

PRODUCTIVITY IMPROVEMENT AND ITS APPLICATION IN THE CERAMIC SECTOR

Dr. J. Membrado Martínez

E&D Chairman. Estrategia y dirección
Spain

We are currently in a very tough economic environment with a global crisis. This started at the end of 2007 with sub-prime mortgages in the United States, and has been exacerbated in Spain by the so-called “bursting” of the “real estate bubble”. This situation is having a particularly serious effect on the ceramic sector, which is closely connected to home building, and it has forced numerous companies to implement restructuring plans and even, in some cases, file for bankruptcy.

According to the predictions of many Spanish and international organisations, such as the European Commission, the International Monetary Fund and the Fundación de las Cajas de Ahorros (Savings Banks Foundation), this disadvantageous situation is set to continue at least until late 2010.

In the context of this global crisis and climate of fierce competition, companies are attempting to introduce strategies to make them more effective, more efficient and, as a result, more competitive. Several organisations and institutions are suggesting solutions, most of which coincide, regarding the kind of plans that should be put in motion by companies to enable them to become more competitive in an international context. The solutions are on the lines of encouraging greater internationalisation of Spanish companies, strong investment in R&D+i, better quality products, more employee training, customer-focused business practices and, most especially, improved productivity and cost optimisation.

Cost optimisation is an essential topic for all types of companies, regardless of their sectors of activity and the markets in which they operate. Specifically, cost optimisation is particularly pressing for the companies in the ceramic sector that are so keenly feeling the effects of the world economic crisis and the real estate market crash, with the subsequent decreased activity in the construction sector. This can be achieved by using simplified processes and resources that match what is strictly necessary to meet business essential requirements. This is applicable to resources of all kinds, including human resources, materials, inventories, buildings, equipment, consumption...

The adaptation of the business to this new scenario requires a radical change, which ranges across the design of the organisation itself, the functioning of its top management team and other managers, motivation and involvement of employees, strategic and operational planning, process design, cost of associated resources, etc...

The final objective is to achieve improved global productivity of the organisation in terms of lower unit costs by:

- Reducing total costs.
- Increasing turnover with the same resources.
- A combination of the above.

Improved productivity and cost optimisation can only be achieved by using well-structured tools and processes with clear objectives and methodologies. Intuitive-type cost reduction initiatives in areas such as travel, telephone bills, cafeteria and other discretionary costs are of limited value and, although necessary, they are insufficient to resolve business competitiveness problems.

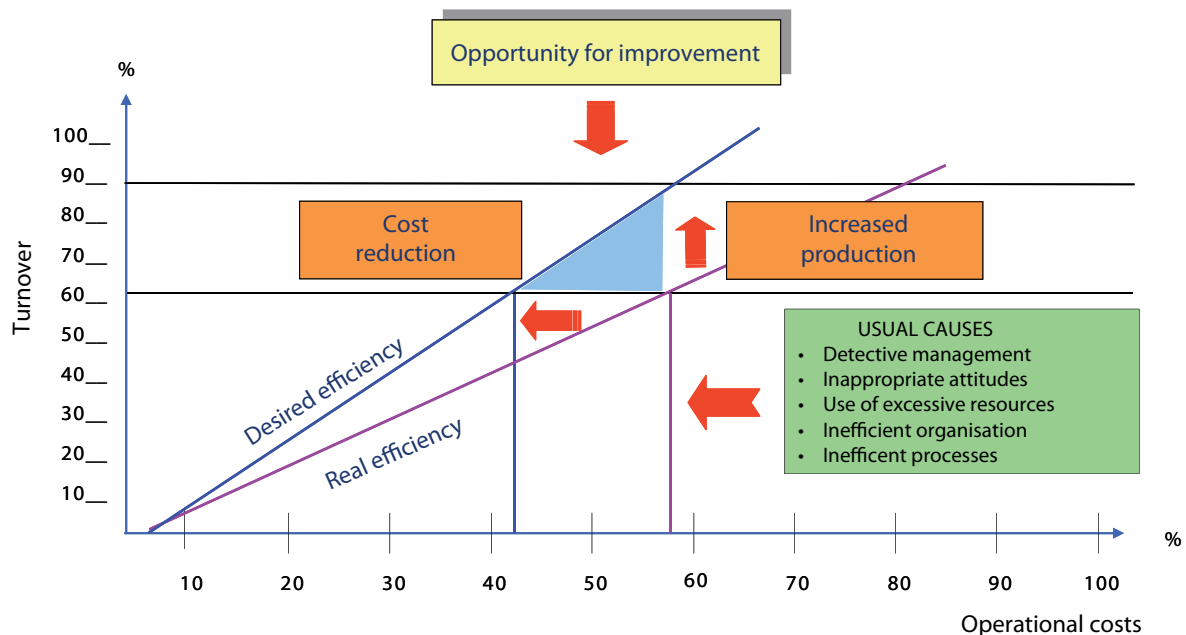


Figure 1. Productivity improvement.

In our view, some of the tools that make the greatest contribution to improving competitiveness and cost optimisation are:

- Short Interval Management.
- Lean.
- Six Sigma.

Short Interval Management is a methodology that emphasises personnel training, particularly middle management and supervisors. It should be introduced as part of a product with a global approach, which is often combined with the development of Lean and Six Sigma projects.

Lean is a manufacturing/operational strategy based on cutting out waste from the value chain. The Lean transformation allows an organisation to reduce its costs by quickly improving its processes and encouraging participation by employees. Lean is a manufacturing strategy especially suitable for industrial organisations such as ceramic industry companies.

Six Sigma is a strategy based on process improvement through a thorough analysis of these processes and the use of a very powerful methodology (DMAIC) that includes the use of statistical tools. In companies with complex processes such as those in the ceramic sector, Six Sigma is a solid methodology for resolving

serious processing problems that affect both quality and productivity.

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