

THE INNOVATIVE MODEL OF QUALITY MANAGEMENT IN TELECOMMUNICATION SERVICES SECTOR

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Abstract

Today the increasing number of constant consumers is a strategic aim for any organization which is possible to be achieved only under condition of continuous perfection of organizational activity quality. If the service representation doesn't correspond to the consumers' expectations they lose their interest to the service organization, if it does correspond or surpass their expectations they probably would readdress to service provider. For this reason the service organization should more precisely reveal consumers requirements and expectations, namely provider should constantly measure its service quality.

In the given work approaches by the Russian and foreign researchers in the field of quality management are studied and analyzed in details, namely:

- Approaches to the « service quality» definition;
- The basic components of service quality management process;
- Service organization quality model.

The purpose of research work consists of ISQM (Innovation System of Quality Management) model creation taking into account features of TCS providing, which, in turn, is targeted on TCS company purposes achievement in the field of quality by means of:

- setting the control values of TCS quality indicators;
- measuring of the reached results and their comparison with expected results;
- effective management decision making as a result of carrying out the analysis of managerial activity in the field of quality on the basis of the report containing recommendations for the company activity improvement, prepared due to the results of measuring and collecting quality indicators.

Keywords: Innovative activity, innovation, quality management, organizational processes, service provided, consumer.

Introduction

Each organization enters the market for the further development purpose. In due course it can pass to a policy of the won market share deduction or protection. However, in both cases competitors' actions can prevent these organizational purposes realization (J.O. Shonessi, 2002). In order to cope with the given situation, it is necessary either to satisfy current requirements, or to surpass consumers' expectations for goods (and/or services) made (and/or provided) by the organization. Today the increasing number of constant consumers is a strategic aim for any organization which is possible to be achieved only under condition of continuous perfection of organizational activity quality. If the service representation doesn't correspond to the consumers' expectations they lose their interest to the

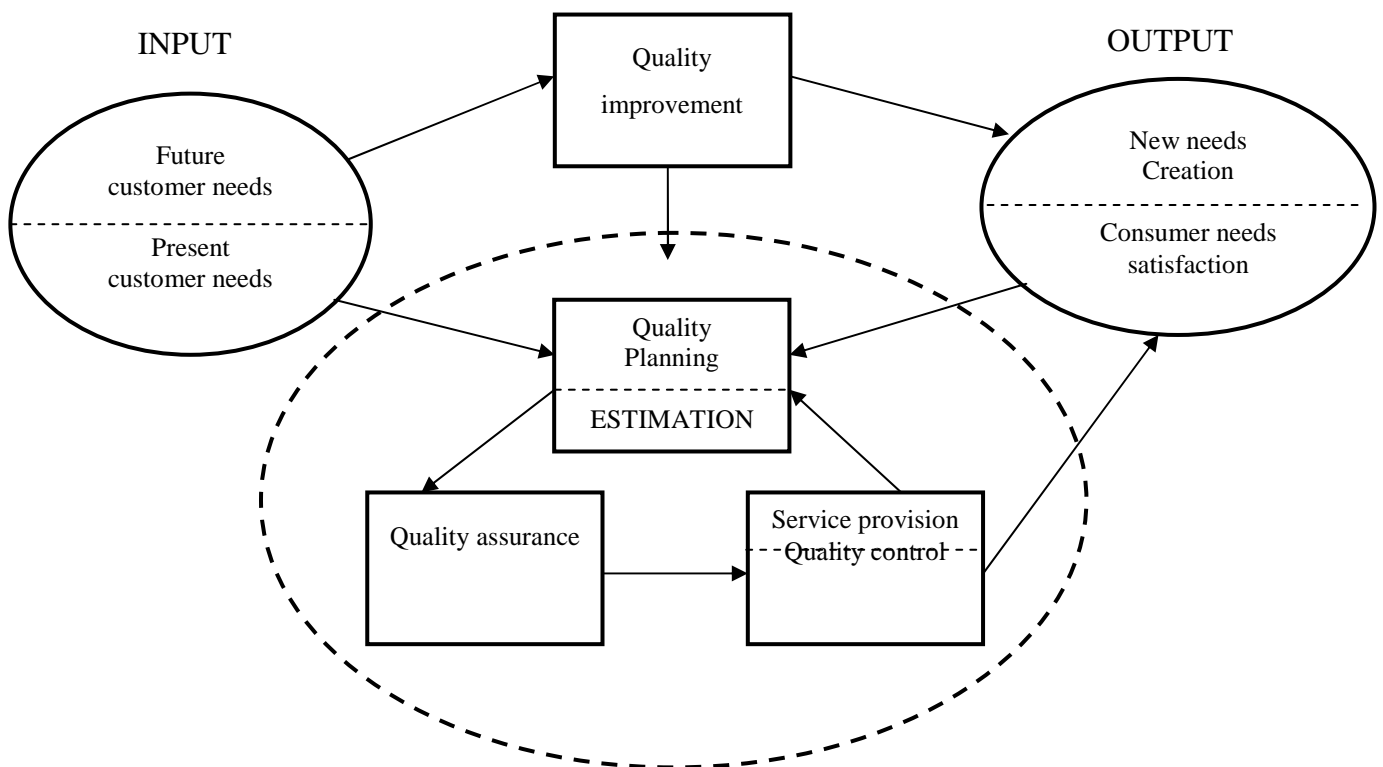
service organization, if it does correspond or surpass their expectations they probably would readdress to service provider. For this reason the service organization should more precisely reveal consumers requirements and expectations, namely provider should constantly measure its service quality (A. P. Chelenkov).

«Quality of services» is considered as a set of service characteristics defining its ability to satisfy established or prospective consumer needs and requirements. In addition the quality level is defined by the degree to which the integral properties (attributes) of service, desired by the consumer, are revealed and included in service process, and the degree in which desirable attributes levels are perceived by the consumer as reached (R. Johnston, 1995).

Considering the importance of systematic approach to quality management in the organization, it is not enough just to know what types of activity are necessary to be engaged. Actions of the organization within the limits of each element of management should be identically oriented and should not cause internal contradictions.

For this purpose it is necessary to submit data elements within the limits of uniform consecutive process where each element logically follows the previous one.

The authors suggest to be guided by the following service quality management process model (fig.



1):

Fig. 1. Service Quality Management Process.

The offered quality management process model shows that interested parties – consumers - provide organizations with the requirements as the input data. At the quality planning stage the given

requirements are estimated and transformed into the quality purposes of the organization in whole (the purpose hierarchy is constructed). In order to provide objects achievement service rendering standards are developed, the system of the specified standards documentation is accepted. The standardization of service rendering process corresponds to the quality maintenance, i.e. provides internal and external interested parties with confidence that the purposes are understandable and achievable. Considering such service feature as inseparability, it is important to notice that quality should be monitored simultaneously with service rendering process. It is impossible to return service after reception, therefore the executor should take care of the established requirements realization, and also immediately react to discrepancies occurrence. The authors have defined the consumer satisfaction with rendered service as an output of quality management process, since it is a quality management ultimate goal. All revealed discrepancies should be not only corrected, but also considered at the further service rendering by means of plans/purposes updating, that provides quality management process recurrence. Besides, it is important to consider consumer satisfaction with the rendered service at system transition to the second cycle and repeated realization of quality planning stage. The «quality improvement» element is expedient for being endured beyond the sequence frameworks, because quality improvement is a stage standing on higher level. Not current but future/expected consumer requirements would be considered as an input of quality improvement process. The definition of the future requirements should be constructed not simply on the basis of clients current requirements estimation, but on the basis of forecasting taking into account a current situation and possible changes. The improvement purposes also should be transformed to specifications, and realized within the service rendering process. The consumers expectations anticipation and new requirements formation are considered as an output of quality improvement process.

In practical sense, the priority direction definition in quality management should be based on consumer opinion research results with application of various methods of qualitative and quantitative estimation and the subsequent analysis of the received information.

From the point of view of service quality planning, the quality estimation means an estimation of quality degree, i.e. definition of the degree in which the service characteristic, desirable for the consumer, are revealed and included in service process, and the degree in which the desirable attributes levels are perceived by the consumer as reached. Besides, the estimation consists in comparison of individual indicators of estimated service type quality to corresponding indicators of the base sample – expected service.

The quality management process model presented in work has found practical application in an example of TCS organization activity. As a result of the given model application the necessity for working out of universal quality control system model for the organization has been revealed, which has allowed to carry out a high-grade TCS quality estimation.

The creation of innovation control system assumes the system approach application on the basis of coordination and integration of all kinds of activity of the organization. In this connection, there is a necessity of continuous perfection of the organizational processes presented in management models.

The information, data and the results received by means of ISQM application allowed to start the process directed on strengthening the competitive advantages of the TCS organization, through introduction of the innovations, satisfying the requirements of all interested parties.

The main task of innovation control system is in organization transfer from its present condition in the desirable future.

It is expedient to present the Innovation Control system in the service organization as set of results of its various levels activity with purposeful influence on organizational processes as a whole, and with a view of new products (and/or the services) creation corresponding to the organization external and internal environment requirements (Fig. 2).

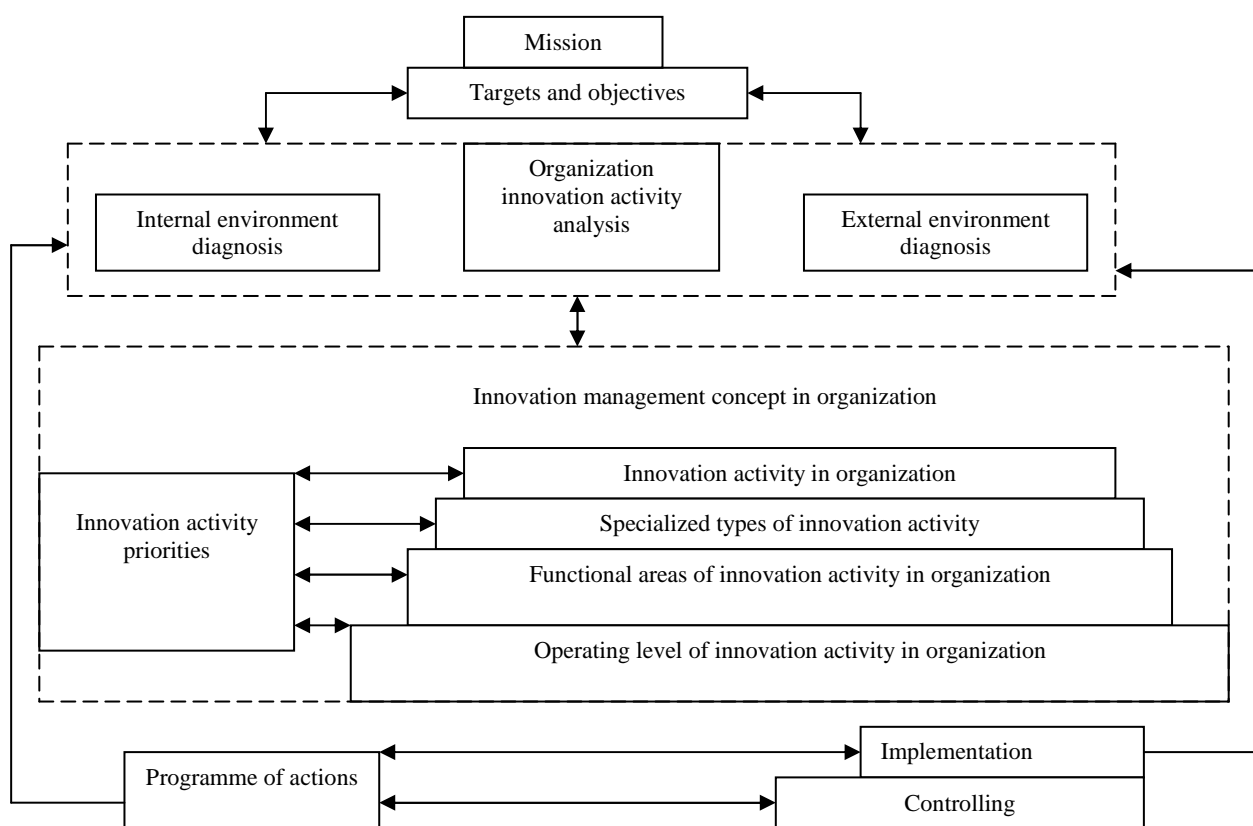


Fig. 2. The Innovation Control System at all organizational levels.

Organizational innovative activity is aimed at creation of the innovations which allows the company to get global competitive advantages shown in lower costs and distinctive quality.

Nowadays functioning of the TCS organizations occurs in dynamically developing branch that demands constant innovation introduction in their activity for the purpose of their competitiveness maintenance on the basis of continuous quality management process.

Telecommunication service is a product of operator activity including reception, transfer, signal and other types of information processing through telecommunication networks (V.I. Bitner, G.N. Popov, 2004).

It is necessary to underline that telecommunication services have peculiar features and characteristics inherent from their economic nature and branch specialty.

It is accepted to understand telecommunication service quality as a «set of the specific parameters defined by network activity quality which characterize service consumer properties in terms, clear to users, and which do not depend on the assumptions concerning internal network structure» (B.I. Kurk, V.P. Shuvalov, 2003).

Specific features of telecommunication services providing are considered by authors at ISQM (Innovation System of Quality Management) model creation, which in turn, is targeted on TCS company purposes achievement in the field of quality by means of:

- setting the control values of TCS quality indicators;
- measuring of the reached results and their comparison with expected results;
- effective management decision making as a result of carrying out the analysis of managerial activity in the field of quality on the basis of the report containing recommendations for the company activity improvement, prepared due to the results of measuring and collecting quality indicators.

The essence of ISQM consists in calculation of actual values of service quality indicators, and in correlation of these indicators with standard values, while the large or small deviation shows a service quality level. Thus, ISQM defines the system of TCS quality indicators, and also an order and formulas of actual values of indicators calculation.

All quality indicators according to Gronroos model have been divided on two basic groups: technical and functional.

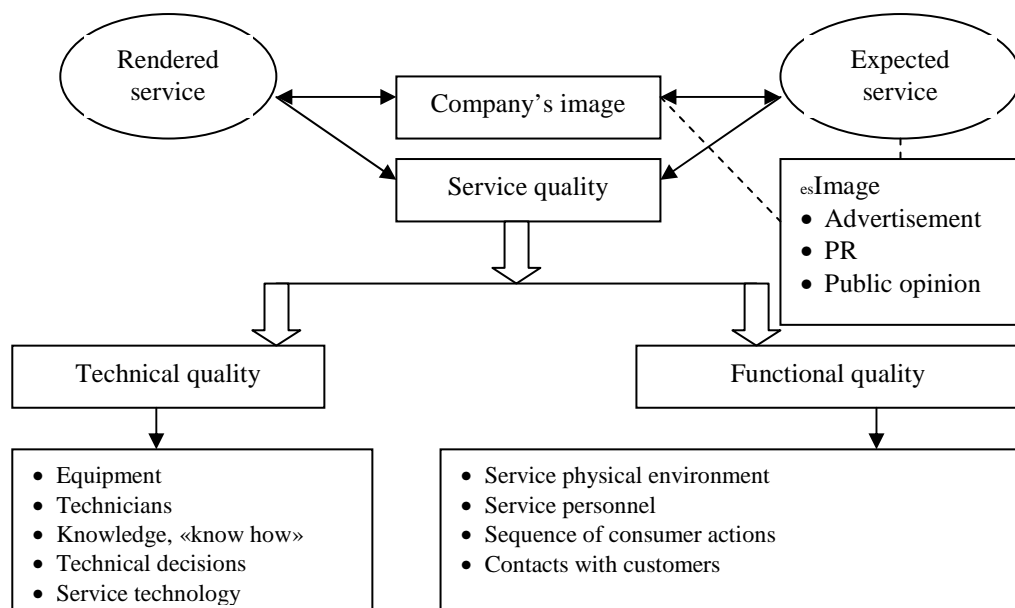


Fig. 3. Gronroos Quality Model (C. Gronroos, 1982).

Gronroos defined technical quality as what consumers receive from interaction with service firm. The technical component of quality represents an invisible part for the consumer, containing the equipment, cars, tools, the premises, special knowledge, technologies, and also technicians which are necessary for service realization. Thus, technical indicators are used in estimating equipment work quality and quality of the TCS providing processes.

Functional quality explains how consumers receive services. Functional quality can be estimated objectively, hence it represents part of service quality which directly provides interaction with the client (service contacts). It is a visible component for the consumer. It concerns the service material/physical environment, the service personnel directly serving the consumer, consumer actions, and also the process of service rendering in which the consumer participates. Functional indicators allow considering consumer opinion on the service quality.

All criteria in the *Technical Indicators* group can be conditionally divided into five basic subgroups:

1. preliminary service quality, which underline actual maximum time for the answer about technical possibility from the service organization starting from the filing the TCS reception application by the user;
2. TCS connection quality, which underline an actual maximum subscriber waiting time for access granting starting from the moment of the TCS granting contract conclusion and-or payment for connection receipt from the subscriber;
3. Availability – quality of technical support service work organization;
4. Reliability – quantity of technological discipline infringements that has caused service downtime/lay-up;
5. The termination of service granting.

According to the ISQM the initial data for technical indicators of rendered service quality calculation are daily indicators of networks equipment self-diagnostics, the operative information given by operational administration service, quarterly and other forms of the reporting, the data of marketing researches received by means of telephone surveys, questionnaires fillings by users in places of service selling, the central repair bureau information, the technical support service data on users references.

Five groups of technical indicators in model are supplemented with two groups of functional indicators which assume the consumer opinion taking into account. The first group allows to estimate the degree of consumer satisfaction of given services, and another – quantity and the importance of consumers claims on unsatisfactory quality of telecommunication services.

The first group «The satisfaction degree» includes four basic indicators of users satisfaction degree:

- of service quality within interaction with the personnel;
- of information and material maintenance quality;
- in technical parameters of service quality;

- of technical support service quality.

The second group estimates consumers claims and includes following indicators:

- a share of well-founded references on TCS quality in total amount of references,
- a share of answers to written references, given with control terms infringement in total amount of written references answers in a quarter,
- a degree of consumers' satisfaction of quality of company's work with subscribers claims.

The indicators described above are considered in calculation of the aggregated TCS quality indicator. The aggregated indicator value is in direct ratio with TCS quality degree (high value – high level, low value - low level). Accordingly, on the basis of aggregated indicator the quality of organization structural divisions activity assessment is carried out, which directly defines the size of employees awarding. The dependence of the size of the employees award on service quality indicators allows to stimulate workers to achieve the organization quality purposes that in turn raises a service quality degree and as a consequence increases consumer satisfaction.

Thus, the achieved research results have allowed to create systematic approach in quality management which begins with requirements to organization activity promoted by consumers. These requirements are the entrance data of service quality planning process. The data in the subsequent are transformed into the organizational quality purposes. The quality purposes afterwards are transformed into the organizational specifications, realized in providing services to the consumer with constant high quality maintenance, assuming continuous process perfection on the basis of a constant result estimation on the separate service process stages. As an output of service quality improvement process the consumer expectation anticipation and formation of new requirements are considered, that lead to the further organizational plans and purposes updating and provide the recurrence of quality management process. Thus, there is the system transition into the second cycle that assumes repeated realization of all basic stages, begging with planning and finishing with service quality improvement.

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