THE ASSESSMENT METHODOLOGY OF MANAGEMENT'S TRAINING OF PUBLIC-PRIVATE PARTNERSHIPS

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Abstract

With introduction of the new federal law on public-private partnerships in Russia, requirements for management training in investment projects with state funding will rise to improve decision making process. The paper studies the potential of sustainable human resource management strategy for the Russian Federation in periods of political instability and economic uncertainties. The authors developed qualification assessment methodology for the administrative staff that takes part in implementation of public-private partnership at different levels of management system hierarchy. Authors assessed implications of sustainable human resource management on public-private partnerships and discussed software that will help to improve the efficiency of the human resource management for industries with public and state funding. The foundation principles of software makes possible, firstly, comparison of corporate governance systems, and secondly, development long-term strategies that will help increase the quality of preparation and accountability of the managers of large corporations in the real-life operating conditions. As an object of research authors used a public corporation established in compliance with the federal law.

Keywords: government, public-private partnership, public corporation, sustainable human resource management, efficiency.

JEL: C10, F36, G38

Introduction

International practices show that sustainbility and sustainable development are important aspects of human resource management because employees are crucial to success of an enterprise. Many researchers emphasized correlation between the satisfaction of employees and outcomes of company's operations (Ehnert, Harry 2012; Kramar 2014). On the other hand, rapid transition from command economy system to open market economy in Russia had led to imbalancies in higher education (Sergi, 2011). Consequently, fast paced reforms and prolonged restructuring of education sector in Russia created shortage of professionals with

scientific and technical background, dramatic brain drain of young professional who are easily adoptable to new technologies and slowed innovations because (the proportion of employees under 30 in the Russian Academy of Sciences - [RAS] is slightly above 10%). External and internal migration of professionals (shifting from the scientific and technical organizations to the others, particularly to the private entities inside the Russian Federation) have been prevalent in Russia. These trends have become widespread across different industries (Schmidt, Gerbershagen, Salehin, Weiss, Schmidt, Wolff, Wappler, 2011).

In our view, the solution for structural problems of Russia is training of seniors with the pre-market experience (these professionals represent 50% of labour force). Pre-market experience is primarily related to management problems and optimization of the integrated structures with direct government financing. Amicable relations among managers and legislation authorities have led to the evolution in understanding of the objectives of integrated structures ranging from problems related to military industry complex and development of related activities with government support to creation of culture for management of big investment projects of public-private partnerships under modern political and economical conditions.

According to the domestic analysts' projections for the mid-term development perspective of the public-private partnership, corporate governance will capitalize on the improvement of the internal corporate mechanisms and procedures (Kravchenko, 2014), including limits of authority, regulations of the relationships between the Board of directors and Executive board, and the introduction of various management incentive schemes related to performance of the integrated structure with 7-8 levels of management in hierarchy of the control system. In 20 years perspective, the demographic factor will be more significant (Ivliev and Cheremesina, 2014). As growing number companies' founders and key figures of the Russian corporations are coming closer to retirement age, mechanisms of handling/transferring the control over the companies to the new owners will be attracting more attention.

Next consequence of ageing of current owners is a further formalization of their relationships with the hired managers. It is very likely that owners would leave operational control and transfer these functions to hired managers, while retain on the board. This scheme assumes the existence of effective control mechanism that will set goals for managers (Miner, 1969). In addition, effective control mechanisms will facilitate investments from foreign investors in Russian corporations.

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Development of Public-private partnership assumes development of corporate culture of large companies, which have certain psychosocial conditions among highly skilled employees, utilization of human resource, new incentives, which become a core of financial stability for companies. At the same time, the corporate plan (a document of the inter-firm planning) should encompass not only strictly defined strategic goals and objectives of the public-private partnership but also different variants of organizational and management structures (personal structure), and the human resource assessment methodology, which takes into account the following characteristic of large integrated structures and employees (Drucker, 2004):

- How to define a type of the employees, currently working in the departments of the PPP, and what is required from these employees in future?
- What is the level of expertise and training of the top management?
- Is there any succession plan for board members and key executives?
- What is rational for further training and increasing qualification of the key executives?
- Does the company have cases of resignation of the leading experts, and for what reason?
- Does the assessment methodology of personal performance exist in the structure, and if, how it is organized? (Drucker, 2004)
- Does the PPP maintain the comprehensive human resources policy, particularly in forming top management?

Apart from these, the company should execute the comprehensive recruitment policy, retraining and education. (Zivkovic, Gucanin, Jez, 2014) As a result, the company should increase the quality of management decision-making at various levels from a single company to integrated structures in order to gain competitive advantage.

1 The assessment methodology of management's training

In connection with the above, the authors propose the assessment methodology of management's training in accordance with an occupied position in the PPP management hierarchy. As a subject of our research, we selected state-owned corporation, which was formed in accordance with the federal law (State Duma, 2007). In order to improve the legal framework of the organization, operations of public corporations, and the federal law "On the State Corporation" Russian Technologies "in July 2008, the Russian President signed Decree"

Issues of the State Corporation for the design, production, production and export of high-tech industrial products "Rostechnology "(Russian President, 2008).

Assessment methodology for management training is based on structure of the public corporation management system. The following steps :

Step 1. Defining the indicators, which will reflect the level of the managements training.

Step 2. Using the Method of Expert Estimations each indicator is attributed a quantitative term, which corresponds with indicator's relative importance, the sum of the estimations could be calculated.

Step 3. Every manager undergoes grading based on developed indicators with numerical scores from 0 to 5.

As the information resources could be the HR management surveys, qualification tests' results, universities' diplomas and certificates, performance results from previous management positions, and so on.

In cases yes/no questions, scores indicators should be changed to another. As a result, manager with no management experience will have 0 score, but manager with experience will have score from 1 to 5 depending on years of experience and difficulty of duties.

Step 4. The score is multiplied by relevant weight coefficient. The result is numerical representation of manager's qualification. Therefore, the sum of all the values of real qualification gives the total qualification of the manager.

Step 5. The highest assessment score for each indicator is always equal to 5. After multiplication by the weight coefficient, the indicator will represent top qualification limit.

Step 6. The assessment of the management training of the public corporation in general takes place.

2 Application of the method

The list of characteristics for assessment the middle and top management of the public corporation is presented in the Tab. 1 and Tab. 2.

The Table 1 shows that, a total real qualification (440) accounts for 0,84 of total higher qualification (525), this fact means that the abilities of the assessed manager are lower by 16% than required. Using this evidence, Human Resources department can identify areas of improvement in management system of the firm.

All the managers should undergo assessment, so the collected information will constitute a base for a future research.

The assessment of the management of the public-private partnerships is conducted in following sequences:

Development of a list of core positions of the management that reflects roles in the system of corporate governance. Every position is attributed a serial number, which implicitly corresponds with effect of manager's duties on overall efficiency of the management body.

Tab. 1: Indicators bellow describes the middle management of the public corporation

No.	Indicator				-	ıt	ent
	Indicator	Relevance	Highest score	Highest qualification	Assessment in points	Real assessment	Weight coefficient
1	Level of education	10	5	50	5	50	1
2	Special education	10	5	50	5	50	1
3	Years of experience in management	5	5	25	3	15	0,6
4	Years of experience in system of corporate						
	management	5	5	25	0	0	0
5	Anti-crisis management experience	5	5	25	0	0	0
6	Responsibility						
		5	5	25	5	25	1
7	Organizational skills	5	5	25	4	20	0,8
8	Interpersonal skills	5	5	25	5	25	1
9	Integrity	5	5	25	5	25	1
10	Leadership skills	10	5	50	4	40	0,8
11	Self-discipline	10	5	50	5	50	1
12	Understanding of different cultural contexts	10	5	50	4	40	0,8
13	Working capacity	10	5	50	5	50	1
14	Adaptability to constantly changing environment						
		10	5	50	5	50	1
C	Integrated parameters	105		525		440	0,84

Source: developed by authors

1.Calculation of comparative grade of each position in the list presented by the following formula:

$$P_i = 1 - \frac{N_i - 1}{N} \quad (1)$$

where P_i – grade of the position, N_i – serial number of the position in the list, N – total number of considered positions.

The Table 3 presents the data of calculation at the different levels of management structure hierarchy.

Considering specific role of the board of directors in the public-private partnership, the calculated grade is doubled

N							
No.	Indicator	Relevance	Highest score	Highest qualification	Assessment in points	Real assessment	Weight coefficient
1	Level of education	10	5	50	5	50	1
2	Special education	10	5	50	5	50	1
3	Years of work experience in management	10	5	50	5	50	1
4	Years of work experience in system of corporate management	10	5	50	5	50	1
5	Experience in dealing with government authorities	10	5	50	5	50	1
6	Presence of Special license	10	5	50	5	50	1
7	Meeting the Official Secrets Act requirement	10	5	50	5	50	1
8	The ability to select relevant information	10	5	50	5	50	1
9	The ability to identify structural points in any undertaking	10	5	50	5	50	1
10	Anti-crisis management experience	5	5	25	4	20	1
11	Responsibility	10	5	50	5	50	1
12	Organizational skills	10	5	50	5	50	1
13	Interpersonal skills	10	5	50	5	50	1
14	Integrity	5	5	25	5	25	1
15	Leadership skills	10	5	50	5	50	1
16	Self-discipline	5	5	25	4	20	0,8
17	Understanding of different cultural contexts	10	5	50	5	50	1
18	Working capacity	10	5	50	5	50	1
19	Adaptability to ever-changing environment	5	5	25	5	25	1
20	The ability to take into account colleagues' point of view	10	5	50	5	50	1
	Integrated indicators	180		900		890	0,99

Tab.2 : Indicators bellow des	scribe the top management	t of the private corporation

Source: developed by authors

The obtained grades are summed up to determine integrated parameter of the grade:

$$I = \mathop{\stackrel{N}{\stackrel{}_{i=1}}}_{i=1}^{N} P_i \qquad (2)$$

Tab. 3: The assessment of the top management of the private corporation

No.	Name of the position	Comparative grade	Normalized grades	Weight coefficient	Weighted normalized grade		
Hierarchy levels of state corporations							
1	Advisory Board Representatives	2	19,07	1	19,07		
2	Supervisory Council member	0,94	8,96	1	8,96		
3	Member of the Board	0,88	8,39	0,99	8,31		

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4	Chief Executive Officer	0,83	7,91	0,95	7,52			
5	First Deputy Director	0,78	7,44	0,93	6,92			
6	Deputy Director	0,72	6,86	0,91	6,33			
	Hierarchy levels of holding of state corporations							
7	Advisory Board Representatives	0,67	6,39	0,90	5,75			
8	Supervisory Council member	0,61	5,82	0,89	5,18			
9	Member of the Board	0,56	5,34	0,86	4,59			
10	Chief Executive Director	0,50	4,77	0,85	4,06			
11	First Deputy General Director	0,44	4,19	0,85	3,56			
12	Deputy Director General	0,39	3,72	0,84	3,13			
Hierarchy levels of structural unit of state corporations								
13	Advisory Board Representatives	0,33	3,15	0,78	2,46			
14	Supervisory Council member	0,28	2,67	0,71	1,90			
15	Member of the Board	0,22	2,10	0,55	1,16			
16	Chief Executive Director	0,17	1,62	0,6	0,97			
17	First Deputy General Director	0,11	1,05	0,58	0,61			
18	Deputy Director General	0,06	0,57	0,58	0,33			
	Integrated indicators	10,49	100,02	326	90,81			

Source: developed by authors

1.Normalization represents calculation of the proportion of each position in the total ranking, which is taken as 100%. Rationing by the following formula:

$$P_{Hi} = \frac{P_i}{N \atop i=1} 100\% \quad (3)$$

 $P_{\rm Hi}$ - grade of the position after normalization.

2. Definition of the proportion of the highest qualification is done by filling the tables as shown in Tables 1 and 2

3. The products of normalized ranks and a fraction of the highest qualification is placed in the last column of the Tab. 3 and summarized.

Conducted calculations reveal that the training of given level of management is 90,81%. This percentage value is 9,19% less than maximum (optimum) level. The maximum level of training of the management structure exists when each level of the hierarchy is 100%. However, improvement of just certain level of management training is inefficient. Filling the first four positions with the highest qualification will lead to an increase of the overall level of training of the management structure by 0,47% to 91,28%. Therefore, level of training of corporate managers will allow to fulfill just a part of the potential opportunities.

3 Optimal management system of PPP

Authors introduced a new term - optimal management system of PPP. The optimal system management system is the system that will utilize full potential capability of human resources of the company. However, such an interpretation may create uncertainties. Firstly,

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the potential capabilities of human resources are variable as these capabilities depend on objectives of the corporation, external and internal functional conditions, and other factors. Secondly, meaning of "full potential capability of human resources" is not strictly defined.

If the company achieved all goals and objectives but hadn't use up available resources. Would this situation represent full utilization of capabilities? The answer to this question is impossible to answer.

However, the concept of optimal management system can be employed in assessment of the corporate governance structure of integrated systems, if the concept is meaningful to the specific conditions.

Each variant of the management system has both positive and negative characteristics. Taking into account several types of management system along with external and internal factors, we can create an integrated system that would encompass the best features of different human resource management strategies (H., Chen, Y. H., & Ming, H., 2011). This system may become a benchmark for management systems in state corporations. The efficiency standard of corporate governance is the optimal control system for attainment of the strategic goals and tactical objectives, ceteris paribus, or the degree of realization of the potential of integrated structure with regards to external and internal factors.

Conclusion.

The systems of corporate governance can be analyzed using proposed methodology. Government corporations and legislators can improve management training and efficiency of the corporate governance through quantifiable results that methodology provides. The proposed list of characteristic of managers can be tailored to a specific requirements of a company.

HR department can tailor indicators for each level of management for systems of public-private partnerships and public corporations, for separate structural units (holding company and / or for a specific business unit), taking into account specifics of an industry, region-specifics, enterprise management features and enterprise culture, and a number of other internal and external factors. The relevance of specific indicators may vary substantially.

As a result of the research, a software product has been developed (Gorodnova N., 2009) and is based on the proposed methodology of management training assessment for managers with positions in hierarchy of the corporate structure.

The software automatically processes candidates' information, which was collected during a recruitment campaign. In our view, the software will significantly help to conduct an assessment of management on all levels of the corporate governance hierarchy in the large integrated structure, including PPP (Gordnova N., 2015).

References

1. Federal Law of Russian Federadtion from 23 november 2007 Γ. № 270-FL «On state corporation «Rustechnologies». (adopted by State Duma on 9th November 2007).

2. Decree of Russian Federation President from 10.07.2008 г. № 1052 « State corporation questions to promote development, production and export of high-tech industrial goods «Rustechnologies».

3. Drucker, P. (2004). What makes an effective executive. *HARVARD BUSINESS REVIEW*, 82(6).

4. Gorodnova NV The certificate and the state registration of the computer program $\mathbb{N}_{2009615287}$. Assessment of corporate governance structures (computer program) [Text] / NV Gorodnova, VZ Haykin; the applicant and the patentee, NV Gorodnova, VZ Haykin (RU), registration in the Register of the computer programs 24 September 2009 g .; appl. 27.07.2009; 24.09.2009. Official Bulletin of Rospatent "Computer programs, databases, TIMS» \mathbb{N}_{2} 4 (69) (Part 2) 2009 Page. 410 - 69. : III.

5. Gorodnova, N., & Haikin, V. (2015). Evaluation of management efficiency in corporate structures (computer programs). *STREDOEVROPSKY VESTNIK PRO VEDU A VYZKUM*, 65, 185th ser.

6. Kravchenko, L. (2014, March 11). Economic sanctions against Russia: Challenges and threats. *NEWSLAND*. Retrieved March 20, 2014, from http://newsland.com/news/detail/id/1336773

7. Ivliev, M., & Cheremesina, N. (2014). Demographic situation in modern Russia. *Socio-economic Phenomena and Processes*, 9(8), 48-53.

8. Zivkovic, D., Gucanin, S., & Jez, Z. (2014). Managing the human resources in beer industry. *Ekon Polj Ekonomika Poljoprivrede, 61*(1), 73-86. doi:10.5937/ekopolj1401073z

9. Schmidt, Gerbershagen, Salehin, Weiss, Schmidt, Wolff, & Wappler. (2011). From personnel administration to human resource management. *ANAESTHESIST*, 60(6), 507-516. doi:10.1007/s00101-011-1885-0

10. H., Chen, Y. H., & Ming, H. (2011, July 1). Strategic Fit among Business Competitive Strategy, Human Resource Strategy, and Reward System. *Academy of Strategic Management Journal*.

11. Kramar, R. (2013). Beyond strategic human resource management: Is sustainable human resource management the next approach? *The International Journal of Human Resource Management*, 25(8), 1069-1089. doi:10.1080/09585192.2013.816863

12. Miner, J. B. (1969). An input-output model for personnel strategies. *Business Horizons*, 12(3), 71-78. doi:10.1016/0007-6813(69)90010-x

13. Deshpande, R., Grinstein, A., Sang-Hoon, K., & Ofek, E. (2013). Achievement motivation, strategic orientations and business performance in entrepreneurial firms How different are Japanese and American founders? *INTERNATIONAL MARKETING REVIEW*, 30(3), 231-252. doi:10.1108/02651331311321981

14. Ehnert, I., & Harry, W. (2012). Recent Developments and Future Prospects on Sustainable Human Resource Management: Introduction to the Special Issue. *Management Revue*, 23(3), 221-238.

15. Sergi, B. (2011). *Misinterpreting Modern Russia Western Views of Putin and His Presidency*. Continuum Intl Pub Group.

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