Benchmarking – A Process of Continuous Improvement to Achieve Best in Class Performance

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ABSTRACT

Benchmarking is a process in which best in class processes are identified and implemented in an organization to achieve competitive advantage and superior performance with respect to those of its peers. This research paper focuses on defining the Benchmarking process along with analyzing its objectives, steps to conduct a Benchmarking project and factors that will make the Benchmarking successful.

Keywords — Benchmarking, Best in class performance, Sustainable competitive advantage, and Continuous improvement.

I. INTRODUCTION

Origins of Benchmark are from early surveying days. Landmark surveyors used chiseled horizontal marks (illustrated in Fig. 1) in stone structures, often for accurate elevation reference and sometimes for position (latitude and longitude) [1, 2].

Fig. 1: An Ordnance Survey Cut mark in the UK.

Around later part of 1970s, the term Benchmarking took a bigger meaning and was applied into organizational context [3]. Since then, many renowned professionals have defined Benchmarking in their own ways. Robert Camp [4] defines Benchmarking as, “the continuous process of measuring products, services, and practices with respect to the company’s toughest competitors or those companies renowned as industry leaders.” Hammer and Stranton in their Handbook [5] define Benchmarking as, “the systematic process of searching for best practices, innovative ideas and highly effective operating procedures that lead to superior performance.” Business dictionary [6] defines Benchmarking as, “A measurement of the quality of an organization's policies, products, programs, strategies etc., and their comparison with standard measurements or similar measurements of its peers.” Merriam Webster dictionary [7] defines Benchmark as, “something that serves as a standard by which others may be measured or judged.” Careful look at these definitions reveals that the common theme in these definitions i.e. pursuit of the best. In fact, the Japanese word - dantotsu sums the very essence of Benchmarking (in the shortest possible yet powerful manner) i.e. striving to be the best of the best.

Xerox was perhaps the first multinational large scale company to pioneer Benchmarking as part of its response to international competition in the photocopier market. Many other renowned companies such as Ford, AT&T, DuPont, HP and IBM have performed Benchmarking since then for their internal processes and/or with the competition.

Though the spectrum of Benchmarking is very vast, this research paper is divided into following segments.

- Benchmarking objectives.
- Types of Benchmarking.
- Steps of Benchmarking process.
- Success factors of Benchmarking project.
II. BENCHMARKING OBJECTIVES

Juran’s Quality Handbook [9] states that the purpose of Benchmarking is derived from the need to establish credible goals and pursue continuous improvement. Benchmarking is a direction setting process, more importantly, it is a means by which the practices needed to reach new goals are discovered and understood. The beauty of Benchmarking is that it’s goals are based on external environment instead of solely focusing on internal processes and historical trends. Porter [10] also listed Industry Rivalry as one of five forces in his Five Forces Framework to analyze competition of a business. For companies to keep themselves ahead of competition and to meet customer expectations and requirements, paying attention of external environment and best practices from competitors is a MUST. Benchmarking is an important tool for companies to keep their competitive advantage sustainable, to continuously improve and to respond to changes in the marketplace. Benchmarking process allows company leaders to think what is not working and what needs to be changed by comparing the company to its competitors and their processes. Benchmarking process also allows company to look at alternatives to their current processes, benefits and risks involved in adopting and implementing alternate processes.

III. TYPES OF BECHMARKING

Though there are multiple types of Benchmarking and authors have named them differently, types of Benchmarking can be typically classified as follows:

**Internal Benchmarking:**

As the name itself suggests, in the Internal Benchmarking, an organization looks at its processes internally and compares less performing business units, plants or offices with respect to outperforming ones. In Internal Benchmarking, organization(s) try to learn from their own processes and structures [11]. This type of Benchmarking is useful and can be performed in big organizations that have multiple business units, plants, or offices nationally and/or internationally with similar or comparable processes, systems and/or structures [12]. Internal Benchmarking typically focuses on reducing variability in performance among business units or plants of the same parent company [13].

**Competitive Benchmarking:**

Competitive Benchmarking is a process in which a company will study best practices in a targeted process area of a competitor or group of competitors. In the competitive Benchmarking, companies search and analyze data to determine causes of superior performance of the competitor(s) [8]. Crux of competitive Benchmarking is gathering competitors’ data. Though with the internet age, lot of data is available online, finding relevant data may be a challenge [9]. Other difficulties include how to avoid ethical and legal problems in gathering and comparing data on best practices. To avoid legal and ethical issues, the company should focus on gathering competitors’ process information rather than the data itself [9]. Other ways to minimize these issues include hiring a third-party consulting organization to perform a joint Benchmarking study.

**Functional or Process Benchmarking:**

In the functional or process Benchmarking, the focus is on comparing data of the existing company with a superior organization from either within the same industry or from a different industry [9]. The company should find commonality in functions and/or processes that are performed more effectively by a superior organization. In this type of Benchmarking, the aim is not to restrict search to a common applicable process or application, however, to a method or practice within the process that is causing superior performance and can be adopted in the existing organization [9].

**Generic Benchmarking:**

Generic Benchmarking consists of searching and looking at technological facets of other superior organizations within the same or different industries to understand how the technological advancements are developed and implemented within the superior organizations to achieve best practices [8].

**Partnering:**

In partnering Benchmarking, two or more companies partner together to benchmark a process of common interest. In this type of Benchmarking, there is a mutual interest and benefit to partnering companies [9]. The Benchmarking team will consist of members from both organizations. These team members will visit and interview key personnel from both organizations to collect and subsequently analyze the process data.

IV. STEPS OF BECHMARKING PROCESS

Though different researchers have come up and listed steps of Benchmarking process in their own ways, Juran’s Quality Handbook [9] captures an exhaustive as well as effective and efficient list of steps.

**Planning:**

Like any other process, the first step in Benchmarking process is to plan for it. Table 1 summarizes the activities with their description and tasks involved in the Planning phase.
### Planning

<table>
<thead>
<tr>
<th>Activity description</th>
<th>Tasks involved</th>
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</table>
| Determine with respect to whom (i.e. internal or competitor) Benchmarking is needed. | In the internal Benchmarking – identify why some plants or functions are performing better than the others.  
In the competitive Benchmarking – if the organization is losing market share because of inferior products or services, identify why and compare with competitors’ products or services. |
| Plan and conduct the research. | Conduct research:  
On pertinent things published related to the product or process to be benchmarked within recent past (3-5 years).  
Review of internal market research or competitive studies.  
Search for useful subject data from professional associations, public seminars and trade shows etc.  
Surveys:  
Media – phone or mail or online.  
Set of penetrating standard questions to be asked.  
List of personnel and companies to whom survey will be sent.  
Site visits:  
Identification of the sites to be visited  
List of interviewers.  
Set of penetrating standard questions to be asked. |

Table 1: Planning phase activity summary

### Analysis

<table>
<thead>
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| Determine whether the targeted process is superior, inferior or at par with that of best in class companies. | With the data collected in the Planning phase, perform a gap analysis to understand which inputs, outputs and process steps within the targeted process are superior, inferior or at par in comparison to those of the best in class organizations.  
Ask why and up to what extent?  
Further, since typically most industries are dynamic, this comparison should be done for near future as well by asking the right questions such as:  
Historically, is the performance gap have been narrowing, widening or remaining the same?  
If we (i.e. the current organization) do this, what will our competitors do?  
Does it make sense for our organization to do it in the same way as that of the competitors? |
| Develop a summary metric. | To clearly understand, interpret and compare the data at hand, developing a summary metric is not only useful but also desirable.  
Summary metric can be a single metric or a set of multiple matrices based on the complexity of the process to be benchmarked. |
| Comparison of Process Maps. | Benchmarking team should perform comparison of process maps of targeted process of current company with those of the peers.  
This comparison typically discloses latent improvement opportunities and bottlenecks. |
| Compilation of best practices chart | Development of this chart is critical to understand: |
### Analysis

<table>
<thead>
<tr>
<th>Activity description</th>
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<tbody>
<tr>
<td></td>
<td>What are the best practices?</td>
</tr>
<tr>
<td></td>
<td>Performance advantage by implementing the best practices at hand.</td>
</tr>
<tr>
<td></td>
<td>Operational and financial impacts.</td>
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<td>Risks involved.</td>
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Table 2: Analysis phase activity summary

### Integration

Integration phase consists of a) communicating results of Benchmarking exercise to the relevant parties along with b) reviewing and revising functional goals. Table 3 summarizes the activities with their description and tasks involved the Integration phase.

<table>
<thead>
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<tbody>
<tr>
<td>Decide the audience to communicate Benchmarking exercise results.</td>
<td>Benchmarking team should brainstorm to come up with the list of organization personnel to whom the results of Benchmarking exercise should be communicated. Team should take into consideration all the stakeholders including the clients and suppliers of the organization.</td>
</tr>
<tr>
<td>Mode of presentation</td>
<td>Based on the organization culture, the Benchmarking team should present their results and findings. This can be done in different ways e.g. documented final report, power point presentation or executive summary along with informal discussion with the stakeholders.</td>
</tr>
<tr>
<td>Organization of findings, results and recommendations.</td>
<td>Benchmarking team should complete their best practices Benchmarking report that includes descriptive and quantitative data. Opinions and/or subjective data should be avoided. Recommendations should focus on cost and operational performance impacts. Seeking Management approval on the recommendations is a MUST.</td>
</tr>
<tr>
<td>Review and revision</td>
<td>Based on Management’s approval on Benchmarking team’s recommendations, the organization should analyze, review, revise and communicate functional goals to the relevant stakeholders. Seek Management approval on revised functional goals.</td>
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Table 3: Integration phase activity summary

### Action

In the action phase, the Benchmarking team should decide on priorities for implementation, develop an action plan, implementation and monitoring of the action plan along with recalibration of benchmarks. Table 4 summarizes the activities with their description and tasks involved the Action phase.

<table>
<thead>
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<tr>
<td>Decide on implementation priorities.</td>
<td>Benchmarking team should focus on setting priorities for best practices implementation. Priorities should be set by taking following into consideration: Cost impact Schedule impact Probability of success Operations performance improvement Resources and training required</td>
</tr>
<tr>
<td>Development of action plan.</td>
<td>Action plan development is a MUST. Action plan should be developed detailing: Specific tasks to complete Expected results Completion date for each task Resources needed - personnel, qualification of personnel, budget, and software and hardware etc. Responsibilities Monitoring mechanism to track progress. Seek management approval on action plan.</td>
</tr>
<tr>
<td>Implementation and monitoring of action plan.</td>
<td>Take small steps i.e. implement one of the prioritized best practices. Monitor its progress and results based on agreed monitoring mechanism. Identify lessons learned.</td>
</tr>
<tr>
<td>Activity description</td>
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<tr>
<td>Implement other prioritized best practices.</td>
<td>Monitor their progress and results based on agreed monitoring mechanism.</td>
</tr>
<tr>
<td>Recalibration of benchmarks.</td>
<td>Set the frequency to review and recalibrate benchmarks. Identify lessons learned and gaps. Re-exercise all steps mentioned above.</td>
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Table 4: Action phase activity summary

Maturity:
Performing one time Benchmarking exercise may not achieve long term results and desired level of best practices maturity within the organizations. Therefore, organizations shall continuously make diligent efforts so that Benchmarking becomes a culture, a standard part of processes and a continuous improvement tool.

V. SUCCESS FACTORS OF BENCHMARKING PROJECT

Whether Benchmarking project within an organization will be a success or not will depend on following factors:

a) Involvement and commitment of process owners:
Benchmarking project can achieve its desired objectives and sustainable results ONLY if Process owners are actively involved in the Benchmarking project since they know their process the most. Process owners’ commitment to process improvement and implementing best practices is a MUST.

b) Communication:
The way Benchmarking project, action plan and recommendations are communicated to the stakeholders make a big difference in success or failure. Benchmarking should be perceived as a tool that makes the professional life of organization’s personnel simpler. Communications about Benchmarking project should be such that they convey the message that Benchmarking is a process to identify best practices (internally and/or externally) that are instigated in targeted process(es) to gain sustainable competitive advantage and continuous improvement.

c) Avoid blindly copying best practices from the peers:
If an organization is blindly copying best practices from peers, the Benchmarking will not fetch success. Superior results from Benchmarking can only be achieved if due diligence is done in identifying targeted process(es) to benchmark, recognizing gaps in existing process with respect to those of the best in class organizations and carefully adapting the best practices to suit organization’s targeted process.

d) Make Benchmarking a culture:
If Benchmarking exercise is performed one time, it may lose the essence in long run. Organizations should have programs and mechanisms in place so that Benchmarking is culturally institutionalized in the DNA of its personnel. The culture should be such that it stimulates organization personnel to continuously improve, to achieve competitiveness advantage, to seek best in class performance and to increase customer satisfaction.

VI. SCOPE OF FUTURE RESEARCH

Author would like to identify, analyze and make recommendations on targeted processes to be benchmarked for Quality Management System on the Oil and Gas projects.

VII. CONCLUSION

Identifying improvement opportunities and continuously improving to achieve best in class performance and competitive advantage is becoming more and more important for organizations in current era of competitive world. To ensure the best in class performance and competitive advantage, Benchmarking is one of the critical activities. Organization(s) shall regularly look out for areas where it is either losing business or customers are complaining or other peer companies are achieving superior performance. Based on the findings, the organization(s) shall launch Benchmarking project(s), develop an action plan to implement recommendations of Benchmarking team, gain management’s commitment to implement best in class practices, monitor progress and recalibrate Benchmarking at regular frequency. To obtain long term desired results of Benchmarking, the organization(s) should make it a culture as opposed to ONLY one time exercise.

Disclaimer: This paper does not represent any TechnipFMC position, and it is in no way related to TechnipFMC.

REFERENCES