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### **INFLUENCE OF CRITICAL SUCCESS FACTORS ON BUSINESS DEVELOPMENT IN IT CONSULTING**

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#### **Abstract**

This study is intended to explore identification and usage of critical success factors in the activity of IT consulting service providers. Critical success factors and their measures are identified at the industrial level. For the corporate level, the study provides recommendations on elaboration of critical success factors for their further usage. Particular attention is paid to the role of critical success factors in activities of IT consulting service providers involving strategic management, project management, partnership and client relations. This issue has become the subject of the study.

**Keywords:** Critical Success Factors, Steps to identify Critical Success Factors, IT-Consulting, Business Development

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#### **1. Introduction**

IT consulting as a segment of the Russian IT-market incorporates both interrelated and standalone services. Despite tight economic and political conditions, IT consulting is highly demanded by organizations from various branches of national economy. This situation owes to the necessity of expansion and modernization of IT infrastructure, emergence of innovative solutions requiring IT support, business growth. For these reasons and the need to attract IT consultants to address the specified challenges, the IT consulting market continues to grow. Organizations seek for qualified assistance due to the lack of their own internal resources and expertise for solving both current and newly arising problems in the IT area.

A high degree of fragmentation and growing competition pertinent to the Russian IT consulting market are due to a number of reasons, such as, for example decline in growth rate and the consolidation trend. Incumbent providers of IT consulting services aim to strengthen their competitive position and raise attractiveness of their IT consulting services. On the whole, success in IT consulting mostly depends on understanding of a limited number of factors (critical success factors) that, if implemented, allows organizations to concentrate their resources and raise expertise in areas where they can outperform major competitors and win the best position in the target market. When applied to practice, the factors have a significant

impact on competitiveness of an IT consulting service provider and success of IT consulting projects.

The concept of critical success factors was first presented by D.R. Daniel in 1960s and then developed in papers of Rockart and his colleagues from the Sloan School of Management, Massachusetts Institute of Technology (Bullen and Rockart, 1981).

Today the CSF concept is used in different areas of activity, for instance, strategic planning and analysis, isolation of managers' information needs, planning of information systems, project management, including implementation of turn-key business applications.

A number of IT standards and best practice papers, e.g. CobiT, ITIL, introduce CSF sets for particular areas. For example, CobiT provides CSFs of most important actions that enable managers to keep IT processes under control.

However, nowadays there is no common opinion about exact factors to be used as CSFs in IT consulting as well as criteria for their selection. Nor is it clear how to apply and measure CSFs to sustain and expand a market niche of an IT consulting service provider.

In 2014, the authors of this study carried out an applied research on identification of CSFs in IT consulting. This study aims to summarize obtained results and determine the role CSFs play in activities of IT consulting service providers on the Russian market.

### **1.1. Terminology**

First of all, let's define respective terms and definitions. On the one hand, the "IT consulting" term is not vested in Russian regulatory base as of today. On the other hand, different studies suggest segment-specific definitions of "critical success factors" and tailor them to a given segment.

For the purpose of this study, the term IT consulting means entrepreneurship related to provisioning of value-added intelligent services in the form of consulting IT projects of different directions; the term critical success factor (CSF) means competence or a resource in which business should invest to clearly distinguish between the company's goals and the goals of competitors as well as costs related to the goal achievement. Such approach to the CSF term definition unveils correlation between competitive advantage and the reasons for it.

It should be noted that CSFs are always market-dependent. This is relevant to the IT consulting market as well. Although CSFs do not directly affect efficiency measurement, they constitute a valuable tool for achieving business goals of a company and monitoring of the strategy implementation.

## **2. Key Directions of IT Consulting and IT Consulting Service Providers**

There exist a number of different classifications of IT consulting services that have already been put into practice. This study suggests the following classification of IT consulting services.

Particular areas of a company's activity dictate the following key directions of IT consulting: strategy, solution, integration, operation, technical. Table 1 gives a brief description of the directions.

Each direction - strategy, solution, integration, operation, technical - is associated with a particular consulting project involving common or direction-specific tasks. At the stage of project execution, common tasks of all directions include audit of the current IT performance and IT project management. Among direction-specific tasks are: for the strategy direction-developing IT strategy, shaping IT budget, arranging implementation of IT project portfolio, building high performance IT team, organizing IT outsourcing, cloud computing; for the solution direction-identifying company's needs in optimization of business-processes, elaborating IS requirements, selecting IT solutions, arranging their implementation, preparing IS technical documentation.

**Table 1. Key Directions of IT Consulting**

Direction	Overview
Strategy	First of all, answers the "what"-question. Services within this direction: implementation of the strategic IT audit, development of the IT strategy, evaluation of the total cost of IT ownership, creation of a high-performance IT team, formation of the IT budget, management of IT project investment portfolios. Specifics of the strategy projects resides in analysis of prospective IT solutions, choice of solutions, necessity of a methodology for the strategic IT audit, development of IT strategy or arrangement of IT outsourcing.
Solution	This direction aims to support company's activities through optimization of its business processes by means of software applications (ERP, CRM, EAM, SCM, ECM, BPM, etc.). It is also essential for implementation of any licensed IT solutions. Services of the direction derive from lifecycle stages of the company's information system. The most critical here is the issue of decision support implying well-grounded choice of IT solutions, implementation methodologies, planning and arrangement of implementation projects.
Integration	This direction answers the "how to do" question. It determines efficient architecture of a corporate information system, a method and technique of IS components integration into a single whole, thus ensuring that IT infrastructure is seamlessly tailored to the company's business focus. The integration IT consulting is based on analysis of IT infrastructure and elaboration of requirements to the integrated solution. The key aspect of such projects is the choice of an integrated solution and arrangement of the implementation process.
Operation	This direction applies to optimization of internal IT management of a company, high performance of an IT department, improvement of the entire IT management complex. Main works of the direction envisage evaluation of IT services in terms of existing management framework, compilation of the actual business process model with a gradual shift to the ITSM-based business process model, elaboration of suggestions on improvement of the organizational structure of an IT department and its activities, including creation of an IT service catalog.
Technical	This direction embraces technical issues and problems related to the required level of reliability and performance of IT infrastructure. Results of the complex technical audit of the current IT infrastructure provide a basis for recommendations on its modernization and update, including modernization concept for the entire IT infrastructure. This involves modernization of hardware, network, engineering systems and telecommunications.

In Russia, IT consulting services are rendered by large-scale diversified international enterprises with an extensive network of branches, Russian IT companies (system integrators), software and hardware vendors who provide consulting services for their solutions, narrowly focused companies working mostly within one or two directions of IT-consulting or a specific sector/region, IT departments of big Russian companies, large state scientific centers and some higher education institutions, independent consultants.

Each IT consulting service provider has its own standard portfolio of consulting services. In practice, the set of suggested IT consulting services is customized to meet client specific

needs, and becomes a subject of pre-contract negotiations that intend to define and agree goals, borders and the charter of a project.

Most IT consulting service providers are system integrators with maximum 20% revenue from IT consulting services of the overall company's revenue. Major tasks of large system integrators during the entire period of cooperation with clients include arrangement of works on analysis and reengineering of business processes, restructuring client organizations in order to boost management efficiency, ensure competitive advantage, improve performance of staff, IT systems and IT infrastructure throughout client organizations, arrange support of the IS lifecycle. Herewith, the most critical task for the IT sector is to arrange comprehensive IT development, thus ensuring compliance with basic goals and directions of the client's core activity and satisfying the needs of the company's top managers.

### 3. Identification of Industry CSF in IT Consulting

CSFs can be identified in a number of ways. Today there is no common method of CSF identification. There exists a wide range of methods and sources to identify CSF, such as environmental analysis, industry structure analysis, competitor analysis, expert surveys, internal analysis, benchmarking

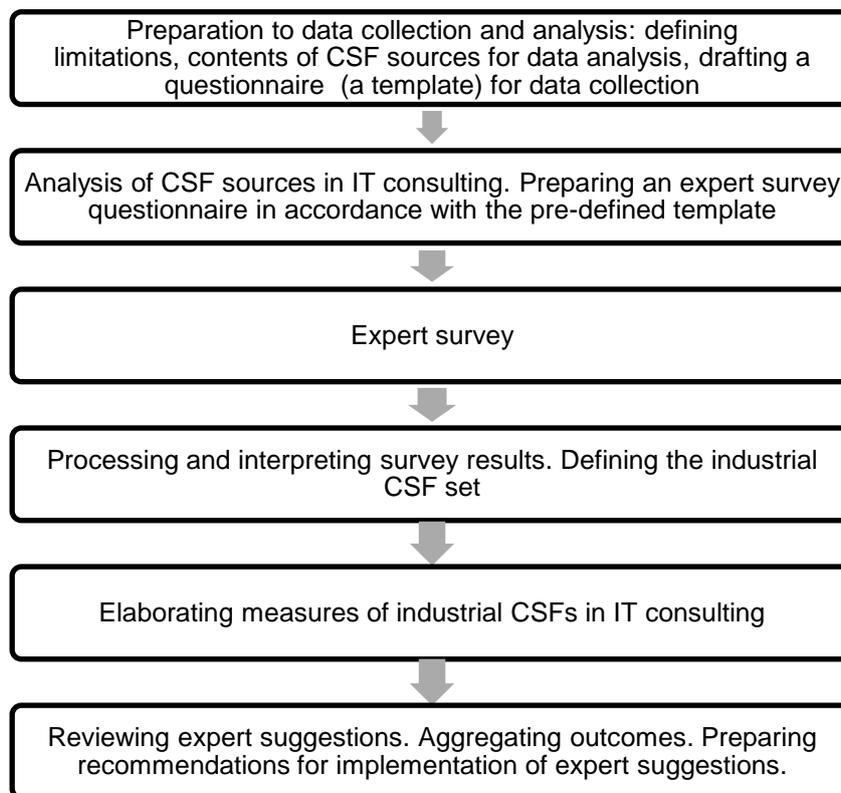
Let's modify the set of CSF sources (Bullen and Rockart 1981) and determine their contents with regard to the scope of this study. CSF sources in IT consulting are as follows:

- a. Industry-specific features of IT consulting that should be perceived and accounted by all IT consulting service providers when developing business strategies and information systems.
- b. Environmental features (economic, political, social and technological) with special position held by technological IT innovations that strongly affect activities of IT consulting service providers and induce creation of service portfolios.
- c. Temporal factors. IT consulting service providers might come through periods of time when some areas of their activity take on particular importance due to force-majeure, e.g. merge/separation, implementation of new IT consulting directions, entry to a new market. Normally, these directions are not associated with any CSF, as the CSF set relates to the period of strategic planning of an organization, when it remains practically unchanged.
- d. Specifics of the management structure of IT consulting service providers. This source determines features critical to success of the company's internal management.

Each source is particular important for CSF identification. To define a CSF, all the above sources need to be explored. At that, each IT consulting service provider inherits some CSFs from the industry where it operates and from environmental features, others arise from internal sources. Worth noting that in the sphere of IT consulting companies are able to develop and apply CSFs of different levels: (1) related to strategic goals (corporate) and (2) project-dependent. Thus, there are several CSF levels that we can identify in IT consulting: industrial, corporate, structural departments, project teams, individual manager.

Let's summarize the outcomes of this study.

Figure 1 illustrates the workflow of CSFs identification at the industrial level. It derives from the classical interpretation of the CSF concept basics and approaches to CSF identification (Bullen and Rockart, 1981), strategic management factors for industry and competition analysis (Fleisher and Bensoussan, 2009), (Thompson and Strickland III, 2009), theory and practice of expert evaluations, statistical methods of expert evaluation processing.



**Figure 1. CSF Set Identification Workflow in IT Consulting**

From our point of view, sources of industrial CSFs in IT consulting include:

- *Industry factors and environmental factors.* They are analyzed with regard to the volume and growth rate of the IT consulting market, competition degree, the number of IT consulting service providers, market entry conditions, regulatory base, IT consulting service portfolio and its rate of change, informatization level of the enterprise, demand for IT consulting services and consumers of services, applied methodologies, methods and practices of IT consulting, transparency of IT consulting market, market prices, marketing system, quality of IT consulting services, availability of qualified IT consultants.
- *Basic elements of IT consulting projects related to their implementation.* It should be noted that internal CSF sources such as competitive strategy and competitive position, management structure specifics of IT consulting service provider, temporal factors at the industrial level are not considered. They are analyzed during identification of a corporate CSF set for a particular IT consulting service provider.

**Table 2. IT Consulting Success Factors-Candidates to Industrial CSFs**

Level	Success Factors in IT Consulting-Candidates to CSFs
Industrial	Highly-skilled top manager Close personal contacts with state agencies and industry management Coherence in top-level management Strong reputation and its support, an image of a reliable business partner Efficient marketing system Availability of a methodology for conducting IT consulting projects High quality-of-service Availability of a methodology for the strategic IT audit Competence in evaluation of the total cost of IT ownership Knowledge base regarding the functionality, costs and timing of IT consulting project execution Timely modification and update of IT consulting service portfolio Flexible price models and client-oriented approach Partnership with customers Partnership with vendors. Skilled personnel

The specified set of success factors of the industrial level was used to prepare a questionnaire of the expert survey. 12 companies and 17 respondents participated in the survey. The respondents were supposed to be highly-qualified professionals with more than 15 years of experience in IT consulting and holding a senior position in an enterprise or top manager (expert) position in IT consulting. The survey questioned 4 large companies (with more than 1 billion rubles revenue from consulting services) and 8 SMB companies (with revenues from consulting services ranging from 150 million rubles to 500 million rubles). Questioning was carried out in one round from April to May 2014. Experts used a point scoring against significance of particular success factors, with a 10-point scale.

For processing of survey outcomes and getting integral estimates, the arithmetic average and median points were calculated. The first collective ranking was obtained in the following way: the highest (first) rank was assigned to the factor with maximum arithmetic average of estimate points, others - in descending order of the arithmetic average. This is how we got the second collective ranking: the highest (first) rank was given to a factor with maximum median point, then in descending order of the median point value. At the processing of expert survey outcomes, it was meant that the number of industrial CSFs is limited to four factors. Upon processing of the questioning the following industrial CSFs were identified:

- skilled personnel,
- high quality-of-service
- availability of close personal contacts with state agencies and industry management,
- availability of a methodology for IT consulting projects.

### 3.1. Identification of Corporate CSFs and CSFs of Main Structural Departments

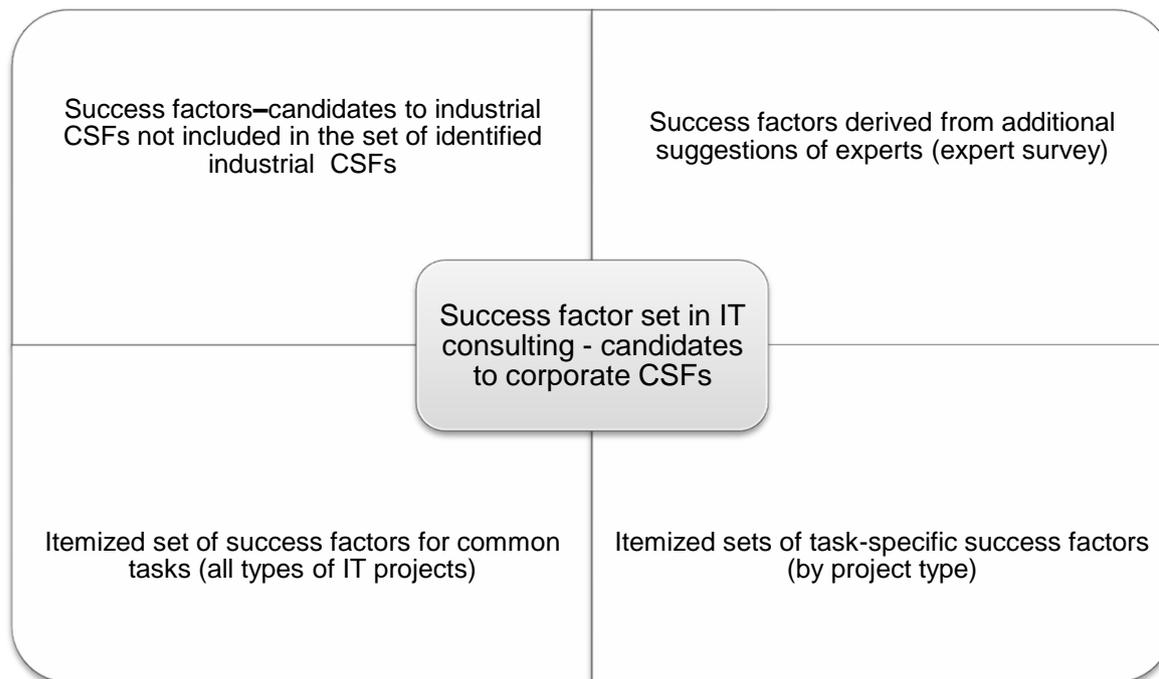
All service providers should sustain industrial CSFs in IT consulting. At the same time, each IT consulting service provider should identify its own CSF sets critical for its organization.

For the purpose of this study, we describe success factors associated with resources and competence of IT consulting service providers, and relevant to basic directions of IT consulting. If properly identified and maintained, the factors assure success in service provisioning as a whole and a particular direction of IT consulting.

Among key tasks of the project are:

1. Compiling questionnaires for interviews with top managers and heads of departments.
2. Interviewing top managers and heads of departments, reviewing interview results.
3. Developing the corporate CSF set in IT consulting.

Let's consider key points of interview questionnaires intended for top managers and heads of departments. The questionnaire should reveal corporate goals of an organization in IT consulting and match them to possible success factors (candidates to corporate CSFs) and their measures. Figure 2 shows classification of success factors in IT consulting - candidates to corporate CSFs. We recommend it for preparation of questionnaires intended for top managers and heads of structural divisions. It should be noted that CSFs are measured either in terms of quantity or quality. Some of them cannot be interpreted as quality, for instance, availability and support of positive business reputation. Besides, the questionnaire should include empty positions for additional suggestions of management that may arise in the process of interviewing.



**Figure 2. Classification of Success Factors in IT Consulting-Candidates to Corporate CSFs**

After interviewing top managers and heads of structural divisions, obtained results are analyzed and aggregated. The outcome is a set of corporate success factors in IT consulting-candidates to CSFs of a given IT consulting service provider, which is subject to further discussion.

To identify corporate CSFs, it is advisable to arrange a round-table discussion involving the project curator or project sponsor, top managers, heads of structural divisions participated in the questioning or invited by the project sponsor. Project managers should moderate the round-table discussion that aims to determine those few critical factors and respective measures that ensure success of the enterprise activity in the sphere of IT consulting.

We would like to once again emphasize that apart from identified corporate CSFs, all IT consulting service providers need to assure identification and maintenance of industrial CSFs, including skilled personnel, high quality-of-service, close personal contacts with state agencies and industry management, methodology of conducting IT consulting projects. This is obligatory for all organizations.

Elaboration of CSFs for structural divisions working towards certain directions of IT consulting is yet another important task of IT consulting service providers. Success factors of a structural division should match industrial and corporate CSFs and, at the same time, secure interests of a particular division and its management. They should also take due account of the provider competence and resources that contribute to success of all projects pertaining to the IT direction that a given structural division is implementing. Structural department CSFs of an IT consulting service provider are elaborated in a manner similar to the above procedure, but adapted to mid-level managers and respective direction of IT consulting. In the process of adaptation, the main area of focus includes success factors of a certain direction of IT consulting.

In addition, it is recommended that each structural division of an IT consulting service provider be assigned basic CSF sets of those IT consulting projects that the division is involved in. The basic CSF set of an IT consulting project of a particular kind can be developed on the basis of CSF sets existing in project management. Unlike other CSF sets considered in this study, basic CSF sets of IT consulting projects comprise not only CSFs of an IT consulting service provider but also CSFs of a client organization as well as a number of CSFs associated with contractor-customer relations. This is due to the fact that at the stage of project implementation it is required to ensure and sustain both CSFs of the IT consulting service provider and CSFs of a client organization. The latter represents external data defining the project environment. The basic CSF set should also be linked to measures and target values.

### **3.2. The Role of CSFs for IT Consulting Service Providers**

This study considers CSFs as a description of basic competence and resources for achieving success on a particular market, here the IT consulting market. From this point of view, we can determine key recommendations on CSFs usage in IT consulting and identify their role in enterprise management.

At all levels, managers of an IT consulting service provider have a different picture of company's perspectives, priorities and goals. Therefore, strategies and tactics of the management also differ. For instance, top managers may stick to formulation and achievement of corporate goals, risk management in IT consulting, while mid-level managers most commonly focus on success in provisioning IT consulting services and cost control. That is why CSF sets depend on the management level.

The most significant element of the enterprise management is strategic planning of its activity mainly involving senior managers.

The concept of CSF strategic planning (Mintzberg, 1990) explores the link between a company's strategy and CSFs. Based on the main principles of the above-mentioned papers we will consider how the strategy of an IT-consulting service provider relates to CSFs. It appears from the definition that CSF determines competence and resources as an area of CEO's focus, to encourage implementation of a company's mission and achievement of pre-defined goals. Accordingly, CSFs reflect collective goals of CEOs in key areas (including those related to particular directions of IT consulting) and contribute to decrease in organizational fragmentation through consolidation of opinions and interests of top managers. In this regard, corporate CSFs identification is based on analysis of various sources, such as competitive position on the IT consulting market and competitive strategy of the company, temporal factors, specifics of the

provider management structure and implementation of IT consulting projects, etc. (see the previous chapter). Therefore, corporate CSFs illustrate a real environment of an IT consulting service provider and provide a dynamic management tool, including the scope of strategic planning and decision support, as they reveal what exactly is critical for an IT consulting service provider in current conditions. Also, CSFs foster adaptation to these conditions, enable identification of basic risks to IT consulting and provide main conditions of risk management at the corporate level. This makes evident the critical role of corporate CSFs for IT consulting service providers.

In whole, company's goals cannot be achieved without achieving goals at all levels. So, corporate CSFs of IT consulting service providers that meet interests of top management are undoubtedly connected with those of mid-level managers and affect goals and CSFs of all other levels. At that, while corporate CSFs affect CSFs of structural departments, the latter should at the same time comply with concerns of a certain department and its management. At the level of structural divisions, CSFs represent competence and resources required to implement projects assigned to these divisions. This is the key role of CSFs. Herewith, while elaborating and ensuring identified CSFs of structural departments let us not forget the significant role of industrial CSFs closely connected to project activities. Availability of a methodology for conducting IT consulting projects and high quality-of-service exemplify most critical industrial CSFs.

CSFs of structural departments need to be kept under control or be monitored against their availability at a particular level, including based on the analysis of project results. Worthy of note is that together with success factors of project implementation, such as due timing, budgeting and achievement of pre-planned goals, we should take into account another success criterion - degree of customer's satisfaction. The point is that even in case of due timing, budgeting and expected results, management can stay unsatisfied and vice versa, it may accept extension of time and budget, if the project results are satisfying.

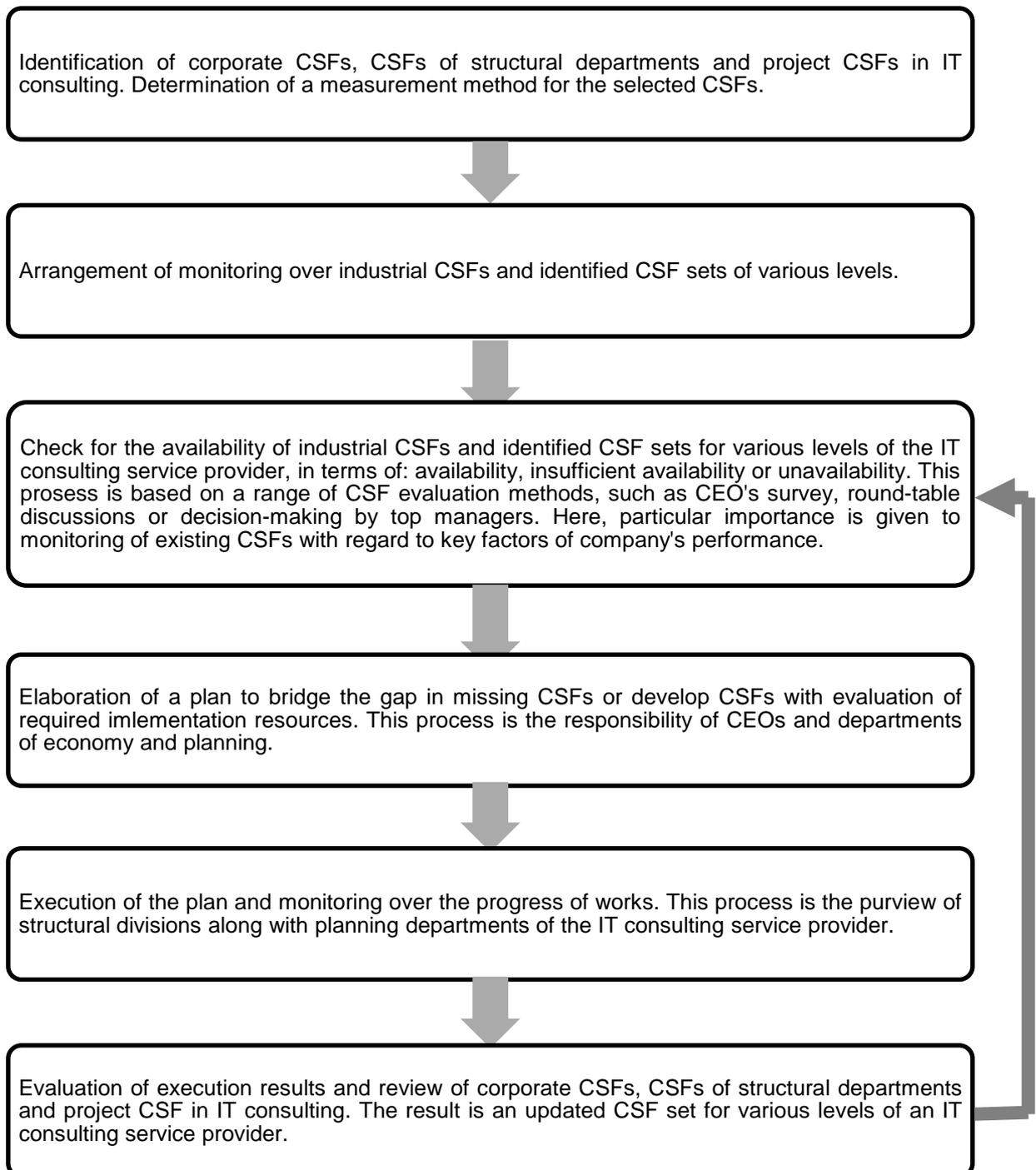
Another sphere of CSF application in IT consulting is partnership and client relations.

The key recommendation on CSF usage in IT consulting is to carry out a preliminary compliance check against CSFs of IT consulting service provider and client CSFs, i.e. comparative analysis of client's needs, its CSFs in a particular area and capabilities of an IT consulting service provider in this area. Thus, prior to signing a contract on execution of an IT consulting project, examine symbiosis between corporate CSFs of the IT consulting service provider and CSFs of a client organization. This process closely correlates with understanding of client's corporate CSFs that should be initially perceived by the IT consulting service provider. An IT consulting service provider should analyze all the means at his disposal to successfully implement a project and gain confidence that expected results will meet interests of the client organization and, therefore, its preset corporate CSFs. Otherwise, no competence or expertise of an IT consulting service provider will help achieve success in project implementation.

CSFs are used to choose business partners and develop partnership. Comparative analysis of the company's corporate CSFs and CSF of organizations - potential partners helps elaborate criteria of partner selection needed to reach competitive advantage. Also, it reveals development prospects for own CSFs and CSFs of selected partners. Let's assume that an organization has competence and resources for rendering strategic IT consulting services. To expand its market niche, it is reasonable to partner with companies that specialize in solution IT consulting or other directions thereof. An important task here is to accurately identify corporate CSFs of potential partners and make their evaluation. The results provide an opportunity to decide on what partner to select and how to arrange the partnership. In particular, the contracts might stipulate activities to induce respective competence and resources to gain the joint competitive advantage. Of course, these activities should be evaluated in terms of cost and cost distribution across contract parties. So, the most crucial issue is analysis of a market where the partnership is supposed to be established and understanding of associated industrial CSFs.

Thus, CSFs are essential to the activity of an IT consulting service provider and adds an efficient tool for achieving provider's goals and keeping an eye on the strategy implementation, including strategic planning, execution of particular IT consulting projects, partnership and client relations.

Note that CSFs are changing over time. Therefore, they should be modified to match changes in external and internal environment. Figure 3 illustrates the workflow of identification, monitoring and usage of CSFs in the activity of an IT consulting service provider.



**Figure 3. Identification, Monitoring and Usage of CSFs by an IT Consulting Service Provider**

Figure 3 shows classification of success factors in IT consulting - candidates to corporate CSFs. The content of each factor group is given in the work (Vasiliev R. and Levochkina G, 2014). From a practical standpoint and for the purpose of efficient CSF monitoring, organizations should develop an information system to monitor, analyze and modify CSF sets at all levels. The information system should store information on all applicable CSF sets of an organization, their target and current measures, questionnaires and surveys for managers of all levels. The system should be an enabler of conferences and discussions aimed at making collective decisions and arranging identification and development of resources and competence required for achieving preset goals in IT consulting. It should necessarily contain an industrial CSF set, in particular, skilled personnel, high quality-of-service, close personal contacts with state agencies and industry management, a methodology for conducting IT consulting projects with measures and values, both target (see Figure 2) and current.

#### 4. Conclusion

From our point of view, industrial CSFs defined for IT consulting help IT consulting services providers to improve their position on the target market. Also the suggested approach to identification of CSF sets of IT consulting service providers allow them to gain a competitive advantage on the market.

The research prospects include a possibility to develop patterns of technical documentation on identification of corporate CSFs in IT consulting, elaborate measures of corporate success factors in IT consulting and develop CSF sets of IT consulting projects for the strategic IT consulting.

#### References

- Bullen, C.V. and Rockart, J.F., 1981. A primer on critical success factors. *CISR Working Paper*, No.69, Sloan WP No.1220-81, Massachusetts Institute of Technology.
- Fleisher, C.S. and Bensoussan, B.E., 2009. *Strategicheskij i konkurentny janaliz. Metody i sredstva konkurentnogo analiza v biznese [Strategic and competitive analysis: Methods and techniques for analyzing business competition]*. Moscow: BINOM.
- Mintzberg, H., 1990. Strategy formation: Schools of thought. In: J.W. Fredrickson, ed. *Perspectives on Strategic Management*. New York: Harper & Row. pp.105-235.
- Thompson, A. and Strickland III, A.J., 2009. *Strategicheskij menedzhment: Konceptii i situaciidlja analiza [Strategic management: Concepts and cases]*. Moscow: Williams Publishing House.
- Vasiliev, R. and Levochkina, G., 2014. *Kriticheskie factorv uspecha v IT-konsaltinge [Critical success factors in IT consulting]*. Moscow: National Research University.