FACTA UNIVERSITATIS
Series: **Economics and Organization** Vol. 2, N° 1, 2003, pp. 53 - 58

ASSESSMENT APPROACH TOWARDS COMPATIBILITY OF SERVICES

UDC 338.46:339.13

Mladen Velev, Kiril Anguelov

Technical University of Sofia, Faculty of Economics

Abstract. *Each day services grow in importance. Also, customers have new requirements for services at the time when the world economy comes to be global. The competition increases considerably. Producers need some new methods, which can help them in measurement and analysis of compatibility of services level in new conditions. This paper proposes a new method for this purpose. The method is based on the gathering, processing and aggregating of qualitative information about some features of the services and their transformation to quantitative.*

INTRODUCTION

The continuous increase of services' meaning is an objective tendency showing on a worldwide scale. Consumers become more and more sensitive towards the volume and quality of the services offered. The number of the companies in the services' sphere is growing as well as the relative part of the occupied in them. These conditions lead to a drastic enforcement of the compatibility in the economic sector. The competitive struggle is intensified as result of the extending globalization.

In these conditions of business success it can be counted on only in the factories, which ensure a higher level of compatibility for their services. This enforces them to exert continuous efforts on increasing it. Taking due measures in this direction demands the top management to estimate the state of the compatibility of services and compare it with those of the rivals. The problem of measuring the compatibility level arises not only in searching ways for improving the newly offered services but in evaluating different ideas for new services, too.

With regard to the increase in the compatibility of services, in specialized literature the attention is paid above all to the problems of ensuring a high quality of services but not to their compatibility as a whole. Different methods for measuring the quality of services level have been developed [1; 2, pp. 13-37; 3, pp. 35-48; 4, pp. 92-98; and 5, pp.

Received May 20, 2003

31-36]. They offer different indicators and indices for evaluation, enabling comparison to the "ideal" requirements of the consumers and comparison to the quality of rivals' services. A big part of them doesn't give general assessment on the services' quality. This impedes the achievement of comparison, reading all indicators and their relative importance.

In the current article an approach for measurement and analysis of compatibility of services level is offered. This is a method for evaluation based on the gathering, processing and aggregating of qualitative information for the separate characteristics of the services and its transformation to quantitative. The main goal is the approach to enable assessment completing and comparison on particular indicators as well as ensuring general quality and compatibility of services assessment. In this way (especially if computer technique is used) different ideas for new services can be analyzed comparatively quickly. Also, new trends can be outlined and evaluated in order to improve the existent ones.

DESCRIPTION OF THE APPROACH FOR COMPATIBILITY OF SERVICES ASSESSMENT

The approach is based on the concept that:

- the compatibility of services depends on the degree in which they satisfy the consumers' requirements and on the prices levels that they offer. It is considered that among several alternative services, the consumers would prefer the one that the ratio of accepted quality by them and the price is higher.
- the compatibility of services is a relative quantity. It can be evaluated only in relation to the rest of the compatibility services.

The approach includes series of steps, shown in Figure 1. It enables the gathering, processing and aggregation of quality data in down-up direction till reaching the general quantitative assessment for quality and compatibility of each analyzed version of service - existing, for new service and of rivals. It is developed in such a way in order to enable the use of results for the level of evaluated service with different degree of aggregation, i.e. for the level of primary indicators for quality and compatibility, of interstitial categories and the overall quality and compatibility. This helps the different aspects of the decision-making process and compatibility of the service.

Step 1 the compatible service towards which the comparison between level of quality and compatibility of the examined service is defined. It can be the "ideal" service by the consumers' opinion or similar services of the major rivals. Namely the crossing of Gap Analysis towards the comparison base (as overall or separate parameters) is in the basis of the decision for developing a new improved version.

Step 2 of the approach provides the Research Tree Structure Design. From the beginning the basic parameters of services (research modules) are defined. They specify their quality level and the connection between them. The indicators of each parameter are specified as well. Thus a new tree structure of characteristics, subject to research is being built. The higher the level of the examined module is, the higher is the complexity and degree of information summery. So the order of gathering and aggregation of information is defined – from the lower to the higher level, i.e. from the indicators to the modules and from them to the general assessment of the service quality.

A very important part of this stage is the definition of the relative importance of all indicators and modules for characterization of services' quality. First of all the relative quality of each indicator (i) is determined from the first level of Research Tree. It is fixed in the 0-1 ranges, depending on their relative importance for the quantitative characterization of the particular module. The sum of the importance of all indicators of particular module is 1. It follows the determination of the relative importance of each of the modules (basic characteristics of the service) (I) in order to ensure the service quality, which is based on the second level of the Research Tree. The same rules are used.

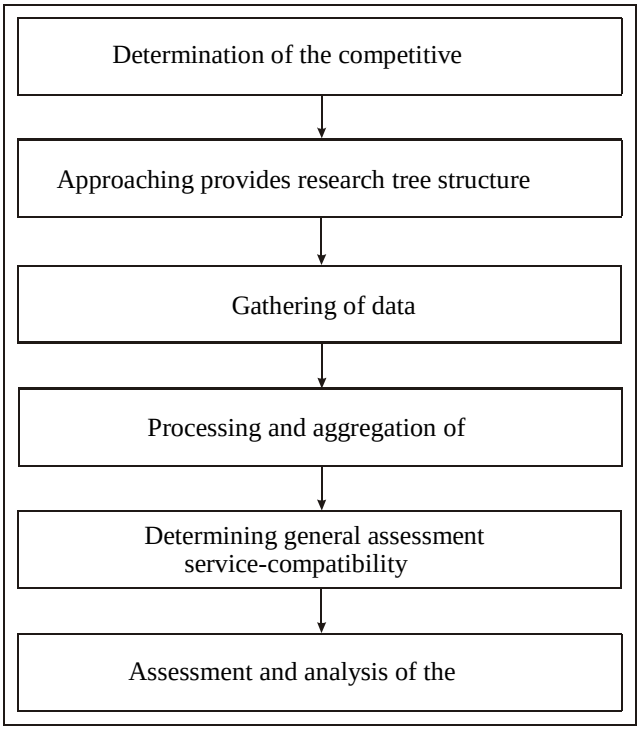

Fig. 1. Block diagram of approach for assessment of the competitive power of services

For determination of the relative importance of indicators and modules, the method of the expert assessment or consumers-focus-groups research can be used.

A base for the design of the Research Modules Tree is developed by Parasuraman, Zeithaml and Berry [1] system of determinants of the services quality. It describes the main characteristics and their indicators, which should be tested when evaluating the services quality. Research Module Tree is shown on Figure 2.

Step 3. Gathering of data. At this stage the opinion of the selected consumers group for each of the analyzed versions of the service is studied – company's own service (the current version or the ideas for new service) and the alternative rivals' service (or "the ideal service"). More precisely their opinion on the indicators for each version of the first level of Research Tree is studied. For that purpose is used the preliminary prepared scale (Likert scale) enabling the grades assessment on each of the quality indicators.

Now the levels of prices and own and rivals' services are defined.

Step 4. Processing and aggregation of data. The gathered data are selected and saved in the computer. A preliminary statistical analysis is made as well as aggregation of information towards modules and from them to the general assessment of service quality. For that purpose a standard statistical package is used (e.g. SPSS).

Step 5. Determining general assessment of service-compatibility levels. First the ratio of the general quality assessment of the compared services and their prices (CC) is determined, i.e.:

$$CC = \frac{Gq}{P}, \tag{1}$$

Where: G_q – general quality assessment of services, P – price of the service.

It is followed by determination of compatibility of the analyzed service indicator (K). It is defined as relative assessment of CC level deviation for the company service towards this for the compatible service, i.e.:

$$K = \frac{CCy - CCky}{CCky}, \tag{2}$$

Where:

CC_y and CC_{ky} – ratios of general quality assessment and price, respectively of the analyzed service and of the rival's service that it is compared to.

Step 6. Assessment and analysis of the results. The received end result for the compatibility of the analyzed service indicator (K) shows:

– for $K > 0$ – the analyzed service exceeds in compatibility the rival's service-standard. The bigger is the positive quantity of K, the bigger is the excellence of the company service;

– for $K < 0$ – the analyzed service has lower compatibility compared to the rival's service-standard. The bigger is the negative quantity of K, the bigger is the excellence of the service-standard;

– for $K = 0$ – the compatibility of the analyzed service is equal to the service-standard.

CONCLUSION

The given approach enables analysis of different company service versions (current versions or ideas for new services) and their grade in a decreasing series, depending on the general assessment for compatibility. When there is a necessity for choosing a version, the chosen one is such that has the highest potential for satisfaction of target consumers demands and competes successfully on the market, i.e. has highest general assessment K. In addition it offers the possibility to receive results for particular service parameters (modules) levels and their indicators. Their quantitative assessment enables comparison between different versions by their characteristics and by revealing their major weaknesses. The directions for improving the existent services or new ones can be brought out on this basis, so that they approach the consumers' ideal level or at least become better than the major rivals services. The comparison of the qualities of different services assists the development of major pricing strategy of the company services.

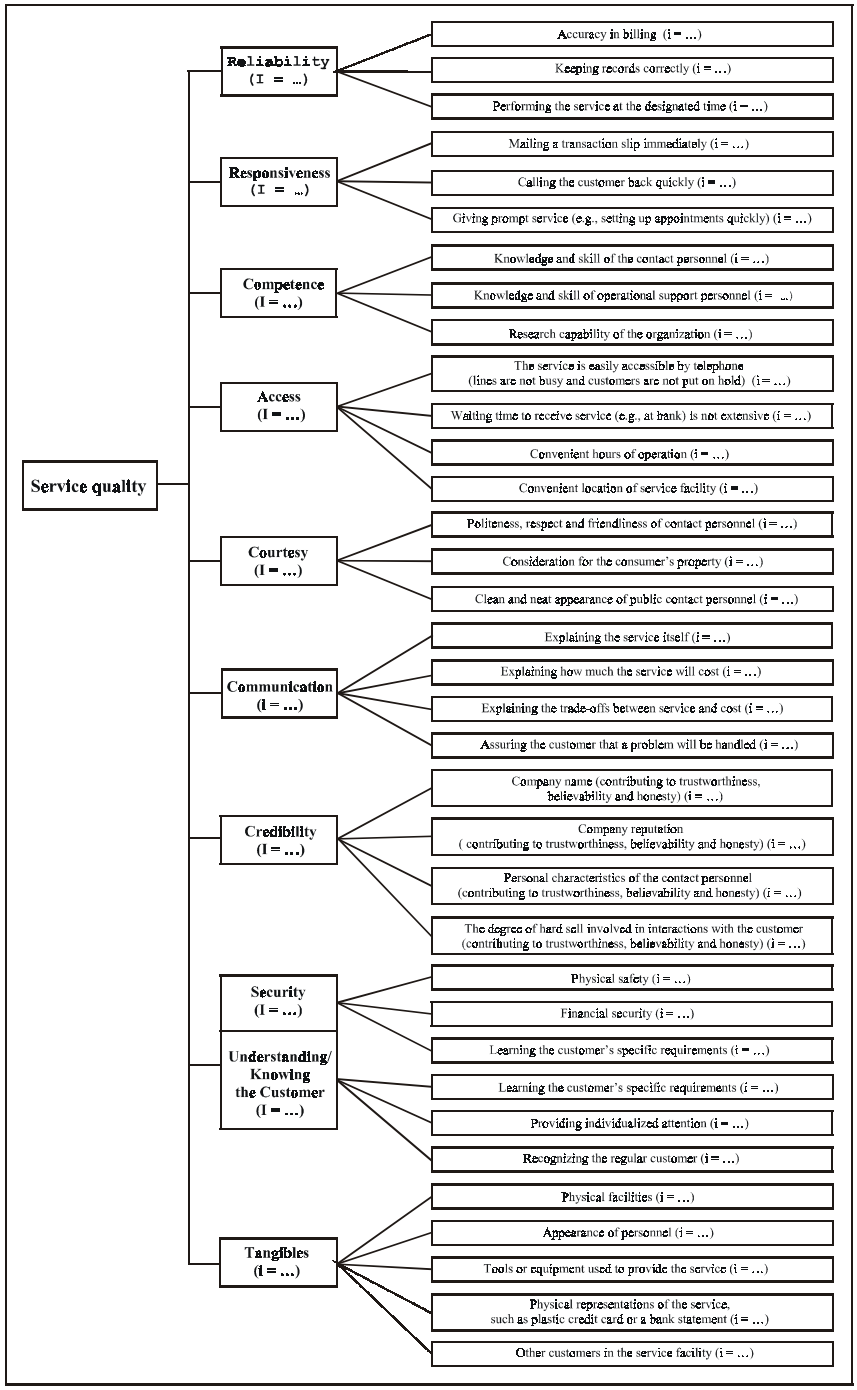

Fig. 2. Research Tree Structure Design

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PRISTUP U MERENJU KOMPATIBILNOSTI USLUGA

Mladen Velev, Kiril Anguelov

Značaj usluga svakodnevno raste. Takodje, zahtevi potrošača za uslugama se povećavaju sa intenziviranjem procesa globalizacije tržišta. Konkurencija se značajno intenzivira. U tim uslovima proizvodjači moraju da primene nove metode za merenje i analizu kompatibilnosti usluga sa uslugama rivala. Upravo se u radu predlaže jedan takav metod. Metod je baziran na prikupljanju, obradi i sredjivanju kvalitativnih informacija o odredjenim svojstvima usluga kao i na njihovom kvantificiranju.