

Role-Playing Design of the Model of Competences for a Competitive Manager

I B Adova^{1,2}, O V Milekhina¹

¹Novosibirsk State Technical University, 20, K. Marx av., Novosibirsk, 630073, Russia

²Novosibirsk State University of Economics and Management, Kamenskaya st., 52/1, Novosibirsk, 630099, Russia

E-mail: adovaib@sibmail.ru, olga.milekhina@gmail.com

Abstract. The results of the design and analysis of the role model of the competencies of the manager are reflected to ensure his relevance in the labor market. The theoretical review of the competency models was made on the basis of the consideration of external factors by scientists (globalization, technology and others), as well as the identified internal factors (business model, strategy, stages of the organization's life cycle) in the design. The model of managerial role competencies described by the authors includes 32 competencies corresponding to the Producer, Administrator, Entrepreneur, Integrator roles. In a pilot study, modern requirements for managers were identified based on data from the HeadHunter service for Russian organizations. The parametric assessment of competencies was carried out for 2000 vacancies. Evaluated the demand for labor functions in accordance with the professional standard of a personnel management specialist. The interpretation of the obtained results is given.

1. Introduction

Globalization, strategic and socio-cultural changes, information and communication "explosion" are the factors that influence the transformation of the competence model of the Manager. A lot of attention has been paid by both foreign and domestic researchers to the problem of forming the competence model of the Manager.

From the theoretical and methodological positions, the boundaries and content of the competence model of the Manager are defined by the framework and essential characteristics of management activity, which is the object of research by foreign and domestic scientists in various contexts including behavioral, subject-activity, socio-psychological, communicative, discourse, functional ones. These approaches for the study of management activities are also reflected in the various models of competence of managers proposed by Russian researchers.

The purpose of the study is the design of role-based model and its analysis taking into account the requirements of the labor market on the basis of systematization of approaches of transformation of the competence model of the Manager.

The achieving this goal requires solving the following tasks such as theoretical analysis of the transformation of the Manager's competence model reflected in the relevant studies of the last decade, localization of future competencies in the field of management, estimation of labor market demand.

2. Overview of literature and the model

The study considers nine most significant models of Manager's competencies to ensure his competitiveness in the context of changing the management paradigms of modern organizations:

- verbal socio-psychological model of manager's professionalism [1];
- behavioral model of Manager's competences [2];
- dynamic model of professional competencies of a modern Manager in the context of globalization [3-5];
- cognitive model of managerial competences [6, 7];
- five-component complex model of managerial professionalism [8, 9];
- competence model of innovation Manager [10];
- strategically directed model of competences for managers [11, 12]
- complex model of Manager competence [13];
- the model of Manager's role competences in corporate knowledge management system [14].

3. Methodology

Developing an approach to the role-based design of the competence model, it is proposed to specify it for the implementation of intelligent business processes within the corporate knowledge management system (see Table 1).

Table 1. The model of manager's role competences.

Role	Competences
Producer	P1 - Analytical thinking
	P2 - Professional liability
	P3 - Result orientation (purposefulness)
	P4 - Understanding the need for continuous learning
	P5 - Understanding the business model of an organization
	P6 - Activeness
	P7 - Sequence of actions and decisions
	P8 - Sure of himself
	P9 - Power budget
Administrator	A1- Conceptual thought
	A2- Notification
	A3- Impact on staff and management
	A4-corporativity
	A5- Performance of work according to the requirements of the standard
	A6- Organized nature
	A7- Stress-management
Entrepreneur	E1 - Strategic vision
	E2 - Innovative thinking
	E3 - Decision making
	E4 - Change management
	E5 - Customer focus
	E6 - Entrepreneurial approach
	E7 - Flexibility (adaptability)
	E8 - Risk management
Integrator	I1 - High organizational skills
	I2 - Division of responsibility
	I3 - Team leadership
	I4 - The establishment of business contacts
	I5 - Teamwork
	I6 - Communicativeness
	I7 - Conflict management
	I8 - Honesty

According to I. Adizes [15], the success of the organization depends on the effectiveness of management and the correctness of the chosen management style. The following regularity is revealed. In the process of ontogenesis of the organization, management styles undergo transformation and some managerial role is more important at each specific moment than others. This determines the need for proactive management activities, when it is possible to predict certain "segments" in the life of the organization and to be prepared for them in advance. This model has a strategic nature, in particular, it is influenced by the life cycle of the organization as one of its dynamic characteristics.

In the knowledge economy, it is advisable to expect the implementation of these roles not only by managers of different levels of management, but it becomes relevant to have a set of competencies that allows you to perform a certain role of PAEI, by each employee of the organization.

The kind of the roles which the manager should implement by himself and or share with other workers, depends on the organization, its design, specific organizational processes and external conditions. From the point of view of the practical demands of the business community, the requirements for the quality of training of managers are forced to treat the process of forming their competencies in a new way.

This can be guided by the requirements of employers, which are published in the proposed vacancies. One of the global information sources is the service of Head Hunter (HH) which is one of the largest job and employees search sites in the world [16].

The database of the company has 547 thousand vacancies from 992 thousand verified employers, eighteen million specialists visit as users 30 services of the platform only in the city of Novosibirsk (population of more than 1,500,000 people) monthly. In the structure of a vacancy we have identified the following elements: requirements for the competencies of applicants, responsibilities (functional workplace), working conditions and advertising component to attract the attention of potential applicants, which we conditionally formulated as "We offer", and hr-managers called "Engagement".

Localization of staff selection criteria over 30 vacancies at the request of the "personnel Manager" in the pilot study allowed to identify the requirements of employers to potential candidates (see Table 2).

Table 2. Localization of staff selection criteria to potential candidates (N=30).

Employer requirements	Sum	Density
Communicativeness	18	0,60
Liability in the performance of the works	16	0,53
Motivation	15	0,50
Stress resistance	14	0,47
Competent oral and written speech	13	0,43
Correctness	13	0,43
Multitasking	11	0,37
Vivacity и perseverance	11	0,37
Organized nature	8	0,27
Ability to work in a team	8	0,27

Employers consider sociability, responsibility, motivation and stress resistance as the most important criteria. This is due to the functionality of the workplace personnel specialist and the intensity of the information load, ensuring the effectiveness of labor. Further, the grouping of the received requirements in the triad "can - wants - compatible" (see Table 3) is carried out.

The most intense in the number of different positions was a group of requirements in terms of the possibility of effective work (group "Can") – 95 requirements, interoperability (including productive) – 67, desire (group "Wants") – 52 requirements (see Figure 1).

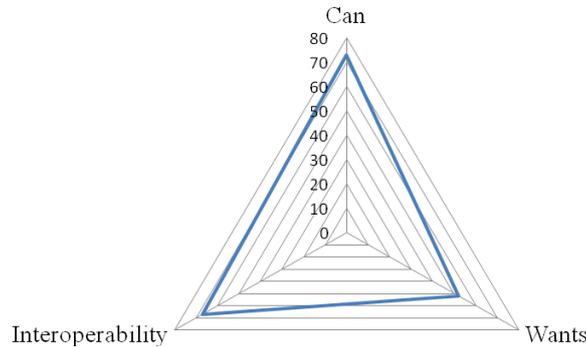


Figure 1. The results of the grouping criteria for the selection of personnel for the job, "HR Manager".

Table 3. Localization of staff selection criteria to potential candidates (N=30).

Element	Employer requirements	Sum
Wants	Vivacity и perseverance	52
	Active living position	
	Motivation	
Can	Liability in the performance of the works	95
	Stress resistance	
	Correctness	
	Multitasking	
	Creative potential	
Interoperability	Industriousness	67
	Communicativeness	
	Competent oral and written speech	
	Ability to work in a team	
	Gumption	
	Initiativeness	
	Systemic thinking	

Thus, the results of the grouping made it possible to build a prototype of the profile of a specialist "personnel Manager" and showed the need and perspectives for further research in this direction.

The information basis of the second research phase includes two thousand vacancies of HR managers over the country. The requirements of employers are analyzed in three aspects including experience, labor functions, soft-skills. Professional experience. Let's check the hypothesis about the shortage of vacancies with minimal work experience (table. 4).

Table 4. The number of proposals of employers and vacancies "Marketer" and "The Economists".

Experience	HR-manager	Marketer	Economist
From one to three years	1238	1251	1004
Three to six years	392	496	779
Without experience	334	227	159
For six years	36	26	58
Total vacancies	2000	2000	2000

The largest number of vacancies (1238) is focused on a relatively pure working experience varied from one to three years. The number of "No experience" vacancies (334) is comparable to the number

of "three to six years of Experience" vacancies (392). Let's check the relevance of the obtained conclusion in comparison with the same number of proposals for other two vacancies of economic orientation, namely, «Marketer» и «Economist», selected in the framework of this study.

The number of vacancies for marketers with experience varied from one to three years is slightly higher than for HR managers, and the fraction of job offers for economists is 19% less than for HR managers. At the same time, it exceeds the job offers almost twice in the category "from three to six years". Therefore, the hypothesis fails.

In the structure of vacancies there are personal qualities of candidates. Parametric evaluation of the relevant requirements for two thousand vacancies of HR managers allowed to obtain the result presented in the table 5.

Table 5. Parameterization of the personal qualities of candidates for the implementation of the functionality of the workplace of an hr manage.

Property	Total in the vacancies	Property	Total in the vacancies
Focusing on results	520	Correctness	68
Growth and development	406	Sense of duty	56
Multitasking	249	Benevolence	53
Responsibility	235	Positivity	52
Independence	168	Organized nature	46
Steadiness	160	Initiativeness	44
Active live position	142	Analytical thinking	41
Desire to work	139	Motivation	37
Communicativeness	138	Performance	34
Efficiency	125	Ambition	31
Stress resistance	105	Trainability	30
Ability to work in a team	95	Time constraints	27
Willingness	93	Neatness	22
Competent oral and written Speech	90	Purposefulness	22
Pace of work	72	Mass character	21
Inquisitiveness	70	Flexibility (Adaptability)	20

The main qualities are the focusing on results (520 requirements in vacancies), growth and development (406), multitasking (249), responsibility (235) and independence (168). The most desirable qualities are an active living position (142), a desire to work and achieve results (139), sociability (138) and efficiency (125). Other personal qualities (less than 1% of the vacancies) are not displayed in the figure.

Does this mean that they are insignificant from the employer's point of view? Rather, no, because soft-skills such as proactivity, creativity and systematic thinking are the competencies of the future, and involvement and the ability to hear allow to be effective in the present.

In addition to the work with the localization of the core requirements for competencies and qualities of the personality of candidates, in the course of research an attempt was made to form the profile of the HR Manager in the context of the requirements of the model of distribution of role competencies according to the model of PAEI by Adova I. B. and Zaika M.M. In the studied sets of

requirements, the role competencies of the results producer (P), administrator (A), entrepreneur (E) and Integrator (I) were identified, what is shown in the table 6.

Table 6. Parameterization of the competences of candidates for the implementation of the functionality and profile organizational role of personnel manager in the understanding of employers (according to the PAEI model).

Name of the role	Role competencies	Sum	Density
Producer	P6 -Activeness	93	44,4%
	P3 -Result orientation (purposefulness)	71	
	P1 - Analytical thinking	5	
	P8 - Sure of himself	3	
Administrator	A2 -Notification	7	14,3%
Entrepreneur	E7 -Flexibility (adaptability)	22	25,0%
	E2 - Innovative thinking	1	
Integrator	I6 -Communicativeness	136	37,5%
	I1 - High organizational skills	14	
	I8 - Honesty	5	

From the point of view of modern employers, the effective work of the HR Manager involves a full set of role-playing competencies such as sociability (I6, 136 requirements in vacancies), organizational skills (I1, 14) and honesty (I8, 5). The organizational role of the Producer of results implies activity (P6, 93), commitment and result orientation (P3, 71), as well as analytical thinking (P1, 5).

The obtained results allow us to estimate the completeness of the implementation of organizational roles at the workplace and conclude that the HR Manager should be more Integrator (44% of all eight role competencies of the model performed three) and the Manufacturer (38%), and less Entrepreneur (25%) and Administrator (14%) (see table. 6).

To assess the requirements for the implementation of labor functions at the workplace of the personnel Manager, we will implement their consistent imposition on the professional standard "personnel management Specialist" [18], according to which eight generalized labor functions are allocated for three levels of qualification (from the fifth to the seventh level).

Parameterization of requirements in the list of vacancies regarding the functionality of workplaces allowed to obtain the following results (see table 7):

Table 7. Parameterization of requirements in the list of vacancies regarding the functionality of workplaces.

Code	Group of labour functions according to professional standard	The number of requirements in the vacancies
A	Documentary support of work with personnel	221
B	Activities to provide staff	1657
C	The evaluation and certification of personnel	484
D	Personnel development activities	446
E	Organization of work and pay staff	267
F	Corporate social policy activities	0
G	Operational management of personnel and division of the organization	332
H	Strategic management of the organization's personnel	868

A graphical display of the results is shown in figure 2.

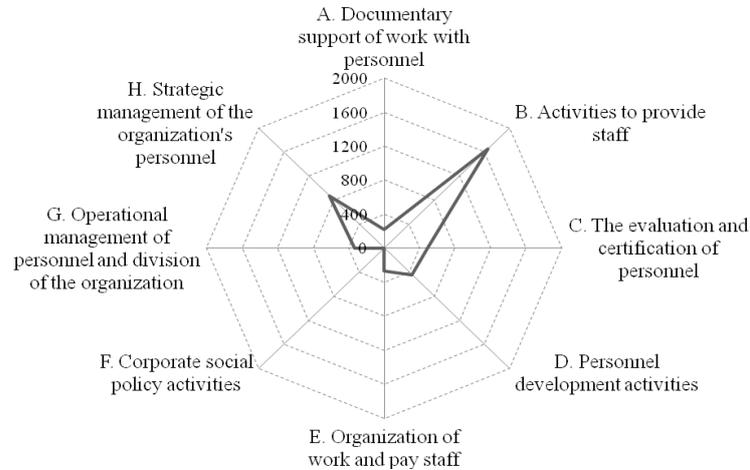


Figure 2. Distribution of the requirements in the list of vacancies regarding the functionality of the personnel Manager according to [17].

4. Results and discussion

The process of formation of professional competencies should, first of all, support the activities of staffing (code B) in terms of ownership of technologies for collecting information on the needs of the organization in personnel, search, recruitment, selection of personnel, administration of processes and workflow of staffing [17].

Further, the requirements are presented by relevance: evaluation and certification activities (code C) in terms of the formation of competencies for the organization and conduct of evaluation and certification of personnel, as well as activities for staff development (code D), involving the organization and implementation of activities for the development and construction of professional careers of personnel, organization of training, adaptation and training of personnel, technology administration and documentation of relevant processes. From the point of view of employers the last place of professional competences takes the activity on the organization of work and payment of personnel (code E), the basis of which is composed of the process of the organization of work of the personnel, questions of development of systems of compensation, administration and documentation of the corresponding business processes. Note that in organizations, this functionality can be used by an economist for labor. Competence in documentation support of work with personnel (code A) should be formed in the process of educational and industrial practices, but should not appear in an explicit form in the classroom at universities (this is the level of secondary specialized educational institutions). As to the organization of corporate social policy (code F), it is absent in the requirements of employers but should be involved in the educational process.

In the future, when the development and implementation of corporate social policies, as well as appropriate administration and documentation will become a routine, apparently, and in near future, the relevant requirements will appear in the list of vacancies of employers.

Therefore, the possession of advanced technologies will provide the graduates with an additional margin of flexibility in the labor market. Taking into account the requirements for the level of qualification for the implementation of generalized G and H labor functions, the competences in the development and implementation of systems of operational and strategic personnel management, administration and documentation should be the focus of additional professional education programs.

5. Conclusion

Systematization of the results allowed to draw the following conclusions:

- despite the long-term attention of researchers to the implementation of the competence approach to management activities and technologies of training managers, unity in the contextual paradigm has

not yet been achieved. This was confirmed by the review of different approaches for the analysis of management activities as behavioral (dementia), subject-activity, socio-psychological, communicative, discourse and functional. Within each of them the content filling of competence model of the Manager is supposed.

- a number of peculiarities for administrative activity which determines the different variants of the role model the competencies of managers is revealed.

- on the basis of the implementation in the format of a pilot and extended project to systematize the requirements of employers to potential managers (for example, HR Manager) it is revealed that this position is less demanding to experience than the position of economist and marketer.

- using parameterization of competencies of candidates for the implementation of the functional workplace of HR Manager the relevant to the present competences (communication skills, responsibility, activity and focus on results, flexibility) are identified, which is a good prerequisite for such competence of the future as collaboration.

- the analysis of the required functionality of the workplace of the HR Manager showed the maximum demand for specialists in staffing, as well as top-level specialists implementing strategic personnel management of the organization.

6. Acknowledgment

The work was carried out according to the plan of research works within the program of strategic development of NSTU for the period of 2017-2021 and the thematic plan of research “The formation of the mechanism of interaction of stakeholders in the digital transformation of the business environment”.

References

- [1] Bobrikov V N, Ivachova Yu Yu 2006 Model spetsialista-menedzhera *Polzunovskiy vestnik* **3** 38–40 http://elib.altstu.ru/journals/Files/pv2006_03_2/pdf/038bobr.pdf
- [2] Sergeev A G 2010 Kompetentnost i kompetentsii: monografiya *Vladimir: Izd-vo Vladim. gos. un-t*
- [3] Belonozhko M L, Lavrishev M P 2013 Prioritetnost professionalnykh kompetentsiy menedzhera v usloviyakh globalizatsii: poiskovaya i optimalnaya modeli *Fundamentalnyie issledovaniya* **10** vol 6 1375-1380 <https://www.fundamental-research.ru/ru/article/view?id=32551>
- [4] Lavrishev M P 2013 Formirovanie professionalnykh kompetentsiy menedzhera v usloviyakh globalizatsii *Mezhdunarodnyiy nauchno-issledovatel'skiy zhurnal Sotsiologicheskie nauki* **8** 131-133
- [5] Lavrishev M P 2013 Problemy formirovaniya professionalnykh kompetentsiy menedzhera v usloviyakh globalizatsii: avtoref. dis. ... kand. sots. nauk 1–32 *Izd-vo TyumGU* (Tyumen)
- [6] Kudryavtseva E I 2012 Kompetentsii i menedzhment: kompetentsii v menedzhmente, kompetentsii menedzherov, menedzhment kompetentsiy: monografiya *SZIU RANHiGS* (SPb.)
- [7] Kudryavtseva E I 2015 Otsenka i razvitie upravlencheskogo potentsiala personala organizatsiy: metodologiya, teoriya, praktika: avtoref. dis. ... d-ra ekon. nauk 1–51 *Izd-vo Gos. Un-t upravleniya*
- [8] Isaev A P 2015 Upravlencheskiy professionalizm: osnovnyie ponyatiya, protsessyi i mehanizmy (Azgur, Ekaterinburg)
- [9] Isaev A P 2011 Professionalizatsiya upravlencheskoy deyatel'nosti v promyshlennosti: teoriya, metodologiya, realizatsiya: avtoref. dis. ... d-ra ekon. nauk. 1–46 *Izd-vo UrFU im. Pervogo Prezidenta Rossii B. N. Eltsina* (Ekaterinburg)
- [10] Glebova G F 2014 Kompetentnostnaya model menedzhera v kontekste innovatsionnogo menedzhmenta obrazovatel'noy organizatsii *Psihologiya i pedagogika: metodika i problemy* **53** 147–154
- [11] Chulanova O L 2016 Formirovanie i razvitie kompetentnostnogo podhoda v rabote s

- personalom: teoriya, metodologiya, praktika: dis. ... d-ra ekon. nauk 1-312 *Izd-vo «VTsIOM»*
- [12] Chulanova O L 2016 Kompetentsii upravlencheskogo personala organizatsii kak faktor povyisheniya ee effektivnosti v sootvetstvii so strategicheskimi tselyami *Internet-zhurnal «Naukovedenie»* 8 <http://naukovedenie.ru/PDF/37EVN616.pdf>
- [13] Cherepanov A V 2011 Razvitie klyuchevyih kompetentsiy menedzherov kak faktor dostizheniya strategicheskikh tseley organizatsii: dissertatsiya ... kandidata ekonomicheskikh nauk 1–228 *Izd-vo Sib. akad. finansov i bankovskogo dela* (Novosibirsk)
- [14] Adova I B, Zaika M M 2013 Razvitie metodologii i metodicheskogo instrumentariya formirovaniya otsenochnyih sistem v upravlenii chelovecheskimi resursami: monografiya *Izd-vo Sib. akad. finansov i bankovskogo dela* (Novosibirsk)
- [15] Adizes I 2007 Kak preodolet krizisy menedzhmenta *Diagnostika i reshenie upravlencheskih problem. Per. s angl. BestBusinessBooks* (SPb.)
- [16] Ofitsialnyiy sayt Head Hunter <https://novosibirsk.hh.ru/article/28>
- [17] Professionalnyiy standart «Spetsialist po upravleniyu personalom», utverzhdennyim prikazom Ministerstva truda i sotsialnoy zashchity Rossiyskoy Federatsii ot 2015/09/06 №69/n https://rark-kazan.ru/files/docs/ps_spup_na_24_09_15_mintrud.pdf