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**Article**

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# BENCHMARKING – BETWEEN TRADITIONAL & MODERN BUSINESS ENVIRONMENT<sup>1</sup>

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**Abstract:** *The concept of benchmarking requires a continuous process of performance improvement of different organizations in order to obtain superiority towards those perceived as market leader's competitors. This superiority can always be questioned, its relativity originating in the quick growing evolution of the economic environment. The approach supports innovation in relation with traditional methods and it is based on the will of those managers who want to determine limits and seek excellence. The end of the twentieth century is the period of broad expression of benchmarking in various areas and its transformation from a simple quantitative analysis tool, to a resource of information on performance and quality of goods and services.*

**Keywords:** benchmarking, performance, management, objectives, market comparison.

**JEL Classification:** L15, L25

## 1. INTRODUCTION

Benchmarking is a strategy that seeks, like a supported action, an improved organization's performance, the efficiency and quality of products and services similar to those of competitors. Accepting the changes that occur in business environment makes the achievement of such targets.

Origin and development of the concept are reported in the United States of America, and its usefulness as a management tool has become, so far, recognized worldwide. It has been practiced since the early of the '50s by the multinationals, and in the 1979 Rank Xerox company offered a representative example in this respect, through its desire to see the difference of performance over its competitors.

In the early of the '90s, benchmarking was among the most widespread, popular and desirable management tools used to support SMEs in enhancing economic performance, establishing strengths

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and weaknesses by a market comparison. For example, in England has operated a service called INDEX, which has measured performance in a comparative way, by completing a questionnaire. The first introduction study of benchmarking has been conducted by Xerox Corporation, after observing his partner Fuji Xerox and published in 1989 by R.C. Camp.

Benchmarking is not only a politivity but also a method, a mechanism which supports the political objectives set in the various activities. Its purpose is to increase productivity, reasonable costs, quality and improved services, meant to be the tool to support policy development. Compliting this process, reflected in the best practice, shows how it came to achieving performance.

In fact, this concept can be translated as the standard, regulation of comparison or reference treatment. The reference treatment is the process of identifying, analyzing and adopting the practices of those companies perceived to be the best in a particular industry, in order to organizational growth and improvement activity in their own company. The approach does not stop at identifying the best practices, it goes to a review of their own practices, those of competitors and their implementation and deepening within the analyzed organization. The main objectives of the reference treatment, generally meet in the strategies of organizations, concerns: guidance towards ambitious targets, accelerating the pace of change, identifying processes that generate significant benefits, tracking customer satisfaction and competitive advantage, knowing the strengths and weaknesses through a better self evaluation, a balanced work environment, the utilization of the production capacity in order to increase the organizational value (Tabără, 2006).

## **2. BENCHMARKING FRAMEWORK CONDITIONS**

Peter Drucker shows that this process is initiated by the idea that what is doing an organization can be achieved by any other organization. And if it reaches at least the organization seen as a market leader, then the competitive condition is satisfied (Drucker, 2007, p. 112). Representatives of institutional theory see benchmarking as a measuring tool in performance evaluation, defined by the budgetary control function. Another concept is viewed just as a result obtained from made measurements.

Framework conditions are rules and requirements imposed by the process implementation and they regard the tax system, labor market regulation, infrastructure, public sector monopolies etc. They are particularly important for economic growth, emergence jobs and competition increased.

Establishing framework conditions entails identifying factors that limit the competitiveness and mainly benchmarking projects to not affect the structural reforms, more needed in the globalization of economy.

According to the Federation of European Employers, the framework conditions that affect the business environment are decided at the government level. In the first phase are assessed the comparative performance of public institutions to determine the competitiveness or lack thereof, at the economy and society point.

According to the Trades Union Congress, benchmarking together with several other standard regulations can have a constructive role in European competitiveness, particularly by evaluating performances of economic sectors and its position in areas such as training and use of advanced technologies.

Competitive analysis show performance gaps on costs, productivity, investment and innovation. But they do not explain the origin of the gaps, so that in some cases they persist in the medium and long term. Benchmarking has a broader horizon over these analyses, aiming a clear and accurate understanding about the processes which determine performances. The first step is to know the key areas of analysis and matching criteria for evaluation of each, subsequently being identified the best practices and evaluating their results. Among the traditional factors affecting the competitiveness level, can be observed: the quality of infrastructure (transport, telecommunications, etc.), the tax burden, and quality of employment regulations.

The aim of benchmarking consists in introducing the most productive and effective practices through a continuous improvement of a company life by increasing the quality and performance of industrial services, with beneficial effects on humans. Benchmarking of services provides the necessary conditions to maintain the competitive advantages at the firm level and a good compensation of employees.

### **3. BENCHMARKING METHODOLOGY**

It involves a series of elements and phases, it must be based on research and to use qualitative and quantitative indicators for analysing the best practices.

To achieve a most effective benchmarking are required:

- an accurate knowledge and complete analysis of the organization's own processes;

- selection of the most competent partners/collaborators, having regard the compliance of a Code of Business Conduct;
- a comparison of processes, practices and outcomes, both at the organizational level and at national and international level;

An essential role in developing the methodology for benchmarking is held by the management control and therefore those responsible. The responsibilities consist on training the analysis team which collects, categorizes, and exploits information. In the process, the team contributes to analyze trends, setting short term goals, aiming to obtain some results, but especially the communication and the ability to make them welcome in the enterprise. Before the actual deployment of such an analysis it is required a review of the objectives, action plans and the ways of realizing and also bringing them to the organization's management attention. After their watching and approval, follows the application, actual implementation, to achieve desired results.

So-called benchmarks or reference points are those that reflect the level and performance goals. The elements and steps required to go in implementing a benchmarking model are:

- the firm commitment to improve the activity through:
  - problem identification and the seek of an appropriate solution;
- analytical support structure of the process through:
  - key performance indicators;
  - best practice analysis;
  - comparison between the own practice and the best of the external;
- improving knowledge transfer and learning mechanisms:
  - determining potential for improvement;
  - implementing changes.
- monitoring system:
  - contribution on the progress made.

These points form the base for the universal benchmarking methodology, applicable and accessible especially at the enterprise level, where opportunities for improvement can be easily identified and implemented, and the private sector do not presents limits in addressing this methodology.

The literature includes several views on steps to be taken in implementing a benchmarking model, different according to the views and experiences of specialists or enterprises analysed. Thus,

are presented various models in four, five, seven or eight rounds. Withhold an eight-stage model, for its clear and complex exposure:

Step 1: Defining the mission and purpose of benchmarking.

Step 2: Identify the organization and the referential context, having regard the availability of information needed and the transposition ways of the established ecarts, in the achievable goals.

Step 3: The choice of the methods and data base.

Step 4: Measurement and analysis of performance deviations by processing collected data.

Step 5: Identify the results and their implications, searching for the negative ones the reasons and the necessary corrective measures to reduce them.

Step 6: Define the objectives and the necessary action plans to improve, adapting the best competing methods by controlling the results after defining the new items.

Step 7: Evaluation of the achieved progresses.

Step 8: Strengthening of the progresses.

Two essential phases are: data collection and presentation of results and implications. Data collection is a delicate phase because it is very difficult to get information. Presentation of results and implications has particular relevance in management for the success of processes, insofar as to reach the acceptance of the new targets from the responsible, targets which can be differentiated according to the evolution of parts.

Benchmarking can be applied both internally, which means comparisons within the entity and external, between two or more related entities, but also in products, operations and strategies for setting targets and ultimate goals.

#### **4. IMPLICATIONS ON THE NEW ECONOMY AND KNOWLEDGE-BASED SOCIETY**

Benchmarking, perceived only as a tool to reduce short term costs, distorts its meaning in what it means designing a company through innovation and economic development. It should be understood as a tool to initiate and sustain change, through the adoption of the best practices used worldwide by developing an entrepreneurial and mobilizing spirit, both public and private sector organizations.

Developing new activities, represents an upgrade of the economic environment, through the emergence of a new field – innovation management which is based on the following factors:

- human resources, indispensable in a knowledge-based society;

- innovation, characterize the new emerging society, where e-commerce and the new services are fields based on initiatives and priorities policies;
- new organization of work, in the knowledge-based society there is a need to learn, to move from a heavy and inflexible system of work organisation, to one as slim and innovative;
- sustainable development, by reducing or even eliminating toxic substances used in manufacturing processes and adopting a behavior of efficient resources exploitation.

### **3.1 Development of public sector performances**

The process, implemented in the public sector, aims to provide the governments the necessary methods to analyze, identify and track the worldwide most efficient conditions for achieving economic and social performance. Anticipated impacts seek a longer time horizon and obtaining the best results is expected through a continuous learning process. Thus, services offered by educational and health institutions are conditions which affect business environment development, being necessary the implementation of the best practices for efficiency and quality.

In the private sector, managers are under a continuous pressure to improve the efficiency and effectiveness in the activities of entities over which they lead. The public sector, by contrast, does not work in a competitive environment and, therefore, its organizations do not face such pressure. An important aspect in improving public sector performance is creating alternative means to reproduce the pressure of the private environment. Thus, benchmarking includes the requirements set by the government to the local authorities and moves the focus from how to use the instruments for efficiency measurement to selecting the most appropriate techniques for each activity area. The public sector organizations must meet the requirement of measuring and publishing the obtained results, providing a mean to identify good practices and encourage increasing performance. Using benchmarking it seeks continuous improvement and maintenance, at the same time, of the public responsibility for the provided services.

The public sector must be acknowledged and encouraged to use benchmarking as a permanent policy for the exploitation of knowledge and economic and social models.

### 3.2 Sustainable industrial development

Benchmarking can be a solution to mediate the existing conflict between competitiveness and sustainable industrial development. This statement may give rise to a paradox: how can such a concept aimed at the same time to increase industrial competitiveness and a environmental policy compliance? Unfortunately there is a favorable circumstance for such dilemmas. There holds the idea that protecting the environment by reducing pollution, conserving resources, actions for health of the workers and even the entire community, requires inefficient spending, unjustified, that reduce an organization's activity profitability.

In the recent years, the policies and actions of large organizations had shown that the concern for preserving the natural environment is a factor for competitiveness increasing and jobs issue, which is often translated into increased organizational value. The use of benchmarking for such purposes, requires special attention on SMEs. If at the enterprise level such practices are not followed, then the negative consequences will be felt at national and European level, which inevitably leads to a gap between large and small companies. As an optimal solution, benchmarking, with the best practices identified, it should be promoted as an indispensable tool in development and implementation of the policies of industrial competitiveness, based on performance indicators, with the role of assisting the management process.

This considerations have led to a modern-day concept which has already exceeded the boundaries of the theory to be found in the economic reality, namely, environmental benchmarking. It represents an analysis tool for these field performances, which aims to improve them through enviromental reporting to help identify the existing gaps. The basic concepts of this field are eco-efficiency and productivity. Eco-efficiency implies to increase the quality of environment and life, through products and services that meet consumer needs, but also contribute to the progressive reduction of the environmental impact, with prices as low as possible. Productivity measures the more efficient use of resources in the economic activity to obtain the best results.

In Europe these issues were provided by the Council of European Union, in a commitment for an integrated approach of sustainable development, through by promoting environmental “health” policy focusing on competitiveness and employment. Such policies should encourage wider use of market-oriented tools and the approaches that help companies in their initiatives to protect the environment.



### 3.3 Benchmarking in information technology

#### A. Google Benchmarking

Occurred in 2008 in early March, like an important innovation from Google Analytics. The end user comes into contact with this technology when logging into his own account, when a consent is required for a confidential use of his personal data by Google.

Sharing information in Google Analytics is available on two levels:

- sharing only with other Google products;
- sharing with other Google products, but also with the reporting service by comparison.

For detailing this example of benchmarking usefulness, two issues should be clarified.

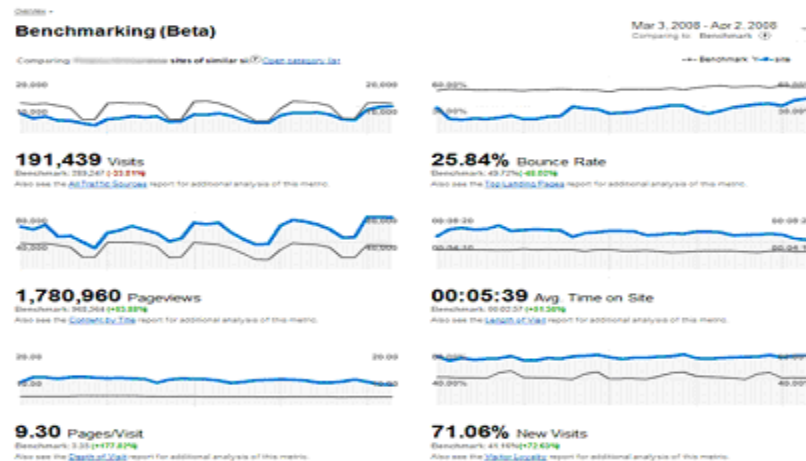
What is Google Analytics? According to the assessment of users and experts is probably the best web service for monitoring the Internet traffic, offered for free. The first page provides general quantitative data, such as number of visitors, pages viewed, the sources from which users reached a particular site (keywords, links). These information are supported by complex reports that are based on qualitative factors such as: loyalty, efficiency, preferences, etc.

How did become the need to implement benchmarking? Google Analytics has reached a critical number of users, many websites are operating with this service. Thus, Google needs an accurate image about the level of Internet traffic and especially of specific data on each particular site. But still there's no possibility, and even need or interest to make an individual review of each site performance, but an overview is unquestionably beneficial and whenever required. For this reason, Google has introduced a new feature, called Google Benchmarking (Beta) in Google Analytics.

Through this service, the site administrators, who have resorted to sharing their information through Google and the comparative reporting service, have access to a new menu in the list of reports. Through the new data available, they are assisted in positioning their own website against competitors. Either globally, compared with other sites of similar size, or on each category, can be determined the traffic situation and a few other parameters of the analyzed site toward the competing one.

Next figure shows the example of such an analysis performed on a particular website.

**Figure 1 - Competitive analysis applied of benchmarking**



Source: <http://googlesystem.blogspot.com>

It's noted that, although the site has less traffic than the most ones of its industry, all other parameters are higher quality. The conclusion is that site has less traffic, but is better qualified than the competition, having a high conversion, a higher utilization rate and a growing proportion of new users.

Since 2010, the service provided by Google has a stronger competitor from Yahoo: Yahoo! Cloud serving Benchmark – (YCSB). Its purpose is to facilitate comparisons on the performance of the next data generation serving informatics systems. Also aims to encourage further development of additional reference treatments, all representatives to broader classes of applications, through *open source*. In this regard, the essential features of YCSB framework are the extensibility and flexibility of the way to support a volume of activities which are specific to the modern economy, so the systems which use it, become the new landmark.

### B. 3D Benchmarking

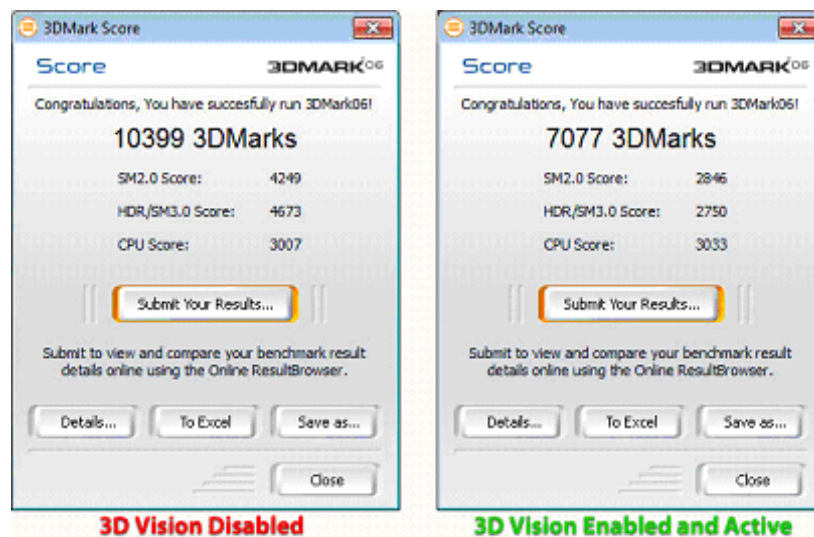
It consists of a series of programs specifically designed for testing the hardware and software of PCs, and laptops. Thus, in its analysis falls video and audio cards, processors, etc. The ending is a diagnosis to help in choosing the best and efficient computer components. Users interested in return of their own PCs, are in a constantly searching of the best hardware and software components. The benchmarking programs are the ideal help, safe and fast to find the best resources.

Currently the concept of these programs has been extended even to most 3D games. These, once regarded as mere entertainment, have become benchmarking programs, the best examples being the well known Quake, and the one which replaced it: Unreal and Unreal Tournament, improved version.

A very important factor is the tested system, more precisely its major components. The system can make the difference of speed, sometimes between two totally different video cards. A slow system will slow down a high-performance video card, but a slowly video card, aided by a strong system, will have performances close to those expected. At the same time, a wrong designed motherboard may not show the real differences between two separate graphics cards. Thus, the PC's performance is determined by the interactions between hardware, operating system, type and quantity of software rolled. The reference in this area consists in a set of benchmarks which can be applied with a high precision rank, over a wide range of hardware (Madhavan, 2009, p. 140).

The latest version of software that can perform a benchmarking analysis is 3DMark11 (Figure 2) from Futuremark. Currently it represents the most popular tool of the world, for measuring the graphics performance on PCs, especially the gaming ones. It includes six new reference tests widely applied to computers that use DirectX 11, running on Windows 7 and Windows Vista. After running tests, 3DMark provides to the analysed system a certain score, which is greater, as performance is higher. Trust becomes from that the test results are accurate and impartial.

**Figure 2 - Benchmarking in 3DMarks**



Source: <http://www.futuremark.com>

Current trends moves towards a new technology: 4D Benchmarking. There is already a software developed by Maxon, as Cinebench, which promises to reach a higher technological level that the present one.

## CONCLUSIONS

The implementation of a benchmarking program requires time, effort and significant costs, management and support of highest quality. Through its ability to initiate and direct change, the reference treatment has a vital contribution to the continuous improvement of activity and to a performance management through its ability to identify targets and to use the best organizational practices. The concept is not only a tool for improving productivity of the enterprise, but also affects its development, through a management control, in order to avoid inconsistent actions launched by various internal functions.

The importance of benchmarking results from its applicability in a variety of fields, which concern not only the private sector but also the public one. Generally, the success of such approach is conditioned by shared technical and managerial knowledge and the application of cross-management tools. There are currently several companies specializing in implementation of benchmarking models, which already have the attributes of consulting firms and are especially addressed to those entities that can not achieve by themselves such a step.

In the context of business environment transformation, the application area goes beyond the traditional boundary lines, the comparative analysis can be found, increasingly more, in the new information and communication technologies. IT market grows very fast in a short time, so it is important to underscore the best manufacturers and suppliers of informatics products and services. The results of benchmarking in this area are used both by the managers, but also by ordinary consumers, so the information must be available whenever needed, able to be comparatively analyzed, reason that led to the emergence of various applications, designed to facilitate such work.

Benchmarking had already become indispensable to meet the market needs, being more than a simple comparison of the indicators. It is a complex methodic principle that can respond in real time to the ever faster pace of innovative thinking and to the growing pressure of competition.

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