OPERATIONAL EXCELLENCE – A KEY TO WORLD-CLASS BUSINESS PERFORMANCE

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Abstract:

Continuous improvement implies a focus on solving a series of quality problems, reducing inventories, eliminating waste and increasing productivity. However, it is clear that being lean, cost-effective and of high quality is not enough and it does not guarantee the growth of any business. This paper aims to highlight the importance of operational excellence, which is a concept referring to an effective focus on customers in order to achieve excellence at business level.

Key words: operational excellence, management, continuous improvement, Shingo model, customers

1. Introduction

Operational excellence is a key driver to business success, as it relates operations to customers. It is a philosophy that makes possible for all employees to identify the way processes are followed and make fast decisions with strategic implications. Operational excellence is a key to competitiveness, but, in order to benefit from it, managers need to decide which are the most important processes, those that add value and therefore really matter, and to develop instruments to sustain them.

Continuous improvement processes build their performance on the ideas of repetition and focus on reducing costs by also having as low inconveniences for customers as possible. The concept of business excellence means more than that, as it also takes into account an increased perceived value to the customer and increased responsibility to all the employees, who have to be able to identify problems very fast and correct them in a way to make customers more satisfied than they would have been if the mistakes had never occurred.

Operational excellence means a series of "intangible assets" that enable organizations to continuously improve all areas of performance. The idea of growth is very important and therefore operational excellence can be perceived as a "mixed" competitive advantage, with flexibility and improved customer responsiveness on the one hand, and cost effectiveness on the other hand.

2. What is Operational Excellence?

The lean management movement established new "rules" for being able to compete successfully, i.e. eliminating waste and increasing productivity. While these are clearly very important, they are not enough in order to ensure companies' growth.

The concept of operational excellence developed in time, by having as a main foundation the philosophy of continuous improvement. Most of the definitions of the concept take into account the idea of continuous improvement. Additionally, the focus on customer and the need for the employees to be able to identify and correct problems should be part of the definition. Operational excellence is more than a simple concept, it is a philosophy at operational level with strong implications on competitiveness, at the strategic level.

After some work of literature review, we consider the evolution of the concept can be expressed as a timeline, which is presented in the figure 1.

Operational excellence is the priority issue on the agenda of every manager nowadays being probably the most disputed concept theoreticians and practitioners in the field of business management speak about. It is also the subject of many studies undertaken by consulting companies that are periodically making a diagnosis of the business environment with its challenges and opportunities.

Although the concept of operational excellence is quite new the idea behind it has evolved in time into what we know today. The contributions and innovations of many scientists and business people set the grounds for excellence.

Beginning with the industrial era practically there were continuous attempts to improve and facilitate better processes, to lessen the work of men, to make plants produce more with higher revenues and lower costs.

It all started with the popularization of the concept of interchangeable parts introduced by Eli Whitney in the armaments industry around 1800. The quest for perfection continued with the study of ergonomics at work, the planning of production, and the discovery of new ways to improve production in 1881 by Frederick Winslow Taylor, the father of scientific management. These were the trends that became increasingly focused on the management of manufacturing processes (Heizer, Render, 2008). As Taylor's work became very popular, managers became increasingly concerned with the development of new techniques that focused on the efficiency of production processes. Workers were trained to focus on eliminating unnecessary efforts and increase their work efficiency and on the other hand, statisticians, business analysts and programmers were required to develop tools and instruments for a better process control.

Figure 1: Operational Excellence Timeline

Whitney's and Taylor's Innovations

cotton gin interchangeable parts division of labour time study standardized work scientific management productivity improvement reward system for meeting goals



Ford Mass Production and Mass Customization Systems

division of labour standardization moving assembly line
low unit cost custom output push production
strategic advantage company-customer interaction



Deming and Juran's focus on processes

total quality management statistical process control PDCA cycle

14 principles

quality management cost of poor quality Pareto principle



Just-in-time Manufacturing

improved flow of goods standard production in-process inventory reduction
reduced lot sizes reduced lead times minimum shipping delay
improved quality and efficiency kanban pull system multiple skilled employees
focus on relationships with suppliers continuous improvement



Toyota Production System

elimination of waste reflection and continuous improvement (kaizen) flow
pull system leveled workload (heijunka) standardized tasks visual control
teamwork focus on people and partners grow leaders organizational learning
developing a long-term philosophy continuous improvement



Lean Management

7 deadly wastes kaizen decrease cycle time takt time eliminate inventory increased productivity pull production production leveling (heijunka) shortest lead times current-state map future-state map leadership value stream

The intensive efforts carried out until that time were brought forward with the development of new improvement methods, such as Henry Ford's revolutionary concept from 1913, the assembly line, and the historical contribution of Walter Shewhart in 1924, continued by William Edwards Deming (Deming, 2000) in 1950, namely the quality control with the use of statistical methods and the continuous improvement of production processes. Things did not stop at that point. The perspectives for innovation and progress are still to be discovered in this field with significant implications for other disciplines such as the industrial engineering and the management science.

The latest management philosophy, Lean Management, proved that all those process improvement efforts undertaken throughout the decades apply not only for manufacturing but also for services since operational excellence is a critical concern for every organization. With a careful attention for the understanding of business processes, lean shapes the ideas of its predecessors to a higher level with the emphasis on value, value creation and value delivery. Many authors (Cooper, Maskell, 2008) have studied the prerequisites of organizations that strive to implement the lean philosophy. The battle is not only for winners, it is always for those who are not afraid of the change.

Although it does not provide the answer to all our questions, operational excellence is by its name, a star on the sky of every company, some kind of wishful thinking they are aiming at. And in order not to become a chimera, the most valuable asset companies can benefit from is the alignment of operational execution with the strategy (Kaplan, Norton, 2008). It is the safest way to avoid survival and strive for better approaches and opportunities.

Shingo (2009) presented three fundamental approaches to continuous improvement: plant improvement, process improvement and operations improvement. Duggan (2012) draw attention on the fact that business growth will not necessarily happen simply by solving a series of quality problems, as there is not a direct connection between these elements, and, moreover, delivering value to the customer is the key. The author raises nine important questions aimed at achieving a real business success. A brief synthesis of the main ideas derived from these questions is presented in the following table:

Table 1: Key questions aimed at achieving operational excellence

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No.	Question	Implications
1	"Why do we do continuous improvement?"	 Improving operation by itself in not the main goal; Focus on business growth rather than on simply eliminating waste, reducing costs and improving quality.
2	"What is the best way to improve?"	 Focus moved from continuous improvement of processes to effective communication with employees; Employees need a "road map" with signposts designed for making them understand how close they are to the "destination".
3	"How do we know where to improve?"	 Contrary to common beliefs, improvement is not necessarily more important where performance is lacking; "Destination" is the rule for better knowing where to improve, as in

		many cases new operations have to be designed.
4	"Why do we strive to create flow?"	 Operational excellence does not create flow for the purpose of eliminating waste, as Lean does; Flows are created in order for the people in the flow to immediately identify and correct potential disruptions.
5	"What causes the death of flow?"	 Constant interruptions in the flow tend to eventually lead to the death of flow, but this comes mainly as a result of a wrong answer to the previous question; A flow created with the clear purpose of seeing when it stops would normally never die.
6	"What would the shop floor look like if we did everything right?"	 This not question should not be simply answered by explaining the results of years of continuous improvement; The flow of product to customer should be identified as normal or abnormal and the standard work should be understood not only at every station, but also between the stations.
7	"What would the office look like if we did everything right?"	 A precise destination for office processes is clearly a more practical answer than making employees to provide timely responses, without seeing or teaching them; Employees should know exactly what they have to do based on flow rather than on management's established priorities.
8	"What would the supply chain look like if we did everything right?"	 Although reducing consumption of resources, ensuring accuracy and being on time might be good answers from a continuous improvement perspective, operational excellence focuses mainly on real time observations; It is important to know if a particular supplier is on time, if inventories are enough, etc., before any impact on production.
9	"Where will our continuous improvement journey take us?"	 Performance and results are typical answers, since they are presented as objectives from the very beginning; the problem is there is not any road map to ensure the right things are improved in order to ensure growth; The suggested answer is a kind of definition of operational excellence, with every employee understanding how to flow product to the customer very well and knowing what he/she has to do when identifying an abnormal flow.

Adapted from Duggan, 2012

3. Towards a New Model of Operational Excellence

We analysed a series of models developed by academics and practitioners, i.e. Shingo model, the house and the diamond (Maskell, 1995) or models developed by Accenture, KPMG, etc. and could remark that the way they looked at the various variables was different, while generally the same variables were taken into account. By having this knowledge base, we tried to develop another model.

Our proposed model is not entirely new. It is rather a collection of the most important ideas (in our view) with respect to this concept. The way we combined the ideas is original as a model, while all the ideas did exist before. Briefly, our model is expressed in Figure 2.

Figure 2: Model of Operational Excellence





Operational excellence is expressed by three different areas we consider to be of equal importance:

<u>Process focus</u> – process improvement is a key to business performance; it is
maybe the area that will be most easily connected with the idea of operational
excellence; there are many subareas to be taken into account: teamwork (all

the cohesion needed), process control, resources to be used, people and improvement philosophies.

- <u>Customer focus</u> another very important foundation of business excellence consists in delivering value to the customer; in order to do so, companies actually need to strategically approach a series of subareas: value innovation (as presented in Kim and Mauborgne, 2005), responsiveness (customers' feedback), customizations, specifications, needs.
- World-class performance in this case we are looking at the results; while
 from this perspective it is a different area, we consider it neither more, nor less
 important than the other two when defining operational excellence; its main
 subareas are organizational goals, customer satisfaction (as it is a result),
 profit, competitive position, key performance indicators; we also took into
 account the model of organization's dynamic competitiveness, as presented in
 Radu and Popescu (2011).

<u>Operational excellence core</u> can be also expressed in terms of strategic alignment, leadership, involvement, technology and skills.

As it can be observed from Figure 2, a more general approach has its roots in the idea of continuous improvement, "doing the right things right, first time and every time." In terms of areas we have chosen, the idea is that process focus, customers focus and world-class performance are for sure key terms when discussing the operational excellence concept. While the importance we give to the three terms is equal, we also expressed in the figure the fact that world-class performance expresses the results and it is put on the top, while the other two variables can be seen as foundations of operational excellence (the base of the triangle).

4. Conclusions

Operational excellence is not just a concept; it is philosophy aimed at improving performance and leading to business success. Operational excellence might seem to be a theoretical, new and relatively sophisticated concept. By working on this paper, we wanted to emphasize that it is neither theoretical, nor new and sophisticated.

Firstly, it is practical oriented and we strongly believe that it will develop further in the near future, as companies need to find a way to ensure growth.

Secondly, it is not a new concept, but one that developed in many steps and on parallel ways, as various companies and researchers did focus on a series of different things, with the same final goal of business excellence. Operational excellence developed as a concept especially from ideas related to continuous improvement, but after that the focus on customer and the idea of having each employee more involved in the decisional process increased.

Last but not least, operational excellence should not be perceived as a sophisticated concept. Its main ideas did also exist when technology was not developed and when the term "excellence" was not so fashionable. As now it is, we do believe that one of our goals is to build on it.

After analysing a series of models of operational excellence, we created one basically composed of three main areas: process focus, customer focus and world-class performance, which we consider to be of equal importance. However, there is a difference in the sense that process focus and customer focus serve as foundations, while world-class performance is a goal businesses should follow. All these areas form together a framework for operational excellence.

5. References

- Cooper, R.; Maskell, B.H. (2000) How to manage through worse-before-better, *MIT Sloan Management Review*, 49(4), pp. 58-65.
- Deming, W. E. (2000) Out of the crisis. Cambridge, Massachusetts: MITPress.
- Duggan, K. (2012) Design for Operational Excellence: A Breakthrough Strategy for Business Growth. McGraw Hill.
- Heizer, J.; Render, B. (2008) *Operations Management ninth edition*, Upper Saddle River, NJ: Prentice Hall.
- Kaplan, R.S.; Norton, D. (2008) Integrating Strategy Planning and Operational Execution: A Six-Stage System, *Balanced Scorecard Report*, *Harvard Business Publishing Newsletter*, 10(3). Available at http://www.insightfromhbr.org/0608bsr/bsrmayjune08.pdf.
- Kim, W.C.; Mauborgne, R. (2005) *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant.* Harvard Business School Press.
- Maskell, H.M. (1995) Performance Measurement of World Class Manufacturing a Model for American Companies. New York: Productivity Press.
- Radu, C.; Popescu, D. (2011) "Strategic and Tactical Movements and Organizations' Competitiveness", *Proceedings of the 22nd International DAAAM Symposium*, 22(1), p. 1123-1124.
- Shingo, S. (2009) Fundamental Principles of Lean Manufacturing. Enna Products Corporation.