

# Benchmarking in Mobarakeh Steel Company

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**Abstract:** Benchmarking is considered as one of the most effective ways of improving performance in companies. Although benchmarking in business organizations is a relatively new concept and practice, it has rapidly gained acceptance worldwide. This paper introduces the benchmarking project conducted in Esfahan's Mobarakeh Steel Company, as the first systematic benchmarking project conducted in Iran. It aims to share the process deployed for the benchmarking project in this company and illustrate how the project systematic implementation led to success.

**Keywords:** Benchmarking, Steel industry, Iran

## Introduction

In an era when many organizations are trying to catch up with global competition, rapid technological advances and ever-changing customer needs, benchmarking has been gaining attention among managers and academics as a means of strengthening a company's ability to compete. Benchmarking has emerged as a reaction to growing competitive pressures in international markets, and the concept of benchmarking has become increasingly synonymous with successful per-

formance of business organizations (Rohlfers, 2004). Benchmarking has been defined as the search for industry best practices that will lead to superior performance (Camp, 1989). This definition has been coined by Robert Camp, who first wrote a book on the subject based on his experience at Xerox Corporation in the USA.

In a more elaborated way, the International Benchmarking Clearing House Design Committee defines benchmarking as "...a systematic and continuous measurement process; a process of continuously measuring

and comparing an organization's business process against business leaders anywhere in the world to gain information which will help the organization to take action to improve its performance" (Lema and Price, 1995). Benchmarking is currently considered as one of the most effective approaches to help a company improve its performance (Maire et al., 2005). Many companies consider that it is the search for "best practice" and many initiatives were launched to count, classify and propose best practices.

Although benchmarking in business organizations is a relatively new concept and practice, it has rapidly gained acceptance worldwide as an instrument of continuous improvement in the context of total quality management (TQM). In the USA, where it was first introduced, a large number of organizations make use of benchmarking. Many are the organizations in the USA and Europe that promote the use of benchmarking, such as the International Benchmarking Clearing House or the European Network for Advanced Performance System (ENAPS), which provide benchmarking databases and assistance in identifying partners. Following this international trend, many organizations in Brazil, from large to medium size, are adopting benchmarking.

The activity of benchmarking can be decomposed into basically five steps (Drew, 1997):

- (1) identify the object of study;
- (2) select the superior performer (benchmarking partner);
- (3) collect and analyze data;
- (4) set performance goals for improvement; and
- (5) implement plans and monitor results.

One can see there is a clear relationship between benchmarking and improvement strategies in the sense that if it is to be used as part of the business strategy for gaining and maintaining competitive advantage, improvement projects must be prioritized by taking into consideration the company performance levels relative to competitors on product and operational aspects most important to present and future market demands. In fact, most models and methodologies for benchmarking implementation published in the literature (Zairi and Leonard, 1994) stress the importance of aligning benchmarking projects with competitive and operations strategy, so that organizational efforts for improvements are directed towards dimensions of performance critical to competitiveness.

However, many companies, in their attempts to adopt world class management practices rapidly such as benchmarking, tend to adopt a strong operational view of improvement, devoting little or no attention at all to the alignment of such practices with market demands and strategic objectives. This is especially true for medium to small size companies, where strategic thinking and positioning is part of the tacit knowledge of the organization.

Benchmarking is considered one of the most effective tools of transferring knowledge and innovation into organizations (Spendolini, 1992; Czuchry et al., 1995). More importantly, when benchmarking is used to support continuous improvement strategies, it has a positive impact on competitiveness (Codling, 1998, p. 3; Karlöf and Östblom, 1993, p. 112; Carpinetti and Melo, 2002).

Over the years, there has been a tremendous development of benchmarking techniques, in terms of benchmarking practices

and method, which are widely used in different industries to achieve different goals in the developing countries. However, similar phenomenon is not observed in Iran. Due to very few benchmarking implementations in Iranian industries, there is a lack of research in this area. Benchmarking has not been widely adopted for improvement by the Iranian companies. Only recently, companies are moving toward using this technique. The current paper overviews the implementation of the first structured benchmarking project in Iran, namely in Mobarakeh Steel Company (MSC). It tries to introduce the employed implementation process. Besides, the main challenges faced during the project and key success factors are listed.

### Mobarakeh Steel Company Overview

Mobarakeh Steel Company is undoubtedly one of the Iranian's most striking successes. It is the largest industrial complex in the Islamic Republic of Iran and has been established and commissioned after the victory of the Islamic revolution and entered into operational stage in early 1993. The company is located at 65 kms from south west of Esfahan which covers a land of 35 kms and has an annual capacity of 4 mt/years of flat steel products ranging in thickness from 0.18 mm to 16 mm in the form of hot and cold rolled coils and sheets, tinplate sheets and coils, Galvanized and pre-painted coils. The high-quality products producible at MSC meet the needs of various industries such as: automotive, home appliances, pipe making, pressure vessels, foodstuff, chemical material and medicinal packing, constructional industries, metal industries transportation, naval industries, high and heavy metal equipment and etc.

This complex is consisted of different plant units, out of which 10 plant units are considered as the main production line and the rest are rated as the auxiliary and back up units.

### Benchmarking Stages

Camp (1989) of Rank Xerox, the pioneer of benchmarking, further developed benchmarking into four stages, namely planning, analysis, integration and action.

**Planning.** Planning starts off with the commissioning of a team supported by a sponsor who has authority and stature in the organization to drive the exercise and support the findings (Camp, 1989; Cook, 1995; McNamee, 1995). Camp (1989) divides the planning stage into three steps. The first of these steps is to identify the activity to be benchmarked and the quantitative and qualitative measures to be used (Camp, 1989; Cook, 1995; McNamee, 1995). The second step is to identify the benchmarking partner (Camp, 1989; McNamee, 1995). A prerequisite of effective benchmarking is the availability of participation from reliable information resources (Babichicos, 1999).

Four routes may generally be taken to establish benchmarking partners, namely, benchmarking with organizations in related industries, best practice benchmarking, internal benchmarking and external competitive benchmarking. With respect to the latter, Cook (1995) proposed a direct relationship between the degree of such external propensity and the potential for improvement. Finally, one should establish the appropriate means of collecting internal and external data, who will be involved in data collection (Camp, 1989; McNamee, 1995), the aggregation level of the data (Cook, 1995; McNamee,

1995) and the number of benchmarking partners required (Cook, 1995). The collection of data should be well-planned (Brown et al., 1994) and based on the principles of a relevant benchmarking code of conduct to ensure that benchmarking efforts are not derailed over a breach of etiquette (McNamee, 1995).

**Analysis.** This involves the interpretation of information as a basis for action and implementation. According to Camp (1989) this involves two steps, namely the establishment of the performance gap and the projection of future performance. In the first place, one should quantify and determine the reasons for the current gap between the company and benchmarking partner. This will “inject energy into the programs the size of the problem – and the opportunity – comes into view” (Peters, 1989, p. 74). Ratios and formulae make IA performance evaluation more visible, but unless such data is standardised, comparative analysis would not be workable. Babachicos (1999) proposes the development of a benchmarking survey to provide each participating IA executive with a data source for comparison, based on a confidentiality agreement. One such survey is the annual report of the Global Auditing Information Network (GAIN) organised by the IIA (USA).

However, it is important not to reduce the problem to metrics (McNamee, 1995). One must step back and look for things the numbers are not telling us. Examples of performance indicators to measure qualitative issues are: employee absenteeism or the number of suggestions made to a suggestion scheme in order to gauge motivation; the number of layers in a department and the frequency of gathering and acting on feedback by management to monitor management; and the number and types of complaints

to determine customer satisfaction (Cook, 1995). Cangemi and Singleton (2003) propose the use of the balanced scorecard system to combine qualitative and quantitative performance measures.

The second step in the analysis stage is to project future performance, that is, estimate, over an agreed time frame, the change in performance of the company and the benchmarking company in order to assess if the gap is going to grow or decrease (Camp, 1989; McNamee, 1995).

**Integration.** Integration involves two further steps. The first is the effective communication of findings and establishment of goals to eliminate the performance gap (Camp, 1989; McNamee, 1995). The second is the development of action plans to achieve the established goals. Discussions with IA staff, possibly forming quality circles (Zettie, 2002), give staff the opportunity to identify better procedures (Babachicos, 1999) and to prioritise areas of change through cost-benefit analysis and other techniques (Cook, 1995). Even a small change could be the start of a journey to significant improvement (Babachicos, 1999).

**Action.** Finally, action should be taken to implement the plans, report and reassess the benchmarks. The first step is to implement the actions, plans and strategies. This involves good project planning and management (Camp, 1989). Two-way communication, management support, a coaching leadership style and the use of readily understandable language are ways of overcoming resistance, which generally manifests itself at this stage (Cook, 1995). The second step is to assess and report the results of the action plans (Camp, 1989). Finally, one will reassess or recalibrate benchmarks on a regular and systematic ba-

sis and maintain good links with the benchmarking partners (Camp, 1989). Cook (1995) even suggests the formation of benchmarking consortia where representatives of the companies involved meet on a regular basis to share information and experiences.

### Case Study of Mobarakeh Steel Company

During the previous years, several benchmarking practices had been conducted in the company, but there hasn't been any unity in such practices. Therefore in an effort to regularize such practices and plan a systematic benchmarking, the current benchmarking project was defined and conducted in the company. The project executive team started benchmarking project by a thorough study of the company's existing situation. In this stage, which took about 6 months, company's pre-defined goals were completely studied and necessary revisions were proposed. After this stage, the educational stage of the project started where almost 40 representatives of each of the 20 existing committees in the company were trained on benchmarking basics and principles, its process and implementation guide. The current stage had a positive effect in the smoother run of the project in the next stages. The training sessions were conducted in the form of workshops and after the participants were given the essential training, they followed the given instruction on how to choose the key process indicators of their committee for the benchmarking project. As a result, the output of these training sessions included the key process indicators chosen for benchmarking. After this, the project team of experts suggested

some indicators for the measurement of each chosen KPI. These indicators were drawn from various resources including American Productivity & Quality Center (APQC). Committee members were asked to choose and finalize the indicators for the selected KPIs based on the existing standard indicators within their committee and the suggested ones from APQC.

Finally, in the last stage, action plans for the benchmarking of the chosen KPIs were defined, best practices were searched, sources of benchmarking were identified, and benchmarking partners were selected.

Figure 1, summarizes the process deployed for the benchmarking project in Mobarakeh Steel Company. The planning phase includes determining the key processes for benchmark, forming the benchmarking teams, documentation of the key processes chosen for benchmark and identifying the performance indicators for the mentioned processes.

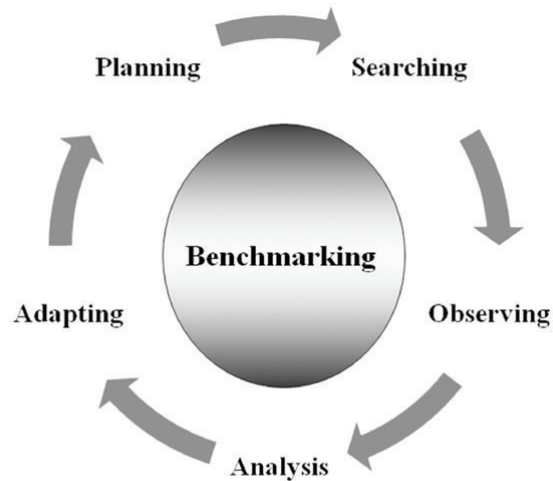
In searching phase, a list of proper benchmarking partners is determined. After that, the benchmarking partners are contacted for the benchmarking purpose.

In observing phase, informational requirements are identified, data collection methods are chosen, and finally the required data is collected.

Analysis phase includes process of the collected data, quality control of the information gathered, normalization of the data, gap analysis, and identification of the gap sources.

Finally, in adapting phase, results of the previous phase are announced, operational goals for improvements are set determined, improvement action plan is developed, and the improvement process is continuously monitored and feedback is announced.

**Conclusion:** Perhaps the major reasons for the success of benchmarking in Mobarak Steel Company are the fact that they have introduced comprehensive education programmes and introduced process based thinking before attempting to benchmark. They have also realised that benchmarking is not just measure to measure comparison, but that effective benchmarking is 20 per cent measures and 80 per cent practices. It should not be forgotten that benchmarking must be a continuous project which will move company forward in the road of excellence.



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