Chapter 11

Determination of the Critical Success Factors of Philosophies, Techniques, and Tools for Continuous Improvement Applied in the Service Sector

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ABSTRACT

At the global level, the service industry represents a critical component for the economy and its growth trend is above of the other sectors. This sector alone is responsible for 63% of the gross domestic product and 45.5% of labor occupation worldwide. Despite its role in modern economies, the sector receives very little attention. In the literature, the authors have found the efforts that have been made to increase the efficiency and productivity of this type of organizations: adapting philosophies, tools, and/or techniques that were born to achieve this goal in the manufacturing industry, such as Lean manufacturing, total quality management, six sigma, lean six sigma, among others. The objective of this study is to perform an exhaustive literature review of the critical success factors reported in diverse studies of the implementation of these tools or philosophies in the service sector, as well as their differences, similarities, and results.

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INTRODUCTION

In the last three decades there has been a continuous evolution of the services sector in the developed economies modifying the structure of employment and the generation of added value (Maroto Sánchez, 2010).

The services are the main income source of developed economies as well as the major employment generators (Piercy & Rich, 2009), representing 63% of the world’s gross domestic product. With regard to the gross domestic product generated by this sector, Table 1 shows the percentage that contributes to the gross domestic product of some of the most important economies in the world. As you can notice in this information, this sector also plays an important role in developing economies.

Regarding generation of jobs, this sector represents 70% of the total in the developed economies (Maroto Sánchez, 2010).

The efficiency and the effectiveness are starting to grasp greater importance within the organizations of this kind (Suárez-Barraza, Smith, & Dahlgaard-Park, 2012), because these can be a key factor for the country’s growth and economic competitiveness.

Despite the important role it has in modern economies, the sector receives little attention in all aspects. According with Piercy and Rich (2009) the services quality does not meet the level required by customers. The traditional perception of services as unproductive remains a paradigm in today’s society (Maroto Sánchez, 2010). Therefore the productivity in this sector is far below when compared to that of the manufacturing industry, e.g. in the 1981 – 1990 period the growth factor of the services sector was 0.1% yearly compared to the 3% of the manufacturing industry (Suárez-Barraza, Smith, & Dahlgaard-Park, 2012).

On the other hand, globalization represents a challenge for the survival of every organization of any kind because of the intense competition, consequently, they are searching new approaches to improve efficiency as well as to remain as market leaders. These organizations are faced with different challenges for instance; cost reduction, quality improvement, flexibility for changes, delivery time reduction, among others, all of which obliges organizations to innovate the way how they execute their processes.

The manufacturing industry has been the pioneer to face these challenges (Hadid & Afshin Mansouri, 2014). Thus, they have invested in the systemic exploration of process improvement opportunities, cost reduction, and efficiency improvement. As a result, numerous innovative tools and philosophies have been developed (De Koning, Does, & Bisgaard, 2008). Philosophies and methodologies based on continuous improvement, in quality, and also in productivity, for instance: Lean Manufacturing, Total Quality Management, Six Sigma, Lean Six Sigma.

Table 1. GDP by sector of origin

<table>
<thead>
<tr>
<th>PPP GDP 2017</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>1,6%</td>
<td>25,1%</td>
<td>70,9%</td>
</tr>
<tr>
<td>United States</td>
<td>0,9%</td>
<td>19,1%</td>
<td>80,0%</td>
</tr>
<tr>
<td>China</td>
<td>7,9%</td>
<td>40,5%</td>
<td>51,6%</td>
</tr>
<tr>
<td>India</td>
<td>15,4%</td>
<td>23,0%</td>
<td>61,5%</td>
</tr>
<tr>
<td>Mexico</td>
<td>3,6%</td>
<td>31,9%</td>
<td>64,5%</td>
</tr>
</tbody>
</table>
