Stalagmometer is used to measure

What are inches used to measure. What does a profilometer measure. How is dose measured. How is wettability measured. What does measure.

Curated by Timothy B. Blodgett One way to judge the execution of an organization is, of course, to confront it with other units within the company. But these measures often simply reinforce complacency or generate “uninvented” excuses here. Comparisons with strangers, however, can highlight the best practices in the sector and promote their adoption. This technique is commonly called "benchmarking", a term taken from the practice of earth-surveying of comparison elevations. When Xerox started using benchmarking in 1979, the management goal was to analyse unit production costs in production operations. Unconscious of the extremely low prices of Japanese standard paper copiers, Xerox's production staff wanted to determine whether the relative costs of their Japanese counterparts were lower than relative prices. The staff compared the operational capabilities and characteristics of Japanese machines, including those made by Fuji-Xerox, and lowered their mechanical components for the exam. The survey revealed that production costs in the United States were much higher. The discard of their standard budgeting processes, U.S. production operations adopted the lowest Japanese costs as targets to drive their business plans. Top management, rewarded with the results, has directed that all units and cost centers in the company use benchmarking. But distribution, administration, service and other support functions found it difficult to get to a similar convenient to a product. These non-manufacturing units have begun to make internal comparisons, including the productivity of workers in different regional distribution centres and the per-pound transport costs among regions. Later, they looked at the processes of competitors. In the logistics that meant comparing the transport, deposit and management of the inventory of the Xerox distribution function with those of the competition. However, the contraction to competition poses problems. For one thing, comparisons with competitors can discover practices that are not worthy of emulation. For another, while competitive benchmarking can help you meet the performance of your competitors, it is unlikely to reveal practices to beat them. In addition, getting information about competitors is obviously difficult. Finally, we have observed that people are more sensitive to new ideas that come from the outside of their industry. Therefore, non-competitive benchmarking is the method of choice. A non-competitive survey can provide management information on the best functional practices in any sector. These may include unrecognised technological advances in their sector (such as bar encoding, which originated inof the grocery, but since then it has been widely applied). The adoption of these practices can help achieve a competitive advantage. The first step in the process is to identify what will be benchmarkedâ € "expense-to-revenue ratios, inventory shifts, service calls, customer satisfactionâ €" whatever what Ã ¢ â,¬ "ProductÃ ¢ â,¬ of the particular function is. Then identify areas that need improvement. In the experience of Xerox, managers tend to focus first on comparative costs. But as they become more well informed about benchmarking , the managers discover that the understanding of practices, processes and methods is more important because these define the changes necessary to achieve reference costs. Furthermore, as executives become more confident about benchmarking, they can easily extend it beyond the reduction of costs to profit manufacturing factors such as service levels and customer satisfaction. L & D and Bean where you can find well-managed competitors for comparison purposes? Annual reports and other easily available publications can discover gross operating indicators Efficient. Universally recognized measures such as ROA, employee revenues, inventory shifts and percentage expenses S G and expenses will help identify the managed companies. To identify superior performance in particular functions, Xerox is based in particular on commercial magazines, consultants, annual reports and other corporate publications in which Ã ¢ â,¬ Å "Datings of Prideã, â,¬ appear and presentations at Professional and other forums. The same well managed organizations continue to turn. Getting a cooperation of non-competitor in the venture is usually simpler because professionals in a function are eager to compare notes. They want to know how their system happens. In fact, several non-competitors have agreed to share the expenses of benchmark studies with Xerox. One of the most precious benchmarking experiences of Xerox, with L.L. Beans, Inc., the retailer of outdoor sports items and the e-mail dealer, illustrates how these initiatives work. It was carried out by Xerox logistics and from the distribution unit, which is responsible for managing the inventory, warehouse and transport of machines, parts and supplies. The increases in historically producing L & D were 3% to 5% per year. In 1981 it was clear that improvement was necessary to keep the profit margins in front of the price cuts of the industry. The inventory control area had recently installed a new planning system, and the transport function was capitalizing the opportunities presented by deregulation. The warehouse was the next online for improvement, and the managers of the distribution center want a change. They identified the collection area as the worst bottleneck in the sequence of shipping shipments. A new technology, automated storage and recovery systems (ASRS) for handling materials, had appeared on the scene and was the object of the hot debate in the function Xerox distribution. The company had just erected a Skyscraper ASRS Warehouse for raw materials and assembly parts to Webster, New York, in the same complex of a large distribution center of finished products. Evaluations of internal L & D benchmarking showed that heavy investments in capital equipment for ASRS could not be a justified cost for finished goods. They needed a different way to increase the warehouse and e Manage productivity, but what? In January 1981 the L & D assigned a member of the staff to present an adequate non-competitor for the benchmark in the storage and handling areas of materials. The staff member combed commercial magazines and conferred with professional associations and consultants to find companies with the best reputation in the distribution business. He then targeted those companies with generic product features and service levels similar to Xerox Reprographic parts and supplies. By November the staff member had identified L.L. Bean as the best candidate for benchmarking. Of particular interest were Bean's warehouse operations. The staff member summarized him's impressions in a memorandum to him: â was particularly impressed with the L.L. warehouse system. Bean design. Although extremely manual in nature, the drawing minimized the content of the work, among other advantages. The operation has not also been paid to automation [management and withdrawal]. The design was therefore based on very basic manipulation techniques, but it was carefully thought and implemented. Furthermore, the project was selected with the full participation of the hourly workforce. It was the first warehouse operation designed by qualità circles .â € to the laity, the L.L. products Bean cannot resemble Xerox parts and supplies. For the distribution professional, however, the analogy was surprising: both companies had to develop storage and distribution systems to manage different products in size, shape and weight. This diversity precluded the use of ASRS. Three months after a Xerox team visited Bean's operations in Freeport, Maine. In addition to the person responsible for benchmarking in L & D, the team consisted of a manager of headquarters operations and a director of the field distribution center. These two people represented the employees of the line that eventually made changes. The analysis of the results at home in Rochester, New York revealed a larger range of computerized activities that Xerox had. These activities include: the organization of materials for speed, ie, fast movements were stored closer to the collection route. Storing materials incoming randomly to maximize the use of warehouse space and minimize the travel distance of the forklift. Order and release arriving orders throughout the day to minimize the passing distance of the picker (known as shortly intervallation planning). Base incentive bonus on productivity collection offset by error rates. Automation of output vector manifested by calculating transport costs in advance. Plans to implement the automated data through bar encoding. Exhibit comparison of the prospective performance of Xerox's most efficient warehouse then be programmed with the performance of L.L. Bean from February 1982. Due to the nature of its operations, Xerox often chose several pieces by order, so Xerox had a higher figure for pieces per day of man. But L.L. Bean could choose almost three times as many lines for man-day. (A line, line,represents the travel distance of the collector for a trip to a basket, is the crucial measure of productivity.) Comparison of key performance criteria in two distribution centres The report documenting the results has attracted great interest within Xerox's L&D organization, particularly because Bean was a high-intensity work system that could be adapted fairly easily to Xerox's purposes. As a result, L&D incorporated some of L.L. Bean's practices into a program to modernize Xerox's warehouses. These practices included the position of materials prepared for speed, speeding up material flow and minimizing the travel distance of collectors, as well as improving computer involvement in the collection operation. Xerox is now putting together a warehouse totally managed by the computer. Benchmarking has become a continuous practice at Xerox Logistics and Distribution. The requirement to continue the procedure has been pushed down the organization to individual operations, which now make their benchmarking rather than having a specialist exhibit it. Because the process is well understood and because the people who undertake it are those who implement the results, benchmarking is now much easier to realize than before. L&D has taken the non-competitive approach to benchmarking many times. Exposure II shows some of the practices that Xerox discovered using this method. Exhibit II Practices Discovered Via Non Concurrent Benchmarking From these efforts L&D has greatly increased its productivity. Prior to benchmarking, the organization was making annual productivity gains of 3% to 5%; now it strives, and reaches, improvements of 10%. Of this figure, about 3% to 5% is derived from L.L. Bean investigations, using competitors and not competitors. In addition, people involved in the benchmarking process often find that work is expanding and expanding their professional growth. They become more useful for the organization. L.L. Bean, incidentally, also benefited. After seeing the success of Xerox, the company adopted benchmarking as part of its planning process. A version of this article appeared in the January 1987 issue of Harvard Business Review. Review.