CLUSTER ANALYSIS OF HUNGARIAN SSC
AN EMPIRICAL RESEARCH STUDY

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Abstract
Shared services is an organizational model that aim to reorganize mostly the back-office service functions and centralize them into an internal service delivery center. The shared service model reached a high popularity in the last in the whole world but there are some countries and regions that are more successful in it than others. Central-Eastern Europe and Hungary within it was very popular destination of new service delivery centers in the last decades. The relative proximity geographically, in time-zone, culture, language-knowledge and the availability of higher-educated and well-skilled workforce were the main drivers for the prominence of the region in the last decades. Hungary is the second most important country in the region in this shared service market. This research study aimed to disclose how it be possible to disclose the evaluating factors and based on it to categorize into clusters those shared service centers that are operating in the Hungarian shared service market.

Keywords: Business services, shared services, outsourcing

Introduction
Organizations have always endeavored to find the ideal organizational structure. In the '70s the centralized structure was widespread, which is due to the fast and flexible market development, decentralization has been replaced by the '80s. In the 1980s companies to refresh their centers and to increase their flexibility many support functions were transferred to the divisions. It was behind the decentralization trend expected to accelerate the process and increase flexibility. (Bodnár & Vida, 2006) However the decentralization reported as a back steps with regard to standardization and economies of scale. The decentralization process for the global companies resulted a tangled network, which has failed to provide effective corporate communication between different departments and to attend uniformly to the customers. Therefore, within a short period of time an inverse process started. Global competition had strong pressure on companies to reduce costs through the restructuring, but thanks to techniques offered by the Internet without the loss of efficiency. The changes have made it possible to uniform the appearance to the customers, the development of Internet-based enterprise platforms, the redesign of the shared services and the introduction of organizational processes. (Thorniley, 2003) The companies once again turned to the centralization, but while retain the benefits of decentralization as well. Thus, the objective besides flexibility and adaptability was to connect the advantages of standardization and economies of scale. From the implementation of this model developed the shared services. (Berényi, 2014)

According to various statistics in parallel with the development of the shared service model its prevalence was gradually increased as well. Today, there is hardly a multinational company, which would have not now or is not thinking about setting up a service center in the near future. In 2003, according to the Hackett Group survey only about half of the
multinational companies had shared service center and another quarter of them planned the implementation of it within a year or two. (Thorniley, 2003) Similar data were reported by the Accenture survey from 2004. According to it more than 50% of the companies on the Fortune 500 list applied the shared service model and in 2004 and it is expected that more of them continued the growth. (Sutcliff, 2004) According to the survey of Alsbridge consulting firm from 2006, nearly 66% of the companies interviewed were applied the shared service model and an additional 12% of them envisaged to do it in the near future. (Alsbridge, 2007)

The model was launched in the USA in the 1980s, however the international expansion required much time and only appeared in Europe in the early 1990s, firstly in the Nordic region and Great Britain, than in the Iberian Peninsula and the Netherlands. In Central and Eastern Europe (CEE) and Hungary only later, in the late 1990s were established the first shared service centers. However, when the model was discovered in the region, a very dynamic growth began in the number of newly settled service centers. At the beginning of the 2000s in the Central European region 91 service centers established according to the UNCTAD survey, and nearly one-third of it in Hungary. (Chikán & Petényi, 2009) Thanks to the result of this growth, between 2005 and 2010 the business services sector showed the largest economic growth to almost 20% in Hungary. (NFM, 2010)

Since 1990 until 2013 a total of 80 international and domestic organizations created 86 shared service center in Hungary. The first center of these was the HP in 1996, but the real acceleration was perceived in the market since 2001. Firstly the most transactional-based, the highly standardized and mainly secondary education required business services were migrated to Hungary. These centers delivered typically two types of supported business processes (finance, accounting and IT services). Today, most of the service center has a wider profile, but these two areas are still dominant.

Research Aims

The aim of the research was to gain a current picture of shared services centers operating in business service market in Hungary by an empirical study and analyze their practice. Striving to carry out a market analysis, which is suitable for the detection of market movements and help the decision makers to understand and so the development of the sector as a whole of market movements. The research is focused on the domestic market as a part of shared service areas that previously did not or only partially tested. This research was part of the areas to be established to identify whether an organizational and market characteristics, operating on the basis of which the Hungarian market shared service centers arranged in clusters.

Research Methods

In the spring of 2013 73 different companies were identified that operate in Hungary at least a shared service center. The primer data collection was performed by a questionnaire survey. 50 centers of 47 companies filled out the questionnaire, so the request was a response rate of 62.5%.

Despite the precise definition of the research population the sample was not error-free. The answers showed that the sample also included service centers, which are not really deliver internal service activities (within the parent organization) but provide only outward. The reason of this fault was that these organizations consider themselves as a shared service center or in the literature they are seemed to be as a shared service center.

Of course, these centers were filtered out from the analysis, since in the shared service center concept there is a clear criteria about the definition that it needs to perform internal service in any case. So 47 centers of 44 companies remained in the database, which resulted a
59% sampling rate. The survey examined the practices of shared service centers, however the respondents were individuals of course.

Research Results

The compiled database based on the result of the questionnaire survey provided an opportunity to examine whether there are more or less homogeneous characteristics centers which form a well-defined groups (clusters). The applied research method was the cluster analysis. The research focused primarily on every aspects of the market-based operation in shared service model, but after all only seven aspects were installed. The cluster analysis results group averages that are showed at each aspects.

- **the number of different services provided by shared service center**: in this aspect, the research investigated whether the shared service center how many different services delivered at the time of inspection;

**Mean of the number of different services**

![Graph showing the mean of the number of different services](Source: own editing by SPSS program)

- **value-adding of services provided by the shared service center**: in this case the research analyzed which category the provided services by the shared service centers belong on the basis of their added value. There are three main categories:
  - low value-added service providers;
  - half high and half low value-added service providers
  - and those offering high value-added services.

About the value-adding of the services was declared by the service centers.

**Mean of the Service Value-Adding**

![Graph showing the mean of the service value-adding](Source: own editing by SPSS program)
- **the number of employees in the shared service center**: this aspect taken into account specified by the shared service center in the questionnaire with number of categories. Therefore, this is not accurate headcount data, but also on the basis of analysis of the number of categories;

**Mean of Service Center Headcount**

![Graph showing the mean of service center headcount](image)

Source: own editing by SPSS program

- **the number of established shared service centers in Hungary**: This data shows the number of centers operated on different locations during the investigation;

**Mean of Site Number**

![Graph showing the mean of site number](image)

Source: own editing by SPSS program

- **the geographical location of the shared service center's premises**: this aspect of the investigation was to explore the spatial location of the shared service centers in Hungary as a grouping criteria. The study created three alternatives as geographical location, which showed that there are centers in Budapest, Eastern Hungary or Western Hungary;
Mean of Geographical Location

- the organizational position of shared service center in the parent company: the factor indicates where the shared service center is located within the body of the parent organization. During the investigation, three alternatives were distinguished: the self-service center division, operates within a divisional or the center is assigned to the headquarters;

Mean of Organizational Position of Service Center

- the centralization of decision-making in the shared service center operation: it shows at what level of the organizational hierarchy deal with the issues of service portfolio, service clientele. Three options were distinguished: the parent company's global center of the parent company's, regional center of parent company and in those division, where is the service center.
Mean of Decisional Centralization

Carrying out of a cluster analysis resulted four, relatively homogeneous groups. In the development of each groups the seven criteria that explained briefly above prevailed, but the most dominant roles were played the headcount of centers and the number of services delivered by centers. The analysis resulted four relatively homogeneous, regards of service numbers well-balanced clusters whose characteristics are summarized in the next table.

Clusters of shared service centers operating in Hungary

<table>
<thead>
<tr>
<th>CLUSTER 1</th>
<th>CLUSTER 2</th>
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<tbody>
<tr>
<td>- it includes 9 centers, that have at least 150 employees with one excuse;</td>
<td>- it includes 8 centers that have more than 500 employees;</td>
</tr>
<tr>
<td>- the cluster is heterogeneous regards to the number of service delivered but typically these centers deliver 5-8 different service functions;</td>
<td>- centers typically deliver 5-7 different service functions;</td>
</tr>
<tr>
<td>- each center operates with one site either in Budapest or other location in Hungary;</td>
<td>- these centers operates with 1-2 sites, one in Budapest and one in Eastern-Hungary;</td>
</tr>
<tr>
<td>- regards to organizational position they operates as an independent division;</td>
<td>- regards to organizational position, these centers are within a division or direct under the control of headquarter of the parent company;</td>
</tr>
<tr>
<td>- the decision-making is mostly centralized in the global headquarter</td>
<td>- the decision-making is medium-centralized and usually decides on the regional level</td>
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<tr>
<th>CLUSTER 3</th>
<th>CLUSTER 4</th>
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<tr>
<td>- it includes 8 centers, mainly at least with 150 employees;</td>
<td>- it includes 13 centers that have between 200 and 400 employees;</td>
</tr>
<tr>
<td>- centers typically deliver 1-3 different service functions;</td>
<td>- the cluster is heterogeneous regards to the number of service delivered but typically these centers deliver 1-8 different service functions;</td>
</tr>
<tr>
<td>- service centers typically operates in Budapest (one exception is in Easter-Hungary);</td>
<td>- centers operating only with location in Budapest;</td>
</tr>
<tr>
<td>- there is no low value-added services in the service portfolio of these shared service centers;</td>
<td>- regards to organizational position, these centers are within a division;</td>
</tr>
<tr>
<td>- these centers are the least centralized in decision-making</td>
<td>- regards to the service delivered it is not typical that these service centers deliver high valu-added services</td>
</tr>
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</table>

Conclusion

Examining the identified clusters can be said that the most important difference between the first and the third cluster is that the service centers related to third cluster offer higher value-added services and not centralized in the decision-making. The second cluster includes centers with large headcount, with many activities, that are moderately centralized.
While in the fourth clusters there are medium sized, rather low value-added centers that provides a varied number of services.

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References: