

The late 20th century saw footwear production become a global industry. Shoes sold today in one country have very likely 'visited' several others during their manufacture. And, while the market economy governs overall trade, most manufacturers find themselves in competitive situations in both the domestic and international markets. Through his many years of experience with UNIDO, Dr. Ferenc Schmél is in a unique position to offer an overview of how footwear manufacturers should seek to assess their true competitiveness.

Assessing competitiveness

WTO has encouraged even further global competition and consumers have become the final arbiters in defining the success of suppliers throughout the entire value chain. Everyone must compete, so some will win and others will lose. Assessing competitiveness means finding out if a company can satisfy the market and be either on a par or better than other suppliers of the same product. This comparison is made through measurements which are known as benchmarking.

There would appear to be four ways to succeed in the global footwear market.

1. Be the cheapest—unfortunately, there will always be somebody prepared to go lower.
2. Have innovative products that can command high prices and profit margins.
3. Provide good service in terms of delivery, reliability, repeats and product certification.
4. Maintain continuous and aggressive promotion—even here, good products are essential.

Benchmarking

Performance characteristics of any company can be measured under three parameters, profit (financial viability), productivity (utilisation of assets) and quality (value for money). These three criteria define overall efficiency. A benchmark—in the industrial sense—is either a reference standard for comparison, a performance measurement that is the standard of excellence for a specific activity or a measurable best-in-class achievement.

Benchmarking itself is the action of



setting benchmarks and takes various forms. It can determine who is the (very) best, who sets standards and what those are. It also means continuously comparing and measuring processes against competitors worldwide to gain information on their systems that may suggest action to improve performance. It also involves a business systematically measuring itself against better performers and then adopting and adapting anything shown to be more effective. It is also a comparison against standards of excellence which, in turn, requires being prepared to admit that someone else is better at something and to learn from them.

There are several related terms and practices that can be followed:

- *Good Manufacturing Practice*—a high standard set by business or technology leaders
- *Straw Man*—an artificial target set by logical thinking rather than by existing examples and used to set goals for improved performance
- *Greenfield study*—a virtual operation using the most advanced and efficient methods under ideal conditions

- *Comparative/Competitive analysis*—assessing performance measures without evaluating their reasons or how they were made and how similar or better standards can be achieved

Depending on the purpose or area where an assessment is made, the following types of benchmarking may be used:

- *Process benchmarking*—focusing on discrete workflows
- *Performance benchmarking*—compare performance with others
- *Strategic benchmarking*—a tool for long-term planning
- *Enterprise benchmarking*—assists in finding more efficient methods of operation
- *Sector benchmarking*—aims at determining capabilities of an entire industrial sector of a given country in order to change its structure and conditions to improve potential in all markets

Objective of benchmarking

The main purpose of assessing competitiveness is to find out the likely market potential of an industrial operation. The closer it is to those setting the best standards, the better the chances of long-term success. Benchmarking answers two essential questions—how do we know an operation is as efficient as possible and, if not, what can be done to improve it?

The ultimate objectives may be any, or a combination, of the following:

- Develop and implement strategic goals
- Establish realistic actionable objectives
- Provide a sense of urgency
- Encourage striving for perfection and innovative thinking

- Create a better understanding of the industry or business
- Emphasise sensitivity to changing customer needs

Footwear manufacture

The footwear industry—like any other manufacturing industry—has its own peculiarities. The benchmarks and good practices that need to be applied will therefore be quite specific and should cover all key areas of operation. Changes in parameters will of course alter as technology develops and consumer needs and other influences change. Benchmarks and good practices—once established—therefore need to be periodically reviewed, updated and supplemented according to actual economic, market, technical and social conditions.

Benchmarks are quantitative (measurable) characteristics indicating the value achieved by the best in the world or in the group in which the benchmarking exercise applies. These are figures with appropriate units of measurements to be established by research and established as top/best achievements.

Good Manufacturing Practice is a description of qualitative behaviour of best functioning entities that may serve as guidelines, suggested actions, or strategies for improving the operation. The following are areas that should all be assessed.

Company (business) management

Benchmarks

The minimum and optimum output, optimum labour force and shipping time to key markets.

Good Manufacturing Practice

Non-utilisation of premises and equipment reduces efficiency and premises of inadequate and/or inappropriate layout can add 15% to the total employment bill. Product development should be governed and controlled by marketing. Only design and shoemaking skills are specific to footwear technology, so specialists should be employed in all other areas. Training at all levels is essential.

Finance and asset utilisation

Benchmarks

Yearly turn of capital for manufacturing and retailing, working capital employed for basic materials, work in progress and finished goods, and capacity utilisation.

Good Manufacturing Practice

Medium-to-large operations should best combine private and bank capital, while smaller companies can rely on shareholder funds. Loans should only be taken for highly profitable growth opportunities and alternatives to normal bank financing such as supplier credit, government or international funds should be used where possible. Production should be kept as even as possible throughout the year and any increase requires a proper investment decision rather than just extra labour. Profitability is essential to maintain a business and anything below 5% creates high-risk and vulnerability.

Marketing

Benchmarks

Margins for wholesalers and agents, bonuses for quick repeat orders and special promotions, and brand advertising costs.

Good Manufacturing Practice

Quality, consistency, reliability and good general company policies are vital, while a good product is essential for branded footwear. A long-term strategy is also needed as the supply of footwear exceeds actual demand in world markets, so companies lacking one can leave too much profit with traders. Manufacturers should also know exactly where they make profit (i.e. type of product, customer, market, distribution channel, etc.). Likewise, advertising alone cannot create a good brand.

The following factors (in priority order) define competitiveness and manufacturing success:

- Specialty product
- Exact compliance with customer order specification
- Consistent, reliable and on-time supply
- Service in regard to certification, accepting small and/or repeat orders
- Price and payment terms (too many manufacturers think price is all important)

Overheads

Benchmarks

The percentage of indirect workers involved in normal production and production supervision, both direct and with other support staff.

Good Manufacturing Practice

Open plan offices create easier

communication, higher efficiency and discipline. Many companies make substantial efforts to squeeze out the last reserve seconds from standard times whereas serious reserves exist in overheads due to indirect activities. There are cases—especially in countries offering low wages—where actual labour costs are several times less than the sales price of worker capacity.

Purchasing

Benchmarks

Material costs as a percentage of total manufacturing and end of season markdowns.

Good Manufacturing Practice

Negotiate with suppliers and do not depend on just one. Use suppliers of an appropriate matching size and pay accurately (poor payment can add 12%). Use a leather assessment system to measure and check the quality of supplies in-house and not in tanneries. Companies can pay at least 25% more than required for materials and components due to poor purchasing. Negotiation is one job; ordering and supply control is a different function.

Product development

Benchmarks

Initial design through to final graded patterns expressed in man-working-days and new style lead times to commencement of production.

Good Manufacturing Practice

Accuracy, productivity, punctuality and speed; well-organised design and product development within a company offers a comparative advantage over simply copying styles or obtaining samples from clients. Skilled designers work faster and competent product engineers produce reliable constructions. CAD systems should be fully utilised and linked to other functions such as CAM last- and mould-making.

Material utilisation

Benchmarks

Use of leather and pattern measuring systems, good material costing, cutting controls, assessment of usable material areas and optimum nesting layouts.

Good Manufacturing Practice

Incentives should be paid to cutters ►

WORLD FOOTWEAR

for material economy. Low yields from cheap genuine leather may actually create higher material costs.

Production (cutting)

Benchmarks

Minimum order size for die-cutting or cutting table usage and adequate monitoring of productivity regardless of the system employed.

Good Manufacturing Practice

Lighting, die labelling and storage, if applicable, cut piece collection and waste removal. Despite the high investment costs, the use of computer-controlled cutting tables to produce samples and small orders offers surprisingly short payback times. Cutting small quantities of components from single-layer synthetics can be more economic than from multi-layers as it avoids excess work-in-progress.

Production (closing)

Benchmarks

Shoe uppers are the most variable part of the final product. Their labour content depends on the number of components, complexity of construction, shapes and decorations, so it is impossible to set benchmarks.

Good Manufacturing Practice

Performance can be increased by 30-70% through regular training and skill development, workplace organisation and motion studies, improved work measurement, better operator control and optimum working conditions. A further 30% can be gained through machines equipped with quick stop and variable speed motors, needle stop and positioning devices, thread cutters and programming facilities, while even small companies can justify smaller automated (CNC) sewing machines. If more than 10% of operators are not working but waiting, inspecting, thinking, talking, etc., there are problems.

Production (making)

Benchmarks

Productivity set against the degree of mechanisation and automation in place, and the number of finishers in relation to the total number of operators employed on the line.

Good Manufacturing Practice

High productivity involves a well-balanced line and a combination of smaller

and shorter operations to reduce handling time. No shoes should be touched if no physical changes are to be made. If a critical mass of production (minimum 400 pairs per eight-hour shift) is not ensured, lasting machines become too expensive and hand lasting may prove better. Equipment, production line balancing and incentives all define productivity. Finishing is normally separate from lasting and sole attaching and may even be in a separate unit.

Human resources

Benchmarks

Discipline and absenteeism.

Good Manufacturing Practice

Systematic training to develop skills, motivation of employees to strengthen corporate coherence and a remuneration system based on operator performance, with only really immeasurable jobs paid on a fixed (time) basis. It is not necessarily true that non-incentive group working is more flexible and produces better quality. It is true that opportunities to recruit properly trained and skilful people for shoe manufacturing are scarce.

Quality assurance

Benchmarks

Defect rate affecting repeats and customer returns.

Good Manufacturing Practice

Product quality standards maintained by proven test methods and assessment guidelines, while the ISO 9000 family will provide support for systems. Final inspection should be combined with other finishing operations. All returns from customers should be thoroughly studied with regard to all problems (i.e. not only in relation to the reason why it was sent back) and all faults noted.

Information technology (IT)

Benchmarks

For some functions, managing a footwear company is no different from other industries and IT modules used elsewhere or available from software suppliers can usually be used. A set of well functioning modules linked by through data-level compatibility is often more efficient and more flexible than a fully integrated system.



Dr. Ferenc Schmel

Good Manufacturing Practice

Use ready-available management software rather than developing your own.

If it looks as if only you appear to need a certain IT function, ask why all the others are wrong. Likewise, old systems

that work should not be changed simply to introduce a more fashionable one.

Making comparisons

If there was only one parameter to compare company performances, there would be no problem in ranking them and indicating their differences. It is obvious from the quantitative characteristics we have looked at, that assessing true performance and competitiveness should include many parameters.

If we have only two characteristics and two manufacturers, it may happen that with one parameter the first company is better, whereas the second parameter is better with the other. Such contradictions make it impossible to make a uniform judgment. Furthermore, if there are more parameters—all having different units and magnitudes—to describe performance, tens or hundreds of companies need to be compared and simple ranking becomes impossible. It then becomes necessary to apply multi-dimensional measurement or co-operation techniques and to measure the quality of the products produced.

Implementing benchmarking

While companies can assess themselves against benchmarks (self-assessment), this should be as complex as possible. However, employing experts, associations, research and development institutes or other specialised agencies offers greater reliability. Measuring performance is the pre-requisite for becoming globally competitive and no improvement will be achieved without a firm determination to do things better. Those who believe they are 'different' and that benchmarks and good practices are not relevant to them, are likely to disappear from the market. 🌐