5-26-2012

Performance Benchmarking for Building Best Practice in Business Competitiveness and Case Study

Zhilong Tian  
*School of Management, Huazhong University of Science and Technology, CHINA*

Suttapong Ketsaraporn  
*School of Management, Huazhong University of Science and Technology, CHINA*

Follow this and additional works at: [http://aisel.aisnet.org/whiceb2011](http://aisel.aisnet.org/whiceb2011)

**Recommended Citation**

[http://aisel.aisnet.org/whiceb2011/30](http://aisel.aisnet.org/whiceb2011/30)
Performance Benchmarking for Building Best Practice
in Business Competitiveness and Case Study

Zhilong Tian, Suttapong Ketsaraporn
School of Management, Huazhong University of Science and Technology, CHINA

Abstract - Many companies have been seeking innovative ways to improve performance and sustain competitive advantage. Various strategic techniques and methodologies have been developed for business improvement as a result. Performance benchmarking is one of the business management tools that have been proven to maximize performance in many areas. This paper selects “Performance Benchmarking” to assess and find the best practice as knowledge or know-how from learning from other companies, competitors and industry leaders to gain the competitive advantage and build potential in global competition. This paper has a more specific aim to contribute to the field of related literature by focusing on performance benchmarking and case study by separating for four themes. First, studying of performance benchmarking practice. Second, discussion of implementing performance benchmarking. Third, performance benchmarking for building best practices. Fourth, the case study of performance benchmarking by analyzing in four dimensions as operation performance, organization performance, business performance and quality management with five case studies are including manufacturing sector, construction industry, furniture manufacturer industry, health service sector industry and financial institution. Finally, conclusion and suggestions.

Keywords: Benchmarking, Performance benchmarking, performance measurement, Best Practice

1. INTRODUCTION
At present business competitions in a rapidly changing and technological advancement have driven many companies to deal with high competition. Therefore, great many companies are seeking innovative ways to improve performance and sustain competitive advantage. Hence, certain strategic innovative approaches have been developed for business improvement but a significant number of evaluation tools do not measure the things that matter in the companies served by extension programs. There are many relevant tools measuring performances are different in different industry sectors therefore we have to select appropriate measurement tool for each industry. And performance benchmarking is a suitable measurement tool for many industries to evaluate performance because of performance benchmarking concept is to compare the performance of other companies or competitors which operate in the same industry and business environment.

However, benchmarking is one of the business management tools that has been proven its effectiveness to improve performance in several areas. Performance benchmarking is the process of identifying the highest standards of excellence for products, services or processes, and making the improvements necessary to reach those standards by comparing performance of other companies in the same industry which are commonly called “best practices” to be able to compete, a company cooperate with other companies to seek required inputs and they compete with rivals to establish cooperative relations with those other companies. Performance benchmarking can be used to create a need for change by learning what other companies are doing for
executives can build strongly cases for allocating resource in ways similar to successful companies. And benchmarking may be an important process for companies in imitating and learning from leading firms.

As mentioned before, the paper has four specific aims: The contribution to this literature is especially focusing on performance benchmarking and case study

- Theme 1: Studies of performance benchmarking practice.
- Theme 2: Discussion of implementing performance benchmarking.
- Theme 3: Performance benchmarking for building best practice.
- Theme 4: Case study of performance benchmarking.

2. STUDIES OF PERFORMANCE BENCHMARKING PRACTICE

Performance benchmarking does not only as an ongoing process of measuring and improving products, services, and practices against the best that can be identified worldwide but performance benchmarking is also a potential tool to support performance improvement. In particular, performance benchmarking can also be used as a goal-setting process and aid in setting performance objectives to achieve performance improvements. If benchmarking is carried out by using best-in-class companies these goals are likely to be stretch goals which are important for performance improvements and learning. Thus, the main objective of performance benchmarking can be an effective tool for planning and implementing change processes that lead to organizational improvement when the knowledge gained is converted into a detailed action plan to improve competitive advantage.

We believe that, the important role of performance measurement is to enable a company to do benchmarking. Thus, performance benchmarking is a systematic process of measuring and comparing an organization’s performance against that of other similar organizations in key business activities. Then, lessons learned from other organizations are used to establish improvement targets and to promote changes in the organization. Furthermore, performance benchmarking adds value to performance measurement because it allows companies to compare their data and also allows for better decision making based on these comparisons.

Therefore, we can conclude that performance benchmarking is concerned with setting objective standards and performance indicators based on the practices of best performers and learning how leading companies achieve their outstanding performance. In addition, performance benchmarking is also about establishing a company’s objectives by using practices of best in class and as such is an effective performance management instrument. These characteristics need proper communication on the objectives and success of implementation of a benchmarking system that relies on employees performing with the view of meeting those objectives.

3. DISCUSSION OF IMPLEMENTING PERFORMANCE BENCHMARKING

The effectiveness of benchmarking that was influenced by compatibility and no positive impact that means there was no significant impact in effectiveness of benchmarking practice. Because of, compatibility factors could be implemented to reduce misconception in the workplace since the system could cause many problems in the company and could also be disruptive to the company’s environment because the system had been newly implemented.
Also, we can implement effectively performance benchmarking by planning, training, and open interdepartmental. Besides that, communication is needed for developing and using measures help to identify the current performance and monitor the direction of changes over a period. Especially, the compatibility factors also significantly influence the benchmarking implementation in manufacturing industries. Owing to most manufacturing practices depend on each other within their environment.  

Another focus of efficiency performance benchmarking implementation is the selection of performance indicators measurement that to be critical to the success of business management and organizational performance. Appropriate performance indicators measurement are necessary to enable organizations to survive in complex environments. Therefore, organizations must be flexible and able to adapt to unanticipated change, which in the long run will improve organizational competitiveness and determine the success of agility based strategies. Furthermore, performance measures used for lead benchmarking need to be linked to an organization’s strategy and the dynamic business environment. Thus, there is a need for predictive or lead benchmarking. The term “lead measures” has been conceptualized within the performance management literature and seeks to extend this terminology to the benchmarking literature by systematically developing a concept of lead benchmarking. Besides, effectively performance benchmarking process should determine the level of performance that is wanted in the given activity and determine how and what type of improvement is implement to achieve stated target and the time frame.

Finally, we can conclude that, important factors for efficiency performance benchmarking implementation are communication, participation and performance benchmarking measurement. Because of, communication and participation are effect to result of corporate benchmarking implementation. Besides that, performance benchmarking measurement should be select appropriate indicators for analyzing organization and business environment.

4. PERFORMANCE BENCHMARKING FOR BUILDING BEST PRACTICE

Because of, sustainability and successful organizational depends in part on the benchmarking measurement of predictive upstream dimensions, indicators and measures within organizations. Therefore, the best-practice from benchmarking activity is an established assessment tool as well as an intellectual concept and has seen widespread adoption over a number of years. There is the potential to examine organizational competence, it may be possible to study how organizations have learned and how to learn by comparing or learning from achieve organizations. Especially, the most important in long-term effect to be found among organizations those move from results to “best-practice” for enhancing the organization’s operations more efficiently.

Besides this, the assessment current performance and measurement the distance from there to the vision are critical activities for ensuring an organization’s long-term sustainability. And many tools are available for measuring current performance including market research and competitor analysis. But performance benchmarking adds the ability to clarify the organization’s position in relation to both the external business environment and the vision and to identify performance gaps. It enables the organization to adjust its strategy so that it can close the gap between its current reality and its vision of the future. Thus, performance benchmarking is a tool for analyzing world-class performance organization within and across industries for building the best practice for each industry. However, not only quantifies performance gaps but it also looks
beyond discrete product evaluations to compare manufacture and management processes. Thus, results from benchmarking process can improve organizations to be at world-class levels of functional and cross-functional performance \cite{47} and become to the best practice in the industry.

For this paper, we identified best practices from four aspects of performance benchmarking for analyzing with five case studies including:

**Operation Performance**

Operation performance is used for analyzing all five case studies in aspect of the achievement of higher performance in operation process and productivity of each case study for seeking best practices to achieve higher operation performance. In essence of operation performance objective is to increase reliability in terms of product or process and improve a result of greater reliability \cite{34}.

Additionally, the literature indicates that performance benchmarking provides an operational mechanism for directing manager and employee attention to the external market environment \cite{23,40}. For reaching a shared interpretation of the capabilities required to achieve superior performance \cite{11,52} and for appropriately directing investments in capability improvement \cite{9}. Also, operation performance is important for organization to achieve with organization strategic and objective. For this paper we analyze operation performance in term of operation process and operation productivity.

**Organization Performance**

Literature review in practice benchmarking organizational capabilities involves both content and process issues \cite{14,52} are likely to, first, a search stage in which managers search for firms exhibiting superior performance and identify the capability drivers of observed performance superiority. Second, a gap assessment stage in which the capability differences between the firm and the benchmark sites are assessed. Finally, a capability improvement stage in which the firm plans and executes gap-closing capability improvements \cite{11,18}. For this paper we analyze organization performance in term of organizational effectiveness and human resource management.

**Business Performance**

The important role of business performance in strategic management is warrant close attention to conceptualization and measurement of business performance \cite{44}. In essence, the conception of business performance centers on the use of simple outcome-based financial indicators that are assumed to reflect the fulfillment of the economic goals of the firm. We mentioned to this concept as financial performance, which has been the dominant model in empirical strategy research \cite{24}. Typical of this approach would be to examine such indicators as sales growth, profitability (reflected by ratios such as return on investment, return on sale and return on equity) and earnings per share. For this paper we analyze business performance in term of business strategy and business competency.
Quality Management

Because of quality management is a major competitive priority of all firms worldwide such as manufacturing and service quality. Thus, quality is consistently listed as one of manufacturing’s top competitive priorities and has become a prerequisite for success in the global marketplace. While quality’s significance for a firm’s competitive position in the marketplace has been emphasized for years thus the contribution of quality to business performance has been largely unexplored. Examining whether and how quality affects firm performance is an important issue for businesses confronted with multiple customer demands. For this paper we analyze quality performance in term of manufacturing and service quality because product and service quality have become a strategic question for businesses, governing the development of product and process designs and directing the choice of features or options for the product. Hence, performance benchmarking has become a primary instrument in firms' total quality management, knowledge management, and process improvement efforts. For this paper we analyze quality management in term of quality techniques/tools and quality improvement.

5. CASE STUDY OF PERFORMANCE BENCHMARKING FOR BUILDING BEST PRACTICE

This paper presents five industries which used performance benchmarking activity to compare with four aspects as follow operation performance, organization performance, business performance and quality management for seeking best practices and competitive advantage in the industry.

We can identify the scope of four aspects for analyzing with five case studies by specific indicators are likely to:

- **Operation performance**
  - Operation process
  - Operation productivity

- **Business performance**
  - Business strategy
  - Business competency

- **Quality management**
  - Quality techniques/tools
  - Quality improvement

- **Organization performance**

5.1 Manufacturing industry

In the manufacturing industry, performance benchmarking is commonly used where predominantly quantitative economic parameters such as inventory turnover, set-up times, lead-time, number of vendors, direct labor time or working time, market share, return on sales, and return on equity are measured. As benchmarking practices are adopted by more and more organizations, the techniques devised by many manufacturers range from the simple type of product benchmarking too many types of benchmarking such as process, function, and strategies.
### Table 1: Performance benchmarking for building best practices in manufacturing industry

<table>
<thead>
<tr>
<th>Operation management</th>
<th>Business performance</th>
<th>Organization performance</th>
<th>Quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Plant Characteristics: Factors that may affect productivity are production volumes (the production volumes of high-performance plants were typically higher than the other plants) and capacity utilization (the high-performance plants also operate with higher labor capacity utilization)</td>
<td>• Cost: Cost reduction is the least important goal. For cost performance, programs are implemented to improve equipment productivity appear to have a positive influence, as should be expected including procurement cost, labor productivity, inventory turnover, capacity utilization and overhead cost [27].</td>
<td>• Human resource management: The high-performance manufacturer benefit from more stable workforces and lower labor turnover.</td>
<td>Quality performance: Implementing action programs that aim at improving manufacturing capacity, improving quality management and environmental compatibility, and obtaining process focus are positively related to quality performance improvement.</td>
</tr>
<tr>
<td>• Process Control: Integration and process discipline such as hours of finished goods inventories, hours of inventories in assembly areas, frequency of delivery to customer and internal defect rate.</td>
<td>• Business performance: Business performance is an index constructed that measured the manufacturing site’s ability to deliver value to customers, including: high levels of customer satisfaction, an increasing market share, positive cash flow, return on assets better than competitors, low product costs and high productivity growth [46].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Flexibility performance: Implementing process focus, pull production and programs to improve equipment productivity and new product development are all positively related to improvement in flexibility performance.</td>
<td>• Market flexibility: It can be defined as the ease with which the manufacturing system can adapt to changing market environment. It allows the firm to respond to changes without seriously affecting the business and to enable the firm to outmaneuver its less flexible competitors in exploiting new business opportunities [20].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Speed performance: Process focus, quality and environmental programs all significantly contribute to better speed performance. Increased process focus helps reduce manufacturing lead time and delivery speed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2 Construction Industry

In construction industry is using many performance benchmarking frameworks to evaluate performance base on well-established management practices such as activity-based management, balanced scorecard, and multi-attribute decision models. It allows for the integration of sustainability measure into more conventional measures of construction practice [35]. And the construction industry has increased the emphasis on performance measurement and management (PMM). Industry reports as well as academic literature have indicated the role of performance measurement as a means of increasing the performance and effectiveness of the construction industry [5].
5.3 Furniture Manufacturing Industry

Many parameters can be utilized in monitoring maintenance performance of furniture manufacturers such as downtime, availability, reliability, performance efficiency, product quality rate, overall equipment effectiveness (OEE), maintenance-related costs, income losses, total maintenance cost, delivery delay penalties, number and cost of accidents, spare parts, tied-up capital, planned stoppages, failures, cost of manufacturing a quality product, etc. [2]. Before benchmarking process, it is necessary to collect data on the relevant variables.
which are needed for estimating maintenance measures.

Table 3: Performance benchmarking for building best practices in furniture manufacturing industry

<table>
<thead>
<tr>
<th>Operation management</th>
<th>Business performance</th>
<th>Organization performance</th>
<th>Quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Product operations: Product operations are including cell manufacturing, combination of CNC and conventional machines, work-in-process inventory management (color coding) and pull scheduling system.</td>
<td>• Product innovation based on design and oriented to the high end of the whole global market can be clearly profitable in the case of furniture manufacturers</td>
<td>• Organizational factors: including - Furniture manufacturing enterprises should allocate resources reinforcing the balance among product, process and market innovations. - Furniture manufacturing enterprises should change the management style and business culture; and . develop networks and integrate in clusters</td>
<td>• Quality Control: The quality or performance standards of the delivered product</td>
</tr>
<tr>
<td>• Supply chain: This procedure measures that no final inventory, individual packaging, automatic storage and retrieval system and pictures taken before packaging.</td>
<td>• Process innovations that generate price reductions and/or an improvement in quality and delivery time are expected to be more profitable.</td>
<td>• Develop alliances and partnership: Alliances can also help ensure that suppliers and producers attain common goals and new product market thus in furniture manufacturing include gaining access to furniture designers, testing facilities, or materials that may not be available locally</td>
<td></td>
</tr>
<tr>
<td>• Product innovations: There are refers to the improvements made on the mix of products of the company that is the choice of new products and development.</td>
<td>• Replace inventory with information: Inventory is effectively replaced with information in this customer-driven “pull” system of mass customization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Logistic system: Logistic system is a positive relationship between best manufacturing practices and higher performance in furniture manufacturing industry</td>
<td>• Build consumer loyalty aggressively: Furniture retailers and manufacturers alike now have the ability to keep track of historical sales of different products by individual consumers and this information can be used to target promotional efforts and to offer discounts and rebates that are cumulative for individual customers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.4 Health service sector

Especially in the health service sector, benchmarking is one of the management tools which is not used very often. Thus, performance management and assessment in the health sector and in the health public sector in general is imperative and traditional methods of assessment may be of limited value through the provision of incomplete information. Though the concepts and principles of benchmarking in the health public sector have received limited recent attention, the health public sector organization that needs to balance financial management with services for the public good must be clear in the manner that potential conflicts are managed. Moreover, for pharmaceuticals are need for sound management though the allocation of scarce resources is an area ripe for disagreement and potentially counter-productive tension. Further, where
organizations need to rely on self-assessment to an extent not usually seen in the private sector, a variety of creative targets will require careful crafting [50].

Table 4: Performance benchmarking for building best practices in health service sector

<table>
<thead>
<tr>
<th>Operation management</th>
<th>Business performance</th>
<th>Organization performance</th>
<th>Quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patient perspectives: such as Overall patient satisfaction and Patient perception-of-quality index</td>
<td>• Financial systems: such as facilities with user fee guidelines and Facilities with exemptions for poor patients.</td>
<td>• Policy and strategy: such as health service organization policy with dimension of organizations had a clear policy and vision.</td>
<td>• Service quality to customer satisfaction: including service events such as admissions, discharge, nursing care, food service, housekeeping and technical services.</td>
</tr>
<tr>
<td>• Staff perspectives: including Health-worker satisfaction and Salary payments current</td>
<td>• Promotion of research lines: concerning health services outcomes measurement: mortality, readmissions, inappropriateness of hospital stays, admissions and surgical procedures, adverse events.</td>
<td>• Leadership style: Style of leading in health service organizations was dependent upon different priorities devoted for cost efficiency or quality improvement.</td>
<td>• Service provision (technical quality): including patient history and physical examination index, patient counseling index, proper sharps disposal, new outpatient visit per month and time spent with patient.</td>
</tr>
<tr>
<td>• Capacity for service provision (structural inputs): including equipment functionality, drug availability, family planning availability, laboratory functionality, Staff received training in last year, clinical guidelines, infrastructure index and facilities having tuberculosis register</td>
<td>• Development in healthcare delivery: such as fair access, efficiency; health improvement, effective delivery of appropriate healthcare, health outcomes and patient/career experience.</td>
<td>• People interests: To implement benchmarking activity, it is necessary to value and respect clinicians and get them involved with managers and accountants in change processes.</td>
<td>• Training activities about processes management, objectives deployment and communication.</td>
</tr>
<tr>
<td>• Health care management: The most relevant of these are indicated below: - Development of external customer surveys. - Promotion of bioethics committees. - Reduction of waiting lists for operations, specialist consultations, explorations, etc.</td>
<td>- Setting of protocols, according to evidence based medicine. - Perfection of the information systems and development of computer applications for the case-mix systems. - Development of alternatives to traditional hospital admissions.</td>
<td>• Partnerships: In clinical practice, evidence based medicine was gaining importance and clinical benchmarking required networking at all levels of the organization.</td>
<td>• Development of tools, such as customer surveys and doctors' motivation surveys.</td>
</tr>
</tbody>
</table>

5.5 Financial Institutions

Financial Institutions throughout the world are facing a fast paced dynamic environment where efficiency and competitiveness hold the key to survival. With intense competition from both domestic and international financial players, rapid innovation and introduction of new financial instruments, changing consumer demand and explosive growth in information technology that the way with commercial banking firm and financial institute conduct business and reaches out to their customers has significantly changed[31].
Table 5: Performance benchmarking for building best practices in financial institute

<table>
<thead>
<tr>
<th>Operation management</th>
<th>Business performance</th>
<th>Organization performance</th>
<th>Quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The distribution network: to be represented by input like number of employees and number of branches(^{[31]})</td>
<td>• Market reputation: Market reputation is represented by input variables like borrowings and net worth(^{[31]})</td>
<td>• Financial globalization: such as - International debt to GDP; measures the stock of outstanding international bond relative to a country’s economic activity.</td>
<td>• The service function: service function is typically measured using the level of service quality provided and service level on the performance of financial institute (^{[25]})</td>
</tr>
<tr>
<td>• Operating expense: operating expense is a surrogate of administration and marketing expenditure (^{[31]})</td>
<td>• Market performance: Market performance is measured by output like deposit, net profit and advance (^{[31]})</td>
<td>- International debt issued to GDP; measured the net flow of international’ bond issues relative to a country’s economic activity.</td>
<td>• The quality of financial service: The quality of deposit services can be characterized by service characteristics, such as volume of transactions per account, ATM sites and number of branches (convenience) (^{[39]})</td>
</tr>
<tr>
<td>• The size of financial system: including: - Liquid liabilities to GDP: is a traditional indicator of financial depth.</td>
<td>• Financial institute efficiency: including: - Bank credit to bank deposit: is the ratio of claim on private sector to deposit in deposit money banks.</td>
<td>- Net interest margin: equal the accounting value of bank’s net interest revenue as a share of its total earning asset.</td>
<td></td>
</tr>
<tr>
<td>- Currency outside banking system to base money: is an indicator of monetization of the economy.</td>
<td>- Overhead cost: equal the accounting value of bank’s overhead cost as a share of its total asset.</td>
<td>- Overhead cost: equal the accounting value of bank’s overhead cost as a share of its total asset.</td>
<td></td>
</tr>
<tr>
<td>- Financial system deposited to GDP: is the ratio of all checking, saving and time deposit in financial institute to economic activity.</td>
<td>- Cost income ratio: measure the overhead cost relative to gross revenues.</td>
<td>- Cost income ratio: measure the overhead cost relative to gross revenues.</td>
<td></td>
</tr>
<tr>
<td>- Stock market capitalization to GDP: It indicates the side of stock market relative to the side of economy.</td>
<td>• Concentration: is an indicator of banking market structure that equal the ratio of the largest bank asset to total banking asset.</td>
<td>- Concentration: is an indicator of banking market structure that equal the ratio of the largest bank asset to total banking asset.</td>
<td></td>
</tr>
<tr>
<td>- Private bond market capitalization to GDP: which equal the total amount of outstanding domestic depth securities issued by private or public domestic entries.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.6 Conclusion

The result from performance benchmarking with four dimensions in five case studies found that each industry is difference both business characteristic and business environment thus results from performance benchmarking are depend on industry characteristic and results should be able to respond with business changes. In considering, similar criteria for performance benchmarking with five case studies found that, in dimension of operation performance, all five industries are focus on flexibility operation and increase high productivity. Beside, in dimension of organization performance, all five case studies are aim to improve business process by reducing cost or meet customer satisfaction. For dimension of business performance, all five case studies emphasis in human resource development as leadership performance, staff retention and satisfaction and building organization culture. Finally in dimension of quality management, all five case studies are focus on
increase productivity through quality tools and techniques. On the other hand, different criteria for performance benchmarking with five case studies found that each industry is different in operation strategy, business objective and organization strategy thus some results are different and depend on industry characteristic.

6. CONCLUDING AND SUGGESTION

Thus, benchmarking performance measures can be employed to evaluate the efficiency and effectiveness of the execution of business. Benchmarking promotes performance directly through identification of practices and performance goals. Furthermore, benchmarking increases a firm’s understanding of its position relative to competitors, which is beneficial for performance \(^\text{[46]}\). In order to define best practice the performance benchmarking process must be used. Performance benchmarking process when applied appropriately allows management to determine why something is better by using a comparison of criteria or indicators as a facilitator of the improvement focus \(^\text{[21]}\). Moreover, the most important benefits derived from benchmarking include improved customer satisfaction and improved response time. In terms of intangible benefits, benchmarking has proven to be the best discipline for getting people to focus on the customer and for achieving significant improvement in customer satisfaction. Benchmarking has helped improve communication and established the importance of internal customer satisfaction. Therefore, the most important for performance benchmarking process is should identify appropriate performance indicators for assessing the industry and performance indicators should be cater to the changing business environment and high competition in the industry.

REFERENCE


