FACT: A Comprehensive Business Excellence Model

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Abstract

Background

Business Excellence Model (BEM) is a management tool which is used by managers to assess their enterprises and to perform the organizational change to purse business excellence (BE). However, the deficiencies encountered in the implementation always keep the practitioners away from using it. The deficiencies include sophisticated assessment criteria, lack of infrastructure, quality bureaucracy, excessive paperwork, cumbersome procedures, time consuming, and lack of focus, etc.

Purpose

In order to respond these deficiencies, an improved BEM to help an organization in pursuit of BE effectively is necessary. More specifically, this paper aims to develop a comprehensive BEM.

Methodology

This paper starts the argumentation from how BEMs are dichotomously perceived by adopters, either prescriptive or descriptive. The prescriptive aspect indicates that the adopters treat BEM as a 'must' to achieve business excellence. And the descriptive aspect indicates that the adopters treat BEM as a 'reference' to examine how the BE of the enterprise is. The present authors hold that an effective BEM should be prescriptive-based for the purpose of providing a 'total solution' to organizational management. To be this, the deficiencies found in the existing BEMs are firstly reviewed and the arguments in relation to the deficiencies are summarized. Then, four fundamental premises for a comprehensive BEM are raised in response to those deficiencies. A comprehensive model to meet the fundamental premises is finally proposed.

Main Results

A comprehensive BEM called 'FACT' is proposed. 'FACT' indicates the abbreviation of 'Framework of BE', 'Add', 'organizational Culture/Characteristics' and 'management Tools/Techniques'. It means that a comprehensive BEM should integrate with not only using BE framework to be the guidance and to make

assessment of an organization, but also choosing the appropriate management tools/techniques and cultivating the right organizational culture/characteristics towards BE.

Key words:

Business Excellence, Total Quality Management, Self-assessment, Change Management

Category:

Research Paper

1. INTRODUCTION

In order to respond the highly competitive external environment and the customers' expectations, enterprises have to look for effective approaches to enhance their management capabilities, such as Total Quality Management (TQM), Business Process Reengineering (BPR), Enterprise Resource Planning (ERP), Organizational Change Management (OCM) and Business Excellence (BE), etc. Among them, BE is one of the most popular approaches being used in the past two decades. The definition by Wikipedia (2011) stated that BE is the systematic use of quality management principles and tools in business management, with the goal of improving performance based on the principles of customer focus, stakeholder value, and process management. Key practices in business excellence applied across functional areas in an enterprise include continuous and breakthrough improvement, preventative management and management by facts. Some of the tools used are the balanced scorecard, Lean, the Six Sigma statistical tools, process management, and project management. Based on the definition, we acknowledge that BE is able to trace its root to TQM, however comparing to the principle concepts of TQM, BE is more holistic in nature than TQM. As described by the European Foundation for Quality Management (EFQM), BE refers to outstanding practices in managing the organization and achieving results in terms of a set of eight fundamental concepts. These concepts are 'results orientation, customer focus, leadership and constancy of purpose, management by processes and facts, people development and involvement, continuous learning, innovation & improvement; partnership development, and public responsibility.'

Besides, business excellence models (BEMs) have been generally developed by national bodies as a basis for award programs. For most of these bodies, the awards themselves are secondary in importance to the widespread adoption of the concepts of business excellence, which ultimately leads to improved national economic performance. By far the majority of organizations that use these models do so for self-assessment, through which they may identify improvement opportunities, areas of strength, and ideas for future organizational development. Users of the EQA

Excellence Model, for instance, do so for the following purposes: self-assessment, strategy formulation, visioning, project management, supplier management, and mergers. The most popular and influential model in the western world is the Malcolm Baldrige National Quality Award Model (also known as MBNQA model, the MBNQA Criteria, or the Criteria for Performance Excellence), launched by the US government. More than 60 national and state/regional awards base their frameworks upon the Baldrige criteria.

Due to BEMs have been widely implemented in the industries over two decades, a ton of experiences and evidences are accumulated. Researches were conducted to investigate their effectiveness which includes the benefits and the deficiencies. Some researches indicated that organizations obtained significant benefits. The benefits include the financial profit (Hendricks & Singhal, 2000; Pannirselvam & Ferguson, 2001) and the non-financial outcomes (Hendricks & Singhal, 1996; Ford & Evans, 2000; Wilson & Collier, 2000; Pannirselvam & Ferguson, 2001; Douglas & Judge, 2001). However, it has been noted that not all the messages are positive. On the one hand, some research findings pointed out that an excellence approach is not a guarantee of success (Powell, 1995; Terziovski & Samson, 1999; Fisher *et al*., 2001). Also, although there is compelling evidence that business excellence delivers benefit to the organization, it is clear that it does not work for everyone (Jennigs & Beaver, 1997; Stephens *et al.*, 2005). On the other hand, practitioners usually complain that they encounter difficulties in implementing BEM which include sophisticated assessment criteria, lack of infrastructure, quality bureaucracy, excessive paperwork, cumbersome procedures, time consuming, and lack of focus (Miller, 1993; Goh & Ridgway, 1994; McTeer & Dale, 1994; Wilkes & Dale, 1998; Lee *et al*., 2006).

Why the research findings are inconsistent? Why the practitioners meet difficulties? To answer these questions is not an easy task. It's a complicated issue in nature, which involves many contingency factors in the implementation of BEMs, such as size, industrial sector, organizational structure & system infrastructure, culture, and the degree of quality maturity, etc. The present authors argue that the most crucial thing is how BEMs are perceived by the adopters, because the perception of BEMs will guide their behaviors of using the management tool. In the way of dichotomy, BEMs can be perceived either prescriptive or descriptive. The prescriptive aspect indicates that the adopters treat BEM as a 'must' to achieve business excellence. Generally speaking, two groups of people adopt this aspect. One of the two groups is either the quality award examiners or self-assessment assessors. They are requested to follow the criteria provided by the award organization to conduct their examination. And the other group of adopters chooses BEM as the major management approach in the outset and keeps sticking on it. They often feel disappointed in the period of

implementation due to the perception of ‘must’ aspect will keep them away from looking for another effective management approach except BEMs. On the other hand, the descriptive aspect indicates that the adopters treat BEM as a ‘reference’ to examine how the business excellence of the enterprise is. This group of adopters usually aims at wining the award. The use of BEM is mainly for the purposes of confirming if they have already fulfilled the requirement of the quality award.

The present authors hold that the BEM should be prescriptive-based for the purpose of providing a ‘total solution’ to every aspect of organizational management. However, the past literature indicated that it is still under debating for whether the existing BEMs (such as MBNQA, EQA, etc) are prescriptive or not. Based on the reasons stated above, to develop a rather comprehensive BEM which is able to help an organization in pursuit of business excellence becomes necessary. More specifically, in this paper, the present authors intend to achieve the following research objectives: (1) to give an introduction to the existing BEMs and self-assessment, (2) to summarize the deficiencies of the existing models, (3) to raise the fundamental premises for a comprehensive business excellence model, and finally (4) to propose a comprehensive model to meet the fundamental premises.

2. LITERATURE REVIEW

A review of the past research related to BEMs is described in this section. It includes the introductions to BEMs & self-assessment, the extension models for the implementation of BEMs, and the deficiencies of the existing models. Each of these is presented in the following.

2.1 BEMs and Self-assessment

2.1.1 BEMs

The research done by Miguel (2004) indicated that over 80 nations have currently administered a national-level BEM which includes about 50 MBNQA-based and about 25 EQA-based. The remaining few are tailored to suit the particular the specific cultural context of the nations. The two major quality awards are thus introduced in this paper, Malcolm Baldrige National Quality Award (MBNQA) in USA and European Quality Award (EQA) in Europe. The features and attributes of the two major quality awards are briefly described. They are presented in terms of the following aspects: core values & concepts, criteria & scoring system, evaluation dimensions, and award application procedures (see Table I).

Table I. Summary of MBNQA & EQA features and attributes

Name (year)	MBNQA (1987)	EQA (1991)
Country	USA	European
Responsible organization	NIST	EFQM
Core values and concepts	1. Visionary leadership 2. Customer-driven excellence 3. Organizational & personal learning 4. Valuing workforce members and partners 5. Agility 6. Focus on the future 7. Managing for innovation 8. Management by fact 9. Societal responsibility 10. Focus on results & creating value 11. Systems perspective	1. Results orientation 2. Customer focus 3. Leadership & constancy of purpose 4. Management by process & fact 5. People development & involvement 6. Continuous learning, innovation & improvement 7. Partnership development 8. Corporate social responsibility
Criteria and scoring system	1. Leadership (120) 2. Strategic planning (85) 3. Customer focus (85) 4. Measurement analysis & knowledge management (90) 5. Workforce focus (85) 6. Process management (85) 7. Results (450)	1. Leadership (100) 2. Strategic (80) 3. People (90) 4. Partnership & resources (90) 5. Process & product/ service (140) 6. People results (200) 7. Customer results (90) 8. Society results (60) 9. Key results (150)
Evaluation dimensions	Process: Approach, Deployment, Learning, Integration (ADLI) Result: Level, Trends, Comparisons, Integration (LeTCI)	Result, Approach, Deployment, Assessment, Review (RADAR)
Award procedures	1. Applicants submit the 75-page application materials 2. Independent review conducted by at least five examiners 3. Consensus review conducted on outstanding applicants 4. Site visits are conducted on short-listed finalists 5. Judge reviews the on-site evaluation report and recommends the award winners to director of NIST	1. Applicants submit the 75-page application materials 2. Individual assessments are conducted by at least six assessors 3. Team of assessors meets and determiners consensus score for applicants. Next, those short-listed receive site visits 4. The assessment teams prepare the site visit reports 5. The panel of judges reviews the site visit reports, determines the winners and the role model

Malcolm Baldrige National Quality Award

In an effort to improve quality management practices and the competitiveness of U.S. firms, President Ronald Reagan signed the Malcolm Baldrige National Quality Improvement Act in 1987. The MBNQA was named in remembrance of Malcolm Baldrige, Secretary of Commence, for his great contribution to US quality excellence movement. This award was created to promote quality awareness, identify the requirements for quality excellence and share information about successful quality strategies and benefits. The National Institute of Standards and Technology (NIST) currently administrate this award with assistance by American Society for Quality (ASQ) for the application review process, preparation of award documents and other administrative duties.

The process to legislate this award led to the development of a bill stated that it would help to improve quality and productivity by ‘establishing guidelines and criteria that could be used by business, industrial, governmental and other enterprises

in evaluating their own quality improvement efforts' (DeCarlo & Strett, 1990). The MBNQA criteria, used to assess an organizational performance, are divided into seven categories and provide the strategic direction for the entire organization. The seven categories are leadership, strategic planning, customer focus, measurement analysis & knowledge management, workforce focus, process management and results. These categories are built on a set of 11 interrelated core values and concepts (see Table I). The MBNQA model includes a leadership triad (leadership, strategic planning, and customer focus categories), a results triad (workforce focus, process management and results categories), and measurement analysis & knowledge management serves as the information provider to support the two triads. The way in which organizations evaluate each criterion stated above in terms of a two-dimensional system which included 'process' and 'results'. The process is comprised of four sub-dimensions, 'ADLI' which indicates 'approach', 'deployment', 'learning' and 'integration'. The result is also comprised of four sub-dimensions, 'LeTCI' which indicates 'levels', 'trends', 'comparisons' and 'integration'.

One of the major objectives of MBNQA is to provide the recognition to the organizations that show understanding and improving their quality by continuous improvement in terms of MBNQA approach. The award procedures include: (i) applicants submit the 75-page application materials, (ii) each application is reviewed independently by at least five examiners, (iii) consensus review conducted on the outstanding applicants, (iv) site visits are conducted on short-listed finalists, (v) the full panels of judges review the on-site evaluation reports and recommend the award winners to director of NIST.

European Quality Award

14 major European companies formed the European Foundation for Quality Management (EFQM) in 1988 with the endorsement of the European Commission in response to recognize the importance of quality performance. In 1991, European Quality Award (EQA) was developed by EFQM to honor outstanding European businesses.

EQA is similar to MBNQA but has its own fundamental concepts, criteria and evaluation dimensions (see Table I). The nine criteria are comprised of quality improvement enablers and results. The quality improvement enablers include leadership, strategic, people, partnership & resources, process & product/service. Effective implementation of the enablers influences the results. The result criterion includes people results, customer results, society results and key results (see Table I). The evaluation of each criterion includes a five-dimensional system, 'RADAR' which indicates the abbreviation of 'result', 'approach', 'deployment', 'assessment' and 'review'. EQA improves its own quality model by continually analyzing applicant

feedback and making necessary adjustments.

The EQA procedures include: (i) applicants submit the 75-page application materials, (ii) individual assessments are conducted by at least six assessors, (iii) team of assessors meets and determiners consensus score for applicants. Next, those short-listed receive sit visits, (iv) the assessment teams prepare the site visit reports, (v) the panel of judges reviews the site visit reports, determines the winners and the role model.

2.1.1 Self-assessment

BEMs illustrated in the pervious section are not only designed to present the criteria and procedures to compete award winner; its purpose is to become an effective self-assessment tool for those who are interested in quality and allocate recourses to serve as a guidance for improving their organizations. That is to say, the model is geared not only to the organizations in a position to successfully compete for the award but also to those who wish to take up the challenge of pursuing competitiveness and business excellence. Porter & Tanner (2004, p287-312) proposed an eight-step common processes for an organization to conduct a self-assessment (see Figure 1). It starts from choosing the framework and ends up with eliciting the action plans for those that are necessary to be corrected or improved.

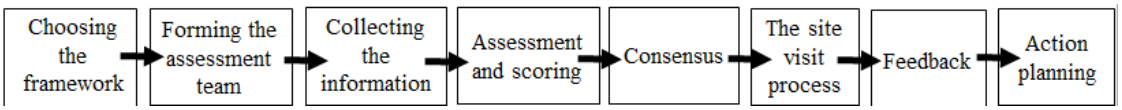

Figure 1 Common processes of a self-assessment

Step 1-Choosing the framework

The purpose of the step is to choose a BEM being used in the self-assessment project. The issues to be addressed include choosing between the various frameworks, for example, MBNQA or EQA. There is no ‘best’ framework, only the appropriate framework. Several factors dictate the choice of the actual framework, including length of experience with assessment and geographical location. At the detailed level within the frameworks, many organizations tailor the framework and terminologies to improve its usability. Except that, the management issues which related to this self-assessment project have to be identified by the in-charge manager in this step. They include the details of each main activity, timescales and resource requirements.

Step 2-Forming the assessment team

Due to the criteria address a wide range of areas, including human resource management/organizational behavior (leadership, people management and results), business analysis (all the results’ criteria), and process management. No single person is likely to have an in-depth knowledge in all these areas. Thus, the implementation of BEM self-assessment is a team-based activity. It involves forming a team that has the

responsibility for preparing the submission. It is essential that the submission team members are drawn from a broad cross section of the organization, have the necessary insights and the authority to access the information required. Also, the process of assessing business or organizational excellence relies on people being able to make an objective assessment of excellence. People's perception of excellence differs, and the team-based approach makes the whole process robust to those differing views and experiences.

Step 3-Collecting the information

Self-assessment is an organizational health check that is best based on facts and not subjective opinions. However, there are various ways of establishing the facts. This step is governed by two factors, the objectivity required and the resources available. Generally speaking, greater objectivity requires more resources. A range of data collection approaches is available for different stage of quality maturity. The approaches include questionnaire survey, matrix, pro-forma, and award-type processes. Generally speaking, the organization with the less quality maturity chooses the rather basic data collection approaches, such as questionnaire survey. It allows the assessments project to be made without too much resource consumed. On the other hand, the organization with the more quality maturity chooses the more advanced data collection approaches, such as award-type processes.

Step 4-Assessment and scoring

The first task of the assessment team is to carry out an individual assessment and score the submission in this step. Assessors review the entire submission document to identify the strengths, areas for improvement, and clarification issues in the site visit. This information is recorded in a scorebook in terms of a multidimensional evaluation scoring system, such as 'result', 'approach', 'deployment', 'assessment' and 'review' in EQA. The multidimensional evaluation scoring system has many advantages, it is important to separate approach/deployment/assessment/review from results/scope.

Step 5-Consensus

Following the individual assessment and scoring, members of the assessment team come together to share their views on the submission and to reach consensus on the strengths, areas for improvement, scores and clarification issues in the site visit. Consensus is a learning opportunity for each assessor, and provides the opportunity for the team to take an overview of the total information available from each individual assessment, reassess the evidence and reach consensus. The senior assessor plays a key role in the process and is responsible for organizing and running the consensus meeting.

Step 6-The site visit process – clarification and verification

It is almost impossible to capture the true position of an organization in the

submission document. During the assessment process, many areas require further clarification. It is also necessary to make the verification to the validity of the submission document. These tasks can be carried out during site visits to the organization. Individual assessment, consensus and site visit are the key sub-processes to a self-assessment project.

Step 7-Feedback

The feedback report is the major output from the self-assessment process. It is the final analysis of the organization and contains the accumulated knowledge acquired by the assessor team. A good report is tactful and constructive and is based on fact not on subjective opinion. It should encourage the organization to take improvement opportunities forward and ensure that the best practice is deployed across the organization.

Step 8-Action planning

Any self-assessment cycle should be concluded with a post completion review to identify what went well with the process, what could be improved, and what benefits have been or are likely to be achieved. The culmination of the whole process is to take the feedback from the assessment and to develop action plans that deliver increased levels of satisfaction for the stakeholders – namely customers, employees, society at large and the shareholders to the other financial stakeholders.

2.2 The extension models

Despite BEMs presented above are designed to serve as a total solution of business management, it is still experienced by practitioners the necessity of further guidance in the implementation. That means organizations usually encounter problems in applying the models because the complex process, such as assessment criteria and scoring system are to generally defined, especially with inexperienced assessors (Siow *et al.*, 2001; Yang *et al.*, 2001; Porter & Tanner, 2004, p287-312). The extension models are then developed to remedy the problems. Some of the models are self-assessment roadmap (Porter & Tanner, 2004, p287-312), self-assessment methodology (Ahmed *et. al*., 2003), self-assessment decision model (Li & Yang, 2003) and 4P quality strategy model (Dahlgaard & Dahlgaard-Park, 2004), etc.

Among them, it is interesting to find that each model was proposed to respond certain specific deficiencies respectively. For example, ‘self-assessment roadmap’ which was proposed by Porter & Tanner in 2004 is in response of the general defined assessment criteria. This extension model is a contingency-based, which the roadmap is divided into three phases: ‘entry’, ‘user’ and ‘world-class’ in terms of the experience of practicing self-assessment. The three phases were given the names to capture the emphasis of the phase. The entry phase indicates the start to implement self-assessment as a vehicle for improving its performance. The awareness of

self-assessment is the essential in this phase. The user phase is entered when the benefits of self-assessment have been recognized and understood. The world-class is reached when continuous improvement becomes embedded into the learning organization. Porter & Tanner suggested that the specific action plan and situation have to be in place for each phase before a self-assessment project being launched. The specific action plan and situation include typical score, time from start, issues to address, leadership, self-assessment approach, organizational elements, support mechanisms, benefits/deliverables, etc.

On the other hand, 'self-assessment methodology' and 'self-assessment decision model' are proposed to respond the criticism on measurement system. The authors utilized multiple criteria decision making (MCDM) and evidential reasoning (ER) approaches in the self-assessment process. The proposed methodology provide by authors is an eight-level structured framework for self-assessment, which starts from level zero to level seven. Level zero represents the initial decision relating to the appropriateness of applying for the EQA. Level one illustrates the ingredients required for the assessment process. Level two indicates the understanding stage with reference to the EQA criteria. Level three identifies which of the sub-criteria requires a focus on planning, corrective action, measuring, or improving. Level four concentrates on classifying organizations into seven categories and specifying the characteristics associated with each category. Level five focuses on RADAR logic, and level six provides a comprehensive guideline for assessing each element of the EQA criteria. Level seven is designed to weigh the final scores of the self-assessment process. The authors argued that the intelligent decision system being developed can be used to improve how the self-assessment process is carried out and provide accurate and fast scoring tasks.

'4P quality strategy model' was proposed by Dahlgaard & Dahlgaard-Park in the early 90s. The '4P' definition is based on the argument that the first priority of any quality or excellence strategy should be to build quality into 'people' as the essential foundation and catalyst for improving 'partnerships', 'process' and 'products'. This model starts from conducting a 7-point Likert scale questionnaire of self-assessment. The questionnaire uses a double-scale to measure the degree of importance and agreement in each aspect of excellence. The aim of quantitative self-assessment process is to involve everyone in improving enablers as well as results. The 'vital few' improvement areas are then identified by choosing the biggest differences between the two measures. The organizations finally establish cross-functional improvement team to come up with action plans by using quality map. This model was adopted firstly by the Post Denmark in 1990 and used by several Scandinavian companies after that time. In the opinion of the authors, this model is applicable in almost any organization to

ensure a successful start up in TQM, or excellence building process.

2.3 The benefits and the deficiencies

A review of the previous researches in this area, it is found that some of the research findings are positive and supportive, while the others are negative and questioning. They are respectively illustrated in the following.

First of all, the positive and supportive research can be summarized into two categories. One of the two categories is to directly investigate the business results for those BEM adopters. The business results include the financial indicators, such as the researches done by Hendricks & Singhal (2000) and Pannirselvam & Ferguson (2001); and the non-financial indicators, such as the researches done by Hendricks & Singhal (1996), Ford & Evans (2000), Wilson & Collier (2000) and Douglas & Judge (2001). The non-financial indicators include the enhanced innovation & idea generation, customer satisfaction, organizational growth, employee satisfaction & involvement and effectiveness & productivity. The other category is to investigate the cause-effect linkages among the enablers and the business results. The researches done by Wilson & Collier (2000), Meyer & Collier (2001), Su *et al.* (2003) and Sauders & Mann (2005) are belonged to this category.

Despite the use of BEMs can produce both financial and non-financial benefits to an organization, it is found that receiving NQA is not a guarantee of long term success and could be failed for those who do not show the continuous improvements in accordance with external environment change (ex., Wisner & Eakins, 1994; Powell, 1995; Melnyk & Denzler, 1996; Terziovski & Samson, 1999; Fisher *et al*., 2001). For example, the poor performances of past winners Cadillac, Federal Express, Wallace and Motorola have led pundits to question the value of these awards.

The other researches point out the deficiencies which are related to the operations of self-assessment or award application (Miller, 1993; Goh & Ridgway, 1994; McTeer & Dale, 1994; Wilkes & Dale, 1998; Lee *et al*., 2006). The operational deficiencies include excessive paperwork, cumbersome procedures, time consuming and quality bureaucracy, etc. To meet the award's requirements it is necessary to collect vast amounts of internal and external information, analysis the data and expend substantial amounts of managerial effort. For example, Corning devoted over 14,000 man hours towards its award submission in 1989. King Division in Westinghouse's Thermo was estimated to have spent almost USD 500,000 on internal labor and as much on outside technical assistance in putting its application together. Florida Power & Light, the first winner of the Deming Prize for Overseas Companies, spent USD 850,000 on fees to Japanese consultants to help it improve its quality systems and the point at which it could meet the Prize's standards. Also, several complaints are come from the adopters that both the Deming Prize and MBNQA represent a creeping

bureaucracy of the quality infrastructure (Main, 1991).

2.4 Arguments in response to the deficiencies

Now, let's go back to the questions raised in the introduction: Why the research findings are inconsistent? Why the practitioners meet difficulties? Based upon the past literature reviewed in this section, the present authors postulate the following five arguments in response to the deficiencies which were found in the existing models.

The first argument is that the existing models are rarely made adjustments in accordance with the scientific empirical evidences. It would result in the models deviating from the practical arena and the user-friendly perspective. Although two major BEMs follow a different strategy in the model adjustment, they both went through several major and minor changes since they were announced. For instance, the MBNQA made the first major adjustment in 1988 transform the criteria system from a quality framework to a business framework. It was further transformed to a performance framework in 1997. Besides, the number of criteria was made adjustments of more and less, and the form of criteria was also changed as well. Similarly, EQA has undergone several adjustments. One of them was taken place in 1995 for the 'result' criteria being split down into two sub-criteria, leading measures and lagging measures. The other was taken place in 1999 for introducing the RADAR logic and changing the criteria. It is believed that the ideas of the adjustments were mostly derived from the subjective experiences of either the experts in the award-in-charge organization or the external consultant/academician. The present authors argued that lack of scientific empirical evidences will result in the adjustments become too emphasis on the prescriptive perspective which implies the ignorance of users' needs.

The second argument is that the existing models, except self-assessment roadmap and MBNQA, do not include the contingency factors which are particularly important to the organization with different size, industry sectors and experience in practicing self-assessment. For example, small and medium enterprises (SMEs) show their interesting to BEMs, but thus far the models are not widely utilized in this area. Wilkes & Dale (1998) suggest that the development of a simplified model which is suitable for SMEs is necessary. The simplifications include number and format of the criteria, application processes and guidelines. On the other hand, Svensson & Klefsjö (2006) warned that it probably wastes resources to conduct a self-assessment if the organization has not reached the necessary quality maturity level. Karapetrovic & Willborn (2001) suggested to link the choice of the approaches with the quality maturity level of an organization and the intensity of effort invested in the self-assessment. Less complicated approaches (ex., questionnaire survey) are suggested to the less mature organization, while the more complicated approaches (ex.,

award simulation) is suitable for the more mature organizations.

The third argument is that the existing models, except 4P quality strategy, are essentially attributed to a sort of assessment tools only instead of serving as a 'total solution' management tool. A total solution indicates that the tool has to be usable in each phase of Deming PDCA management cycle. As we know, both self-assessment and award review processes serve as the function of 'check' in the PDCA cycle. It is necessary to utilize other management tools or techniques to perform the rest of three in the cycle. That means the management tools or techniques except BEMs have to be employed after the areas for improvement being identified. The management tools or techniques are not specified in the existing models in spite of it is always claimed that any management tools and techniques can be integrated into BEMs.

The fourth argument is that the existing models have not had enough persuasiveness to convince 'total employee involvement' which is 'the must' in self-assessment. The researchers in this area indicated that the cooperation and teamwork are necessary ingredients for a self-assessment success (ex., Taylor & Hill, 1992; van der Wiele *et al.*, 1996; Chapman, 2000; Jackson, 2001). Also, Conti (1997) suggested that self-assessment team should be the main mechanism for gaining employee involvement. It is generally that the complexity of most processes places them beyond the control of anyone individual and thus the only efficient way to tackle process improvement is through teamwork. This has to rely on the premise that people are willing to support any effort in which they are asked to take part in (Oakland, 1999). However, the operational deficiencies stated above always keep the employee staying away from involvement in the self-assessment project.

The fifth argument is that the existing models are lack of integration in the operational level in spite of they do have the holistic view in conceptual level. For instance, the double triads of leadership and results are used to conceptualize the principal elements of management in the MBNQA. While, the original philosophy of EQA is that the superior performance is achieved by involving people in improving their processes. Based on the philosophical concepts, they are then further developed the models by decomposing BE into 7-9 criteria and 20-30 sub-criteria. The decomposition breaks down the organizational management into fragmentation that would result in the self-assessment being lack of integration and focus. Although the approaches (such as, the extension models mentioned above), the mechanism (such as, consensus meeting) and the regulations are established to assist the integration, it still does not work well in the practical arena (Munro-Faure & Munro-Faure, 1994, p254; van der Wiele *et al.*, 1996). Lewis (1999) found that most of departments in Southwark Council had experienced the difficulty in embedding the assessment processes into planning and review activity. Also, the researchers suggest that

self-assessment and the subsequent improvement planning should be integrated into the company planning cycle. And strategic planning as the implementation of the identified areas for improvements might need the strategic allocation of resources (Conti, 1997; Henderson *et al.*, 1999; Chin & Pun, 2002).

3. FUNDAMENTAL PREMISES FOR A COMPREHENSIVE BEM

Having the review of the deficiencies in relation to the existing models, we turn out the way to postulate four fundamental premises (FPs) which are, on the one hand, in response of the arguments raised in the pervious section and, on the other hand, to highlight the required principles for the new model that will be proposed in the next section.

FP 1: It should be a prescriptive-based model but make adjustments in accordance with the empirical evidences which are descriptively derived from the scientific research.

Quality is commonly measured by two dominant factors, 'functions' and 'cost'. It can be mapped to a good quality management tool which is measured by 'usefulness' and 'easy-of-use'. It is apparent that a good quality BEM should be embedded the two dominant factors. 'Usefulness' means that adopters choose this management tool in the beginning, and the excellent outcomes are finally achieved through following the guidance of the management tool. 'Easy-of-use' means that the management tool is designed by fitting the propensity of humankind, and less mental effort or attention is necessary to pay on it.

Having the illustrations of the two dominant factors, two questions are raised here: What the order of the two factors is? How they are embedded into BEMs? The answers are: 'Easy-of-use' is generally the premise of 'usefulness'. According to the structure of scientific logic, a scientific research often starts from the descriptive approach to empirically look for the possible influential factors in terms of the observed effects. The prescriptive approach is then employed to test the hypotheses which are derived from the previous descriptive research. Both approaches come together to make the progress of science. In other words, science benefits human being by first examining the possible causes from the effects (descriptive approach), and then observing the effects from the experiments of the possible causes (prescriptive approach). The present authors hold that a good quality BEM should follow this structure of scientific logic. That is, on the one hand, the process of following the guideline of the management tool which indicates 'usefulness' is the prescriptive approach. And also it can be referred to the terminologies of left-to-right method or cause-to-effect logic which were invented by Conti (2002, 2007). On the other hand, the process of fitting the propensity of humankind which indicates 'easy-of-use' is the descriptive approach. It can be referred to the terminologies of

right-to-left method or the effect-to-cause logic, the same by Conti (2002, 2007).

FP 2: It should work well not only as a measurement model but also as an organizational improvement model in the self-assessment or the quality award competition.

As we know, BEMs are designed not only to provide the criteria and procedures for the competition of quality award but also the main purpose is to become an effective self-assessment tool for those who are interested in quality management and generate the action plans to improve their organizations. However, the empirical experiences show that both functions often do not exist in the same platform or an organization. Conti (2002, 2007) had proposed these two functions should be separated into two different models as it is used in an organization: 'quality measurement model' and 'organizational improvement model'. He said 'the award and self-assessment with the same model and process. One cannot want to have one's cake and eat it. One cannot manage a model as a recognized standard for measuring (or better, estimating) organizational quality and at the same time promoting it as an organizational improvement model, where flexibility and customization are the name of the game'.

From the philosophical perspective, 'the state of art' indicates certain behavior comes together with rationality and sensibility on the one hand, and the universality is also shown as well on the other hand. 'The state of art' is always the ultimate goal to be pursued. Sometimes, certain management approach or action is called as 'reach the state of art' due to the three attributes, rationality & sensibility & universality, being embedded at the same time. To develop a total solution type of BEM which can work well in both functions (that is, quality measurement and organizational improvement) is challenging. It implies both functions work well not only being used independently but also coming together in one model as well. It deserves the people in this professional society to make effort on it. Thus, the success of this challenging task can be referred as 'reach the state of art'.

FP 3: It should be not only seamlessly merged into the existing system in an organization but also totally accepted by employee.

It is no doubt that the BEM initiatives are utilized for the assistance of an organization in achieving business excellence and organizational sustainability. To accomplish the objective, it is no way without the total acceptance and getting BEM into a habit of daily operation by employee. In practice, integration of the BEM into the existing system can be achieved through a combination of multiple management activities in the organization, including using it as part of the strategic planning process, aligning with other organizational systems, linking with performance management and involving staff in it through teamwork. However, it is found that a number of issues and problems are associated with the implementation, such as excessive paperwork,

cumbersome procedures, time consuming and quality bureaucracy, etc., which were mentioned above. These operational deficiencies always keep practitioners away for this management tool. In our opinions, it is resulted from too little focusing on understanding the human factor.

As the suggestion by Oakland (1999), the key is to align the employee with the core processes of the organization. More specifically, if the BEMs can be aligned with activities, which are already taking place within an organization, then it is more likely to become integrated into the organization and thus aid effective implementation. Dale *et al.* (1998) also recommended that the need to integrate the use of the BEMs into other management activities. The example of BE implementation at the University of Bradford Management Center done by Oakland in 2000 showed that it was seen as essential to fully integrate any BE initiatives into the management systems of Management Center. Nonetheless, Jackson (2001) offers an interesting perspective on integrating BE tools into organizations. She emphasizes the positive effect of the tool facilitating activities that are already in place. As a result people are more comfortable with this situation than they would be in which the existing processes were completely discarded for new ones.

FP 4: It should provide a ready-to-use guidance to incorporate with the other management tools/techniques.

In subsequence of the argumentation in FP2, the existing BEMs are recognized as a good tool in conducting the assessment but it is still deficient in facilitating the organizational improvement. To be a total solution, it is necessary to incorporate the other management approaches into BEMs to remedy this deficiency. The literature told us this truth. Some of the suggested approaches include the balanced scorecard, Lean, the Six Sigma statistical tools, process management, and project management. In addition, many quality specialists (gurus, experts and consultants) have proposed their own approaches. For instance, Ho (1999) proposed a sequence of adoption starting from 5S, BPR, QCC, ISO, TPM and TQM. Krasachol (2000) proposed a five-stage of BE implementation associated with quality techniques starting from no tools in the unaware stage, to Kaizen, 5S and QC tools in the basic stage, ISO 9001, SPC, TPM and TQM tools in the developing stage, BEMs in the mature stage and a complete set of tools for the sustaining stage.

Some of others hold the open aspect, such as Voss (2005) argued that there is no such thing as ‘best’ practice. Practices evolve; they need tailoring to the context and time. He suggests that the right thing to do depends on a complex variety of critical environment and internal contingencies. Hayes *et al.* (2004) also argued that there is no ‘one best way’ and a company must make appropriate decisions to fit the context within which the organization operates. The present authors hold that a systematic and

organized approach to be readily incorporated into BEM is encouraged. The models found in literature, such as Ho's sequence model, are independent of BEMs. It is suggested to be considered a step further to incorporate them into BEMs.

4. DEVELOPMENT OF A COMPREHENSIVE BEM: FACT

In the previous section, four FPs highlight the directions of a new BEM. They manifest the specifications of the new model. How it will be developed in terms of the drawn specifications? In fact, it is a challenging work. Both of 'the reductionism' and 'the holism' from the existing BEMs are the two philosophical perspectives adopted by the present authors in this work. In light of the experiences in NQA examination and the development of self-assessment system in their own country, the present authors firstly consider the holism perspective to propose the conceptual model in this section. And the reductionism perspective is then considered to implicate the proposed model in the next section.

The proposed model is a three-dimensional design which is called 'FACT'. 'FACT' indicates the abbreviation of 'Framework of BE', 'Add', 'organizational Culture/Characteristics' and 'management Tools/Techniques'. It means that a comprehensive BEM should integrate with not only using BE framework to be guidance and to make assessment of an organization, but also choosing the appropriate management tools/techniques and cultivating the right organizational culture/characteristics towards BE.

Figure 2 presents the conceptual model of FACT. The two dimensions, framework of BE and management tools/techniques, are placed in the left and the right hand sides of the inner circle, respectively. It indicates, on the one hand, they ought to serve as the two independent functions in an organization: 'BE assessment' and 'quality improvement' which were mentioned by Conti (2002, 2007). And on the other hand, the two functions also ought to come together as one in a circle. The dotline in the circle means that two functions not only coming together as one in a circle but also a step further of fusing each other as a 'Chinese Tai Chi'. It metaphors that the framework of BE should be further institutionalized into an organization to become an overall guidance to BE and in the meantime, all of the management tools/techniques should be implemented for the purpose of pursing BE. The third dimension, organizational culture/characteristics, placed in the outer circle indicates that integration and total employee involvement ought to be cultivated in an organization in order to be successful in the journey of BE. It is coined the philosophy of EQA that the superior performance is achieved by involving people in improving their processes, and the 4P quality strategy proposed by Dahlgaard & Dahlgaard-Park (2004) as well. Each of the three dimensions of FACT is illustrated in the following.

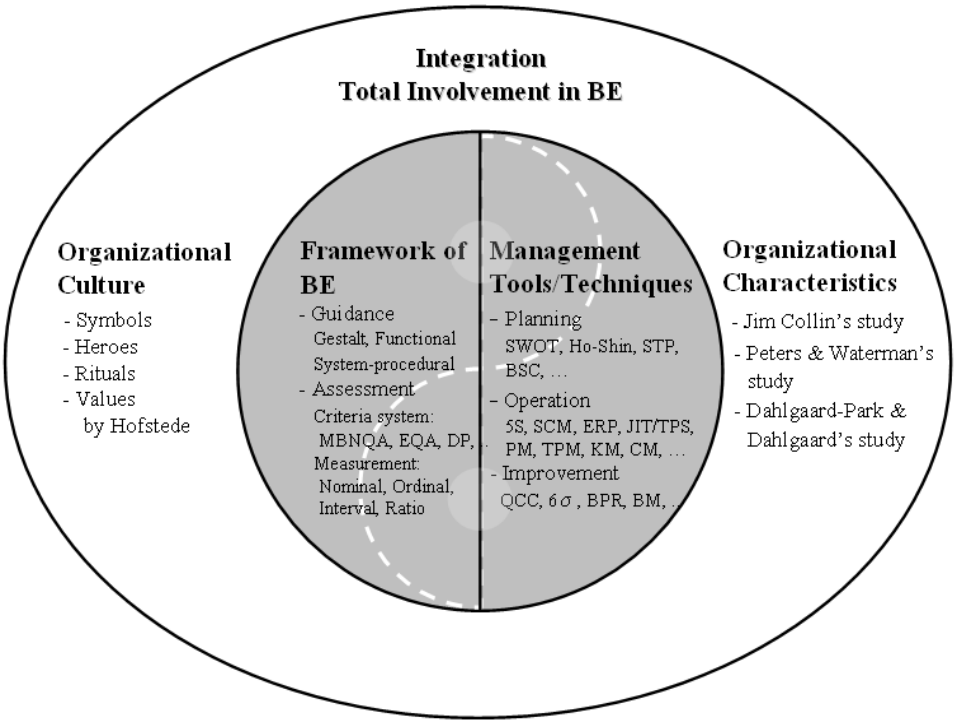

Figure 2 Conceptual model of FACT

4.1 Framework of BE

First of all, the use of BE framework is for two purposes: guiding the organization towards BE and conducting assessment of the performance. Guiding towards BE is the primary purpose for the intension of pursing organizational sustainability. And, conducting assessment is the secondary purpose which can be either self-assessment to diagnose the strength/weakness of an organization or award examination to select the winners.

For the primary purpose of using BE framework to guide an organization, it is important to set an orientation in the earlier stage of BE journey and to keep sticking on it hereafter. What kind of orientations can be chosen for this purpose? As we know, MBNQA, EQA and Deming Prize are the three most well-known BEMs in the world. Deming Prize is the originator which was launched in 1951. The western countries then followed the Deming Prize in recognizing quality and excellence, as a result MBNQA and EQA were established in 90s. So far as over hundred countries of national and regional BEMs are usually based on either MBNQA or EQA. Despite most of these models are recognized to have a high degree of commonality, the present authors found that they have significant different orientation in the design of each criteria system. For instance, MBNQA consists of seven criteria (see Table I) which represent most of the principle functions of an organizational management. It can be treated as a *functional-oriented* model. While, the nine criteria in EQA (see Table I) adopt the idea for giving the precedence to build people and partnership, then to establish the operation system and to achieve the outcomes hereafter. It can be

treated as a *system-procedural-oriented* model. The ten viewpoints in Deming Prize (Porter & Tanner, 2004, p188-204) intend to examine an organization from various aspects as a whole. They include leadership & vision & strategies in top management, TQM framework, TQM concepts & values, scientific methods, quality assurance system, human resources development, effective utilization of information, organization power, management system for business elements and contribution to realization of corporate objectives. Instead of the mutual exclusive criteria design, such as MBNQA and EQA, the ten viewpoints are quite a sense of looking at an organization from different angle. It can be treated as a *Gestalt-oriented* model. Based on the three orientations stated above, adopters are allowed to choose one of them in terms of their preference or the purpose of use in guiding the organization towards BE.

Rather, conducting an assessment is the secondary purpose of using BE framework. For this purpose, the eight-step common processes proposed by Porter & Tanner (2004, p287-312) and the quality award procedures proposed by the award-in-charge organization are some of the good examples for reference. In FACT model, a BE criteria system and its measurement scale have to be chosen in the beginning. As suggested by Porter & Tanner, the choice of a BE criteria system can be one of the following: MBNQA, EQA, Deming Prize, etc. Each of BE criteria system provides a framework of standardized items that an organization can examine its performance. In addition, the choice of appropriate measurement scale suggested by FACT allows the comparisons to be made theoretical correctly among different timelines, organizations and assessors. The measurement scale can be chosen among nominal, ordinal, interval and ratio. In terms of the examinations of written report and on-site visit, the score is ordinal if it is measured by Likert scale in data collection without weighting, while it is interval as the score is derived with weighting. The 1000 point score system is ratio.

4.2 Management tools/techniques

The use of management tools/techniques is one of the three major dimensions in FACT. Three types of management tools/characteristics are categorized in this study: planning, operation and improvement. Each category has its specific function. The tools used for the function of planning include SWOT, Ho-Shin strategic management, Balance Score Card (BSC), Segmentation-Targeting-Positioning (STP), etc. The tools used for the function of operation include 5S, Supply Chain Management (SCM), Enterprise Resource Planning (ERP), Just-in-Time (JIT)/Toyota Production System (TPS), Project Management (PM), Total Preventive Maintenance (TPM), Knowledge Management (KM), etc. And the tools used for the function of improvement include Quality Control Circle (QCC), 6σ, Business Process Reengineering (BPR),

Benchmarking Management (BM), Change Management (CM), etc.

In light of BE framework serving as one side of a coin, the use of management tools/techniques is the other side of a coin in FACT. In the opinion of Conti (2002, 2007), a BEM is requested to serve as a recognized standard for measuring organizational quality and at the same time promoting it as an organizational improvement. The functions of both sides in FACT are somewhat broader than the idea proposed by Conti. As mentioned above, the use of BE framework in FACT is for the purpose of not only measuring organization quality but also guiding the organization towards BE. It is the same that the use of management tools/techniques is for the purpose of not only the organization improvement but also for the organization planning and operation. The use of BE framework indicate the functions of 'Check' and part of 'Plan' in a PDCA management cycle. While, the use of management tools/techniques indicates the rest of three functions, part of 'Plan', 'Do' and 'Action' in the cycle. Both sides come up with a coin, which means a complete PDCA management cycle.

Besides, based on the original idea in developing BEM, it is initially used as a tool for the organizational self-diagnosis. The management tools/techniques are then employed for the function of improvement. Afterward, it is extended to be used as for the application of quality award. It indicates that the use of BEM is requested to follow a sequence of self-assessment, improvement and award competition. But the use of BE framework and management tools/techniques in FACT are unnecessary to follow the sequence. In other word, on the one hand, the management tools/techniques can be employed either before or after the assessment. For instance, TPS is able to be employed in any time which is before or after the BE self-assessment being conducted. On the other hand, BE framework can be always used as a guidance to direct the organization towards BE no matter when any specific management tool/technique is employed. Here, 'Chinese Tai Chi' is used to metaphor the process of fusion of the two dimensions in FACT. In terms of Wikipedia (2011) description, the common English translations of 'Tai Chi' are 'Supreme Ultimate', 'Supreme Polarity' or 'Great Absolute'. Chinese philosophers explained the ontological necessity of 'Ta Chi' as any philosophy that asserts two elements, such as yin-yang of Chinese philosophy or positive-negative, will also look for a term to reconcile the two, to ensure that both belong to the same sphere of discourse.

4.3 Organizational culture/characteristics

Cultivating the right organizational culture/characteristics for an organization towards BE is the third major dimension in FACT. It is placed in the outer circle to surround the other two dimensions. It implies that it is impossible to have a successful BE without the right organizational culture/characteristics. Two issues are raised here:

one is what the right organizational culture/characteristics is, and the other is how it can be cultivated.

In response of the first issue, the present authors postulate that ‘integration’ and ‘total involvement in BE’ are the two most important culture/characteristics in FACT which ought to be cultivated in an organization. There are the similar argumentations raised by the quality specialists. For instance, Dahlgaard & Dahlgaard-Park (2006) argued that to change corporate cultures from a passive and defensive culture to a proactive and open culture among the total employee is the basic principle in order to increase customer satisfaction and continuous improvement. Also, Caudron (1993) and Schein (1993) stated that a supportive organizational culture is essential in promoting a learning organization. Advocating challenging work, open communication, trust, innovation, and cohesion among employees are essential attributes in defining a supportive culture.

Besides, several fabulous empirical studies, which are not often mentioned in the BEM literature, have been done to investigate the characteristic in relation to organizations change themselves from mediocre to excellence. Such as, the study done by Collins & his colleagues (2001) come up with seven organizational characteristics after the conduction of intensive survey to 11 good-to-great enterprises over the period of 15 years (1985 to 2000). The seven organizational characteristics include level 5 leadership, get the right people on the bus, confront the brutal facts, hedgehog concept, rinse the cottage cheese, technology accelerators and flywheel process. The first two indicate the disciplined people. The third and the fourth indicate the disciplined thought. The fifth and the sixth indicate the disciplined action. The last one indicates the combination of the front six characteristics. The other fabulous empirical study done by Peters & Waterman (1982) elicited eight organizational characteristics through the conduction of intensive interviews with more than 14 companies which were leading in the records of long-term profitability and continuing innovation in 1980s. The eight organizational characteristics include a bias for action, close to the customer, autonomy & entrepreneurship, productivity through people, hands-on & value-driven, stick to the knitting, simple form & lean staff and simultaneous loose-tight properties. Each of the eight characteristics can be further attributed to one of the following three aspects: people & structure, customer and action. Except the BE organizational characteristics derived from above empirical studies, Dahlgaard-Park & Dahlgaard (2007) also gave an illustration to the understanding of what is excellence. It is said that ‘Excellence can be attained if you: Care more than others think is voise; Risk more than others think is safe; Dream more than other think is practical; Expect more than others think is possible’.

In response of the second issue, how the organizational culture/characteristics

can be cultivated in an organization, the present authors suggested the theory proposed by Hofstede *et al.* (1990). Hofstede *et al.* classified manifestations of culture into four categories which are ‘symbols’, ‘heroes’, ‘rituals’ and ‘values’. The four categories are taken the example of peeling off the successive skins of an onion from shallow (symbols) to deep (values). Symbols are word, gestures, pictures, or objects that carry a particular meaning within a culture. Heroes are persons who possess characteristics highly prized in the culture and who thus serve as models for behavior. Rituals are collective activities that are technically superfluous but are socially essential within a culture. The three categories are subsumed under the term ’practices’, because they are visible to an observer although their cultural meaning lies in the way they are perceived by insiders. The core of culture is formed by values, in the sense of the feelings of good and evil, beautiful and ugly, normal and abnormal, rational and irrational. The feelings that are often unconscious and rarely discussable that cannot be observed as such but are manifested in alternatives of behavior. ‘Integration’ and ‘total involvement in BE’, the two most important organizational culture/characteristics in FACT, can be cultivated by using the onion theory and the instrument which are developed for the practitioners.

5. IMPLICATIONS AND CONCLUSIONS

5.1 Implications of FACT

Having the development of FACT in the previous section, the implications of the model are further illustrated in the following. Instead of using ‘Chinese Ta Chi’ as the metaphor of the fusion between both dimensions of BE framework and Management tools/techniques in an organizational management, the trinity is used to implicate the three dimensions of FACT as a whole. Figure 3 and Figure 4 present the illustrations of the trinity of the model.

The idea of using the trinity as the implications of FACT is derived from the Christian doctrine. This term has been stated in Christian theology since the beginning of the third century. The word of trinity in etymology is derived from Latin ‘trinitas’ which means ‘the number three, a triad’. The corresponding word in Greek, ‘τριάς’, means ‘a set of three’. In this paper, the correspondence with the trinity in etymology of Latin and Greek can be referred to the three dimensions in FACT come together as one goal towards BE. It indicates that not only the fusion of BE framework and management tools/techniques are the two ‘must’ in the implementation of BEM but also the cultivation of right organizational culture/characteristics is necessary of the third ‘must’ as well (see Figure 3).

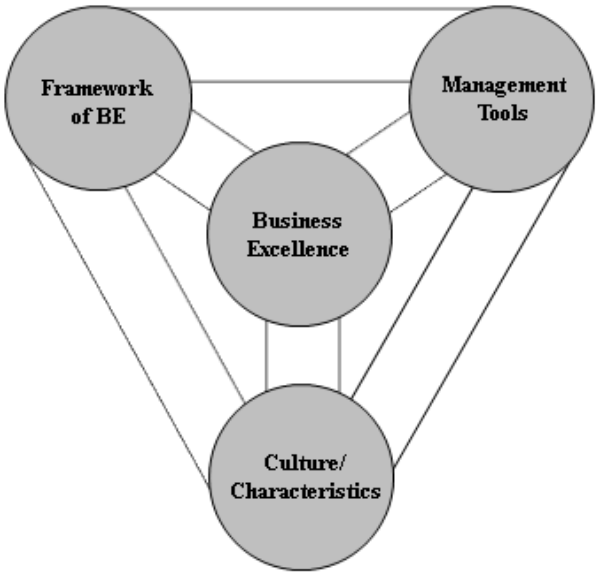

Figure 3 Illustration (I) of the trinity of FACT

Besides, as shown in Figure 4, the trinity in FACT is presented in terms of the three elements of a person. Framework of BE indicates the skeleton. Management tools/techniques indicate the flesh and blood. And organization culture/characteristics indicate the spirit. All of the three elements are not only necessary to sustain one's life but also should be entirely balanced one another as a whole. It implicates that 'excellence' generally represents a talent or quality which is unusually good and so surpasses ordinary standards. The word of 'excellence' in Greek is 'arete' which means 'the act of living up to one's full potential', 'something closer to being the best you can be', or 'reaching your highest human potential'. It is the most articulated value/virtue in Greek culture. In some sense of this term, it also indicates the happiness which resulted from a life well-lived, being prosperous and fulfilled. Studies have shown that the most important way to achieve excellent performance in fields such as sport, music, profession and academy is to practice, as commonly said, 'Practice make perfect'.

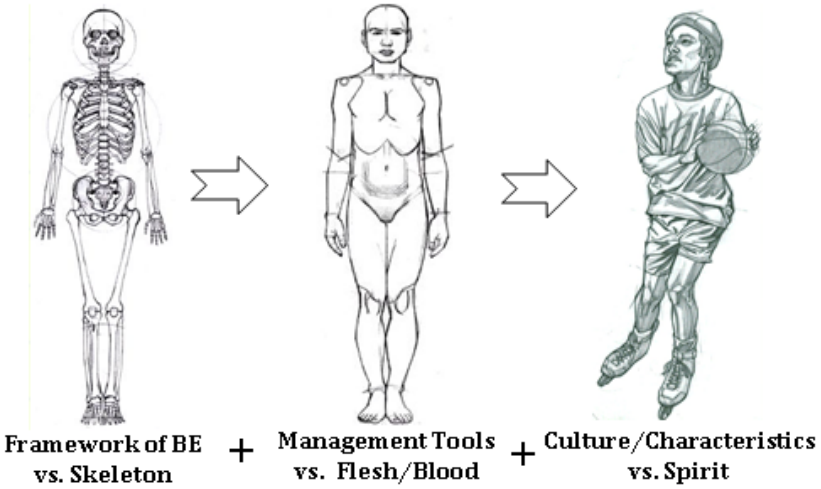

Figure 4 Illustration (II) of the trinity of FACT

5.2 Mappings of deficiency arguments, fundamental premises and FACT

Figure 5 presents the mappings of deficiency arguments, fundamental premises and FACT. The purpose of the mappings is to examine if the new model proposed in this paper does respond all deficiencies found in the existing BEMs. The mappings are individually illustrated in the following. The first two arguments are criticized in regard to the lacks of scientific evidences and contingency factors in the existing model designs. The present authors argue that a new model should be prescriptive-based in order to be not only the guidance of users but also the measurement standard in an organization. This is the point to be postulated in FP1 and the dimension of 'BE framework' in FACT model. The third argument is criticized in regard to BEM is basically recognized as a measurement tool instead of the provision of a total solution. The present authors hold that a new model should be functioned as not only the measurement but also the planning/operation/improvement in an organization. This is the point to be postulated in FP2 and the necessity of 'add' more dimensions in the new model. The fourth and the fifth arguments are criticized in regard to the lacks of persuasiveness for total involvement and integration in the operational level. The present authors hold that a new model should be easily integrated with not only the systems that have been existed but also the management tools that are appropriate in an organization. These are the points to be postulated in FP3, FP4 and the dimensions of 'organizational culture/characteristics' & 'management tools/techniques' in FACT model.

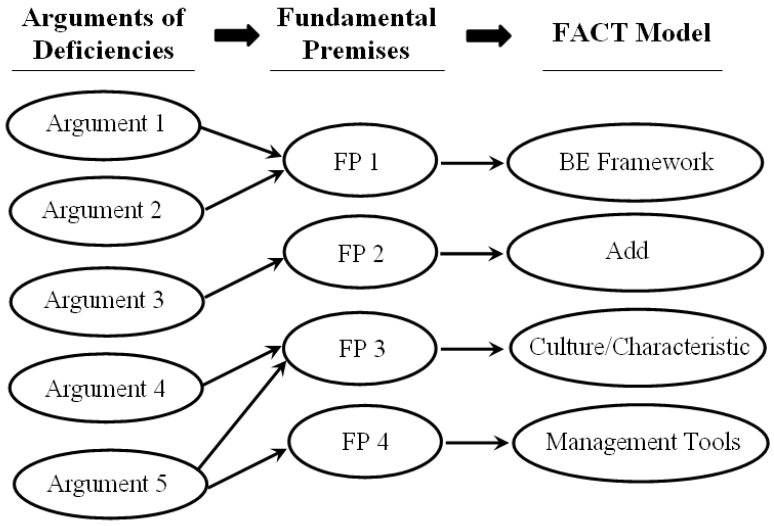

Figure 5 Mappings of deficiency arguments, fundamental premises and FACT

5.3 The possible future research

The development of a comprehensive BEM is set for the objective in the beginning of this research. A three-dimensional BEM is finally proposed which is called 'FACT'. The contribution of this paper is significant, however it is the first study of this

proposed model, some issues are planned for the further research. The empirical case studies will be first conducted to investigate, in term of FACT model, what the journey of a BE enterprise had been through. This is for the purpose of developing the roadmap of BE. Here, different forms of organizations can be included as the subjects of the empirical case studies, such as independent enterprise, enterprise group, enterprise supply-chain system or even industrial sector. Upon enough number of the empirical case studies being accumulated, the research objective will be focus on the improvement of national economic performance which is to investigate the benefits of BEMs from the macro viewpoint.

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