Human Resource Management at Russian Companies — Leaders of the Global Economy

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Abstract

One of the main sources of competitiveness on the modern economy are the intangible assets of companies. In the structure of the intellectual capital assigned to human resources and human capital, the knowledge, skills, creativity, and employees' motivation play a special role. The quality of human resources affects the value of the company and human resource management practices, which in turn affect the quality of its human resources.

The article focuses on a resource-based view of the firm and human capital theory as fundamental perspectives, linking human resources to achieving a sustainable competitive advantage for the company.

The empirical study tested the assumption that Russian companies, the leaders on the world economy, implement management strategies and practices that facilitate the efficient use of human resources in order to achieve one's main goals, which distinguishes them from companies that have not reached a level of international competitiveness. The main tool for research is a questionnaire – the standard "Investors in People" survey — that is used to assess the effectiveness of policies and practices of the management and development of human resources at companies. The survey involved representatives in executive management positions at 41 public Russian companies; 14 of the surveyed companies were included on the Forbes Global 2000 (2014) and possessed the traits of competitiveness.

The results showed that at companies with competitive features, there is a pronounced tendency for the greater involvement of employees in the process of goal-setting and decision-making. There were also some differences in the practice of management personnel between companies with and without indicators of competitiveness. In general, the assumption that Russian companies have reached a level of leadership at a global level, using more effective policies and management practices, and the development of human resources to achieve its goals, as a result of the study, is confirmed.

Keywords:
human capital; human resource development; strategic management; international competitiveness; Forbes Global 2000

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Strengthening national competitiveness, which is a priority of Russia's socioeconomic development, involves exploiting the country's market advantages and promoting the new knowledge-based economy. Accordingly, factors affecting competitiveness at Russian companies operating on international markets has become particularly relevant, and these vary depending on the approach chosen for their analysis. Researchers agree that at the macro-level, competitiveness is hindered by the fragmentation of the Russian economy, the technological gap, obsolete equipment, and insufficient attention of the government toward the production sectors [*Kleiner*, 2012; *Khudorkomoff*, 2005]. A no less important factor affecting competitive success, for the country as a whole and for individual companies alike, is human capital.

The multifaceted nature of the above issue requires adopting an integrated approach for dealing with it and the application of advanced strategic management theories, first of all, the concepts of a resource-based view and human capital [*Ignatova, Vasilyev,* 2013]. Access to external and internal resources is a key element of companies' competitiveness, but occasionally it turns out not to be enough. The management's ability to make adequate use of available opportunities becomes no less important [*Medvedev*, 2012]. Conventional management techniques built upon resource-based approaches do not allow for fully realizing human capital's potential. Most companies make use of no more than 20% of it [*Aksyonova*, 2008; *Zaitseva*, 2014], while the lion's share of knowledge and skills accumulated by their employees remain neglected due to inadequate management.

Our main hypothesis for studying the application of human resources by internationally competitive Russian companies amounted to identifying the approaches they use and those employed by less successful international market players. Detecting specific differences between them was the goal of this study. The following objectives were pursued in order to accomplish it:

- An analysis of the economic concepts of business competitiveness using the resource-based approach and human capital theory;
- An analysis of human resources management strategies and practices employed by internationally competitive companies;
- To propose a valid research methodology;
- An analysis of the empirical data on human resources management by globally competitive companies.

From a practical point of view, the results of the study could help optimize the operations of companies striving to become globally competitive.

The Resource-Based Concept and Human Capital Theory in Present-Day Corporate Management Practices

Contemporary strategic management theory is strongly influenced by the resource-based concept of firms' operations [*Prahalad, Hamel*, 1994; *Teece, Rumelt*, 1994; *Collis, Montgomery*, 1997; *Grant*, 2002]. According to Valery Katkalo, "over the last 15 years the resource-based view became the dominating paradigm of strategic management theory" [*Katkalo*, 2006, p. 321]. Like other strategic management concepts, the resource-based approach is applied to identify

"…the sources of, and mechanisms for, creating firms' sustainable competitive advantages, which allow them to gain economic benefits (rent) unavailable to rivals" [*Katkalo*, 2006, p. 52].

Alternative concepts propose an analysis of the links between the strategy and relevant organizational structures [*Chandler,* 1962], their hierarchies and implementation mechanisms, taking into account factors of the external and internal environment (the "design school" [*Andrews,* 1971; *Christensen et al.*, 1987]); strategic, administrative, and operational planning and action (the "planning school" [*Ansoff,* 1965]); and identifying industries with potentially high profit margins (the "positioning school" [*Porter*, 1980]).

The resource-based concept was proposed to counter the theory of industrial organizations [*Porter*, 1980; *Porter*, 1985], which stressed the role of external factors in strategic planning for intra-industry competition. This approach [*Barney*, 1991; *Wernerfelt*, 1984] is based upon seeing companies as sets of unique resources and potential, which are reflected in their strategies and serve as the primary sources of their profits. Competitiveness in specific market segments is linked with the thorough stock-taking of all available internal resources, an assessment of the company's potential, and an adoption of relevant strategies.

Proponents of the resource-based concept assign particular importance to human capital and other resources. Jay Barney [*Barney*, 1991] links competitive advantages with the acquisition and efficient application of unique resources unavailable to one's competitors. He divides such resources into three groups: physical, organizational, and human capital. The latter is comprised of education, professional experience, attitude, intelligence, relationships, and one's understanding of operational processes by management and staff. Thus, in order to create a competitive edge, human resources must have the following four properties [*Barney*, 1991]:

- *value,* which arises from matching candidates' individual competencies to corporate requirements, since each staff member makes a unique contribution to a company's success;
- *rarity,* which is linked with staff members' cognitive abilities and the shortage of gifted employees;
- *uniqueness,* due to the competition's inability to identify the exact source of competitive advantages in the mass of human resources and reproduce the conditions for their emergence; and values and standards that affect the team's performance;

- *impossibility of replacing* human resources with technology in the long term, since the former can be used to produce various kinds of goods and services.

The creators of the resource-based concept [*Prahalad, Hamel*, 1994] note that companies that accumulate and make use of human capital capable of learning faster than a competitor's and more efficiently use skills and knowledge that meet the needs of the business hold the competitive edge. Getting such results requires effort by the both sides, i.e., highly motivated employees who are willing to learn and an employer who creates a favorable environment for learning and sharing knowledge and experience. Though nobody questions the role of human resources in the scope of the resource-based concept, certain important issues still remain unexplained. For example, how does corporate strategy affect human resource management, and how does the latter affect company performance? What kind of employee behavior would help the company acquire long-term competitive advantages?

Some of the resource-based concept proponents see human capital as a source of management costs. This view is based upon the economic efficiency logic, which implies that reduced (or maintained at the same level) costs result in increased profits. However, this approach is hardly applicable to the evolving socioeconomic environments and emerging management models.

Human capital theory as a specific economic analysis field emerged in the US in the middle of the 20th century [*Mincer,* 1993; *Schultz,* 1971; *Becker,* 1994]. It remains one of the more influential approaches to studying employees' and employers' behavioral and decision-making patterns and mechanisms in the scope of the present-day labor relations. The human capital theory deals with the process of the qualitative development of human resources, i.e., knowledge, skills, and abilities every person possesses and uses for production or consumption purposes [*Kapeliushnikov*, 2006; *Kapeliushnikov, Lukyanova*, 2010]. Acquiring high-quality human capital and investing in its development are seen as a source of strategic competitive advantages, on the macro-level (society) and micro-level (company) alike. In the latter case, the management system serves as the primary tool for the efficient application of human capital, including the various relevant strategies and practices.

Companies' human capital comprises the following:

- employees' abilities, which determine their professional achievements;
- the sum of their knowledge and skills;
- their motivation for using these abilities, knowledge, and skills in the interests of their employer.

Success in converting this capital into increased productivity and, accordingly, increased company revenues, largely depends on how favorable an environment the company manages to create. Thus, businesses' objectives should be to clearly define the requirements for employees; find, assess, and invest in the development and training of suitable candidates; meet their primary needs, and encourage them to accomplish relevant goals and increase productivity to the maximum possible extent.

Our study relies on the fundamental provisions of the resource-based approach concerning the role of human resources in achieving corporate goals. We have also used the principles of human capital theory regarding this resource's structure and the specific aspects of managing and developing it.

Human Resource Management and Companies' Competitiveness

An analysis of the sources reveals a correlation between companies' human resource management strategies and practices and their competitiveness. The latter is defined as the ability to successfully grow and compete in the long term [*Kleiner*, 2012]. In this case, human resource management is seen as a relevant functional area of corporate management. Despite researchers' great interest in the aforementioned relationship, the number of empirical studies in this field remains quite limited.

Authors of certain studies maintain that companies with access to more highly developed human resources more efficiently use their employees' knowledge, and can thus sustainably compete on global markets [*Ling, Jaw,* 2006, 2011]. International recruiting based on assessing candidates' competencies and experience positively affects such aspects of competitiveness as global marketing, innovation, and learning. Other authors note the important role human resource management plays in maintaining a competitive level of organizational competencies [*Makadok, Walker*, 2000; *Minbaeva et al*., 2003], given that most of the latter can only be acquired through lengthy training and personal development of employees. [*Khandekar, Sharma*, 2005] established a positive correlation between the development of human resources and company performance; firms' ability to attract and retain talent and develop employees' skills is a factor of their (international) success.

However, the actual mechanism of human resources creating a competitive edge for the company is still rather poorly understood [*Grossman,* 2000; *LeBlanc et al*., 2000; *Dzinkowski*, 2000; *Ling, Jaw,* 2011], the connection between these factors certainly has not been fully explained, either theoretically or practically.

The Investors in People Standard as a Methodological Basis for Assessing Human Resource Management

Despite significant advances in the field of human resources management by companies, no all-purpose tools for assessing it have yet been designed. We have used the Investors in People[1] concept (which proposes a national standard for the quality of human resource management) as the methodological basis for our empirical study. Designed by the Confederation of British Industry and the British Trades Union

[1] Access mode: https://www.investorsinpeople.com/, last accessed on 20.11.2017.

Congress in the late 1980s – early 1990s, this standard was supposed to optimize corporate personnel management practices through ongoing improvement. In 1993, the organization of the same name was established, to promote the standard's development and application throughout the world.

Designing the Investors in People standard, the British government hoped to remain a "key player on the global economy" [*King*, 1995]. In 1994, the country ranked only the 23rd among 44 economies in terms of the level of labor supply skills. According to Mary Chapman, in 1995, the executive director of Investors in People UK, the future of the UK's economy largely depended upon companies' ability to promote the development of their staff's potential and skills [*ibidem*]. A study conducted by the organization in the early 1990s concluded that, in order to achieve long-term competitiveness, British companies needed to quickly react to labor market changes, promote the development of their personnel's potential, put into place a vertically integrated structure to more efficiently use this potential, and encourage personnel to meet production targets [*ibidem*].

The Investors in People Standard was expected to improve companies' performance through the application of systemic strategies based on involving staff in decision-making and objective-setting. It was seen as a structural reform tool and a personnel development program at the same time [*Ratcliffe*, 1994], which led to its adoption by more than 30,000 British companies employing 27% of the total national workforce.

The standard comprises three sections which cover relevant aspects of companies' operations:

1. Application of efficient optimization strategies through personnel development;
2. Efficient optimization of company operations through personnel development;
3. Efficient investments in human resources.

Each of these areas includes ten specific criteria – indicators describing various business aspects:

1. The strategy for optimizing company operations is clear and understandable to the staff;
2. Staff training and development programs are specifically designed to support the accomplishment of company objectives;
3. Personnel management strategies are designed to extend the scope for employee development;
4. Requirements for the management's skills and knowledge are clear, and communicated to the staff;
5. Indicators for assessing the management's productivity are clearly defined;
6. Criteria and procedures for assessing employees' contribution to company operations are clearly defined and applied;
7. Employees are involved in decision-making to promote individual and group responsibility;
8. Efficient staff training and professional development programs are implemented;
9. Reasonable amounts are invested in staff training;
10. Personnel management mechanisms and procedures are systematically improved.

The above criteria conceptualize the following human capital theory principles: personnel is seen as a subject (as opposed to an object) of management; investments in personnel development are imperative; objective criteria are applied to assess returns on these investments; the company's personnel should be actively involved in accomplishing its objectives.

The 2004 study [Investors in People, 2004] confirmed that the adoption of the standard in question positively affects business development, specifically:

- It serves as a catalyst of change at companies;
- It allows for increasing revenues by optimizing personnel's performance;
- It positively affects company performance indicators (reduced labor turnover and improved availability; increased staff satisfaction and motivation; increased productivity and sales; reduced level of flawed products);
- It contributes to increasing returns on investments per employee;
- It helps employees understand company objectives and their role in accomplishing them.

The study revealed that implementing strategies and practices in line with the Investors in People standard positively affects both objective (productivity, return on investment, profit margins, etc.) and subjective (level of satisfaction, motivation) business performance indicators; however, the mechanism of this effect has not been explained. The authors of a major study "The impact of Investors in People on people management practices and firm performance" conducted by the Cranfield School of Management [*Bourne et al*, 2008] tried to accomplish this objective. According to the model they proposed, the correlation between this standard and companies' business performance indicators is due to the fact that firms implementing the Investors in People principles in their personnel management policies created a favorable organizational environment (which fosters cooperation and trust between employees, their involvement in common work) and promoted human capital flexibility (employees make more effort to develop professionally). All these changes are reflected in companies' non-financial indicators such as product and service quality, the ability to attract and retain key staff members, client satisfaction, etc. In turn, non-financial indicators indirectly contributed to a rise in financial ones.

The UK's experience of using the Investors in People standard as a management quality diagnostic tool proves its value in helping companies strengthen their competitiveness through human resources management. This conclusion justifies using the standard as a conceptual basis for assessing the specific features of human resource management and the development practices employed by companies, the subjects of this study.

Methods and Techniques of the Study

A questionnaire comprising 39 questions was designed for the purposes of the study, broken down into seven sections in line with the Investors in People standard indicators:

1. Employees' attitude towards company objectives (11 questions).
2. Employees' participation in decision-making (3 questions)
3. Efficiency and validity of staff training programs (10 questions)
4. Overall management efficiency (6 questions)
5. Procedures for, and efficiency of, personnel assessment (4 questions)
6. Organization of personnel management (structure, hiring, motivation) (4 questions)
7. Employees' understanding of company values (1 question)

On the basis of the questionnaire's closed questions (i.e., those offering several answer options to choose from), a binary measuring scale was constructed. Some of the questions were supposed to be answered using the Likert scale [*Allen, Seaman*, 2007], others included the "Other" option with the opportunity to provide a detailed open answer. The questionnaire has been used in previous human resources management surveys of international [*Ardichvili et al.*, 2012; *Zavyalova et al.*, 2011] and Russian "best employer" companies [*Kucherov, Zavyalova,* 2012], and has proven its reliability.

The main sample is comprised of the largest Russian public companies on the 2014 Forbes Global 2000 list [Forbes, 2014]. This ranking has been published annually since 2003 and is based upon four corporate performance indicators: revenues, profits, assets (for the previous 12 months), and market capitalization. Subsidiaries' performance is also taken into account (those with over 50% of shares owned or controlled by the parent company). The Forbes methodology provides for making four separate lists of the 2,000 largest companies in terms of each of the above indicators. The entry thresholds in 2014 were \$4.04 billion for revenue, \$250.9 million for profits, \$8.2 billion for assets, and \$4.86 billion for capitalization. Companies included on at least one of these lists could compete for a place in the overall ranking and the final position was determined by the total score on all four lists.

In total, 28 Russian companies were included in the 2014 ranking. Given that annual turnover (or revenues) is the most objective of the Forbes criteria, the presence of Russian players in the ranking can be seen as a sign of their international competitiveness. Other important signs of the latter include companies' presence on more than one market and the possession of representative offices in other countries. The threshold barrier was operating in on least three foreign markets (including the CIS); 20 out of the 28 ranking participants met these criteria. They returned 14 completed questionnaires (70% response rate). The control group of public Russian companies not included in the 2014 Forbes Global 2000 ranking comprised 27 medium and large enterprises. The bulk of the literature on the Investors in People standard is devoted to companies of just that size because human resources management is formalized at such firms to a higher extent than elsewhere [*Smith, Collins,* 2007].

In total, 41 companies were covered by the study: 14 in the experimental group and 27 in the control group[2]. Their industries are indicated in Table 1.

The respondents comprised top company executives and HR managers. Their positions are presented in Table 2.

Due to certain specific features of the study such as the size of the groups and the applied scales, a frequency analysis (the number of positive and negative answers given by members of the main and control groups) and a comparative analysis of sample shares were used as mathematical and statistical techniques to detect statistically significant differences (Z-statistics). They were supplemented with a qualitative analysis of answers to open questions.

Results of the Empirical Study of Human Resource Management

The summarized results of the empirical analysis, including the statistical validity of differences between the groups are presented in Table 3.

The most significant differences were noted for the following user groups (sections of the questionnaire):

1. Employees' attitude towards company objectives
2. Employees' participation in decision-making
3. Efficiency and validity of staff training programs
5. Procedures for, and the efficiency of, personnel assessment
6. Organization of personnel management (structure, hiring, motivation)

Companies in the main group show better results regarding the involvement of staff in accomplishing corporate objectives by delegating responsibilities and using various forms of communication. They also more frequently arrange on-the-job training at other organizations. As to staff training arrangements, the members of the main group are clearly focused on economic results (increasing revenues), while companies in the control group seem to be more concerned with improving overall performance indicators (market position, product and service quality). Companies in the first group use stricter criteria for assessing staff training efficiency (changes in behavior, satisfaction level), and more often use feedback assessment results (via the media).

Human resource management at companies included in the main group tends to be the responsibility of specialized structures supervised by top executives (deputy chairman of the board), which can be interpreted as evidence of this aspect being seen as strategically important. This is also confirmed by the answers to open questions (the "Other" option).

[2] The Centre for Sociological and Internet Research of the St. Petersburg State University took part in conducting the survey.

Table 1. **Main Activities of Companies in the Sample** (%)

Activity	Main group	Control group
Information technology	14	4
Fuel and energy complex	50	30
Production	29	41
Finance and investment	7	11
Trade	7	4
Gold mining	0	7
Construction	0	4

Source: compiled by the authors.

Companies in the main group more often use external channels for hiring, they employ head hunters and maintain contacts with the relevant educational institutions. They use complex procedures to assess candidates, such as psychological and polygraph tests. Extra medical insurance and profit sharing are their preferred incentives for motivating employees.

Answering the open questions, respondents gave their personal opinions about their company and the procedures it employs. On the whole, they confirmed the trends identified through the frequency analysis (Table 4) regarding staff involvement in accomplishing corporate objectives and in strategic planning.

According to the respondents, at the main group companies, training is primarily organized to facilitate the accomplishment of strategic objectives, while in the control group, it typically serves more narrow, practical needs. The main group companies assess training programs on the basis of the level of employee involvement. Answers to the same open questions revealed that, unlike the control group companies, the main group firms apply various advanced motivation mechanisms such as corporate mortgage programs and personalized social benefits packages.

Open questions allowed us to obtain additional information about overall management efficiency. The largest number of answers were given for the questions about personality traits and the types of knowledge top managers needed to have. Notably, the respondents from companies in the main group cited much fewer qualities and knowledge areas compared with the control group. A possible explanation is a more positive attitude towards executive management in the first group. The survey revealed higher-level HR management structures in the main group, and specific policies aimed at involving line managers in this work. Answers by members of the control group companies generally demonstrated a high level of HR management and development, and a deep understanding of these activities' specific features.

Conclusions

The results of the empirical study provided a new perspective on the relationship between HR strategies and management practices on the one hand, and the international competitiveness of Russian companies on the other. The study was focused on analyzing competitive (the main group) and non-competitive (the control group) Russian companies operating on international markets. The resource-based strategic management concept [*Barney,* 1991; *Wernerfelt,* 1984; *Prahalad, Hamel,* 1994; *Grant,* 2002], and the human capital theory [*Mincer,* 1993; *Schultz,* 1971; *Becker,* 1994; *Kapeliushnikov,* 2006] provided a theoretical basis for the study. According to these approaches, companies' human resources are a source

Table 2. **Positions of the Respondents** (%)

Position	Main group	Control group
Deputy General Director	7	11
HR Director	7	15
Development Director	7	0
Head of Personnel Department	50	48
Deputy Head of Personnel Department	7	8
Head of the Corporate University Department	7	0
Head of the Recruitment and Personnel Development Department	7	4
Head of the Training and Statistics Department	7	0
Head of the PR Department	0	8
Personnel and Special Projects Manager	0	4
Deputy Development Director	0	4

Source: compiled by the authors.

Table 3. **Summarised Results of Comparing the Main and Control Groups of the Study**

Question	Answer	Experimental group	Control group	Z-statistics
Company objectives				
How does management help its staff accomplish company objectives?	Delegates responsibility	71	52	1.65* (0.098)
What is your personal contribution to improving and optimizing company operations?	Personal contact with management	100	70	2.29** (0.022)
	Speaking at meetings	71	44	1.65* (0.098)
	Sending memos with information or suggestions	100	67	2.49** (0.013)
	Through the corporate website	57	22	2.19**,(0.029)
Decision-making				
How does the management of your company share information with staff?	Through newsletters and memos	93	52	2.56**,(0.010)
	Mailing lists	79	48	2.09** (0.037)
Training				
What forms of staff training and development does your company use?	Organizes on-the-job training at other organizations	57	19	2.51** (0.012)
In your opinion, how important are the following staff training and development objectives for your company?	They increase the company's overall integrity	86	100	–1.86* (0.062)
In your opinion, how does staff training and development contribute to improving various aspects of your company operations?	They improve product and service quality	79	100	–2.32** (0.021)
Which criteria does your company use to assess the effect of staff training and development upon company operations?	Increased revenues	36	15	2.04** (0.042)
How does your company assess investments in training or the development of individual staff members?	Assesses changes in employees' behavior	36	22	1.62* (0.104)
	Assesses employees' satisfaction with training results	86	59	1.60* (0.109)
Assessment				
How often does the management of your company inform you about results of your performance assessment?	Regularly (after each job is completed) + periodically (when a part of the job is done)	75	44	1.78* (0.076)
How does your company assess and recognize employees' individual contribution to company operations?	Media coverage	50	26	1.78* (0.075)
Personnel management				
Who is responsible for managing personnel at your company?	HR department	7	46	–2.43** (0.015)
	Personnel manager	0	31	–2.35** (0.019)
	Other	36	4	2.45** (0.014)
Which recruitment techniques does your company use?	Employment agencies/HR consultants	71	41	1.91* (0.057)
	Head hunters/recruiters	79	22	3.11** (0.002)
	Maintaining contacts with relevant educational institutions	93	70	1.67* (0.095)
Which candidate selection techniques does your company use?	Psychological tests	50	19	2.10** (0.035)
	Polygraph tests	29	4	2.09** (0.037)
Which employee motivation incentives does your company employ?	Profit sharing	21	0	2.27** (0.023)
	Extra medical insurance	86	56	1.93** (0.053)

Note: * coefficients significantly different from 0 at a 0.10 level; ** coefficients significantly different from 0 at a 0.05 level.
Source: composed by the authors.

of sustainable competitive advantages. We assumed that there was a connection between companies' efficient use of human capital and their success in accomplishing key corporate objectives, in this case, becoming internationally competitive [*Khandekar, Sharma*, 2005; *Makadok, Walker*, 2000; *Minbaeva et al.*, 2003], which was measured on the basis of the Forbes Global 2000 ranking. The results of the study on the whole confirmed this hypothesis.

The Investors in People standard was chosen as the methodological basis, which allowed us to establish that the HR policies of the companies included in the main group were predominantly based upon human

Table 4. **Answers to open questions by company representatives**

Question	Answers by experimental group	Answers by control group
How does management help employees to accomplish company objectives?	Promotes development, involves them in the process	—
How does management involve you personally in drafting long-term development plans?	All employees participate in drafting such plans in line with their responsibilities; strategic goals and scenario conditions are set during the planning exercise, with each employee designing them through their specific professional activities; then the materials are consolidated at the level of departments and business segments.	—
Which staff training and development objectives do you believe to be important to your company?	Corporate management Increasing revenues Extending markets Maintaining status Employees' cultural identity	Increased production safety Reduced accident and trauma rates No downtime
Which criteria does your company use to assess the effect of staff training and development upon company operations?	Employee satisfaction, training efficiency Increased involvement	Reduced trauma rate
How does your company assess investments in the training and development of individual staff members?	Increased involvement	—
What theoretical knowledge do you believe your company management needs to have in order to efficiently lead, manage, and promote the development of employees?	Knowledge of psychology, professional competence Personal development training Organizational management theory Basic knowledge of management and management psychology Knowledge of processes Ability to make non-standard decisions Formal training in the business area they supervise (e.g., oil production, machinery, and equipment for chemical production); management training (project management, personnel management) Developing feedback Knowledge of the latest advances in management theory Knowledge of the industry the company specializes in, management, personality psychology	Relevant higher education Knowledge of company budget management Knowledge of business management, basic knowledge of economic theory and production management Setting of objectives, management theory, feedback techniques Knowledge in the main area of company's activities, economics, and management Energy industry economics Economics, management, law Knowledge of management and psychology Management of team-building Basic human resources management principles Personal development training Knowledge of chemical production
What practical skills do you believe your company management needs to have in order to efficiently lead, manage, and promote the development of employees?	Communication skills, maintaining business contacts Knowledge of production processes and their various stages Team management skills, the ability to set adequate objectives and oversee their accomplishment Team building skills, ability to make decisions quickly and clearly communicate them to staff Personal efficiency Technical knowledge Practical production floor experience, management experience, analytical skills, the ability to structure large data arrays Developmental feedback Personnel development and motivation skills Staff and technology management skills, ongoing self-development	Personal work experience up the career ladder, from the production floor to director's desk None Ability to set adequate objectives and oversee their accomplishment Management theory, feedback techniques Significant personal and management experience Personnel management skills Professional knowledge of the industry the company specializes in Constructive relationships; a common outlook on how objectives should be accomplished Ability to organize work, work experience Basic management skills: objective setting, monitoring, processing, connections Work experience in management positions Management skills

capital theory. Companies in the control group more often adhere to the resource-based management theory, according to which HR management tends to be object-oriented and serves operational objectives.

The results of the study allow us to propose a number of recommendations for companies striving to become internationally competitive:

- HR management should be based on the principles of human capital theory;
- HR policies should be shaped at the highest administrative level, and integrated into the company's overall development strategy;
- Personnel should be involved in strategic goal-setting and corporate decision-making;
- Horizontal and vertical internal communication channels should be established, to receive knowledge from outside the company (e.g., via on-the-job training at other companies), and the free exchange of information and competencies between employees should be encouraged;
- Regular feedback on employees' performance at all levels should be given;
- High requirements should be set for employees' professional qualities, and personality traits should be introduced along with advanced techniques for their assessment;
- Professional labor market consultants should be hired to help with recruitment;

Table 4 (continued)

Question	Answers by experimental group	Answers by control group
What personality traits do you believe your company management needs to have in order to efficiently lead, manage, and promote the development of employees?	Management abilities, flexibility, persistence, analytical abilities, high IQ, charisma Wide range of interests, influence (persuasion), responsibility Honesty, openness, willingness to discuss difficult issues and provide professional assistance to staff Flexibility, commitment Confidence, friendliness Ability to make innovative, non-standard decisions Professionalism, ability to learn, ability to work under pressure, a focus on results, tolerance, a respectful attitude toward people Openness to new ideas, trust in people's potential, curiosity, innovative outlook, personal involvement Orientation towards clients, safe behavior, teamwork, attention to detail	High professionalism Confidence, attention to personnel Correctness, commitment Charisma, respectful attitude toward colleagues, optimism Ambitiousness, courage Professional competence, management abilities, moral qualities, willpower, emotional traits Ability to make difficult decisions, compromise, be firm, think ahead Tolerance, open-mindedness High IQ, ability to work with people and establish connections Pronounced desire to accomplish common objectives while achieving maximum self-realization and personal growth Persistence, ability to set realistic objectives Consistency, interpersonal skills, systemic thinking Technical mindset, orderliness, responsibility, teamworking skills Active position in life Firmness, loyalty, willingness to take care of staff Focus on results, flexibility (ability to find alternative solutions), organizational abilities
Who is responsible for managing personnel at your company?	HR department, deputy general director for personnel Personnel manager Personnel department An HR segment comprising HR and social policy departments, supervised by a special vice-president; HR services at subsidiaries (in proportion to their size) Deputy chairman of the board responsible for the area We try to make all managers see personnel management as one of their main responsibilities	An appointed official for this specific task HR and deputy chairmen responsible for the area
What employee motivation incentives does your company use?	Corporate mortgage program, social benefits packages for various employee groups	Extra longevity pay
Source: composed by the authors.		

- Procedures for an integrated assessment of the effect of staff training and development upon the company's performance should be as objective as possible, while subjective criteria such as trainees' satisfaction or their career development should also be considered;
- Various forms of long-term employment should be promoted, to facilitate the accomplishment of the company's strategic objectives (guaranteed profit sharing, etc.)

The methodology based on the Investors in People standard proved its value in selecting criteria with which to assess HR management practices at companies striving to become internationally competitive. It allows one to identify the techniques companies use to manage their human capital and invest in its development. This approach seems to be best suited for a knowledge-based economy.

As to limitations of the study, the small size of the main group can be mentioned; among other things it was due the small size of the total cohort of internationally competitive Russian companies, which might have affected the results of the mathematical and statistical analysis. The application of a more advanced methodology in subsequent empirical studies would help to overcome this limitation.

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