MECHANISMS OF EFFECTIVE MANAGEMENT IN ELECTRIC POWER COMPANIES

Vagapova N., Fedotov A., Sidorov A., Vagapov G.*

Abstract: The problem of efficiency of electric power companies is quite relevance. The conducted researches in this area are directed on different aspects of activity of the companies. However, the problem of effective management from the point of the competency approach is researched in a less degree. Competency approach is one of the important factors of the success of business projects. The reason is in its effects of the development of organizations, and consequently the business success and profit. The paper gives analysis of significance value of soft skills and self-management skill for effective activity of managers of electric power companies. The authors indicate the high importance of the group of soft skills and self-management skill as one of the base of soft skills for effective manager of electric power companies. Performed research has shown that soft skill and self-management skill are the important property of managers. Soft skills and self-government skill are able to influence the overall performance of managers. The processes of managing of soft skills and self-management skill are becoming important.

Key words: efficiency, electric power companies, the manager, soft skills, self-management skill

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Introduction

The problem of efficiency of electric power companies is immediate in today's reality, and is not only in Russian but also a global trend that is influenced by such factors as: the development of international cooperation; high competitiveness; commitment to improving the quality of clients and business partners.

The researchers are conducted in this direction (Fedotov and Vagapov, 2010; Timofeev and Abramova, 2014), but the received results of studies do not exhaust all aspects of this difficult problem including aspects of effective management as a factor of the success of electric power companies which are less explored.

However the results of the researches show, performed by different groups of scientists and experts, the impact of manager on the effectiveness of companies activity in other sectors of the economy is quite high (Lubimow, 2014; Wong et al., 2015). It is noted (Dyomina, 2011) that the effectiveness of manager depends on many factors, including from properties of the identity and competences of the manager (Jacquart and Antonakis, 2015; Mumford et al., 2015).

The term competence is most frequently defined as a combination of employee's knowledge, experience and skills together with the possessed mental abilities and adopted attitudes, which are directed at effective realization of the organization's

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goals. Competence management means activities, which lead to the increase in the value of the human capital and efficiency growth of the organization's operation (Jedrzejczyk, 2013).

Some researchers differentiate competences (skills) on hard and soft skills. Requirements towards hard skills in the light of the last few decades can be recognized as stable. However, the importance of soft skills is growing (Wahl et al., 2012; Saad et al., 2013). It is noted that the effectiveness of managers by 75% is determined by soft skills and only 25% by hard skills (Peggy, 2007), because the manager needs to feel socially confident to coach, stimulate, and inspire subordinates, and to act charismatically (Dóci et al., 2015). The following terms are associated with soft skills for effective manager: leadership, ability to integrate into teams, communication skills, critical and creative thinking skills, self-management skill (Mintzberg, 2004).

It can be assumed that the influence of soft skills on the efficiency activity of managers of electric power companies is also significant. However, this aspect has not been the object of research until now. Current situation has defined goal of this research: identifying the level of importance of soft skills in general and the self-management skill in particular for the effective activity of managers of electric power companies.

Research Methodology

The study was based mainly on: (1) a critical analysis of literature and (2) through the questionnaire survey.

A methodological basis for studying of soft skills and self-management skill used their understanding of how:

- Soft skills are skills they will need to manage rapid change, uncertainty and complexity (Saad and Majid, 2014);
- Self-management is the skill management for its human forms of activity: the activity, communication, behavior and emotions. In this study, self-management skill is understood as the creative process involved in creating a new, with the necessity of setting new goals, finding new solutions and means of achieving goals (Peysakhov and Shevtsov, 1991).

As next step of this research, authors detected, firstly, the importance, which capabilities of electric managers attach to soft skills and self-management competence; secondly, the relationship between the self-governments:

- the level occupied by the manager,
- the efficiency of the manager,
- level of the manager development.

A total of 93 the managers of electric power companies were interviewed about the soft skills and self-management skill according to their importance for the effective activity of managers of electric power companies. They were asked following point:

- 1) Determine importance of the hard skills and of the soft skills for their professional activity;
- 2) Rank the 24 soft skills according to their importance for the effective activity of managers of electric power companies.

For the second task, we have developed and used a questionnaire "Ranking of competences" to identify the place which managers give to self-management skill in their activity. The questionnaire was developed from a pilot study involving a few managers of electric power companies to elicit important and useful feedback regarding the items in the questionnaire in terms of its clarity and suitability. Once their feedback had been incorporated 24 in the refined questionnaire, then, proceeded with the actual data gathering.

Soft Skills and Peculiarities of Activity of Electric Power Companies

Manufacturing of power is the complex process consisting of power plants, electrical grids and transmission facilities with combined cycle technology and centralized operational dispatch management. The main function of electric power company is an uninterrupted supply of electricity to consumers in the required amounts. Peculiarity of energy production is that power plants are closely linked with the total of various electricity consumers, which determines the rigid dependence production of energy from consumption mode. These peculiarities put forward the requirement to ensure a sufficiently high level of reliability of electric power companies functioning. The essential feature of the production of power energy is also in a relatively rapid development of emergency (Vagapov and Fedotov, 2013).

Thus, on the one hand, the rules of technical operation and normative-technical documentation exist that clearly show management functions for the process of operation power energy systems. On the other side, during the operation of power energy systems are often necessary to adjust the predetermined production program.

Therefore managers of electric power companies have contradictory demands, which, in turn, is associated with paradoxical managers behavior: with dimensions enforcing work requirements and while allowing flexibility, which, in turn, is associated with increased proficiency, adaptively of manager (Zhang et al., 2015). Consequently, the key skills for manager of electric power companies are soft skills. One of the key soft skills for manager is the self-management skill, allowing during the activity to solve problems that have no algorithm of solution.

The self-management skill is one of the key soft skills. Self-management skill give to the manager to feel confident in relation to tasks in order to challenge assumptions, demonstrate competence, and offer innovative solutions (Dóci et al., 2015). Within an economy that demands flexibility and innovation instead of repetitive tasks, problem solving skills have become a key component for workplace success (Suciu and Lacatus, 2014).

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Self-management skill includes a group of mental abilities, by which person operates the factors of activity (Saad and Majid, 2014). The self-management skill includes the skills of self-identification of the problem, the formation of the target as a model for solving the problem and creating technology for the realization of this target (Peysakhov and Shevtsov, 1991; Vagapova, 2013).

Thus it can be assumed that the competence of self-management skill is quite important for managers at all levels of management of electric power companies: administrative and economic, industrial, technical and operational dispatch (Gusarova, 2000).

Peculiarities of Functioning of Self-Management Skill

We will consider the peculiarities of functioning of the self-management skill in manager's activity. Self-management skill is based on the functional systems, including many of the qualities of the individual manager, including analytical skills, the ability to focus on the result of the activity, the ability to predict and others combined in a single unit, in the mechanism of self-management skill and assume a certain level of their development.

Self-management skill is beginning when manager meets a problem. There is a need for such actions as orientation in the situation, analysis of the contradictions that allows creating a model of the problem situation.

It becomes possible to predict, for trying to solve problems in different ways at an ideal level, based on the established model. Effective forecasting is particularly important to performance in leadership roles (Mumford et al., 2015). Using experience is one of the important components of this process, and also to simplify the problem at hand with respect to critical contingencies (Partlow et al., 2015). The forecasting process prepares the process of goal-setting. Goal-setting is the most important aspect of the creative activity of manager. Creativity and creative solutions are important especially in the (unusual) situations when experience or established routines do not work. In this context is creativity is perceived almost as a prerequisite to manage change and renewal (Sirkova et al., 2015).

The targets of the activity are intelligent constructs. The targets are produced in the process of appropriation of public activities in process of experience accumulation. And the targets are in the form of creative production manager his own new ideas. Findings support the association of complex problem solving and divergent thinking skills with manager effective (Zaccaro et al., 2015).

After setting goals there is a need to develop ideas on the results, appropriate to goals, and form a system of evaluation criteria. The component of the planning starts being formed actively together with the component of the «criteria of an assessment». The component planning is models of means of achievement of the targets and sequence of their application.

At this time the component "control" being formed and being filled with specific content. The component "control" is intended for the future to realize the function

of external feedback, i.e. for receiving information about the actual results and evaluating them.

The component of "decision-making" is the transition from the component of plan to action, to the actual implementation of the plan. The optimal solution is balance and risk.

The component "correction" is formed if it is a mismatch between the component of the "plan" and the component of "results of activity". It is possible need correction the results of performance, if misalignment between planned and achieved takes place in the executive part of the activity.

The primary function of self-management skill is the focus in the situation, the definition of activities. Everything above the listed functions of self-government skill are realized by set of the means which are available in self-government skill, in the components forming the self-government skill. Thus, the place and the role of self-management skill in the activity of manager are obvious. The effectiveness of manager's activity depends on the degree of formation and development of the of self-management skill (Peysakhov and Shevtsov, 1991; Shevelev and Molotkov, 2009; Vagapova, 2013). Accordingly, it can be assumed that self-management skill is an important skill for effective manager of electric power companies.

The Practical Research Results

The study has found that soft skills are claimed on 79%, hard skills -21% for effective manager of electric power companies. The study shows the seven most important soft skills as perceived by managers of electric power companies. They indicated communicative competence (78%) and self-government competence (77%) as the most important soft skills for effective manager followed by the ability to work in a team (76%), creativity (73%), ambitions (71%), leadership (70%), and high motivation (69%).

Traditionally managers are on different levels of company— top manager, middle manager, entry manager. Consequently, they solve different tasks and problems. For example, top managers determine the main direction of the company, its goals and tasks. Practice shows that the top manager spends more than 80% of the time on the company development strategy and the external contacts implementation. The middle management level is responsible for the practical decisions implementation: for organization structures changing; production and marketing systems development, the company functional departments' interaction organization, timely necessary information provision of senior management, the supervisors coordination and management. In its turn, the entry managers feature is the direct work executors' management. Their main features are: the subordinates work planning; manufacturing process organization; staff motivation; rational resources use and industrial safety control; the data on current activity results collection, analysis and presentation to higher management (Dracheva and Yulikov, 2002).

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Consequently, managers of different level have a different need for soft skills. Next, it describes the perception of managers of significance degree of the soft skills for different levels of managers of electric power companies. The most important of the soft skills for the top managers are leadership (81%) and self-management (79%). The most important of the soft skills for middle managers are high motivation (85%), self-management skill (80%) and ability to work in a team (78%).

The most important of the soft skills for the entry manager are self-management skill (89%), communication skills (81%) and ambitions (77%). Thus, self-management skill takes a leading position among of soft skills for managers of different levels of electric power companies.

Consequently, managers of different efficiency level may have a different need for soft skills. Consequently, managers of different efficiency level may have a different need for soft skills. To establish need for soft skills for managers of different efficiency level, respondents were asked to determine their activity efficiency level on the nine-point scale from 1 (poor) to 9 (effective). It is difficult to find absolutely precise criteria of efficiency for activities of manager, but it can be indirect criteria of efficiency. In this study, we used as criterion of efficiency the level of productivity of activity of manager, the manager objectives achievement extent criteria (Mamonova, 2010).

The activity efficiency level was determined by respondents by self-assessment. As a result, three groups of managers were determined: first, high-performance managers, with the efficiency level of 100%, the second, managers with middle efficiency – 90–99%, the third, inefficient managers – 80–89%. Analyzing the results of the conducted studies of soft skills of different efficiency levels managers it can be stated that self-management skill is quite significant for the high-performance managers – 79%. Self-management skill is quite significant too for middle efficiency managers – 75%. The self-management skill significance level for ineffective managers is 56%. Thus, the results of study show that the self-management skill has a leading position for effective managers. Consequently, its importance for managers of the electric power companies is quite high.

In the next stage of our research we were determining, that the soft skills is importance for managers of different levels of work experience. The work experience level is expressed through experience: a low one – up to 3 years, average – 4–6 years, high – 7–10 years. The study has found that the self-management skill is important skill for respondents from the three types of categories: 3 years – 78%, 4–6 years – 76%, 7–10 years – 79%. Therefore, we can assume that the self-management skill is important for managers of the electric power companies at any stage of the work experience.

Summary

The efficiency in the market of electricity power companies is a complex and multifaceted category. This paper considers an aspect of this problem – an effective

manager as a factor of the electrical power companies' success. The activities of managers of electrical power companies is complex and it is often impossible to implement tough technologization. But it is often necessary to determine the activity process orientation and in the implementation process design by the manager. There is a necessity to develop mechanisms that will enable a manager in a precarious situation to find the new optimal variant of his decisions. In this connection, highlighting soft skills and, in particular, the self-management skill as this mechanism, we considered its importance for managers of electricity power companies. On the basis of the research and analysis we attained to some following conclusions:

- Soft skills and self-management skill relevance for the managers activities is quite high;
- Self-management skill takes a leading position among soft skills for electric power companies managers of different levels;
- It was found that the higher is efficiency of manager, the higher is the level of self-management skill importance;
- At any stage of the work experience the importance of self-management skill for the managers of electric power companies is equally high.

Results of research indicated that the role of soft skills in general and self-management skill in particular for managers of the electric power companies is quite high. Therefore, it is crucial for organizations to have managers with problem-solving skills due to their impact of the organizations' performance. Thus, if manager possesses the ability to think critically, act logically, and evaluate situations to make decisions and solve problems, is considered to be a valuable asset to the organization. Consequently, there is a need for further research to determine the methods and means of formation and development of soft skills and self-management skill for managers of electric power companies.

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MECHANIZMY EFEKTYWNEGO ZARZĄDZANIA W PRZEDSIĘBIORSTWACH ENERGETYCZNYCH

Streszczenie: Problem efektywności przedsiębiorstw energetycznych jest dość istotny. Przeprowadzone badania w tej dziedzinie są kierowane na różne aspekty działalności firm. Jednakże problem skutecznego zarządzania z punktu podejścia kompetencyjnego bada się w mniejszym stopniu. Podejście kompetencyjne jest jednym z najważniejszych czynników powodzenia projektów biznesowych. Powodem jest jego wpływ na rozwój organizacji, a w konsekwencji biznesowego powodzenia i zysku. Niniejszy artykuł analizuje znaczenie wartości umiejętności miękkich i umiejętności samozarządzania dla efektywnej działalności menedżerów przedsiębiorstw energetycznych. Autorzy wskazują na duże znaczenie grupy miękkich umiejętności i umiejętności samozarządzania jako jednej z podstaw miękkich umiejętności skutecznego menedżera przedsiębiorstw energetycznych. Przeprowadzone badania wykazały, że miękkie umiejętności i umiejętność samozarządzania są ważnymi cechami menedżerów. Miękkie umiejętności i umiejętność samozarządzania są w stanie wpływać na ogólną wydajność menedżerów. Procesy zarządzania umiejętnościami miękkimi i umiejętnością samodzielnego zarządzania stają się ważne.

Słowa kluczowe: wydajność, przedsiębiorstwa energetyczne, menedżer, umiejętności miękkie, umiejętność samozarządzania

有效的管理機制在電力公司

摘要:電力企業效率的問題是相當的相關性。在這方面的,並進行了研究被引導在企業活動的不同方面。不過,從能力途徑的點有效管理的問題在較少程度進行了研究。競爭力的做法是商業項目成功的重要因素之一。原因是在組織的發展,因此商業上的成功和利潤及其影響。本文給出了軟技能的意義價值和自我管理能力的分析,對電力企業的管理者進行有效的活動。作者指出該組的軟技能和自我管理能力的高度重視作為軟技能為電力企業的有效管理器中的基地之一。進行的研究顯示,軟性技能和自我管理能力是管理者的重要特性。軟技能和自我管理技能能夠影響管理者的整體性能。軟技能管理和自我管理能力的過程變得非常重要。

關鍵詞:效率,電力公司,經理,軟技能,自我管理能力。