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**THE EFFECT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON FIRM
PERFORMANCE IN RUSSIA**

by

CARL F. FEY

Stockholm School of Economics in Saint Petersburg

Nevsky Prospect 1

Tel. (7-812)-311-3044

and

Stockholm School of Economics

P.O. Box 6501, S-11383 Stockholm, Sweden

Tel. (46-8) 7369501, fax. (46-8) 319927, e-mail: iibcf@hhs.se

INGMAR BJÖRKMAN

INSEAD

Boulevard de Constance, 77305 Fontainebleau Cedex, France

Tel. (33-1) 60724021, fax (33-1) 60724049, e-mail: ingmar.bjorkman@insead.fr

and

Swedish School of Economics, Helsinki, Finland

ANTONINA PAVLOVSKAYA

LETI Lovanium International School of Management

ETU, 5 Professor Popov St.

St. Petersburg, 197376, Russia

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The Effect of Human Resource Management Practices on Firm Performance in Russia

Abstract

Based on 101 foreign firms operating in Russia, the effect of human resource management (HRM) on firm performance in Russia is investigated. This is accomplished by developing and testing a model including HR outcomes (motivation, retention, and development) as a mediating variable between HRM practices and firm performance. Our study provides some support for the use of HRM outcomes as a mediating variable between HRM practices and firm performance. The results also indicate that non-technical training and high salaries will have a positive impact on HR outcomes for managers while job security is the most important predictor of HR outcomes for non-managerial employees. Thus, our study provides support for the importance of including both managers and non-managers in the same study, but treating them separately. In addition, results indicate a direct positive relationship between managerial promotions based on merit and firm performance for managers and job security and performance for non-managers.

Key words

Human resource management, Firm performance, Russia, Multinational corporations

The Effect of Human Resource Management Practices on Firm Performance in Russia

The impact of Human Resource Management (HRM) on organizational performance has emerged as the dominant research issue in the personnel/HRM field, and some of the initial results have been promising (see Becker and Gerhart, 1996; Dyer and Reeves, 1995; Guest, 1997 for recent reviews). However, clearly the field needs more conceptual and empirical work (Becker and Gerhart, 1996). In particular, there is a need to develop and test a more sophisticated theory of HRM, i.e., what HRM accomplishes and how. Empirically, most work has been done on the relationship between HRM practices and measures of firm (financial) performance or market value, and while there is a recognition of the need of studies that include intervening variables between HRM practices and firm performance, few such studies exist (Becker and Gerhart, 1996; Becker *et al.*, 1997; Guest, 1997). In addition, virtually all extant research has been conducted in North America on the operations of domestic firms. Hence, empirical studies are needed in other settings and on the subsidiaries of multinational firms.

To fill this void, the objective of this study is to examine the relationship between HRM practices for managers and non-managerial employees and foreign subsidiary performance in Russia. Several authors have pointed to the importance of HRM in Russia and provided anecdotal discussions about HRM there (e.g., Vikhanski and Puffer, 1993; Shekshnia 1994, 1998; May, Young, and Ledgerwood, 1998). Moreover, Puffer (1993) has conducted a thorough study of one dimension of HRM in Russia—compensation systems, but this study did not explicitly link use of different compensation systems to firm performance. However, to the best of our knowledge, ours is the first extensive study of HRM in the Russian context.

Literature review and hypotheses

During the last decade, the Personnel/HRM field has shifted from a micro focus on individual HRM practices to a debate on how HRM as a more holistic management approach may contribute to the competitive advantage of the organization. Three different perspectives have been used in recent research on the relationship between HRM and organizational performance: the effects of individual “high performance” or “best” HRM practices, the effects of internally appropriate combinations (‘configurational fit’) of HRM practices, and the effects of appropriate (‘strategic’) fit between strategy and HRM practices (Delery and

Doty, 1996). The results obtained to date have been mixed, but at least some empirical support has been obtained for each of the perspectives. However, since few studies have included data on HR outcomes, we do not know much about the causalities involved (Becker and Gerhart, 1996; Becker *et al.*, 1997; Guest, 1997). Therefore, as suggested as badly needed by Guest (1997), a major contribution of the present study will be to investigate the role of HRM outcomes (motivation, retention, and capability development) as a mediating variable between HRM practices and firm performance.

It has been proposed that the HR outcomes competence development and employee motivation will mediate the relationship between HRM practices and firm performance (Huselid, 1995; MacDuffie, 1995; Becker *et al.*, 1997). In other words, employee performance arguably depends on employee skills and competencies plus high motivation: when employees possess high skills and knowledge they are more likely to help the company perform well, and when employees are motivated they are more likely to contribute significantly to the success of their organization. Research should therefore examine the extent to which HRM practices contribute to the development of employee skills and competencies as well as motivation.

However, in addition to motivation and capability development, employee retention is also likely to be important for firm performance. Unless the company is able to retain its employees, it will not be able to capitalize on the human assets developed within the organization. Employee retention may be particularly important in the Russian context, where there is a serious shortage of well trained people and where the turnover of strategically-important staff which have undergone training is a problem for foreign companies (Shekshnia, 1994). Mark Shaver, General Manager of Coca Cola Russia, provided a typical view to the authors in an interview in Moscow in November 1997: "Because there is a shortage of trained workers in Russia, retaining employees is a large problem for all firms in Russia. We do much better than most of our competitors at retaining employees, but it is still an issue we are very concerned about. Nobody wants to spend the time and money it takes to develop an effective employee and then lose them." As a result of the above, research set in the Russian context also needs to include employee retention as a key HR outcome.

To sum up, we propose that the HR outcomes competence development, employee motivation, and retention together will be influenced by the HRM practices of the firm, and that the HR outcomes will mediate the relationship between HRM practices and firm

performance (Guest, 1997). Additionally, there may be a direct effect of HRM practices on firm performance. Figure 1 presents the conceptual framework for this study.

----- Insert figure 1 about here -----

The following sections will develop hypotheses concerning the relationship between HRM practices and HR outcomes as well as firm performance. Subsequently, hypotheses concerning other factors explaining firm performance will be developed.

HRM practices

Several researches have studied the effect of certain individual HRM practices on firm performance (e.g., Delaney and Huselid, 1996; Kock and McGrath, 1996) or the overall use of high performance HRM practices (Huselid, 1995; Kock and McGrath, 1996; Huselid, Jackson and Schuler, 1997). These studies have shown a positive relationship between the high performance HRM practices and organizational performance outcomes or financial performance/market value. However, there is no clear list of “high performance HRM practices” (Pfeffer, 1995; Becker and Gerhart, 1996; Guest, 1997). In the present study, we have included HRM practices that, according to the literature, can be expected to influence the HR outcomes employee motivation, skills/knowledge development, and retention.

Incentive systems. Most studies have included performance-based compensation as one of the high performance HRM practices (e.g. Arthur, 1994; Delery and Doty, 1996; Huselid, 1995; MacDuffie, 1995), and Delery and Doty (1996) even identified performance-based compensation as the single strongest predictor of firm performance. Empirical studies on the relationship between performance-related pay and company performance have generally found a positive relationship.¹ Studies on the market reaction to the adoption of incentive plans have also reported positive stock market reactions (see Rajagopalan, 1997). Employee motivation is arguably a crucial intermediate variable between a performance-based compensation system and firm performance. Based on expectancy theory (Vroom, 1964), it can be expected that, if the company provides rewards desired by the employee in question, this employee is more likely to perform in a way that will bring him/her the reward.

Company-internal promotions based on merit rather than seniority may also enhance employee motivation and employee retention (Guest, 1997). Both performance-based

¹ Mabey and Salaman (1995) point out that firms should base performance-related compensation systems on meaningful goals, robust performance measures, significant rewards, and well-established links between performance and rewards in order to obtain positive performance effects. In the present study we will not investigate the details of the compensation system. It should also be noted that some scholars are more skeptical of the effects of performance-related pay (Roberts, 1997).

compensation and merit-based promotion can be viewed as ingredients in organizational incentive systems that serve to encourage individual performance and retention (Huselid, 1995).

Job security. Companies that provide their employees with job security signal a long-standing commitment to their workforce. As argued by Pfeffer (1995: 58), “norms of reciprocity tend to guarantee that this commitment is repaid. However, an employer that signals through words and deed that its employees are dispensable is not likely to generate much loyalty, commitment, or willingness to expend extra effort for the organization’s benefit.” In their study on employees in the US banking sector, Delery and Doty (1996) also found some support for a positive relationship between employment security and firm performance. The authors attribute the relationship to a higher level of employee commitment and motivation in banks with secure jobs. Additionally, employment security may help align the interests of employees and owners. Agency problems are reduced because when job security exists, the employees, like shareholders, are concerned about the long-term success of the firm.

Employee training and career planning. It can be expected that firm investments in both technical and non-technical training will have a positive impact on the extent to which the firm actually succeeds in developing the skills/knowledge of its employees. Given the limited resources that all firms have, an important question for firms is the appropriate division between technical and non-technical training. Training was included as a high performance HRM practice in, among others, Huselid (1995), MacDuffie (1995), and Koch and McGrath (1996). Firms with superior training programs may also experience lower staff turnover than companies that neglect staff development. In firms with good technical and non-technical training programs, employees are likely to realize that their market value develops more favorably than in other firms. Therefore, it is in their own interest to remain for a longer time in the firm.

Companies may use career management programs to assist their employees in career planning. When the company provides this service, one important aim is to identify sequences of job assignments that help employees gain the skills and knowledge viewed as important in the company. A company career planning system that functions well may also encourage employees to take more responsibility of their own development, including the development of skills viewed as significant in the company (Doyle, 1997). It should be noted that a career planning system not only helps ensure that employees have the skills they need

to advance in the company; it may also help ensure that employees possess the mix of skills that the firm believes are important for its future success. In other words, the provision of career planning assistance may have a positive effect on the level and type of skills and knowledge in the company.

Decentralization. Several studies have identified extensive use of teamwork and decentralization of decision-making as important high performance HRM practices (Arthur, 1994; MacDuffie, 1995; Pfeffer, 1995). Both practices refer to a non-hierarchical mode of firm operations that, among other things, may enhance employee commitment to the organization. This is consistent with research which suggests that employee participation can have a statistically significant, albeit relatively small, positive effect on satisfaction and performance at work (Wagner, 1994).

Internal promotion. The availability of career possibilities within the firm tends to promote a higher degree of organizational commitment among employees (Guest, 1997) who perceive career possibilities with the firm. Additionally, an emphasis on internal promotion is likely to provide a sense of fairness and justice among the employees who note that organizational tenure is valued in the company (Pfeffer, 1995). Therefore, promotion from within is likely to be associated with low employee turnover.

Complaint resolution systems. The existence of a well-functioning complaint resolution system may also help alleviate situations of perceived injustice or conflicts in the company. Both the process of handling the complaint and the outcome of the process may influence employee perceptions of how the firm deals with the situation (Morrison and Robinson, 1997). To the extent that a complaint is properly handled, the employee is more likely to maintain a high level of commitment to the organization. Thus, the introduction of a system for handling complaints may, in turn, lead to a lower voluntary turnover.

People tend to compare their remuneration with other people in the same or a similar situation. Paying high salaries may have a positive motivational effect on employees. To the extent that company employees perceive that other firms provide their staff with higher salaries, they are more likely to become dissatisfied and possibly leave the company (Roberts 1997). As argued earlier in this paper, the problem of retention is particularly acute in Russia, and paying salaries that are higher than those paid by other prospective employers is likely to be one way to alleviate this problem.

As a result of the above, the following hypotheses will be tested in this paper:

Hypothesis 1. The use of individual performance-based incentives is positively related to A) HR outcomes and B) firm performance.

Hypothesis 2. The use of employee merit rather than seniority as the basis for promotion is positively related to A) HR outcomes and B) firm performance.

Hypothesis 3. The presence of job security is positively related to A) HR outcomes and B) firm performance.

Hypothesis 4. An emphasis on providing technical training is positively related to A) HR outcomes and B) firm performance.

Hypothesis 5. An emphasis on providing non-technical training is positively related to A) HR outcomes and B) firm performance.

Hypothesis 6. The extent of career planning provided is positively related to A) HR outcomes and B) firm performance.

Hypothesis 7. A positive relationship exists between decentralization of decision making and A) HR outcomes and B) firm performance.

Hypothesis 8. A positive relationship exists between an emphasis on internal promotion and A) HR outcomes and B) firm performance.

Hypothesis 9. A positive relationship exists between the use of complaint resolution systems and A) HR outcomes and B) firm performance.

Hypothesis 10. A positive relationship exists between higher salaries and A) HR outcomes and B) firm performance.

Firm Performance

HR outcomes. The HR outcomes are, in turn, expected to explain some of the variance in firm performance (Becker *et al.*, 1997; Guest, 1997). Thus, the following hypothesis will be tested:

Hypothesis 11. A positive relationship exists between HR outcomes and firm performance.

HRM-strategy alignment. Scholars have suggested that a good fit between HR strategies and the business strategy of the firm tends to lead to superior outcomes (e.g., Delery and Doty, 1996). In other words, when the company's HRM practices support firm strategy, superior performance is expected. Empirically, the Miles and Snow (1978; 1984) or Porter (1980) strategic types have been used to classify firm strategies. Research has provided some, although not entirely consistent, support for a positive strategic fit effect.

The relatively weak support for the effects of strategic fit on organizational outcomes should come as no big surprise as it is very difficult to specify what constitutes good fit in

research across firms and industries (Becker and Gerhart, 1996). In fact, the resource-based view (Barney, 1991) suggests that the appropriate configurational and strategic alignment of HRM practices may be idiosyncratic and complex. Even if the resource-based view deals with sustained competitive advantages, as opposed to competitive advantages, the above properties may be involved also in the latter case. Furthermore, the whole idea of 'fit' with a certain strategy "seems inappropriate for a world in which there are high levels of dynamic and unpredictable change" (Hiltrop, 1996: 630). Therefore, instead of examining the statistical relationship between HRM practices and measures of firm generic strategies, it may be more appropriate to analyze the degree to which companies actively pursue the alignment of strategy and HRM practices. This approach enables researchers to collect data on the process of alignment, i.e., the extent to which there is an on-going configurational strategic alignment of HRM in an area which is constantly changing (Mabey and Salaman, 1995). Therefore, the following hypothesis will be tested:

Hypothesis 12. The more in closely HRM practices are aligned with firm strategy, the better the firm performance.

Methodology

Sample

A list of 395 foreign firms operating in Russia was constructed based on lists of Finnish, Swedish, US, German, and British firms operating in Russia. To be part of the list firms had to be active, have at least 15 employees, have been operating in Russia for at least three years, and be located in Moscow or St. Petersburg (Russia's two largest cities). Joint ventures with at least 80% foreign ownership were treated as foreign firms for this study since in practice it has been found that they tend to be managed as wholly foreign-owned subsidiaries (Makino 1995).

Contact was made with a human resource manager or senior manager in each firm and the project was explained. Because of considerable fear of anonymous researchers in Russia (likely a result of a desire for secrecy following communism), in most cases a personal meeting was arranged with the manager to further explain the project, learn more about the respondent's firm and HRM practices, and get the questionnaire filled out. In some cases questionnaires were simply faxed to the manager. Non-respondents were reminded via telephone three times to complete the questionnaire. In cases where the questionnaire had not been received after three telephone calls, additional copies of the questionnaire and reminder letter were faxed to the respondent, followed by a final follow-up telephone call. This

process resulted in 101 responses, representing a 25% response rate, which is good for a challenging environment like Russia.

Among the respondents were 38 respondents who were HRM managers and 63 who were senior managers. Seven T tests were used to investigate the difference between means for the subsamples of HRM managers and senior managers for the HRM outcome variables and firm performance. Because no significant differences were uncovered, the two subgroups were combined in the analysis that follows.

The participating firms were from a variety of foreign countries: 33 from USA, 29 from Sweden, 21 from Finland, 9 from Germany, and 9 from Britain. Seven one-way analyses of variance were conducted to test for the possible differences in means between the subsamples of firms from different foreign countries for the HRM outcome variables and firm performance. No significant differences were found. As a result, the firms from different foreign countries were combined into one sample in the analysis that follows. The participating firms also varied in size with 40 having 15-49 employees, 17 having 50-99 employees, 12 having 100-199 employees, 22 having 200-999 employees, and 10 having 1000 or more employees.

Questionnaire construction

Whereas most previous studies have evaluated HRM practices for the entire firm or one selected group of employees only, in this research we studied HRM practices and outcomes separately for managers and other employees. At the same time, as our objective was to obtain data from a large number of foreign companies in Russia, it was essential to keep the questionnaire as short as possible. We therefore decided to use single-item measures of the constructs. While this prevented us from being able to analyze the data using structural equation modeling techniques like LISREL and PLS, we did manage to collect data from more firms in Russia than any other study of which we are aware.

The questionnaire was pretested on a sample of five managers in Russia and slight adjustments were made as a result. The questionnaire was then translated into Russian using a thorough translation-back translation procedure.

Independent variables

Based on an extensive review of the HRM literature, a list of items was compiled to describe HRM practices that firms used. Drawing on, among others, the questions in the research instrument used by Huselid (1995), the respondents in the present study were asked “to what extent are each of the following human resource management practices used in your firm for i) managers (excluding expatriates) and ii) other employees. Please choose a number between 1 and 5, where 1=“to a little extent” and 5=“to a great extent”.” It should be noted that our scales had different anchors than Huselid’s did. The following HRM practices were included: “Individual performance appraisals help determine compensation; Assisting employees in career planning; decentralization of decision making; Complaint resolution system; Employee merit, not seniority, used to determine promotion; Emphasis on providing technical training for employees; Emphasis on providing non-technical training for employees.” Also job security was measured through a five-point subjective measurement scale (“Managers in your firm feel their jobs are secure” and “Other employees in your firm feel their jobs are secure”).

To measure the alignment of HRM practices and strategy the respondents were asked to respond to the following statement: “your firm conducts a formal analysis to determine how best to adjust human resource management practices to fit with firm strategy”, with responses ranging on a five-point scale from “not at all” (1) to “to a great extent” (5).

Dependent variables

The HR outcomes were measured using five-point subjective scales ranging from 1 (poor) to 5 (excellent). Delaney and Huselid (1996) have previously used similar scales. The respondents were asked to evaluate their firm’s performance in: “developing managers’ skills/knowledge; developing non-managerial employees’ skills/knowledge; motivating managers; motivating non-managerial employees; retaining managers; retaining non-managerial employees”. The scales for each of the HR outcomes competence development, employee motivation, and retention were then combined into a single scale. These three HR outcomes were combined into a single scale because they were highly correlated (The alpha for managers was 0.747, while it was 0.733 for non-managers).

The primary performance measure of firm performance was a five-point subjective managerial assessment (How is your firm’s overall performance where 1=“poor” and 5=“outstanding”?). This measure is desirable for two reasons. First, since Russian accounting standards are still emerging, firms use different accounting standards which makes

it virtually impossible to obtain comparable financial information. Second, since foreign companies operating in Russia have diverse goals (e.g., gain market share, learn about the market, make short-term profit, etc.), it is inappropriate to compare the short-term financial performance of firms with differing goals. A subjective measure of firm performance enables the managers to factor the firm's goals in when assessing the firm's performance. While it is true that perceptual data may introduce limitations through increased measurement error and the potential for monomethod bias, the benefits outweigh the risks. Further, there is precedence for using such measures in similar research (e.g., Delaney and Huselid, 1996; Youndt *et al.*, 1996). Additionally, prior research has shown that subjective measures of firm performance correlate well with objective measures of firm performance (Geringer and Hebert, 1991; Powell, 1992).

Data were also collected on two other measures of firm performance--a six-item subjective performance scale measuring different dimensions of firm performance and an industry-specific subjective measure of performance. However, since these two measures of firm performance were highly correlated at greater than .60 with the single-item subjective general measure of firm performance, it was decided to use only this measure of firm performance.

The data

Since firms in the sample were from a variety of manufacturing and service industries, industry was controlled for. Information on industry classification, largely corresponding to two digit SIC codes, was collected. Industries that had fewer than five respondents were combined into "other manufacturing" or "other services" to save degrees of freedom in the analysis. As a result, dummy variables for SIC6 (food, tobacco, and textile), 7 (wood, wood products, pulp, and paper), 9 (other manufacturing), 10 (computer services), 13 (banking, insurance, and real estate), and 18 (wholesale and retail trade) were included in the analyses. SIC19 (other services) was omitted from the analysis so that the models would not be overdetermined. When all models were re-run with SIC19 in and SIC18 removed, SIC19 was not significant in any of the models (not reported here).

The number of years that a firm has operated in Russia might also influence HRM outcomes and firm performance. Companies with more experience in Russia may have gone through a learning process concerning how to operate in the Russian context, and a positive relationship may exist between firm experience in Russia and HRM outcomes as well as firm

performance. Therefore, the number of years that the firm had been operating in Russia was included as a control variable.

Finally, firm size was controlled for. The log of the number of employees was taken so that a few large firms would not affect the results disproportionately.

Tables 1A and 1B provide the means, standard deviations, and bivariate Pearson correlations for the main variables used in the regression equations. Interaction effects of various independent variables were also investigated. However, including interaction effects led to sign changes in coefficients and other strange behavior, indicating that we did not have enough observations to test interaction effects (Greene, 1997). As a result, in the analysis that follows we will not present any models with interaction effects. Path analysis (Alwin and Hauser, 1975) was used to analyze our data and investigate the importance of including a mediating variable “HR outcomes” in our model.

----- Insert Table 1A and Table 1B about here -----

Results

The regression results on HR outcomes indicate that only one of the control variables significantly affected HR outcomes (see models 1 and 2 in Table 2): firm size is negatively related with HR outcomes for managers, but not for other employees. Both the regression model for managers and that for non-managers were statistically significant, with adjusted R^2 of 0.467 and 0.245 respectively.

----- Insert Table 2 about here -----

For managers, non-technical training and salary level of the firm is positively related with increased HR outcomes (motivation, retention, and capability development). The fact that non-technical training was a determinant of HR outcomes for managers but was only marginally significant ($p < .10$) for non-managers is understandable since the skills learned in non-technical training tend to play a larger role in managers’ work than in other employees’ daily activities. Thus, they should have a larger influence on managerial employees’ development. Furthermore, firms with extensive non-technical training program, the type of training much in demand in Russia today (Shekshnia, 1994), are more likely to retain their managers since these managers are eager to increase their knowledge. In fact, in a series of 40 interviews conducted by the authors of this paper in the fall of 1999 managers were willing to give up an average of \$1100 of a one-time bonus to receive attend a one-week training program. This is remarkable since most of the managers interviewed had monthly salaries

ranging from \$600-\$1500. Compared with the situation for non-managers, there is more likely to exist a well-functioning labor market for managers. Managerial employees tend to have more job options and be more mobile than non-managerial employees, and compensation is likely to be one of the factors determining whether managers change from one employer to another. Therefore, paying high salaries may not only have a positive motivational effect but may also discourage managers from leaving the company. Decentralization of decision making authority was also a significantly positively related to increased HRM outcomes (motivation, retention, etc). This makes sense because most managers like being empowered and in addition empowering middle managers enables a firm to be more responsive and take better advantage of the knowledge of all members in its organization making that firm a more efficient and enjoyable place to work.

Job security was the key determinant of HR outcomes for non-managers. Thus, it appears that non-managerial employees, who are in great abundance given the high real unemployment in Russia, place a premium on job security. In other words, they would probably prefer a slightly lower fixed salary to an uncertain salary which is likely, but not definite, to be higher. Russians' preference for job security is understandable given that they have extremely high uncertainty avoidance (Naumov, 1997).

----- Insert Tables 3, 4 and 5 about here -----

The results of the regression equations on firm performance are reported in Table 3. These regression models were also significant. No control variable was statistically significant. The salary level of both managers and non-managers were significantly related with firm performance. The causality here is somewhat unclear. It is conceivable that firms that perform well are in a better position to pay both managers and non-managers high salaries. However, the path analysis reported in Table 5 indicates that, for managers, salary level is a significant predictor of HR outcomes which in turn contributes to explaining firm performance. In other words, there is some indication for an indirect effect of managerial salary level on firm performance.

For managers, the existence of a merit-based promotion system was also significantly related with firm performance. This is understandable given that most managers are very career driven. For non-managers, who are less career driven and instead are more concerned about having a stable job, job security was a direct determinant of firm performance.

One of the key questions examined in this paper is the possible existence of HR outcomes as a mediating variable between HRM practices and firm performance (hypothesis

11). Adding the HR outcome variable to the models increased the adjusted R^2 for both managers for non-managers. However, HR outcomes was statistically significant only for managers. Path analyses (see Tables 4 and 5) further indicate that the indirect path from various HRM practices through HR outcomes to firm performance is substantively significant for managers but not for non-managers. Perhaps this is the case because it is more important for a firm that managers (as opposed to non-managers) are retained by the firm, well-motivated, and well-trained (the components of HR Outcomes). If a firm has managers who are retained, motivated, and well-trained, it appears that the firm is more capable of dealing with workers of any type than if the reverse situation were to exist. Hence, partial support was obtained for hypothesis 11.

It is also important to note that no support was provided for HRM practice-strategy fit being an important determinant of firm performance (hypothesis 12). As previously mentioned, the literature has included considerable debate about the effect of a fit between HRM practices and strategy on firm performance.

A summary of the hypotheses that received support is reported in Table 6 below.

----- Insert Table 6 about here -----

Conclusions

This paper adds to previous work in the field by testing a model that includes HR outcome (motivation, retention, and development) as a mediating variable between HRM practices and firm performance. The paper also contributes by breaking HRM practices into HRM practices for managers and HRM practices for non-managerial employees (and including both in the same study). An additional strength of this study is that it moves beyond the US context where most previous HRM research has been conducted and is instead based on a large sample (101 foreign firms) in the Russian context where very few systematic managerial studies of any type have been conducted.

The paper has several key conclusions, which should be of interest to academics and managers. Perhaps most significantly, our study provides some support for the use of HR outcomes as a mediating variable between HRM practices and firm performance. Thus, our research suggests that a model which depicts a direct relationship between HRM practices and firm performance is too simplistic and does not show the causalities involved. This addresses the call of Becker and Gerhart (1996) and Guest (1997) for testing models with mediating variables such as HRM outcomes. However, in our study HR outcomes was

substantive as a mediating variable mainly for managers, while there is little indication of such a path for non-managers. Further research is clearly warranted on this topic.

This study presents evidence that providing non-technical training and having high salaries was found to be positively associated with HR outcomes for managers. Job security was a strong predictor of HR outcomes for non-managerial employees. In addition, there was a direct positive relationship between managerial promotions based on merits and firm performance.

This study has demonstrated that different HRM policies are optimal for managerial and non-managerial employees. As a result, future studies are urged to investigate HRM practices for both groups of employees separately (but in the same study) rather than lumping both groups together as many previous studies have done.

Salary level was revealed to be significantly associated with firm performance for both managers and non-managers in our study. In addition, promoting managers based on merit was positively associated with firm performance while ensuring job security of non-managerial employees was a key non-managerial determinant of firm performance.

Our hypotheses were developed based on existing HRM theories that were primarily developed in the USA. As can be seen from table 6, only some of our hypotheses were supported in this study. The hypotheses that were supported indicate which HRM practices are most critical in the Russian context. One possible interpretation of the fact that not all hypotheses were supported is that HRM theories need some adjustment for national contexts. As a result, additional future research in non-US settings is likely to be helpful in advancing our understanding of the effects of HRM on firm performance.

Like all research, this study has some limitations which future research can build on. This paper begins to explore the question of causality. However, causality can only really be tested with data collected at different points in time. Thus, the field would greatly benefit from some time-series studies in the future. In addition, a weakness of this study is that all data are collected from a single source. Future studies are urged to have different people/sources evaluate a firm's performance and HRM practices. Future studies are also urged to try to minimize the use of single-item scales. Finally, if the appropriate data exist, it would be interesting to use a modern causal modeling technique like LISREL or PLS for analysis in future studies.

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FIGURE 1
EFFECTS OF HRM PRACTICES ON HRM OUTCOMES AND FIRM PERFORMANCE

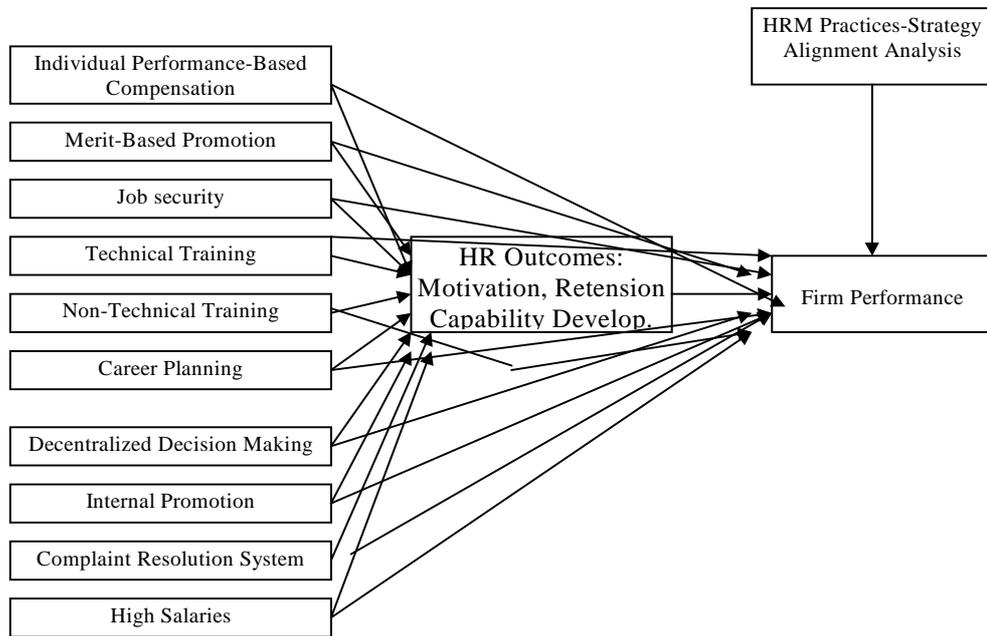


Table 1A
Correlations for Managers

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Firm Performance	3.85	0.85	1.000											
2. HRM Outcomes	3.56	1.23	.344**											
3. HRM-strategy fit	3.84	1.24	.290**	.466**										
4. Perf compensation	3.49	1.30	.275**	.400**	.246**									
5. Job security	3.90	1.09	.285**	.443**	.260**	.286*								
6. Tech training	3.13	1.50	.236*	.341**	.400**	.369**	.223*							
7. Non-tech training	2.84	1.51	.264**	.508**	.320**	.405**	.296**	.484**						
8. Career planning	2.92	1.22	.192	.440**	.419**	.366**	.341**	.348**	.497**					
9. Decentralization	3.57	1.17	.275**	.432**	.326**	.350**	.317**	.340**	.357**	.432**				
10. Fill jobs from firm	3.14	1.54	.131	.244*	.044	.355**	.080	.242*	.074	.225*	.211*			
11. Complaint resolution	2.72	1.45	.225*	.285**	.272**	.166	.134	.313**	.250*	.265**	.188	.126		
12. Salary Level	2.49	1.01	.376**	.190	.210**	.161	.144	.035	.144	.093	-.026	-.053	.025	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 1B
Table 1B: Correlations for Other Employees

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Firm performance	3.85	0.85	1.00											
2. HRM Outcomes	3.16	1.10	.209*											
3. HRM-strategy fit	2.84	1.24	.290**	.466**										
4. Perf compensation	2.83	1.49	.297**	.256**	.359**									
5. Job security	3.54	1.27	.393**	.501**	.430**	.433*								
6. Tech training	3.21	1.84	.215*	.232*	.340**	.309**	.407**							
7. Non-tech training	3.36	1.43	.240*	.283**	.225*	.252*	.300**	.538**						
8. Career planning	2.77	1.69	.332**	.296**	.423**	.314**	.350**	.378**	.409**					
9. Decentralization	2.14	1.10	.170	.203	.291**	.415**	.171	.213*	.220*	.251				
10. Fill jobs from firm	2.77	1.46	.145	.249*	.144	.306**	.085	.180	.057	.220	.123			
11. Complaint resolution	2.75	1.44	.173	.285**	.218*	.265**	.210*	.360**	.363**	.408**	.244*	.156		
12. Salary level	2.49	1.01	.376**	.190	.210*	.049	.164	.087	.138	.050	-.045	-.194	-.020	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 2^{a.b.c.d.e}
Regressions on HR Outcomes

Variable	Model 1 Managers	Model 2 Other Employees
SIC6	.049	.119
SIC7	-.105	-.030
SIC9	-.116	.007
SIC10	.030	-.024
SIC13	-.015	.044
SIC18	.066	.037
# Years firm in Russia	.007	.039
Log of # employees	-.189 *	-.127
Perform.-based compensation	.107	-.030
Promoted based on merit	.081	.178
Job security	.065	.412****
Tech training	.168	.065
Non-tech training	.283**	.167=
Career planning	.141	.128
Decentralization	.160=	.074
Fill jobs from firm	.041	-.028
Complaint resolution	.105	.110
Salary level	.209**	.076
R ²	.564	.394
Adjusted R ²	.467	.245
F	5.83****	2.64****
N	101	101

- a. Standardized regression coefficients are shown.
- b. SIC19 is excluded from the above analysis to avoid having an overdetermined model. Regressions were also run with SIC19 in the model and SIC18 removed from the model with the same results and SIC19 not being significant.
- c. The change in adjusted R² is a statistic which reflects the incremental variance accounted for by the HRM practices over and above the variance explained by the control variables.
- d. HRM practices items evaluate the extent the various practices were used separately for “managers” and for “other employees.” When the dependent variable is “managers” then the HRM practice items are also based on the firm’s HRM practices for managers. The same is true for “other employees.”
- e. = $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$

Table 3^{a,b,c,d}
Regressions on Performance

Variable	Model 3	Model 4	Model 5	Model 6
	Managers	Managers	Employees	Employees
SIC6	.109	-.051	.006	.016
SIC7	.229	.010	.022	.022
SIC9	.097	-.064	-.041	-.042
SIC10	.050	-.059	-.096	-.097
SIC13	-.044	.156	.147	.146
SIC18	-.157	.002	-.073	-.065
Log of # employees	.137	.182	.128	.118
# Years firm in Russia	.091	.080	.106	.114
HRM-strategy fit	.072	-.008	-.026	.005
Perform.-based comp.	.109	.100	-.029	-.035
Promoted based on merit	.229*	.223*	.105	.118
Job security	.097	.074	.259*	.292*
Tech training	.050	.034	-.029	-.017
Non-tech training	-.044	-.111	.034	.042
Career planning	-.157	-.176	.110	.116
Decentralization	.181	.159	.048	.048
Fill jobs from firm	-.003	-.029	.137	.132
Complaint resolution	.025	.000	-.048	-.033
Salary level	.304***	.255**	.335*****	.340*****
HR outcomes managers		.242*		
HR outcomes employee				.098
R ²	.401	.423	.398	.586
Adjusted R ²	.253	.271	.237	.493
F	2.71*****	2.79*****	2.48*****	6.29*****
N	101	101	101	101

- a. Standardized regression coefficients are shown.
- b. SIC19 is excluded from the above analysis to avoid having an overdetermined model. Regressions were also run with SIC19 in the model and SIC18 removed from the model. This resulted in the same results and SIC19 not being significant.
- c. The change in adjusted R² is a statistic which reflects the incremental variance accounted for by HRM-strategy fit, motivation, retention, and development over and above the variance explained by the control variables.
- d. = $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$

Table 4
Path Analysis: Managerial HR Practices on Firm Performance

Variable	Direct Effects	Indirect Effects	Total Effects
HRM-strategy fit	.109	---	.109
Perf.-based compensation	.223	.006	.229
Job security	.074	.023	.097
Tech training	.034	.016	.050
Non-tech training	-.111	.067	-.044
Career planning	-.176	.019	-.157
Decentralization	.159	.022	.181
Fill jobs from within	-.029	.026	-.003
Complaint resolution	.000	.025	.025
Salary level	.255	.049	.304
HR Outcomes	.242	---	.242

Table 5
Path Analysis: Non-Managerial Employee HR Practices on Firm Performance

Variable	Direct Effects	Indirect Effects	Total Effects
HRM-strategy fit	-.026	---	-.026
Perf.-based compensation	-.035	.006	-.029
Promoted on merit	.118	-.013	.105
Job security	.242	.017	.259
Tech training	-.017	-.010	-.029
Non-tech training	.042	-.006	.034
Career planning	.116	-.006	.110
Decentralization	.048	.000	.048
Fill jobs from within	.132	.005	.137
Complaint resolution	-.033	-.015	-.048
Salary level	.340	-.005	.335
HR Outcomes	.098	---	.098

Table 6
Summary of Hypotheses

Hypothesis #	Support Provided: Managers	Support Provided: Others
1A	no	no
1B	no	no
2A	no	no
2B	yes	no
3A	no	yes
3B	no	yes
4A	no	no
4B	no	no
5A	yes	no
5B	no	no
6A	no	no
6B	no	no
7A	yes	yes
7B	no	no
8A	no	no
8B	no	no
9A	no	no
9B	no	no
10A	yes	no
10B	yes	yes
11	yes	no
12	no	no