Performance of processes in quality management of companies providing services

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Abstract
Improving the quality of products, services and processes is currently very important for building the competitiveness of businesses on the markets. The aim of this paper was to propose a framework standardised model for measuring and evaluating processes’ performance in quality management for companies providing services. An empirical study in practice of Slovak businesses preceded the design of this model. The level of understanding and the use of methods and tools for measuring and evaluating processes’ performance in the area of quality were mapped through a questionnaire survey. This model reflects a run of single processes, activities and sequences that are necessary to be solved in the frame of implementation and improvement of quality in businesses providing services, through the use of appropriate methods and tools. It also captures the interaction of the customer in the process of service providing, the impact of customer on the quality of service and the evaluation of customers’ satisfaction.

Keywords: Quality management, processes, performance, companies providing services, model.

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1. Introduction

In general, services have a dominant place in the present global economy (Vavrova, 2014). As Kristofik and Kanderova (2009) note, services generate a basis for the economic growth and play a key role in creating new jobs, added value and business opportunities. The gradual internationalisation and globalisation have automatically increased an offer of the services’ range in the field of transportation, travel, finance, consulting, insurance, as well as electronic information processing, etc. (Hajduchova & Giertliova, 2015; Hajduchova et al., 2011). Therefore, Klementova and Sedliacikova (2014) and Klementova and Satanova (2013) conclude that companies providing services have to focus on efficient process management which represents a fundamental change in the management of each company. The basis of quality of services is the quality of the technology and the quality of human relations (Mus, Musova & Debnarova, 2015). Companies providing services are specific in comparison with manufacturing enterprises because the customer or his/her property directly enters into the process of providing service. Therefore, the evaluation of quality of service from the point of view of the customer has been going on during and immediately after the process of providing of service. For the success of enterprises providing services, it is important to implement and use a process approach in quality management based on international standards ISO 9000. This approach does not focus only on results but also examines the causes of different level of quality and implements corrective actions (Adamska & Minarova, 2014). Correction procedures are accelerated by direct communication during the time of providing the service. To improve the quality feasibly and effectively, it is necessary for business to have created a process map and to get aware of differences and specificities of individual processes and sub-processes (Satanova & Sedliacikova, 2014). For improvement of the quality of single process, it is important to select appropriate methods and tools for the measurement and evaluation (Zavadsky & Zavadska, 2014; Zavadsky, Zavadska & Sirotiaková, 2013). Based on the results of the empirical research which aim was to find out the level of understanding and implementing of methods and tools of using measuring and evaluating methods of processes’ performance in quality management in Slovak practice, it was proposed a framework standardised model for measuring and evaluating of processes’ performance in quality management for companies providing services that is presented in this article. This model can serve as a methodological support for companies providing services that have decided to implement a system of quality management into practice, but for those that already have applied the philosophy and policy of quality.

2. Material and methods

Matejdes and Daďo (2002) present indicators of measuring and evaluating of processes’ performance in quality management which can be generally classified into the following categories:

- universal indicators of process performance,
- indicators for measuring and evaluating of production processes,
- indicators for measuring and evaluating of non-production processes,
- performance measuring indicators according to variances,
- the measuring of performance using performance index of processes,
- Balanced Scorecard (BSC),
- Six Sigma method,
- Benchmarking,
- model EFQM,
- process controlling of quality.
Those methods and techniques can be used for improving of quality in companies providing services, as well. It is important to establish at what stage is the method or technique used (Mateides & Dado, 2002).

To create the model, it was required a use of methods of summary, synthesis and analogy of the knowledge and creation of a short literature review. In the second phase, a questionnaire method to process an empirical study was used, which represents an analysis of the situation in the solved subject matter within practice of companies providing services in Slovakia. The aim of empirical research was the mapping of process quality management issue in practice of Slovak companies providing services in context of using measuring and evaluating methods of processes’ performance. Carrying out the empiric research was the starting point for the proposal of the model for measurement and evaluation of processes’ performance in quality management for companies providing service. At primary level of information gathering it was used a questionnaire but also basic methods of theoretical research such as analyses, synthesis, induction, deduction, analogy and comparison.

The questionnaire targeted 800 significant Slovak companies providing services. The ratio of questionnaire return was 31% that means 248 completed questionnaires. The questionnaire was evaluated by a description method, numerically and in percentage in tables. In the third phase, the model was designed. The sequence of steps of the model was established based on literature review in the area of quality management, based on standards ISO 9000 and based on the controlling principles of enterprise management. In the final part of the paper, the obtained results were evaluated through the deduction method and defined benefits for the science, theory and mainly for the practice.

3. Results and discussion

3.1. Results of empirical research

The proposed questionnaire contained 12 closed questions, what means, that it was possible to select only one of the offered answers. The questionnaire was divided into two parts:

a. A1–A4: Character of the company
b. O1–O9: Process quality management

The facts that are found have been transformed into a table evaluation, which was prepared on the basis of multiplicities of respondents’ answers through conversion to the percentage value. The following Tables 1 and 2 present the findings regarding the use of methods of measuring and evaluating of processes’ performance in quality management according the size of the company providing services (micro/small, medium and large).
Table 1. The use of methods of measurement and evaluation of processes’ performance in quality management

<table>
<thead>
<tr>
<th>Yes (%)</th>
<th>Size</th>
<th>Universal indicators of process performance</th>
<th>Indicators for measuring of non-production processes</th>
<th>Performance measuring indicators according variances</th>
<th>Pareto analysis</th>
<th>Ishikawa diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies providing services</td>
<td>Small</td>
<td>24.71</td>
<td>51.73</td>
<td>25.61</td>
<td>22.63</td>
<td>6.18</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>38.87</td>
<td>89.22</td>
<td>81.27</td>
<td>28.98</td>
<td>16.32</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>60.01</td>
<td>100.00</td>
<td>100.00</td>
<td>17.41</td>
<td>39.74</td>
</tr>
</tbody>
</table>

Table 2. The use of methods of measurement and evaluation of processes’ performance in quality management

<table>
<thead>
<tr>
<th>Yes (%)</th>
<th>Size</th>
<th>Performance index of processes</th>
<th>Six Sigma</th>
<th>EFQM</th>
<th>Bench-marking</th>
<th>Process controlling of quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies providing services</td>
<td>Small</td>
<td>10.84</td>
<td>2.33</td>
<td>1.86</td>
<td>13.19</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>40.29</td>
<td>12.14</td>
<td>13.12</td>
<td>52.79</td>
<td>9.86</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>49.78</td>
<td>34.33</td>
<td>58.63</td>
<td>79.31</td>
<td>12.43</td>
</tr>
</tbody>
</table>

It was found out that the most common use methods for measuring and evaluating of processes’ performance in quality management of Slovak micro and small companies providing services are indicators for measuring of non-production processes, universal indicators of process performance, performance measuring indicators according variances and Pareto analysis. Medium enterprises have mainly used indicators for measuring of non-production processes, performance measuring indicators according variances and performance index of processes. Large enterprises providing services have used mostly indicators for measuring of non-production processes, performance measuring indicators according variances, benchmarking and EFQM. Conversely, the least used methods are Six Sigma and process controlling of quality. These methods should be used more mainly at larger medium enterprises and large enterprises for improving the quality of internal processes focused on improvement of customers’ satisfaction.

3.2. Model for measuring and evaluating of processes’ performance in the quality management system in companies providing services

As Uradnicek and Zimkova (2009) argued, each organisation has to use appropriate methods for measuring and evaluating of processes. These methods must demonstrate the ability of the processes to achieve the planned results and to ensure customers’ satisfaction and loyalty. For this purpose, a framework standardised model for measuring and evaluating of processes’ performance in management of quality was designed which will be useable with partial modification (which take into account specifics of companies) in any company providing services. The company has to select appropriate methods and tools from this model to suit their requirements and budget. Therefore, the model incorporates different methods and tools with various time and cost demands. The Figure 1 presents the proposed model.
For the most essential benefits of the proposed model can be considered:

- detailed knowledge of processes, sub-processes and activities of the company providing services (process map),
- quality in quantifiable form using indicators of measuring and evaluating of performance of processes,
- communication with customers through personal interviews, questionnaires and finding of their satisfaction, respectively dissatisfaction with the provided service,
• improvement of customers’ satisfaction and loyalty,
• more effective implementation of correction actions based on the use of the recommended methods and tools.

4. Conclusion

As Chen and Yang (2003) and Lari and Asllani (2013) concluded, companies providing services must have as well as manufacturing companies clearly defined the policy and the quality objectives, identified the processes and responsibility for the quality. They must have established indicators for measurement and evaluation of the performance of processes and then they have map satisfaction or dissatisfaction of their customers because the information from these analyses creates an input data to the model which was the subject of the presented paper. Satisfaction and loyalty of customers which businesses can achieve through the quality of providing services is one of the most effective tools in the combat with competition. After the implementation of this model into the practice, it is expected the improvement of efficiency of individual processes, the increase of customers’ satisfaction and loyalty and significant changes in the efficiency of these enterprises and consequently the increase of their market value.

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References


