr>
<td>USA</td>
<td>Japan</td>
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<tr>
<td>MBNQA</td>
<td>QJA</td>
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<tr>
<td>Leadership</td>
<td>Leadership</td>
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<tr>
<td>-Strategic Planning</td>
<td>-Policy &amp; Strategy</td>
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<tr>
<td>-Customer &amp; Market</td>
<td>-People</td>
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<tr>
<td>Focus</td>
<td>-Partnership &amp;</td>
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<tr>
<td>-Information and</td>
<td>-Resources</td>
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<tr>
<td>Analysis</td>
<td>-Process</td>
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<tr>
<td>-Human Resource</td>
<td>-Customer results</td>
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<tr>
<td>Focus</td>
<td>-Society results</td>
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<tr>
<td>-Process management</td>
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<td>-Business results</td>
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<tr>
<td>Europe</td>
<td>EFQM</td>
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<tr>
<td>-Leadership</td>
<td>-Leadership</td>
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<td>-Strategic Planning</td>
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<td>-Customer &amp; Market</td>
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<td>Focus</td>
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<td>-Process management</td>
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<tr>
<td>Canada</td>
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<td>SQA</td>
<td>TNQA</td>
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<td>-Leadership</td>
<td>-Leadership</td>
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<td>-Planning</td>
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<td>-Customer</td>
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<td>-Focus</td>
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<td>-People Focus</td>
<td>-Process</td>
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<td>-Process Management</td>
<td>-Supplier/</td>
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<td>-Customer results</td>
<td>-Focus</td>
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<td>-Society results</td>
<td>-Process</td>
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<tr>
<td>-Human Resource and</td>
<td>-Customer results</td>
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<td>Knowledge</td>
<td>-Supplier/</td>
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<td>Management</td>
<td>-Society results</td>
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Comparing the criteria that form the main Business Excellence Models (see Table 1), important similarities can be found. All of them recognize that leadership plays the key role in creating the structures and infrastructures necessary to support Business Excellence. Moreover, they all stress the importance of developing human resources and process management and emphasize, in this regard, the criticality of education and training. There is generally a good match between the MBNQA and does not have a ‘strategic planning’ criterion, but most of the issues proposed in the MBNQA model are covered in TNQA in the leadership dimension. On the other hand, MBNQA does not explicitly include internal customers’ satisfaction, which is a main drawback. Furthermore, TNQA puts a greater emphasis on the creation of a continuous improvement culture by incorporating two criteria addressing this aspect: R&D and knowledge management.

Another difference between the MBNQA model [14] and the TNQA model is concerned with Customer/Market Development. In Wilson & Collier’s research, Customer and Market Focus were extracted as Result (customer satisfaction). It disappeared from the original MBNQA system categories. However, in the present research, Customer/Market Development is listed as one of the TNQA system categories. In the TNQA, the dimension of customer satisfaction is already included in Business Result. To maintain the content of the original TNQA criteria, we did not change the position of Customer/Market Development. Actually, OEM (Original Equipment Manufacturing) and ODM (Original Design Manufacturing) production strategies are very popular in Taiwanese companies. Over the past four decades, Taiwan has effectively used its labor force to not only overcome the disadvantages imposed by its lack of natural resources, but also to maintain a high degree of economic growth based on the support of the initial model of TNQA, as shown in Figure 1.

Figure 1. The initial model of TNQA

4. THE BUILDUP OF THE NEW MODEL TNQA

Many developing nations after the Second World War have indiscriminately copied Western development models without first making modifications. Some countries tried to emulate the
political and economic systems of the US, but few have succeeded. The numerous failures stemmed from the fact that the majority of these nations, in their efforts to simulate the US model, did so by ignoring their own historic and cultural backgrounds, as well as their own unique political and social environments. Taiwan's economic development differs from that of the United States, Japan, Canada and Singapore. Thus, when Taiwan first drew up its economic plans and policies, although it did refer to a number of Western patterns, in the end it developed a pattern uniquely its own. Every nation has its own strengths and weaknesses that need to be explored and recognized. Once found, the accepted rule is to try to take advantage of the strengths and make up for the weaknesses. Afterward, on the basis of one's strengths, the principle of comparative advantage can then be applied. Taiwan's strength lies in its manpower in high education, knowledge of building up know-how to manufacture and the flexibility to changing environment of the world market, which is characterized by great diligence and a system of universal education and the size of enterprises while it was compared with the rest of the other developing and developed countries. According to the past research, about 32.4% of a company’s sales come from new products available in the market [5]. The success of new product development became an important determinant for an enterprise in the market, as well as an important profit source in its future. Previous research indicated that enterprise’s distinctive core competency is indeed beneficial to its new product development performance [6]; therefore, when a firm hires capable and productive employees and experienced managers, who are able to make good use of their skills and capabilities and understand their customers’ needs, it will be beneficial to its new product development [7]. In addition to differentiate the distinctions of culture background and the characters of different countries, it is an important system path to distinguish the roles of R&D and Knowledge management exclusively to boost up the enterprise capacity transforming from the OEM to ODM and OBM. The model of TNQA was then justified as the figure 2 to illustrate the mutual relations among the key components.

5. RESULTS AND DISCUSSIONS

According to ‘Standards for Identifying Small and Medium-sized Enterprises’ stipulated by Ministry of Economic Affairs of Taiwan, this study defined a ‘Medium & Small Enterprise (SME)’ as that

where the number of regular employees of a firm in the manufacturing industries does not exceed 200 persons (whereas the number of regular employees of a large enterprise exceeds 200 persons). The total number of samples in the study was 33 samples, including 31 SMEs and 2 large enterprises. This research concludes the performance in 33 of the sample companies by the renewed model of TNQA with tools, including the architecture of excellence framework, self assessment, benchmarking and best practice and performance. As mentioned in figure 2, R&D and knowledge management are additional elements as it compared with model from other countries, and believe to have obvious positive relationships with model performance. Therefore, it is imperative for Taiwan enterprises to develop their own way to improve their total quality performance and strengthen their overall competitiveness by the customized promotion activities, which hold 8 seminars with the total numbers of participants up to 1000 in the opening. For all the participant companies, 4 out of total sample companies were selected by the committee to be awarded and also successfully finished up the 22 quality circles by the promotion activities. The customized procedure of implementation for the new model then proceeded with the training of the self assessment for the employees in the sample companies by 245 persons, followed by the training of supervisors of the assessment. Conclusively, we discovered that total of the sample enterprises with successful model performance have created considerable extra capital value $600000. Unfortunately, no prior research explored the relationship between financial capital and all the key categories included in the new model of TNQA.

Future Development

This research demonstrated important insights into the implementation to the new model of TNQA. R&D and Knowledge management are seen as aspects worthy of detailed consideration
for the needs to meet the characters of Taiwan enterprises. A well
defined structure of model with the enabler, process and results
seem to contribute to a successful implementation of business
excellence. A further examination of the contribution from R&D
and knowledge management can be done by distributing
questionnaires to confirm if there exists positive influence on the
results. Their analysis will help determine the way forward
towards the successful implementation of business excellence.
This may best be achieved with external guidance to ensure the
development of an efficient and effective concept. Such a concept
can be used, not only when implementing business excellence, but
also with other change programs and frameworks. This research
has also designated a future research agenda related the validity of
self assessment as a measure of quality maturity.

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