Volume 18 Issue 13
Originally issued as A4



Global Journal of Management and Business Research: a Administration and Management
Volume 18 Issue 4 Version 1.0 Year 2018
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Implementation of Benchmarking Concepts in Manufacturing Industry of Bangladesh

By Md. Sharfuddin Rashed & Nesha Ashraf Un
University of Chittagong, Bangladesh

Abstract- Customers nowadays constantly demand for higher quality, shorter lead times and customization of products at a competitive price. Benchmarking might be a way of measuring a firm's strategies and performance against "best-in-class" firms both inside and outside the industry. The purpose of this paper is to investigate the implementation of benchmarking concept in the manufacturing companies in Bangladesh. Existing literatures and some real life examples of benchmarking implementation in different companies are using for the further study. Study found that seven major stages of the benchmarking process independently pay attention to a specific area, which will add value to the process. Various opportunities like benchmarking opens up organizations to new methods, ideas, and tools to improve their effectiveness for help to solve the problems within organizations. Direction and recommendation for implementation of benchmarking are also given.

Keywords: *quality, lead times, customization, benchmarking process, opportunities, bangladesh.*

GJMBR-A Classification: *JEL Code: L60*



Strictly as per the compliance and regulations of:



© 2018. Md. Sharfuddin Rashed & Nesha Ashraf Un. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Implementation of Benchmarking Concepts in Manufacturing Industry of Bangladesh

Md. Sharfuddin Rashed [α] & Nesha Ashraf Un [σ]

Abstract- Customers nowadays constantly demand for higher quality, shorter lead times and customization of products at a competitive price. Benchmarking might be a way of measuring a firm's strategies and performance against "best-in-class" firms both inside and outside the industry. The purpose of this paper is to investigate the implementation of benchmarking concept in the manufacturing companies in Bangladesh. Existing literatures and some real life examples of benchmarking implementation in different companies are using for the further study. Study found that seven major stages of the benchmarking process independently pay attention to a specific area, which will add value to the process. Various opportunities like benchmarking opens up organizations to new methods, ideas, and tools to improve their effectiveness for help to solve the problems within organizations. Direction and recommendation for implementation of benchmarking are also given.

Keywords: quality, lead times, customization, benchmarking process, opportunities, bangladesh.

I. Introduction

Present market scenario of customers is that customers incessantly demand for higher quality, shorter lead times, customization of products, etc. at a competitive price. The increasing competitiveness of the global manufacturing sector resulting from globalization and changing customer's needs motivate the Bangladesh manufacturing companies to evaluate and implement new management tools and philosophies in order to be competitive. Many tools and methodologies for measuring and improving business performance have been developed over the last decade. One such method, widely regarded as one of the most effective methods, is benchmarking (Jain, Rathore, & Yadav, 2008). Kovacic (2007) also mentioned that the growth of the manufacturing sector was the key feature of overall growth during both the regulated and liberalized phases. Benchmarking is a way of measuring a firm's strategies and performance against "best-in-class" firms, both inside and outside the industry (Per & Hollensen, 2001). Benchmarking was one of the most popular and widely adopted management techniques of the 1980s and 1990s and it gained a lot of credit for helping organizations to improve their competitive advantage (Adebanjo, Abbas, & Mann, 2010). Although benchmarking in Bangladeshi manufacturing sector is a relatively new concept.

Author α: Assistant Professor, Department of Management, University of Chittagong. e-mail: rashed_mgt@yahoo.com
Author σ: Students of Master's, Shanghai University, China.

Benchmarking considered as an instrument of continuous improvement worldwide (Jain, Rathore, & Yadav, 2008). Benchmarking is emerging in leading-edge companies as an information tool to support continuous improvement and to gain competitive advantage (Asrofah, Zailani, & Fernando, 2010). In order to understand what practices are necessary to reach world class standards, many organizations have begun to use benchmarking as a way of acquiring knowledge (Christppher, Voss, & Blackmon, 1997). According to Talluri & Sarkis (2001), benchmarking has proven to be an effective tool for organizations that seek to improve their operations.

The purpose of this paper is to investigate the implementation of benchmarking concepts in the manufacturing companies in Bangladesh. In this study motor vehicle, electric and electronic industries of Bangladesh are considered. The objective of benchmarking is to understand and evaluate the current position of a business or organization in relation to the "best practice" and to identify areas and means of performance improvement (Asrofah, Zailani, & Fernando, 2010). Varies research already conducted in different countries about the implementation of benchmarking concepts and its various positive and negative consequences. Lee, Zailani, & Soh (2006) conducted a study in Malaysia by the name of "New evidence from Malaysia".

Researcher found that Employee participation was the most influential factors on benchmarking implementation, followed by top management commitment and role of quality department. Researcher also found that benchmarking limitation and customer orientation did not contribute significant impact on the adoptions. Jain, Rathore, & Yadav (2008) conducted a research in India about the benchmarking in manufacturing sector. Researcher found that there is a positive attitude towards adoption of benchmarking concepts. Identification of suitable benchmarking partner was considered to be the most vital problem among Indian manufacturing companies. In that study, motor vehicle, electric and electronic industries were considered. Benchmarking practices, e.g. the manufacturing process and organizational and environmental factors do significantly influence the effectiveness of benchmarking in Indonesia (Asrofah, Zailani, & Fernando, 2010).

© 2018 Global Journals

II. Literature Review

Asrofah, Zailani, & Fernando (2010) confirmed the popularity of benchmarking has grown during the last five years. Benchmarking is used in a variety of industries, including services and manufacturing. But it is suggested that benchmarking is still not clearly defined (Talluri & Sarkis, 2001). Although Camp (1989) in earlier defined Benchmarking is the search for industry best practices that lead to higher performance. Benchmarking is defined as most preferred tool (Clarke & Manton, 1997; Jain, Rathore, & Yadav, 2008; Asrofah, Zailani, & Fernando, 2010) which used for business performance development. Gunasekaran (1998) defined Benchmarking as a technique that is all about identifying, capturing, and implementing best practices and this type of benchmarking is usually referred to as best practice benchmarking. Benchmarking helps understand and follow how the best-in-class industries carry out their business activities and eventually lead to learning how to deal successfully with competition from these industries (Meybodi, 2010). Benchmarking companies search dynamically for activities that are able to improve practices and processes continuously and effectively (Rohlfer, 2004). Watson (1993) indicate benchmarking as a continuous search for and application of significantly better practices that lead to superior competitive performance. Bogan & English (1994) stated benchmarking as an on-going search for best practices which when applied and implemented, produce superior performance. Harrington & Harrington (1996) described benchmarking as a systematic way to identify, understand, and creatively evolve superior products, services; equipment's, processes, and practices to improve organization's real performance. According to Moriarty & Smallman, (2009), "Benchmarking is an example motivated teleological process operating within an organization with the objective of intentionally changing an existing state of affairs into a superior state of affairs". American Productivity and Quality Centre (1998) defined benchmarking as the process of improving performance by continuously identifying, understanding (studying and analyzing), and adopting outstanding practices and processes found inside and outside the organization, and then implementing the results. Panwar, Nepal, Jain, & Yadav (2013) concluded with all these definitions that benchmarking is used by any organization to improve its current state of performance. Amaral & Sousa (2009) gives a general definition of benchmarking:

1) *What it is*: A continuous process, tool or structured approach.
2) *What it does*: Measures, evaluates, improves, searches for and learns about products, services, performance, and practices.
3) *With whom it compares*: Comparisons against the best-in-class, world leaders, competition, etc.
4) *Expected results*: To achieve superior performance, compete, and apply knowledge.

Kumar & Chandra (2001) indicated benchmarking is an important tool to best practices in the industry at large and for achieving continuous improvements in industry operations. Benchmarking is rated very positively by the manufacturing industries to implement and follow (Jain, Rathore, & Yadav, 2008). In the manufacturing sector, benchmarking is commonly used where mainly quantitative economic parameters, e.g. 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 (Asrofah, Zailani, & Fernando, 2010). Benchmarking practices are adopted by more and more organizations, the techniques developed by many manufacturers range from the simple type of product benchmarking to various types of benchmarking such as process, function, and strategies (Fink, 1993). Several empirical studies have been carried out in developed as well as developing nations regarding implementation of benchmarking concepts in various industrial sectors (Oliver, Delbridge, Jones, & Lowe, 1994; Brah, Ong, & Rao, 2000; Hinton, Francis, & Holloway, 2000; Ulusoy & Ikiz, 2001; Lee, Zailani, & Soh, 2006; Huq, Abbo, & Huq, 2008; Jain, Rathore, & Yadav, 2008; Magd, 2008; Asrofah, Zailani, & Fernando, 2010; Panwar, Nepal, Jain, & Yadav, 2013). There exists a relationship between type of industry and benchmarking adoption which is proved by (Lee, Zailani, & Soh, 2006). Benchmarking includes identification of improvement opportunities, search for best practices (both inside and outside the industry), and ultimately adaptation and implementation of these best practices in a systematic, ordered and standardized manner in order to address the diversities and specialties of a company's own processes and priorities (Panwar, Nepal, Jain, & Yadav, 2013).

III. Importance of Benchmarking Concept in Manufacturing Industries of Bangladesh

Many people, especially those in small businesses and some of the industries in Bangladesh, simply do not know enough about benchmarking. In Bangladesh most of the electrical and manufacturing industries are running which needed to improve their performance. Benchmarking is the process of adapting outstanding practices from within the organization or from other businesses to help progress performance, in which performance benchmarking is where a company compares its performance to those of others. So industries of Bangladesh needed to follow the developed countries manufacturing process in case of motor vehicle, electric and electronic industries of Bangladesh. A lot of weight is on the importance of

© 2018 Global Journals

benchmarking today as a way to improve business (Asrofah, Zailani, & Fernando, 2010). The decision to initiate benchmarking is valuable to industries by opening up many different ideas to processes, approaches, and concerns (Allan, 1997). Benchmarking encourages a company to become open to new methods, ideas, processes, and practices to improve effectiveness, efficiency, and performance (Deros, Yusof, & Salleh, 2006). According to Fernandez, McCarthy, & Rakotobe-Joel (2001), benchmarking is but one of the improvement techniques that have been used by any industries.

IV. Types of Benchmarking

Different benchmarking literature discovered that there are different types of benchmarking followed by different organizations (Asrofah, Zailani, & Fernando, 2010). Corbett (1998) and Asrofah, Zailani, & Fernando (2010) claimed that benchmarking can be classified according to the way it is carried out and the area where it is implemented. Bogan & English (1994) classified benchmarking as process benchmarking, performance benchmarking, and strategic benchmarking.

a) Process Benchmarking

Process benchmarking focuses on the day-to-day operations of the organization (Bogan & English, 1994). Researcher suggested processes or operations can be improved by comparison with processes or operations of benchmarking partners (Panwar, Nepal, Jain, & Yadav, 2013).

Some examples of work processes that could utilize process benchmarking are the customer complaint process, the billing process, the order fulfillment process, and the recruitment process.

All of these processes are in the lower levels of the organization. By making improvements at these levels, performance improvements can be realized quickly. Process benchmarking is result in quick improvement of work towards the organization (Asrofah, Zailani, & Fernando, 2010).

b) Performance Benchmarking

Performance benchmarking emphasizes on measuring competitive positions by comparing the products and services of other competitors (Bogan & English, 1994). It is a comparison of performance measures for the purpose of determining how good the company is, as compared to others. It provides competitive situation of the organization through product and service characteristic comparison (Panwar, Nepal, Jain, & Yadav, 2013). When dealing with performance benchmarking, organizations want to look at where their products or services are in relation to their competitors', based on factors such as reliability, quality, speed, and other product or service characteristics (Asrofah, Zailani, & Fernando, 2010).

c) Strategic Benchmarking

Strategic benchmarking deals with top management. It deals with long-term results. Strategic benchmarking focuses on how companies compete to achieve the target. This form of benchmarking looks at "what strategies the organizations are using to become successful" (Asrofah, Zailani, & Fernando, 2010). This is the type of benchmarking technique mostly used by Japanese firms (Bogan & English, 1994). This is because the Japanese focus on long-term results. It is a study which is carried out when an effort is being made to change the strategic direction of the company (Bhutta & Huq, 1999). Hence, strategic benchmarking involves assessment of strategic, rather than operational substances (Fong, Cheng, & Ho, 1998). Others types of Benchmarking is internal benchmarking (Camp, 1989; Per & Hollensen, 2001; Boxwell, 1994), industry benchmarking and process benchmarking (Camp, 1989; Per & Hollensen, 2001) and competitive benchmarking (Camp, 1989; Boxwell, 1994).

- *Internal benchmarking*: Comparison of performance of units or departments within one organization (Camp, 1989). Dervitsiotis (2000) found that internal benchmarking is often very useful for companies having multiple plants. It facilitates an easy exchange of information regarding best practices. Southard & Parente (2007) pointed out that it is easy to access information within internal functions, and due to a "cohesive single infrastructure" within the organization, transferability of practices is easy and effective. Researchers also identified one limitation of internal benchmarking is that the process to be benchmarked with may not necessarily be the best practice in industry.
- *Industry (functional) benchmarking*: Industry (functional) benchmarking is the measurement of various sides of the company's functional operations and comparison of these to similar measurements from other companies (often industry leaders) within the industry group (Per & Hollensen, 2001). Functional benchmarking involves comparison of processes with the best practices of similar processes of those companies which share some common functionality, but are outside one's industry (Hinton et al., 2000). Functional benchmarking takes place when benchmarking partners are the organizations which are recognized to be the best in similar activities (Hollings, 1992). Disadvantages can be scheduling companies that are already overflowed by benchmarking and therefore reluctant to participate in benchmarking (Per & Hollensen, 2001).
- *Competitive benchmarking*: This type of benchmarking is used against direct competitors. Performed externally, its objective is to compare companies offering competing products, services or

© 2018 Global Journals

processes in the same markets (Per & Hollensen, 2001). Competitor benchmarking focuses on the comparison with companies having similar products and processes and which are in direct competition. Hence, competitor benchmarking facilitates access to superior practices of competitors. Obtaining information from direct competitors is always difficult due to the fear of losing competitive advantage (Panwar, Nepal, Jain, & Yadav, 2013; Per & Hollensen, 2001; Southard & Parente, 2007).

- *Process (generic) benchmarking*: Here, similar procedures at dissimilar companies are benchmarked. Although it is considered relatively effective it is difficult to implement. The concept has also been referred to as generic benchmarking because it is not restricted to any industrial structure or market (Per & Hollensen, 2001). The importance of benchmarking as an enabler of business excellence has necessitated a study into the current state of benchmarking in Bangladesh. The major advantage of generic benchmarking is that it provides access to the best practices employed in any industry, regardless of products or services (Panwar, Nepal, Jain, & Yadav, 2013).

V. The Process of Benchmarking

Unfortunately, there is no widely accepted process for conducting benchmarking exercises (Zairi & Ahmed, 1999; Dattakumar & Jagadeesh, 2003; Southard & Parente, 2007) and managers are faced with complex challenges when planning to implement benchmarking (Dervitsiotis, 2000). For example, Bhutta & Huq (1999) reported that some companies have used up to 33 steps, while others have used only four. However, the major stages of the benchmarking process remain relatively similar, independently of the amount of attention given to a specific area, which will add or remove a few steps to/from the process (Prasnikar, Debeljak, & Ahcan, 2005; Southard & Parente, 2007). Benchmarking can also be described as a structured process where the structure of the benchmarking process is often developed by the development of a step-by step process model, which provides a common language within organizations (Spendolini, 1992). Per & Hollensen (2001) expressed benchmarking usually involved seven main stages:

Step-1: Evaluating the key success factors

Key success factors (KSFs) are the limited number of the firm's subject areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization (Per & Hollensen, 2001). Key success factor is a statement on a causal relationship between actual success in business performance and grounds of success (Grunert & Ellegaard, 1992). One must always bear in mind whether the subject area is really important to the success of the company (Per & Hollensen, 2001). The criteria for selecting the subject areas are:

- ✓ KSFs should be of strategic importance to the business
- ✓ Improvements in the indicated KSFs areas will make a significant contribution to overall business results.

Step-2: Assign weight to each key success factors

KSFs are not the same for all firms or industry. They are market and firm specific. Hence, the weights of the different factors (KSFs) must reflect these different conditions. Brainstorming is one method of generating a number of ideas for KSFs (Per & Hollensen, 2001). After this screening the subject areas are prioritized and may be given importance. It is wise to direct attention to a small number of areas, particularly in the early stages of benchmarking.

© 2018 Global Journals

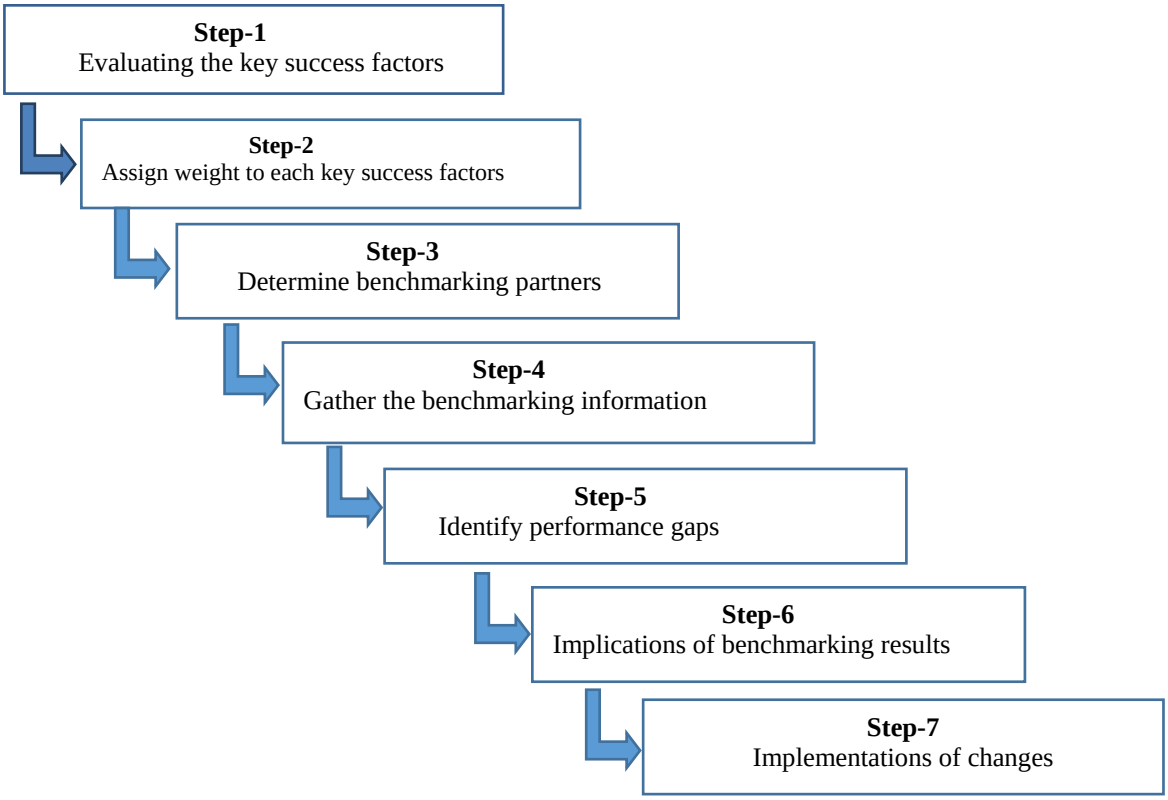


Figure 1: The process of Benchmarking

Step-3: Determine benchmarking partners

Benchmarking partners is important to run the benchmarking process. According to the theory of benchmarking and Kodali (2008) warned it is dangerous to consider many partners because it may complicate and reduces the effectiveness of benchmarking. The following two questions provide the starting point in the search for suitable partners:

- ✓ Who/what is better (at a particular process) than us?
- ✓ To whom is this process a key to survival? (Per & Hollensen, 2001)

Some potential partners may not have much information available; they are normally dropped from the list (Per & Hollensen, 2001).

Step-4: Gather the benchmarking information

The data collection team needs to have uniform collection methods (the same forms seeking the same data in the same way). When choosing a benchmarking approach where you benchmark yourself against another company, which is more effective at a certain process, a high degree of willingness and openness towards co-operation is required.

Step-5: Identify performance gaps

Asrofah, Zailani, & Fernando (2010) identified performance gaps with respect to production and consumption within the organization and then suggest developing methods to close them. The gap between internal and external practices reveals what changes, if any, are necessary. Developing and using measures help to identify the current performance and monitor the direction of changes over a period. Measures identified during the planning stage of benchmarking may also help to determine the magnitude of the performance gaps and select what is to be benchmarked (Vaziri, 1992; Karloff & Ostblom, 1993). Comparisons within and across the industries are said to have their own strengths and weaknesses (Per & Hollensen, 2001). When any project manager with a benchmark project it is important that you ensure that you do not choose inappropriate companies to benchmark against. However, if at a later time you discover that you have chosen a bad starting point it may be an extensive process to reverse the development to the better.

Step-6: Implications of benchmarking results

Companies can be considered as being a set of routines and practices. It is characteristic that the routines and practices have been developed and acquired throughout a longer period of time and that the awareness of their importance often is limited. A central challenge is trying to understand the link between individual and organizational learning (Per & Hollensen, 2001).

Step-7: Implementations of changes

The actual implementation of the planned changes could take place through developing skills of the employees, training and organizational development. Implementation often takes time to be successful. It is crucial for the benchmark concept that

© 2018 Global Journals

the company sees the results of the benchmarking process only as a snapshot of the situation. It is up to the management and the employees to change it (Per & Hollensen, 2001).

Different companies have their own benchmarking methods, but no matter which method is used, the major steps involved are as follows: first, measure the performance of the best-in-class relative to critical performance variables such as cost, productivity, and quality; second, determine how the levels of performance are achieved; and third, use the information to develop and implement a plan for improvement (Omachonu & Ross, 1994).

VI. Implementation of Benchmarking in Manufacturing Industries

Implementation is a critical issue for the success of benchmarking exercises (Amaral & Sousa, 2009). Benchmarking is a strategy for implementing changes in organizations. It is a way of measuring operations against similar operations in order to improve business processes (Per & Hollensen, 2001). Two main approaches to benchmarking implementation were identified by the Longbottom (2000): the traditional benchmarking process, associated with the so-called "Traditionalists' perspective"; the diagnostic benchmarking process, associated with the so called "Modernists' perspective". These two approaches differ in terms of objectives, cost, implementation process, supporting tools and type of target organization, among other attributes (Amaral & Sousa, 2009). The traditional benchmarking process focuses on the understanding, comparison and adaptation of key processes and on the development of performance measures (Longbottom, 2000). The diagnostic benchmarking process is based on business excellence selfassessments (Longbottom, 2000; Maire, 2002). Generally, it is linked with excellence models which provide a set of criteria against which any organization can assess itself and identify areas for improvement (Auluck, 2002).

In order to benchmark effectively, a company needs a strong strategic focus and some flexibility in achieving management's goals. To implement benchmarking effectively, adequate planning, training, and open interdepartmental communication are needed (Asrofah, Zailani, & Fernando, 2010). Jarrar & Zairi (2000) and Yasin (2002) suggested that benchmarking is a popular tool worldwide, the reality is that after 25 years of "popularity", only a minority (although significant) of organizations across several countries use best practice benchmarking – the most effective form of benchmarking.

VII. Problems and Obstacles Faced During Implementation

There are many problems can be faced in Bangladesh at the time of implementing the benchmarking system. Elmuti & Kathawala (1997) mentioned that problems associated with benchmarking may occur due to an organization's failure to implement the process properly. Henczel (2002) stated that benchmarking requires a significant commitment of resources such as time, people and money, etc. without any guarantee that there will be a cost benefit. That most companies choose not to benchmark due to the lack of time and resources (Cassell, Nadin, & Gray, 2001; Henczel, 2002). Researchers identified some problems and barriers when industries of Bangladesh will face when going to implement the benchmarking system:

- Identification of suitable benchmarking partner (Vermeulen, 2003; Jain, Yadav, Pal, & Rathore, 2008; Hinton, Francis, & Holloway, 2000; Longbottom, 2000; Lee, Zailani, & Soh, 2006).
- Data comparability (Hinton, Francis, & Holloway, 2000; Jain, Rathore, & Yadav, 2008)
- Lack of resources (Hinton, Francis, & Holloway, 2000; Jain, Rathore, & Yadav, 2008; Kidwell, et al., 2002)
- Lack of staff support (Zairi & Ahmed, 1999; Jain, Rathore, & Yadav, 2008; Bhutta & Huq, 1999; Davies & Kochhar, 1999)
- Problem of confidentiality (Longbottom, 2000; Jain, Rathore, & Yadav, 2008)
- Lack of internal expertise on benchmarking (Kidwell, et al., 2002; Jain, Rathore, & Yadav, 2008)
- Benefits less than cost involved (Jain, Yadav, Pal, & Rathore, 2008; Lee, Zailani, & Soh, 2006)
- Time consuming (Lee, Zailani, & Soh, 2006)
- Lack of understanding of benchmarking concept (Brah, Ong, & Rao, 2000).

These problems and barriers indicate that while benchmarking is acknowledged to be a useful technique, there are still doubts about how it is deployed. There is need therefore for a study to clarify the current state of the use of benchmarking (Adebanjo, Abbas, & Mann, 2010).

VIII. Various Opportunities for Implementation of Benchmarking Concept

Benchmarking has become a popular adopted procedure and is used to gain competitive advantage (Elmuti & Kathawala, 1997). The benefits of benchmarking are a better understanding of strengths and weaknesses of processes, improved cycle time, improved supplier's management, reduced production costs, etc. The number of manufacturers using

© 2018 Global Journals

benchmarking techniques has been increasing dramatically. However, due to the lack of a complete understanding of benchmarking, not all organizations find it easy to employ the tools effectively.

Advantages or the benefits of benchmarking are also becoming a powerful management tool because they overcome paradigm blindness. Asrofah, Zailani, & Fernando (2010) stated that benchmarking also opens organizations to new methods, ideas, and tools to improve their effectiveness for help to solve the problems within organizations.

According to Camp (1989) identified two benefits of benchmarking:

- ✓ can enable the best practices from any industry to be creatively incorporated into the processes of the benchmarking function.
- ✓ breaks down the reluctance in making operational changes.

In addition, benchmarking is a valuable tool for setting goals; it is something that is necessary in order to remain competitive and for learning new ideas (Balm, 1996). Benchmarking has proven to be the best discipline for getting people to focus on the customer and for achieving significant improvement in customer satisfaction (Lee, Zailani, & Soh, 2006; Thiagarajan & Zairi, 1998).

IX. Conclusion

From an industry point of view, attention should be given to improve employee participation and quality department should play a proactive role in adopting benchmarking as a strategic tool (Lee, Zailani, & Soh, 2006). This study is a preliminary effort to assess the current status of benchmarking implementation in Bangladesh and has provided some understanding of both the level and nature of benchmarking activities within Bangladeshi manufacturing sector. A particular attention has been paid to identifying the problems which are faced by industry during implementation of successful benchmarking projects. In addition, an attempt has been made to look into the opportunities and problems which companies observe as advantage and problematic to undertake a benchmarking project. The industry sectors which typically show above average levels of benchmarking activities are motor vehicle, electric and electronic industries.

In the current scenario where world is becoming flatter every day, Bangladeshi manufacturing company should continuously improve their position by enhancing their strengths and eliminating their weaknesses. The use of benchmarking in its various forms will add more learning to the companies and evaluate their ability to compete in world market. Bangladeshi manufacturing companies need to look beyond their immediate organizational boundaries for benchmarking partners.

X. Limitations of the Study

However this study is not without limitation. Other environmental and political, social problems and various opportunities of Bangladesh which can play important role in implementing the benchmarking system are ignored here. For example, flexibility to adopt, willingness of industries, political instability and inertia to change etc are the main barriers. This study work based on current literature and various research findings so this study ignored the real field study.

Hence this study conducted under real field study than it will be more authenticated and acceptable.

References Références Referencias

1. Adebanjo, D., Abbas, A., & Mann, R. (2010). An investigation of the adoption and implementation of benchmarking. *International Journal of Operations & Production Management, 30*(11), 1140 – 1169.
2. Allan, S. (1997, April 15). *Partners benchmarking.* Retrieved from http://www.benchmarking.co.uk/bmark.htm#partners
3. Amaral, P., & Sousa, R. (2009). Barriers to internal benchmarking initiatives: an empirical investigation. *Benchmarking: An International Journal, 16*(4), 523 - 542.
4. Asrofah, T., Zailani, S., & Fernando, Y. (2010). Best practices for the effectiveness of benchmarking in the Indonesian manufacturing companies. *Benchmarking: An International Journal, 17*(1), 115-143.
5. Auluck, R. (2002). Benchmarking: a tool for facilitating organizational learning. *Public Administration and Development, 22*(2), 109-122.
6. Balm, G. J. (1996). Benchmarking and gap analysis: what is the next milestone? *Benchmarking for Quality Management & Technology, 3*(4), 28-33. (1998). *Benchmarking.* American Productivity and Quality Centre. APQC Report, APQC.
7. Bhutta, K. S., & Huq, F. (1999). Benchmarking – best practices: an integrated approach. *Benchmarking: An International Journal, 6*(3), 254-268.
8. Bogan, C., & English, M. J. (1994). *Benchmarking for Best Practices: Winning Through Innovation Adaptation.* New York, NY: McGraw-Hill.
9. Boxwell, R. J. (1994). *Benchmarking for Competitive Advantage.* New York, NY: McGraw-Hill.
10. Brah, S. A., Ong, A. L., & Rao, B. M. (2000). Understanding the benchmarking process in Singapore. *International Journal of Quality & Reliability Management, 17*(3), 259-275.
11. Camp, R. C. (1989). *Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance.* Milwaukee, WI: ASQC Quality Press.
12. Cassell, C., Nadin, S., & Gray, M. O. (2001). The use and effectiveness of benchmarking in SMEs.

© 2018 Global Journals

Benchmarking: An International Journal, 8(3), 212-222.
13. Christppher, A., Voss, P. A., & Blackmon, K. (1997). Benchmarking and operational performance: some empirical results. *International Journal of Operations & Production Management, 17*(10), 1046 – 1058.
14. Clarke, A., & Manton, S. (1997). A benchmarking tool for change management. *Business Process Management Journal, 3*(3), 248-255.
15. Corbett, L. M. (1998). Benchmarking manufacturing performance in Australia and New Zealand. *Benchmarking for Quality Management & Technology, 5*(4), 271-282.
16. Dattakumar, R., & Jagadeesh, R. (2003). A review of literature on benchmarking", Benchmarking: An International Journal, Vol. 10 No. 3, pp. 176-209. *Benchmarking: An International Journa, 10*(3), 176-209.
17. Davies, A., & Kochhar, A. (1999). Why British companies don't do effective benchmarking", Integrated Manufacturing Systems, Vol. 10 No. 1, pp. 26-32. *Integrated Manufacturing Systems, 10*(1), 26-32.
18. Deros, B. M., Yusof, S. M., & Salleh, A. M. (2006). Benchmarking implementation framework for automotive manufacturing SMEs. *Benchmarking: An International Journal, 13*(4), 396-430.
19. Dervitsiotis, K. N. (2000). Benchmarking and business paradigm shifts. *Total Quality Management, 11*(4/6), S641-6.
20. Elmuti, D., & Kathawala, Y. (1997). An overview of benchmarking process: a tool for continuous improvement and competitive advantage. *Benchmarking for Quality Management & Technology, 4*(4), 229 – 243.
21. Fernandez, P., McCarthy, I., & Rakotobe-Joel, T. (2001). An evolutionary approach to benchmarking. *Benchmarking: An International Journal, 8*(4), 281-305.
22. Fink, R. (1993). Group therapy. *Financial World, 162*, 42-5.
23. Fong, S. W., Cheng, E. L., & Ho, D. K. (1998). Benchmarking: a general reading for management practitioners. In *Management Decisions* (pp. 407-418). Bingley: MCB University Press.
24. Grunert, K. G., & Ellegaard, C. (1992). The concept of key success factors. *Marketing for Europe Marketing for the Future* (pp. 505-524). 21st Annual Conference of the European Marketing Academy (EMAC).
25. Gunasekaran, A. (1998). Agile manufacturing: enablers and implementation framework. *International Journal of Production Research, 36*, 1223-1247.
26. Harrington, H. J., & Harrington, J. S. (1996). *High Performance Benchmarking: 20 Steps to Success.* New York,NY: McGraw-Hill.
27. Henczel, S. (2002). Benchmarking – measuring and comparing for continuous improvement. *Information Outlook, 6*(7), 12-20.
28. Hinton, M., Francis, G., & Holloway, J. (2000). Best practice benchmarking in the UK. *Benchmarking: An International Journal, 7*(1), 52-61.
29. Hinton, M., Francis, G., & Holloway, J. (2000). Best practice benchmarking in the UK. *Benchmarking: An International Journal, 7*(1), 52-61.
30. Hollings, L. (1992). Clearing up the confusion", Total Quality Management Magazine, Vol. 4 No. 3, pp. 149-151. *Total Quality Management Magazine, 4*(3), 149-151.
31. Huq, F., Abbo, M. H., & Huq, Z. (2008). Perceptions about benchmarking best practices among French managers: an exploratory survey. *Benchmarking: An International Journal, 15*(4), 382-401.
32. Jain, R., Rathore, A. P., & Yadav, O. P. (2008). The propagation of benchmarking concepts in Indian manufacturing industry. *Benchmarking: An International Journal, 15*(1), 101-117.
33. Jain, R., Yadav, P., Pal, A., & Rathore, S. (2008). The propagation of benchmarking concepts in Indian manufacturing industry. *Benchmarking: An International Journal, 15*(1), 101-117.
34. Jarrar, Y., & Zairi, M. (2000). Internal transfer of best practice for performance excellence: a global survey. *Benchmarking: An International Journal, 7*(4), 239-246.
35. Karloff, B., & Ostblom, S. (1993). *Benchmarking: A Signpost to Excellence in Quality and Productivity.* Chichester: Wiley.
36. Kidwell, L. A., Ho, S. K., Blake, J., Wraith, P., Roubi, R., & Richardson, A. W. (2002). New management techniques: an international comparison. *CPA journal, 72*(2), 63-6.
37. Kodali, G. A. (2008). Benchmarking the benchmarking models. *Benchmarking: An International Journal, 15*(3), 257 – 291.
38. Kovacic, A. (2007). Benchmarking the Slovenian competitiveness by system of indicators. *Benchmarking: An International Journal, 14*(5), 553-574.
39. Kumar, S., & Chandra, C. (2001). Enhancing the effectiveness of benchmarking in manufacturing organizations. *Industrial Management & Data Systems, 101*(2), 80-89.
40. Lee, Y. P., Zailani, S., & Soh, K. L. (2006). Understanding factors for benchmarking adoption new evidence from Malaysia. *Benchmarking: An International Journal, 13*(5), 548-565.
41. Longbottom, D. (2000). Benchmarking in the UK: an empirical study of practitioners and academics. *Benchmarking: An International Journal, 7*(2), 98-117.
42. Magd, H. A. (2008). Understanding benchmarking in Egyptian organizations: an empirical analysis",

© 2018 Global Journals

Benchmarking: An International Journal, Vol. 15 No. 6, pp. 742-764. *Benchmarking: An International Journal, 15*(6), 742-764.
43. Maire, J. -L. (2002). A model of characterization of the performance for a process of benchmarking. *Benchmarking: An International Journal, 9*(5), 506-20.
44. Meybodi, M. Z. (2010). Benchmarking performance measures in traditional and just-in-time companies. *Benchmarking: An International Journal, 16*(1), 88-102.
45. Moriarty, J. P., & Smallman, C. (2009). En route to a theory of benchmarking. *Benchmarking: An International Journal, 16*(4), 483-530.
46. Oliver, N., Delbridge, R., Jones, D., & Lowe, J. (1994). World class manufacturing: further evidence in the lean production debate. *British Journal of Management, 5*(S1), S53-S63.
47. Omachonu, V. K., & Ross, J. R. (1994). Principles of Total Quality. Delray Beach, FL: St. Lucie Press.
48. Panwar, A., Nepal, B., Jain, R., & Yadav, O. P. (2013). Implementation of benchmarking concepts in Indian automobile industry – an empirical study. *Benchmarking: An International Journal, 20*(6), 777-804.
49. Per, V., & Hollensen, F. S. (2001). The process of benchmarking, benchlearning and benchaction. *The TQM Magazine, 13*(1), 25-34.
50. Prasnikar, J., Debeljak, Z., & Ahcan, A. (2005). Benchmarking as a tool of strategic management. *Total Quality Management & Business Excellence, 16*(2), 257-75.
51. Rohlfer, S. (2004). Benchmarking concepts in the UK and Germany: a shared understanding among key players? *Benchmarking: An international Journal, 11*(5), 521-39.
52. Southard, P. B., & Parente, D. H. (2007). A model for internal benchmarking: when and how? *Benchmarking: An International Journal, 14*(2), 161-71.
53. Spendolini, M. J. (1992). *The Benchmarking Book.* New York, NY: American Management Association.
54. Suhaiza, T. A., & Fernando, Z. Y. (2010). Best practices for the effectiveness of benchmarking in the Indonesian manufacturing companies. *Benchmarking: An International Journal, 17*(1), 115 – 143.
55. Talluri, S., & Sarkis, J. (2001). A computational geometry approach for benchmarking. *International Journal of Operations & Production Management, 21*(1/2), 210-22.
56. Thiagarajan, T., & Zairi, M. (1998). An empirical analysis of critical factor of TQM. *Benchmarking for Quality Management & Technology, 5*, 291-303.
57. Ulusoy, G., & Ikiz, I. (2001). Benchmarking best manufacturing practices – a study into four sectors of Turkish industry", International Journal of Operations & Production Management. *International Journal of Operations & Production Management, 21*(7), 1020-1043.
58. Vaziri, H. K. (1992). Using competitive benchmarking to set goals. *Quality Progress, 8*, 1-5.
59. Vermeulen, W. (2003). Benchmarking as an enabler of business excellence in the South African financial sector. *Benchmarking: An International Journal, 10*(1), 65-72.
60. Watson, G. H. (1993). *Strategic Benchmarking: How to Rate Your Company's Performance Against the World's Best.* New York, NY: Wiley.
61. Yasin, M. (2002). The theory and practice of benchmarking: then and now. *Benchmarking: An International Journal, 9*(3), 217-43.
62. Zairi, M., & Ahmed, P. K. (1999). Benchmarking maturity as we approach the next millennium? *Total Quality Management, 10*(4/5), 810-6.

© 2018 Global Journals