

PAPER • OPEN ACCESS

IT-strategy and major aspects of quality management on the market of goods and services

To cite this article: I I Khafizov and A N Galimov 2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **240** 012038

View the [article online](#) for updates and enhancements.

Related content

- [Integrated Model to Assess Cloud Deployment Effectiveness When Developing an IT-strategy](#)
S Razumnikov and D Prankevich
- [A Mathematical Model of the Color Preference Scale Construction in Quality Management at the Machine-Building Enterprise](#)
V I Averchenkov, S V Kondratenko, L A Potapov et al.
- [Effect of Total Quality Management on the Quality and Productivity of Human Resources](#)
I Siregar, A A Nasution and R M Sari

IT-strategy and major aspects of quality management on the market of goods and services

I I Khafizov and A N Galimov

Kazan Federal University, 18 Kremlyovskaya street, Kazan, 420008, Russian Federation

khafizov@kpfu.ru, galimov_an@bk.ru

Abstract. The article deals with the basic provisions of the formation of IT-strategies and interaction with management quality. Formation of the IT-strategy in a volatile, changing marketing environment is a prerequisite for efficient operation of the company.

Introduction

It is necessary to understand the meaning of the «strategy» category before studying the interaction between quality management and IT-strategy. Based on the analyze of advantages and disadvantages of different authors definitions [1, 2, 3, 4, 7], it may be concluded that strategy is a specification of a company's long-term goals and tasks based on the study of external and internal environment in order to achieve a competitive advantage.

It is necessary to review the system of different author's perspectives on the investigating category in order to identify IT-strategy against the general strategy definition. Three approaches to IT-strategy were systematized during the study [2]: «IT and business alignment» (implies the use of IT-systems to support business-strategies), «IT governance» (considered as IT-functions implementation plan), «enterprise architecture» based on company's architecture. Consequently, IT-strategy is a specification of long-term goals and tasks based on a company's strategy by developing of the IT-systems and focused on business needs satisfaction. The main goal of IT-strategy is to achieve the competitive advantages by using IT-systems and resources that meet all management levels challenges and respect the innovative management system features, goals of common strategy [5]. Management quality system and IT- strategy interaction is shown at the Figure 1. The formation of IT-strategy within management quality system concentrates on a self-reproduction of new IT-solutions that allow to improve corporate activities in the area of staff motivation into the process of IT-systems creation and functioning, and enhance the interaction with third parties.

Thus, the main task of the unified system is the effectiveness evaluation of IT-projects the quality of which has a direct impact on IT-systems development effectiveness that explains the increasing role of quality management system.

Standards of the ISO/IEC 27000 series

Standards of the ISO/IEC 27000 series are international standards in the field of IT safety for creation, development and maintenance of system of management of IT safety. The initial purpose of the international standard with is management and servicing of IT service. This standard represents



requirements to system of management of IT service, including thirteen processes grouped in five groups:

1. Service delivery process:
 - budgeting and cost accounting.
 - management of level of IT service.
 - management of a continuity and availability of IT service.
 - IT service safety management.
 - IT service capacity management.
 - reporting under provision of IT services.
2. Relationship processes:
 - management with suppliers.
 - management of interaction with business.
3. Resolution processes:
 - management of problems.
 - incident management.
4. Control processes:
 - change management in system.
 - management of system configurations.
5. Release process:
 - development of management decisions.
 - correction of management decisions.

It is important to note that today there are problems of creation of standards in the IT sphere that is caused by a variety of reasons: strengthening of the competition in the IT market, the procedure of adoption of standards contradicts realities of lifecycle of IT technologies, there are difficulties of harmonization of standards, there is no single conceptual framework. In the solution of this problem one of key places occupies implementation of methods of functional standardization which allow to identify groups of basic standards by means of functional standards. The most important factor of development of the IT company are activities for standardization of processes which are aimed at providing the high quality level of the provided services.

Thus, it is possible to conclude that standards play a fundamental role in activities of the IT companies. However, the single system of standardization which will allow to manage the following problems is necessary for the IT companies: coordination is more whole than business and IT, safety and implementation of control measures in compliance with the best practice, to manage the complex environment, to conform to regulatory requirements, and also monitoring of efficiency of activities.

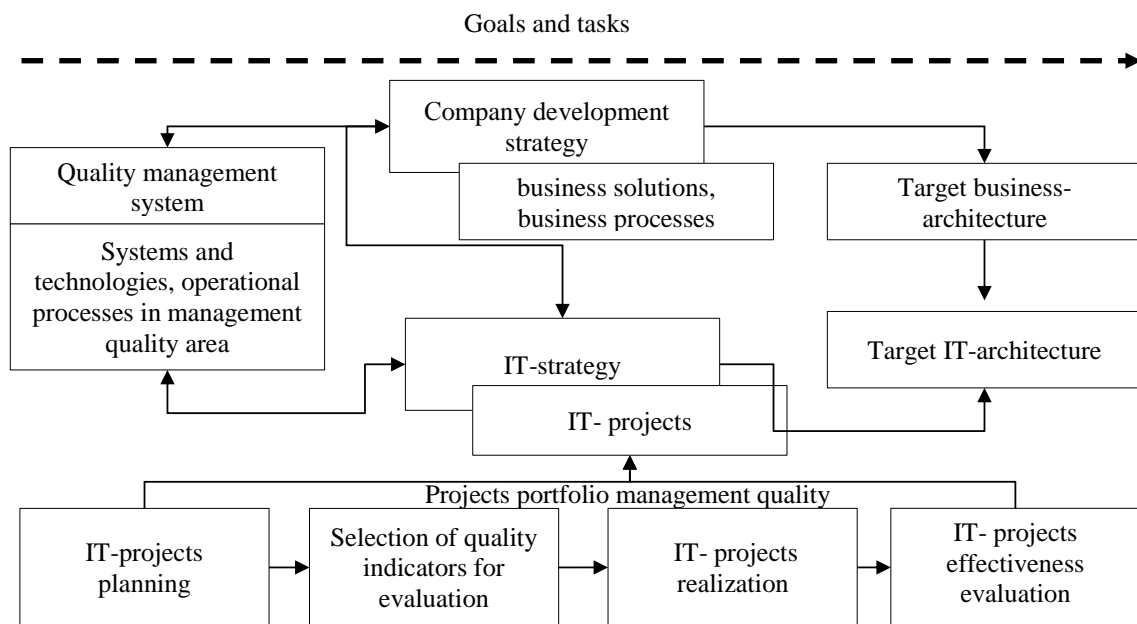


Figure 1. Management quality system and IT- strategy interaction

References

- [1] Afonichkin A I 2014 *Management decisions in economic systems* (St. Petersburg: Piter)
- [2] Dick V V 2009 IT-strategy as a means of feedback in business development *Application informatics* V 1 pp 22-9
- [3] Zelenkov Y A 2013 *Methodology of strategic management development of major industrial enterprises corporate information system in modern conditions* South Ural State University Publ 275 p
- [4] Kalyanov G N 2016 *Modeling, analysis, reorganization and automation of business processes* (M.: Finance and Statistics) 239 p
- [5] Litvak B G 2016 *Development of the management decisions* Delo Publ. 440 p
- [6] Sotnikova A V 2015 *Development of models and distribution of labor resources method in IT-projects portfolio management* (Plekhanov Russian University of Economics Publ) 142 p
- [7] Shamsutdinova Z R 2016 Analysis and improvement of environmental management system of oil refineries (using an example of JSC TANECO) *The Republic of Tatarstan economic research journal* V 2 p 85
- [8] I I Khafizov 2015 Processing methods with imposing of electric field at low- waste division of materials *IOP Conf. Series: Materials Science and Engineering* 86 012013
- [9] I I Khafizov 2016 Economic efficiency and effectiveness of ways of separating materials electro diamond processing *IOP Conf. Series: Materials Science and Engineering* 134 012014
- [10] I R Gil'manshin, N F Kashapov 2014 Energy service contracts in regional engineering center for small and medium businesses *IOP Conference Series: Materials Science and Engineering* 69 012010