

St. Petersburg State University
Graduate School of Management

WORKING PAPER

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**MANAGING INNOVATION IN RUSSIAN
COMPETITIVE COMPANIES: THE ROLE OF HRM**

9 (E) - 2014

Saint Petersburg
2014

S. V. Kosheleva, E. K. Zavyalova, V. S. Tsybova, D. G. Kucherov, A. I. Alsufyev.
Managing innovation in Russian competitive companies: the role of HRM.
Working Paper # 9 (E) – 2014. Graduate School of Management, St. Petersburg
State University: SPb, 2014.

Key words: innovative work behavior, innovative activity, innovation
management, Russian competitive companies.

Abstract: This research aims to compare HRM practices in Russian competitive companies and to explore HRM strategies leading to the formation and development of innovative work behavior of personnel. The properties of HRM strategy and practices contributing to innovative activity are analyzed. The conclusion is made that at present the models of managing the innovative activity cannot be considered fully formed; however, there is a holistic strategy of implementing innovative projects in the companies where these projects are realized, including specific soft practices aimed at forming and developing innovative work behavior of personnel. The contradictions and the accents identified in HR-practices of Russian competitive companies can serve as the basis for recommendations to managers for increasing innovative activity of companies.

Research has been conducted with financial support as part of the project “Support of Research Projects of Graduate School of Management SPbU Academic Staff” (project No. 16.23.1698.2014)

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Introduction

The ability of a company to create innovations becomes the cornerstone of its long-term success at the modern stage of economic development. Nearly every company seeking to become the market leader is looking for ways to develop and create innovative solutions. Innovations are among the priorities of the vast majority of companies around the world. As far as innovative solutions are a product of intellectual activity the companies seek to attract creative employees, develop their skills and abilities contributing to the creation of innovations.

In order to give the definition to the term "innovation" the foreign business community uses the methodological document "Oslo Manual" [2006] developed by the Organization for Economic Co-Operation and Development (OECD) jointly with Eurostat. It gives the following definition:

"Innovation is the final result of innovative activity implemented through:

- new or significantly improved products (goods or services) realized on the markets;
- new or significantly improved technological processes;
- new ways of production and its organization realized in business practices;
- new markets and product marketing".

Innovation is understood in the "Oslo Manual" as the creative activity connected with the generation and realization of innovations. Innovation activity includes scientific, technological, organizational, financial and commercial activities actually leading to implementing innovations and conceived for that purpose. A company is considered innovative-active if it meets the following criteria: "A company can deal in many kinds of activity not related to research and development but taking part in the creation of innovations. This activity can raise the ability of the company to create innovations or its ability to assimilate successfully the innovations developed by other companies or organizations" [2006, p. 44].

The framework for the Russian policy on innovation was laid in the 1990s and formulated in the Federal Law "On Science and the State Scientific and Technical Policy" [1996].

During that period the state took active measures to preserve science under crisis conditions and at the same time to create the new institutional environment, new mechanisms and organizations contributing to the development of innovative activity. The notion of innovation is formalized in the Russian legislation. The Government Regulation of the Russian Federation #832 of July 24, 1998, "On the Concept of Innovation Policy of the Russian Federation for 1998-2000" gives the definition of "innovation" as the final result in the form of:

- a new or improved product sold on the market;
- a new or improved technological process used in the practical activity.

The attention to innovation was weaker in the following two decades; for instance, according to the Federal Service of State Statistics the index dynamics of hi-tech goods production had the negative trend in 2003-2008 [The National Innovation System and the State Innovation Policy of the Russian Federation, 2009, p. 23]. The scientific research expenses in the Russian Federation had fallen more than five times in the previous 18 years and approached those of the developing countries [Kouzyk, 2009].

Currently many specialists share the opinion of recognizing the need of developing the strategy of the innovative development of the country where all the resources (human, financial, material and technical) must be focused on the achievement of that goal. It is only on the basis of the innovation breakthrough that the transition to a fundamentally new life quality of the population is possible. [Kouzyk, 2009]. According to McKinsey consulting group, the creation of the innovative economy will allow Russia to return to the group of the international technology leaders and will provide for stable long-term development based on the growth of labor productivity irrespective of the dynamics of the world market conditions [Klintsov, Kouznetsova, Chernyavsky, 2010]. That is why the search of ways stimulating the innovative development is one of the most urgent problems of the modern period.

The works of many Russian and foreign authors have been devoted to researching the problems of innovation management. However, despite the fact that some academic papers on this topic have revealed interesting patterns and even suggested practical recommendations [Wen-Jing, Kan, 2011], the issue of human resource management in the innovative-active companies is still urgent [Zavyalova et al., 2012].

International research in this area has been much more substantial than Russian research. Although the first foreign works addressing general problem of correlation between the human resource management and innovative activity appeared at the end of the 20th century, the large-scale empirical research of the role of HR-strategies and practices in the innovative development originated in early 21st century. In their work D. Mate et al. [Mate, et al., 2010] state that the problem of interconnection between human resource management and innovations is fairly called the modern "blackbox". On the whole this interconnection is characterized as multifactor and dynamic which complicates the process of its analysis and interpretation even more. A scientific school has been formed abroad particularly accentuating human factor in the innovation process: innovative work behavior ("IWB"). West and Farr [West, Farr, 1990] define innovative work behavior as the intentional introduction, implementation and application of new ideas in individual work, in the work of a group or an organization, in order to increase the performance level of the individual, group or organization. Innovative work behavior is regarded as a complex of mental and physical activities of the employees aimed at solving a number of tasks contributing to the achievement of the main goal – innovative development [Kanter, 1988; Messmann and Mulder, 2011]. Foreign researchers agree that innovative work behavior includes creativity of employees, i.e. the creation of new and useful ideas for products, services, processes and procedures, as well as their implementation [Stoffers, van der Heijden, 2009]. Some studies try to relate innovative work behavior to the innovation process [Janssen, 2005]. Others identify four consecutive and interlinked stages of innovative work behavior: problem identification, idea generation, idea promotion and idea implementation [Messmann, Mulder, 2012; De Jong, Den Hartog, 2010]. A number of researchers believe that innovative work behavior links interaction of HRM practices and innovative activity of the company, thus acting as a mediator of the interaction [Stoffers, van der Heijden, 2009; West, Farr, 1990; De Jong, 2007]. Therefore innovative work behavior can be regarded as a phenomenon mediating the interconnection between human resource management and innovations in the organization.

The Russian works which have been published up to the present moment are characterized by excessively theoretical approach to the subject or vice versa, they deal with particular issues connected with business specifics [Vaulina, 2010]. Both approaches do not contribute to the wide implementation of innovative HRM strategies and technologies into the Russian business practices.

According to the "Global Innovation Index" [2014], currently Russia occupies 62nd place in the world in terms of innovation, having fallen in one year by 6 points. In the long term, Russia faces the task of increasing its level of innovation, mostly through the internal restructuring of the economy and the reduction of its dependence on exported raw materials.

The present research is a pilot study being a part of a wide-scale research which aims to single out global and local HRM strategies and practices peculiar to the innovative-active companies from the developed and developing countries.

The main objectives for the pilot project are:

1. To identify characteristics of HRM activity which influence the formation of the innovative work behavior and are essential for the realization of the innovative activity in the Russian companies
2. To assess the evidence of these characteristics in HRM practices of the companies under study.
3. To define features of HRM activity connected with the companies' innovative activity.

Thus, we regard human resource management in the context of the present paper as the activity aimed at achieving a certain result – that of innovations implementation, and also as the activity having the relevant strategy and practices contributing to the formation of the employees' innovative work behavior.

In our opinion, new information concerning the methods of managing the innovation activity must contribute not only to the development of the management theory but also to the sphere of its practical use.

Research of HRM activities in the innovatively-active companies

Research which was carried out in 1980s revealed that traditional approaches to HRM produce little effect in achieving the aims of innovative companies [Frechette & Wertheim, 1985; Kleingartner & Anderson, 1988; Miljus & Smith, 1987; Gomez-Mejia & Welbourne, 1988]. In one of the first works devoted to the HRM role in the operation of such recognized innovation leaders as 3M and Motorola Gupta & Singhal (1993) stated that people are the most valuable asset of these companies. They singled out four basic elements of staff strategy influencing the innovation orientation of the companies, namely:

- HR planning aimed at creating efficient teams;
- activity evaluation merging individual and team efficiency and based on defining tasks worthy of remuneration, and persons conducting the evaluation;
- incentive systems aimed at achieving goals and objectives of the organization, including the creation of innovations;
- career planning linking promotion prospects and completion of education and training programs.

Amabile's research [1997] confirmed the opinion that such HR-technologies as organizing work teams providing for the variety of professional skills, possibility of experience exchange and healthy competition influence the company innovation potential.

Later research by Jiminez-Jiminez & Sanz-Valle [2005] demonstrated that there is a connection between the systems of staff activity evaluation, incentive systems and the possibilities of in-house career development which, according to the authors, provides for the support of innovations. The works by Shipton et al. [2006] Leede & Looise [2005] and Jørgensen with co-authors [2011] provide evidence that training, evaluation and promotion not only contribute to innovative processes but the peculiarities of these practices also correlate to various types of innovation activity.

Classic research by Miles & Snow [1978] and Schuler & Jackson [1987] proved that the choice of HRM practices in the innovative-active companies is mediated by such factors as the sphere of activity, scale and configuration of market conditions. In the famous Danish project of the late 20th century DRUID [1996] such quality of organizations as flexibility which is closely connected to the ability for innovations was the object of attention. The authors of the research reached the conclusions that greater flexibility is demonstrated by:

- large and medium-size enterprises compared to small enterprises;
- production companies to a greater extent than non-production companies.

More flexible organizations stated more serious requirements to staff professional and social competence during selection. For instance, 75% of the most flexible firms singled out such employee qualities as responsibility, ability to adapt to new conditions, ability for reflection and cooperation, communication skills. Routine procedures were minimized in the flexible companies, greater attention was paid to cooperative forms of work. Flexible companies were much more open: they paid attention to external communications with the organizations dealing in the similar activity and with the consultants. Positive role of competition was emphasized: companies had to demonstrate greater flexibility and use various programs of training, delegation of responsibility and team organization forms under the conditions of severe competition.

Sununta Siengthai & Clemens Bechter [2001] conducted complex research of HRM-strategies influencing the level of innovation activity of various organizations. The research findings proved the hypothesis that such factors as leader support to innovations, organizational structure and culture, certain HRM-practices, scale of organizations working in the same sphere, general level of their efficiency are connected to innovation activity with high statistical reliability. They referred encouragement of hiring creative employees, introducing a wide area of responsibility versus rigid delimitation of authority, continuous training and possibilities of career growth within the company, result-oriented incentive systems, organization of efficient team interaction to the most efficient HR-practices.

In a number of works the correlation of the processes of staff in-house training and development and various indicators of innovation activity was researched [Baker & Sinkula, 1999a, 1999b, 2002; Day, 1994; Slater & Narver, 1995; Dickson, 1996; Han, Kim & Srivastava, 1998; Mate et al., 2010]. They proved that quality education oriented to market needs allows achieving sustainable competitive advantage in innovation activity. Simultaneously with this conclusion the authors stressed the limited character of their research explained by a number of factors: sphere of activity, scale and geographic position of the object of research. In other words, they did not claim the universal character of their conclusions and insisted on carrying on an additional research.

As we mentioned already in the introduction, a scientific school suggesting to regard innovative work behavior as the important link in the process of innovation management was formed at the turn of the 20th – 21st centuries [De Jong 2007; Janssen, 2005; Kleysen and Street, 2001; West and Farr, 1990]. According to researchers, it can become actual in five different spheres: in providing conditions for research projects, e.g. in conducting the relevant modifications of the organizational structure, in establishing functional connections with other organizations; in generating new ideas; in promoting innovations; in implementing innovation projects and also in providing conditions for reflection on the process of innovational development (feedback) [Messmann and Mulder, 2012]. One can influence the degree of development and realization of these forms of innovational behavior by the formalized innovation strategy and goal-oriented organized HRM activities.

A number of foreign empirical studies have found an association between innovation-oriented HR strategy and results of innovation [Jiménez-Jiménez, Sanz-Valle, 2008; Chen, Huang, 2009; Oke, Walumbwa, 2012]. In these studies, the strengthening of innovation-oriented personnel management strategy had a positive effect on the results of innovation activities of foreign companies.

The Russian specialists in the field of scientific and practical management have rather different views concerning the importance of HRM-strategies in the innovation development of companies. The research "Innovation Activity of Large-Scale Business in Russia: Mechanisms, Barriers, Prospects" which had been prepared specifically for St. Petersburg International Economic Forum [2010] by the experts of the Russian School of Economics, PriceWaterhouseCoopers Company in Russia and PwC Technology and Innovation Center in cooperation with the Russian Venture Company and the Russian Corporation of Nanotechnologies, shows that the lack of employees able for innovation activity and managerial staff able to realize innovation projects concerns the Russian companies much less compared to the international companies. The Russian companies are much more inclined to look for the barriers to innovation processes in external macroeconomic conditions than in the inefficiency of their own management. At the same time, as the findings of this research demonstrate, only 35% of the companies covered employed top managers responsible for implementing innovations, 17% had organized special procedures to collect innovative ideas and 7% had implemented the systems of material incentives for the employees to encourage their innovation activity.

Academic research reveals that in the Russian enterprises the weak spot of the managers is not so much the insufficient funding but rather the absence of skills in managing the innovative process [Soldatova, 2010]. The role of HR-departments in managing innovation

processes is quite modest: as a rule there are no custom-trained specialists and decisions are not taken there, as the actual centers of staff decision-making are outside these departments. Traditionally personnel is regarded as the source of expenses rather than a source of competitive advantages. At the same time innovative activity of the companies can be ensured only by the kind of HRM strategy that can also be called innovational and materialized at the junction of two areas of managerial science and practices: innovation management and HRM. According to V.V. Sinov [2007], *innovational human resource management* can be defined as specialized professional activity aimed at improving the management system in the sphere of working with people with the aim of developing employees' creative, innovational potential and incentivizing staff innovation behavior. The main factor of successful innovation management is harmonization of relations between the participants of the innovation process. This harmonization is implemented through the creation and support of favorable innovation climate in the organization which is expressed in various aspects of its activity.

According to E. Roth [2010], the key to success in the area of innovation development lies in the systematic approach to this process which is often beyond the scope of the company management. In the general picture the human resource management presents a part of the complete "managerial puzzle": "Managers must personally demonstrate the way of thinking and the behavioral model which they want their employees to achieve. The employees need to receive their managers' authorization to renounce the rules which acted in the past. All their surroundings in day-to-day work only support the developed business stereotypes. These limitations which seem unapparent at first sight encompass all the spheres of activity – ways of career growth, compensation system and, naturally, operational indicators. It is only when there are clear instructions, first of all from the CEO, that the companies can break the customary course of events and create the space for radical changes" [Roth, p.43]. Per se, the matter is in the management having a systematic HRM model which includes the efficient organizational structure, communication system, staff variety (by age, sex, knowledge, experience), methods of incentivizing and compensating the employees who were successful in the sphere of innovations.

These two positions allowed us to formulate the working definition of the notion **"innovative human resource management"**: *this is a systematic activity uniting the general innovative strategy of the organization with the human resource management strategy and including the practices aimed at forming the work behavior contributing to the development of innovations. The aim of this activity is the innovation activity manifesting itself in organizational, product, marketing, technological innovations. The tools are HRM strategy and practices and the result is the innovative work behavior providing for the company innovation activity.*

The data taken from the reviewed literature allowed the authors to put forward the supposition that currently the managers of the Russian companies do not have the formed conceptions about the strategies and practices of managing the innovative activity, including the specifics of HRM activity aimed at formation and stimulation of the relevant behavior.

Besides, we supposed that the companies' innovative activity can be connected with certain features of HRM activity.

Methodology

The survey was conducted through an online questionnaire developed on the basis of the "Oslo Manual" [2006] containing the description of the kinds of innovations, fields of innovation activity and features of an innovative-active company. The information concerning the survey was distributed through a variety of channels (publishing on different sites) throughout spring and summer of 2011. The managers of all levels from the companies conducting their business in Russia were the target group of research.

The design of the questionnaire was made in three stages. During the first stage the prototype of the questionnaire was developed on the basis of data collected from literature, which was sent to innovation management experts at the second stage (academic colleagues and

practitioners – the managers of HRM departments from the Russian companies). Based on their recommendations the questionnaire was improved (the third stage) and published on the web site of ATG-CNT company based on the IT platform of online testing which further simplified the processing of results. In our opinion, such procedure of making up the questionnaire contributed to the solution of one of the stated tasks – defining the characteristics of HRM activity essential for the formation of the innovative behavior and the realization of the innovative activity in the Russian companies. It must be noted that such approach to the creation of the research tools in the field which is of interest to us is used by foreign specialists [Messman and Mulder, 2012].

According to the objectives of the study the questions were formulated in the way so as to obtain complete information concerning the proclaimed and actual values of the managers in the context of innovation management. The questionnaire focused at data concerning the existing management infrastructure which can support the innovation values, namely the presence of corporate documents regulating the HRM policy, business behavior code, standards of corporate culture management and the existing methods of managing the innovative activity of the personnel. At the same time the questionnaire included questions on personal expectations regarding the support of innovative activity.

On the whole the questionnaire included 15 blocks of multiple choice questions. The respondents were offered one or several answers which corresponded to their opinion. Each question also allowed adding comments and/or formulating a different answer.

In the final variant the questionnaire included blocks of questions relating to the following aspects of innovation management and human resource management:

1. characteristics of corporate values;
2. planning features;
3. characteristic features of employee categories taking part in innovations;
4. forms of innovative activity support in the company;
5. forms of the employees' innovative and creative activity;
6. types of innovation projects in which the employees participate;
7. changes in innovative activity over recent years;
8. forms of company-organized personnel innovative activity;
9. problems which the creative employees and innovation projects face in the company;
10. forms of talent recognition and innovators' merits recognition in the company;
11. information sources about scientific and practical achievements in the professional area;
12. support to the innovative activity which is important for the employees;
13. kinds of information exchange in which the managers have participated over the recent half a year;
14. kinds of information exchange which the manager has organized for the subordinates over the recent half a year;
15. qualities which are valued and encouraged most by the top managers in their subordinates.

Moreover, the questionnaire included questions concerning the age, scale, field of activity and the location of the companies.

Sampling

118 respondents representing companies from 8 federal districts of the Russian Federation took part in filling the online questionnaire. The structure of respondents sampling is as follows:

- 48% – top managers,
- 34% – middle managers,
- 3% – first-line managers,
- 14% – specialists and employees.

Characteristics of sampling are given below in Table 1.

Table 1

A profile of the sample companies

Characteristics of sampling	Number of companies (%)
<i>Primary Location (Federal District)</i>	
Central	81
North-Western	1
Southern	2
Ural	1
Privolzhsky	3
Northern-Caucasus	1
Siberian	9
Far-Eastern	3
<i>Sector</i>	
Consumer goods and services	21
Mechanical Engineering	20
Education	18
Consulting	14
Healthcare	8
Financial sector	7
Chemicals	6
Construction	3
Agriculture	3
<i>Size (number of employees)</i>	
up to 50 employees	25
from 51 to 100 employees	16
from 101 to 250 employees	14
from 251 to 500 employees	13
from 501 to 1000 employees	6
from 1001 to 2000 employees	7
from 2001 to 5000 employees	9
over 5000 employees	10
<i>Age</i>	
Less than 2 years	9
From 2 to 5 years	14
From 5 to 10 years	24
From 10 to 15 years	15
Over 15 years	37
<i>Horizon period of the strategy and long-term planning</i>	
Less than 1 year	16
Less than 3 years	41
Less than 5 years	21
Less than 10 years	12
Over 10 years	6
Could not answer definitely	4

Qualitative characteristics of the sample and its quantitative structure reflect the real picture of the distribution of innovative-active companies across industries and regions of the Russian Federation. This suggests that the results of the pilot study accurately reflect the major trends and distinctive characteristics of HRM in innovative-active companies in Russia as a whole.

Findings and discussion

In order to achieve the second goal of the present work: evaluate the evidence of HRM activity characteristics essential for the innovative development we analyzed the answers to the questionnaire by the managers of all the 118 companies. We also analyzed quantitative indicators of agreements and denials when answering the questions.

Managers as innovation leaders

Implementing innovations requires leaders being able to create teams of like-minded persons and unite extensive personnel categories around the goals of innovative development [Pettigrew, 1992; Goll, Sambharya, Tucci, 2001]. Innovations also require leaders able to encourage and motivate innovative activity. Essentially, the leaders serve as the "trigger" of changes, including innovation changes. To ensure the success of these reforms the leaders themselves must be "charged" with innovations, trust in them unconditionally, profess the principles of innovative development and value the qualities inseparably linked with innovations in people surrounding them [Clark, 1972; Sproull, 1981; Datta, Rajagopalan, 1998].

The managers' attitude to the necessity of developing innovation processes in their companies is demonstrated in Table 2.

Table 2

Managers' attitude to the company innovative activity

Innovation type	Recognition of the need for innovation (number of choices, %)
Managerial innovations	66
Marketing innovations	53
Technological innovations	42
Product innovations	36

The research findings demonstrated that 74% of top managers and 63% of middle managers are involved in the innovation processes. The respondents' innovative activity is expressed through different forms, such as: generation of ideas and rationalization activity (47%), examination of colleagues' ideas (41%), organization and participation in experience sharing (33%), creation and support of innovative climate (32%), initiation of organizational changes (31%), innovators' assistance and support (25%), attracting creative employees into the company (21%).

In this situation it would be logical to suppose that innovation values must be the core of the managers' value orientations system. However, the research revealed that the innovation values are not dominant among the managers' value priorities, moreover, the system of respondents' value attitudes is characterized by inconsistency. Thus, on the one hand, the survey respondents value in their employees personal responsibility (81%), cooperation and team spirit (72%), continuous professional and personal development (52%), ability to work under conditions of uncertainty (47%), proactivity (43%), openness to new trends (42%) – i.e., qualities that are undoubtedly important from the point of view of the company innovative development. On the other hand, other qualities are valued only by the minority of respondents, like employees' creativity (35%), commitment to long-term outlook (24%), trust (21%) and respect (23%). For many of the managers employees' diligence is more important (41%).

Inconsistency in the system of the managers' value orientations has also been demonstrated in the answers to the question "What do your top managers value most in their subordinates?" Top managers value such qualities as the employees' professionalism, responsibility, sociability, self-sufficiency, team spirit. Unfortunately, only a few modern managers valued such innovation qualities as intelligence, erudition and broad-based knowledge (18%), imagination and creativity (15%), openness to new trends (13%).

It is worth mentioning that personal values of many managers are in direct contradiction with the innovation development of the companies. Thus, employees' obedience and diligence (36%), ability not to present trouble and problems to the managers (45%), unpretentiousness (14%) are "highly honored" by the managers. Most top managers do not value honesty (it was chosen only by 25% of respondents) and adherence to principles (8% of respondents). In a situation like this it is rather difficult for professionalism, responsibility and other personnel competences to be manifested in the innovative activity.

Such inconsistent managers do not have clear internal guidelines in the context of innovation strategies, they face difficulty trying to be the leaders and carry those around them away with innovations. In absence of an effective system of innovation management, managers with inconsistent value orientations can become obstacles in the way of innovation development of their companies.

Corporate ideology and innovations

Ideology is a powerful factor defining the identity of a company and its position on the market. Ideology finds its realization in the company vision, mission, declared company values and HRM principles. Starbuck [Starbuck, 1982] defines corporate ideology as values and beliefs which provide a reference frame to members of an organization. Ideology is an important component of corporate culture and has an action-impelling quality; it influences the performance, growth, and survival of the firm [Pettigrew, 1979; Beyer, 1981; Goll, Sambharya, 1995; Dallyn, 2014]. Personnel values and beliefs regarding the identity of the organization guide future actions and engender commitment from members of the organization, claim unique accomplishments and are held with sentiment [Clark, 1972; Sproull, 1981]. It is important to note that top executives play a key role in developing and maintaining a firm's ideology [Beyer, 1981; Goll et. al., 2001].

Corporate ideology can steer the innovation development of the company and charge the personnel with innovative activity, or vice versa, present an obstacle to the realization of innovative activity and undermine success in implementing innovations. The company promoters and top managers lay the foundations of corporate ideology which manifests their value orientations.

Corporate ideology is an instrument of achieving the company strategy, that is the reason why it is expected to be well-planned, having the system connection with the company business objectives and priorities. As a rule corporate ideology is revealed through such corporate documents which describe HRM strategy and HRM policy, business behavior code, culture management standard etc. However, the research revealed that these documents are absent in half of the companies under study.

The developed HRM policies and corporate business behavior code are available only in 24% of the companies, HRM strategy is available in 13% of the companies and corporate standard of culture management exists in 11% of the companies.

The present research has demonstrated that in most companies corporate ideology does not fully correlate to innovation development. Thus, only 25% of respondents have indicated that corporate values fully correlate to the company strategy in the economy of knowledge and 54% of respondents marked partial correlation.

In most companies the HRM principles do not contribute to the innovation development either. Efficient innovation implementation presupposes active involvement of broad personnel categories in the innovation processes. However, the research revealed the irregular picture of

involvement of various respondent categories in the innovation processes, thus, innovations are implemented by top managers (74%), middle managers (53%), specialists (35%), first-line managers (21%) and highly qualified workers (17%). 9% of respondents have indicated that no one takes part in innovations, 4% could not give a definite answer. All this was the case in the situation when 24% of respondents marked that they had faced the problem of lacking innovative ideas.

Encouraging innovations and supporting innovators is very important for management in the context of innovation development goals. High image of innovation and availability of multiple privileges for innovators are necessary for rapid and successful innovative development. However, the research revealed that the best the innovators and creative employees can count for is advice (47%), information support (43%), moral support (41%), expert evaluation of their idea or innovation proposal (38%), procurement technical assistance (37%), financing (31%). Only 27% of the employees can count on trust and 21% can count on their talent recognition.

The results of research revealed that the support and incentives for the innovators in the companies are mainly nonmaterial and are realized through material and financial support to a very small degree. Thus recognition of the innovators' talent and merits in the companies is realized through raising the innovator's informal status (51%), additional bonuses (43%), professional growth (49%), corporate rewards (20%), publishing the achievements in corporate media (22%) and a special recognition on the part of the top managers in the form of congratulations and gifts (20%). Unfortunately, only a small portion of the innovators can count on special working conditions (18%), priority in project financing (14%), additional financing of practical training, taking part in conferences and training (20%), rotation (7%), paying for specialized literature and providing access to modern sources of information (19%), assistance in grant and patent application (4%).

The research also revealed that the recognition of the innovators' achievements can even be realized in such demotivating and even discouraging forms as additional tasks beyond the boundaries of their job duties (31%), extending requirements to quality and quantity of tasks performed (16%).

Characteristics of the actual system of innovation management

The research revealed that in most companies the organization of the personnel innovative activity does not meet the requirements of innovation development and the best practices of innovation management. The situation is relatively positive in case of idea competitions (exist in 25% of companies), professional conferences and other experience sharing events (exist in 40% of companies). However, these activities are clearly insufficient for the success of innovation development in the economy of knowledge. Thus, corporate incubators or innovation centers exist only at 8% of respondent companies, venture subsidiaries at 3% of companies, networking virtual innovator groups act only at 5%, prestigious innovator communities exist at 3% of companies. Among the respondent companies technical committees exist at 23%, R&D departments at 12%, knowledge management system or corporate information portal operates only in 25% of companies, competence centers exist at 16% of companies.

According to research findings, many companies are characterized by insufficient attention to such an important element of the innovation management system as organization of testing and experimental check of innovational ideas and proposals. Thus, only 14% of respondents perform this work. Obviously, the reason for this neglect is in planning and budgeting peculiarities whereby financing of this activity is not performed. However, without testing and experimental work the innovation process is disrupted with all ensuing consequences.

Judging by the research data, innovation development goals are not recorded in the Key Performance Indicators (KPIs) of departments (innovation indicators are only present in the KPIs of 14% of companies). Innovation is a component element in the corporate competence model according to which managers and specialists are evaluated only in 14% of companies. Again,

most of the respondents experienced difficulty when evaluating forms of personnel innovative activity organization (25%).

The lack of innovation leaders, the absence of clear ideology of innovation development and weak points of the innovation management system all lead to a large number of issues which creative people and innovation projects face. According to the research findings, the following are the most critical management problems: high routine workload (95%), psychological weariness or professional burnout (41%), bureaucracy (36%), disappointment with the work of the managers (33%), indifference and skepticism on the part of colleagues and managers (32%), absence of financial incentives (32%) and procurement technical support (28%), lack of understanding of prospects and reluctance to think about the future (31%).

The research revealed that such phenomenon as organizational fears present a smaller obstacle to innovations than other problems: fear of losing authorship to the idea (15%), fear of making a mistake (10%), fear of idea and technology leaks to competitors (7%), fear of uncertainty (6%) and fear of standing out from the masses and cause the managers' displeasure (3%).

A large number of respondents faced such commonplace problems as the lack of the necessary competences (36%), absence of innovation ideas (24%), absence of the habit and skills of reviewing scientific studies (19%).

The research revealed the main sources of innovation information most widely used by the respondents. The respondents obtain information about scientific and practical achievements in their field from the Internet (87%), from colleagues (51%), specialized media (51%), at the Russian (34%) and international research and practice conferences (32%), from monographs (13%).

Recently the respondents have taken part in such forms of knowledge exchange as independent study of information (69%), training (62%), taking part in conferences (52%), feedback from colleagues (49%), brainstorm and strategic sessions (39%), other forms of experience sharing (34%), coaching (19%) and practical training (17%). Only 5% of respondents took part in rotations.

Having the understanding of the important role of innovations and successful implementation of organizational changes in the economy of knowledge, the company management pays certain attention to employee training and development. Over the recent half a year the company management provided training for their personnel (62%), various forms of experience sharing (47%), feedback (47%), group discussion of problems (38%), involved personnel in mentorship and coaching (35%), conferences (32%), provided consultations with experts (25%), practical training (15%) and rotations (12%).

According to the respondents, to speed up innovations they need such forms of supporting their innovation activity as procurement technical support in realization (57%), financial incentives (54%), singling out a team of performers (44%), training (40%), informing (39%), expert evaluations (34%), moral support (34%), wider involvement in experience sharing (29%), trust (24%), organizing the experiment and testing ideas (19%), talent recognition (19%).

To systematize the obtained data from the perspective of HRM activity organization we have made summarizing Table 3.

Table 3

Characteristics of HRM activity aimed at forming the innovative work behavior

Elements of HRM activity	Characteristics
Goal setting, strategy	Full correlation with the principles of knowledge economy, adherence to innovations in 25% of companies, partial correlation in 54%
Strategy formalization	Absence of formal documents in 50% of the companies, presence of a formalized HRM strategy in 13% of companies
Involvement of various groups of employees	Considerable involvement of top managers, lower involvement of employees at the executive level
Staff evaluation	Reduced and contradictory model: <ul style="list-style-type: none"> • KPIs connected with innovations in 14% of companies • Corporate model of competences connected with innovations in 14% of the companies • Implementation qualities are valued more than the innovative professional and personal qualities
Staff motivation and incentivising	Contradictory correlations: <ul style="list-style-type: none"> • Contradictions between the priorities of respondents as managers and participants of innovation projects: motives and incentives do not match. • Priority given to nonfinancial methods not relevant to the executives' motives • Absence of differentiated approach depending on the participation in innovations
Staff training	Priority given to knowledge obtained independently: <ul style="list-style-type: none"> • Training programs are in 62% of companies • Recognition of the deficit of managerial knowledge and competence in the area of innovation management: 41% of respondents need additional training

The data presented in the table demonstrate that 79% of the companies have the strategy aimed at innovations to a certain degree, however in the majority of companies this strategy is not formalized in documents available to personnel. In spite of the fact that the majority of respondents understand the necessity of various innovations and take part in their implementation (Table 2), the activity instruments (practices) are aimed at forming the innovative behavior to a small degree and are characterized by inconsistency (Table 3). Less than a half of the respondents marked the deficit of knowledge and managerial competence as the main obstacles to innovation development, i.e. they singled out the manager's professional qualities as the considerable problem. One can suppose that the majority of respondents connect the obstacles with other factors. The obtained data prove the hypothesis that the managers of the Russian companies under study do not have the formed integral conceptions about interconnection between the strategies and practices of managing the innovative activity, which is manifested in the contradictions contained in the soft technologies of human resource management aimed at forming the relevant organizational behavior. One must emphasize that these correlations between the strategy and the operational methods of its realization in the Russian companies are also noted in the research carried out by PwC [Business management: from strategic goals to actual results, 2010].

According to A. Prigozhin [2003], such situation can be qualified as the "breach between the decision and the implementation" and classified as an organizational pathology. The author considers that the degree of implementation of strategic decisions presents an essential indicator of the company manageability. According to Prigozhin's data, this indicator rarely exceeds 60% in the Russian companies. Among the reasons for not implementing the decisions taken one can equally single out low performance discipline and the drawbacks of the decisions themselves, however 90% of the managers specifically mark "performance discipline" in its various manifestations as a reason for this phenomenon [Prigozhin, 2003]. We consider topical the testing of the hypothesis that the management of innovative-active companies is free from such pathology, i.e. the company managers single out the innovation strategy as their goal and use the management practices aimed at achieving the stated goals. The next section of the present research is devoted to the testing of this hypothesis.

Characteristics of HRM activities in the innovation-active companies

The goal of the present section is to test the hypothesis that the innovation activity of the companies can be connected with certain characteristics of HRM activity.

To obtain the conceptual interpretation of the results we divided the whole sampling at the first stage into two subgroups by the answer to the question: "Which changes of innovation activity have taken place in your company over the recent years?" The response selection "Innovation projects have been successfully realized" has allowed to single out a group of innovative-active companies which included 39 companies 33% of the sampling. The rest (79 companies, or 67% of the sampling) were referred to the group "non-innovative companies".

At the second stage the "Phi" coefficient of indicators contingency was calculated with the help of SPSS-19 program, to answer the question about the innovation projects which have been successfully realized [Nasledov, 2011]. This statistical method had been chosen because it allowed to define the interconnections of HRM activity characteristics with the result of that activity – the successful realization of innovation projects, based on the binary variables [Nasledov, 2004]. Table 8 presents the obtained results.

Table 4

Data of "Phi" contingency coefficient of the answers to the question "Innovation projects have been successfully realized" with the HRM activity indicators

Question block	Indicator	"Phi" coefficient; p
<i>Documents which reveal corporate values</i>	HRM strategy	0.33; p=0.001
	Corporate code of business behavior	0.21; p=0.02
<i>Employee categories taking part in innovations</i>	Top managers	0.22; p=0.02
	Middle managers	0.26; p=0.005
<i>Form of the respondent's innovation and creative activity</i>	Generation of ideas and innovation proposals	0.23; p=0.02
	Creation and support of innovation climate	0.28; p=0.02
	Organization of innovation ideas testing and experimenting	0.23; p=0.01
<i>Types of innovation projects in which the respondent participates</i>	Management improvement, organizational innovations	0.25; p=0.01
<i>Changes in innovation activity over recent years</i>	Number of innovation proposals has increased	0.21; p=0.01

	Innovation climate has improved	0.22; p=0.01
	Number of innovators and highly qualified employees has grown	0.30; p=0.001
<i>Forms of company-organized personnel innovation activity</i>	Introduction of innovativeness indicators into competence models used for the evaluation of managers and specialists	0.33; p=0.001
	Knowledge management system / Knowledge portal	0.31; p=0.001
	Idea competitions	0.33; p=0.001
	Introduction of innovativeness indicators into the departments KPIs	0.22; p=0.01
<i>Forms of talent recognition and innovators' merits recognition in the company</i>	Publishing the achievements in corporate media	0.24; p=0.01
	Status raising within the staff (invitations to the meetings, conferences, requests for consultations etc.)	0.29; p=0.001
	Corporate awards	0.27; p=0.003
<i>Information sources about scientific and practical achievements in the professional area</i>	Theoretical and practical conferences	0.21; p=0.02
<i>Kinds of information exchange in which the respondent has participated over the recent half a year</i>	Conferences	0.21; p=0.02
	Strategic sessions	0.21; p=0.02
<i>Kinds of information exchange which the respondent has organized for the colleagues over the recent half a year</i>	Conferences	0.36; p=0.001
	Practical training	0.23; p=0.01
<i>Qualities which are valued most by the top managers in their subordinates</i>	Team spirit	0.23; p=0.01
	Imagination and creativity	0.33; p=0.001
<i>Forms of creative activity support</i>	Advice on improvement or realization	0.23; p=0.01
	Expert conclusion on the idea	0.38; p=0.001
	Information support	0.22; p=0.01
	Creation of the team of executives	0.26; p=0.004

The table presents data on variables having valid moderate positive connection with the indicator of the answers to the question about innovation projects which have been successfully realized. The presented data demonstrate that the companies implementing the innovation projects tend to have the staff strategy more often than "non-innovative" companies.

Furthermore, the declared corporate values are generally formalized in the documents (corporate code of business behavior).

Top managers and middle managers are included in the innovation process more often. The forms of organizing the innovative activity are generally based on the key principles of knowledge management, the competence building approach and modern performance management technologies (KPI). The managers of the companies implementing the innovation projects tend to value such qualities in their subordinates as creativity and team spirit.

In-depth training courses, conferences and participation in theoretical and practical conferences are mainly used as the basic knowledge exchange methods.

Companies tend to use more the information in the corporate mass media and various ways of raising the innovators' informal status as the primary forms of recognition. Besides, the participants of the innovation process can count on such non-financial forms of support as advice, expert conclusion, information support and team work.

To summarize the collected data one can conclude that there is an HRM strategy in innovative-active companies which is aimed at the creation and implementation of innovations. Focusing on the elements of practices (formalization of goal, methods of evaluation, motivation and incentivizing), one can put forward the supposition that such HRM activity model can be classified as a mixed one, combining the elements of the high involvement model and the high performance model [Lawler, 1986]. This combination provides for the work efficiency evaluated through KPIs and the competence model, and also through the subjective personnel involvement in the process of achieving the company strategic goals due to the practices of encouraging the innovative behavior which are being used.

Conclusion

The current work presents the first stage of researching HRM systems at innovative-active companies. One of its main objectives was to test the supposition about the specificity of the HRM strategy and practices in the Russian innovative-active companies. On the whole the supposition was confirmed. At present the models of managing the companies' innovative activity cannot be considered fully formed. However, in the companies where the innovative projects are realized, there is a holistic strategy of their implementation with corresponding practices.

The study allowed to draw the following conclusions:

- Currently the managers of the companies covered by research do not have the formed conceptions about the strategies and practices of managing the innovative activity, including the specifics of HRM activity aimed at formation and stimulation of the innovative behavior. One can note a considerable gap between the mental and actual recognition of the need for innovations by the managers of the companies covered by research. Thus, 66% of the managers agree with the statement about the need for the organizational innovations, 74% of top-managers consider themselves the participants of the innovation process, however innovation projects have been successfully realized only in 33% of companies.

- Considerable contradictions have been noted in the organization of HRM activity in the companies covered by research. These contradictions concerned all the basic elements (practices) of HRM activity: evaluation, motivation and incentivizing, training and development of staff. Management methods preferred by the respondents as managers do not match their own expectations for the role of innovation projects executors. These contradictions can present a real "brake" on the innovative activity, as the management practices do not match the development of the required forms of innovative behavior.

- The innovative activity of the companies is connected with certain characteristics of HRM activity. The collected data support the supposition that the innovative-active companies select, formalize and implement the HRM model combining the strategies of high performance and high involvement.

Thus, our results are consistent with the general trends that characterize the relationship of HRM practices and innovative activities of competitive companies which have been found in similar international studies, however, we have also identified the differences allegedly related to (as we assume) the external environment and internal factors in the development of modern Russian management.

Managerial implications

The pilot stage of research on inconsistencies of HRM at innovative-active companies shows that there is a holistic strategy of implementing innovative projects in the companies where these projects are realized, which sets them apart from "non-innovative" companies. Subsequently we intend to conduct an in-depth study not only of the HRM strategy and practices but also of HRD strategy and practices which provide for the success of innovative active companies.

The results of an empirical study of Russian companies confirming the existence of the relationship between HRM practices and innovative activity of companies can be used for practical purposes.

In order to promote innovative work behavior and as a consequence, increase the innovative activity of companies, company managers should actively use the different forms (methods) of the employee engagement and support (encouragement) of their innovative activity: generating ideas, organizing competition and expertise of ideas, organizing and participating in the exchange of experience, providing informational and moral support to innovators, procuring logistical support and financing of innovation, enhancing the prestige of innovation through financial and non-financial incentives, organizing internships and participation in innovative communities, attracting talents.

To create and support innovative climate companies' leadership (top managers) should focus on the initiation of organizational change, planning and budgeting of innovation, involvement in innovation processes of broad categories of personnel, establishment of R & D units and new high-tech jobs (work-places).

The realized choice by managers of the most effective HR-practices will optimize costs to improve HRM system, orient it to the fundamental goals of the company.

The representatives of the regional authorities and line ministries could foster the innovative activity of companies through the development of administrative and economic tools and measures relating to tax and investment policies to encourage and support innovative-active companies.

Thus, this pilot study yielded results that are relevant to management practices.

In the future, we expect to explore more deeply the role of innovative work behavior as a mediating link between HRM practices and the results of a company's innovative activities.

Limitations

Overall, the pilot study allowed us to understand the shortcomings of the implemented organizational and methodical approach and identify ways to overcome them. A significant limitation of this study was the exclusive use of data collected through questionnaires. In the future, the authors suggest to extend the field of research, to modify the data collection method and use in addition a various numerical indicators on the innovative activities of companies.

This applies in particular to the following aspects:

- Criteria for the experimental sample considering the size of the companies, their industry sector, the orientation (characteristics) and the level of innovative activity, the regional factor;
- Use of questionnaire made up with the help of the expert evaluations; later on the questions should be more oriented at the HRM activity specifics and the evaluation scale should be changed as well.

We assume that these drawbacks will be corrected in the main study.

Directions for future research

Based on the results of this pilot study, the authors plan to conduct a more extensive (wide) research aimed at the identification and comparison of global and local HRM strategies and practices peculiar to the innovative-active companies from the developed and developing countries.

In particular, in the next phase, we propose to carry out a comparative study of the relationship between HRM practices and innovative activity of Russian and international (foreign) companies, conducting their business in developed and developing countries. For this stage we formulate the following tasks:

- to analyze the relationship between HRM practices and results of innovative activities of foreign companies on the basis of published data;
- to identify the relationship between personnel management practices and results of innovative activities of Russian companies on the basis of empirical data;
- to identify the relationship between personnel management practices and characteristics of innovative work behavior of companies' personnel on the basis of empirical data.

Given the significant progress of foreign scholars in the research on the relationship of HRM and innovation, we believe that our future analysis will verify the existence of the identified patterns in the Russian context, and will provide a basis to determine the direction for the potential application of this knowledge in the practice of human resources development.

Executive Summary

Using the “Oslo Manual” methodology this research aims to compare HRM practices in Russian competitive companies and to explore HRM strategies leading to the formation and development of innovative work behavior of personnel.

A working definition of the "innovative human resource management" is formulated and the characteristics of this activity in the Russian competitive companies are studied in the present article. The results of the pilot study among the managers of 118 national companies are given, the groups of "innovative-active" companies (33%) and "non-innovative" companies (67%) are singled out. The properties of HRM strategy and practices contributing to innovative activity are analyzed. The conclusion is made that at present the models of managing the innovative activity cannot be considered fully formed; however, there is a holistic strategy of implementing innovative projects in the companies where these projects are realized, including specific soft practices aimed at forming and developing innovative work behavior of personnel.

The results are consistent with the general trends that characterize the relationship of HRM practices and innovative activities of competitive companies which have been found in similar international studies, however, we have also identified the differences allegedly related to (as we assume) the external environment and internal factors in the development of modern Russian management.

The contradictions and the accents identified in HR-practices of Russian competitive companies can serve as the basis for recommendations to managers for increasing innovative activity of companies.

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