Int. Studies of Mgt. & Org., Vol. 25, No. 4, pp. 91–117
M.E. Sharpe, Inc., 1995

IGOR GURKOV AND YAROSLAV KUZ'MINOV

Organizational Learning in Russian Privatized Enterprises

The Beginning of Strategic Change

The process of economic transformation in Russia is accompanied by a deep recession, characterized mainly by high inflation and an unprecedented fall of industrial output. However, there is no corresponding unemployment, and there are no mass bankruptcies. This phenomenon is only one of the achievements of Russian management to be evaluated and explained.

On the whole, the present practices of the Russian management represent a great unexplored field of "management under fire" (Shama, 1993), or crisis management. Understanding Russian management is of great interest on account of its unprecedented ability to learn how to cope with a hyperturbulent environment.

In the management literature, there has been attention paid to Russia recently (Cohen, 1992; Ivancevich, DeFrank and Gregory, 1992; McCarthy and Puffer, 1992; Welsh, Luthans and Sommer, 1993), but empirical information about the learning process in Russian privatized companies has been lacking. Although several publications have brought out information about survival strategies (Clarke et al., 1993; Nabiullina 1993; Boeva and Dolgopyatova 1994), to date the only systematic (and quickly obsolescent) evidence about management learning in Russia is the book *The Russian Management Revolution* (1992) edited by Sheila Puffer.

Igor Gurkov is Research Fellow, Foundation for Economic Research, Rotterdam; Postbox 2638, CP 3000, Rotterdam, The Netherlands; and Professor at the Higher School of Economics, Moscow. Yaroslav Kuz'minov is Chancellor, the Higher School of Economics, Maly Gnezdnikovski 4/2, Moscow, Russia.

The purpose of this study is to describe, analyze, and compare the results of an observation of the latest practices of strategic learning in various Russian industries. On this basis, we try to test several specific hypotheses drawn from a general theory of organizational learning, namely:

- The density of management culture and the leaders' sense of urgency determine the type of organizational change;
- Insufficient management culture and a high sense of urgency lead to "shock treatment."

The study is based on interviews of top executives, surveys of managers, and workers, and analyses of financial and managerial accounting information of 27 companies in six industries for 1992–1993. Special attention is given to the integration of the data on the learning process at different levels into a complete picture of organizational change.

Background

The starting point of our research is the belief that learning is a key element of strategic change. Such an assumption is consistent with the established tradition in strategic management theory. The organizational learning approach in strategic management was pioneered in the works of Bateson (1973) and Argyris and Schoen (1974, 1978). Their basic ideas have been developed into the general concept of strategy as "a virtuous circle of time-accelerated organizational learning" (Hampden-Turner, 1993, p. 337).

It is necessary to distinguish three types of learning:

- individual learning,
- group learning, and
- organizational learning.

Patterns of individual learning are determined by the position of the individual in the organization. For company leaders or top managers, the process of learning is subordinated to the establishment of a new leadership model. Such a model is derived from the fact that, after the destruction of the centrally planned system, the company management becomes the "final authority" in strategic decisions and, accordingly, it bears complete responsibility for company activities. For managers of lower ranks, the essence of learning is the acquisition of knowledge of

how to work in new market conditions. Of course, the role of formal education in new business-related subjects is important, but skill development is the principal content of both types of individual learning. Indeed, there is some empirical evidence to suggest that leadership depends on self-development (see Zalesnick, 1977; Bennis, 1989).

In the specific conditions of recently privatized companies in Russia, group learning of managers includes two interrelated processes:

- building up coherent management teams able to be effective problem-solvers,
- mastering a new social role as company owners.

Both processes require accelerated "learning by doing" and dissemination of new managerial models to perform activities which never existed in the Soviet Union, like antitakeover defense and international marketing.

Organizational learning makes itself evident by coping successfully with a perilous situation by the implementation of recovery strategies (see Booth, 1993). Such strategies, like cost leadership, market niching, or product differentiation can be realized only by transforming structures, establishing performance goals, and redirecting resources, that is, by major organizational change.

The general framework for assessing the features of organizational change is a meta-theory of executive leadership. This theory predicts that the type of organizational change is determined by two variables: the "density of administrative and technical competence" and the "leader's sense of urgency" (March, 1974). If the perceived urgency is high (which is obvious under crisis conditions) and there is also a high density of managerial and technical competence, then an "execute now" process can take place. In this process, "the leader's attention centers primarily on a top management team that learns by doing. Leaders depend on the top management team to marshal support and cooperation in their respective areas and, thereby, quickly move implementation throughout an organization's existing administrative scheme" (Lenz, 1993, p. 161). Another pattern of change is shock treatment. It is suitable for circumstances in which the density of administrative and technical competence of an enterprise is insufficient for finding and implementing solutions to emerging strategic issues. The basic challenge of this process is to bring about a rapid revolution of corporate culture. Actions typically center on the dismissal of exist-

ing role models, establishing new priorities concerning budget allocations, setting new goals, reduction of the labor force, reorganization of the reward system, and aggressive participation in the formal organizational decision process. The purpose of these actions is to temporarily disassemble and disorient organization members and rapidly introduce elements of a new, more responsible work environment and culture.

Both influence processes start from the same point: unfreezing, which consists of the creation of motivation and readiness to change (Schein, 1987). The final point of organizational change is refreezing, which means that the new mode of functioning of the organization becomes an experienced reality for most individuals, and empowerment and personal growth take place (Doz and Thanheiser, 1993).

The background has direct implications for the specific aims of our study. We tried to test several formulated theoretical statements. We attempted to clarify:

- What are the real subjects of individual learning and what is the real relationship between formal education and "learning by doing?"
- What is the evidence of the new social role of Russian managers?
- What is the sense of urgency and perception of administrative density of Russian top managers?
- Does active search for recovery strategies and real organizational learning in Russian manufacturing companies take place?

Methodology

Measures used

The leaders' sense of urgency was measured by assessing the acuteness of sixteen different everyday problems and disturbances in business and production activities. The 5-point response scale ranged from "not significant at all" to "extremely significant." The reliability of this measure (Cronbach's alpha) was 0.81. The appraisal of everyday problems is a necessary element for understanding the companies' situation.

The perception of administrative and technical density was assessed

by a combination of three different measures. First, we asked managers about the level of economic competence of their working environment. Second, managers indicated their adaptation to the new conditions, their sufficiency of knowledge, and their feeling of diffidence. Third, a list of necessary subjects to be improved gave an additional insight into the technical and economic culture. We compared the means of each measure for every level of the company management, that is, from top management to shop-floor management.

Individual attitudes towards the acquisition of additional skills and knowledge was assessed, using four measures. First, the awareness of the necessity to enhance practical knowledge and to acquire additional education was assessed, using a special 5-item instrument. Then, two 11-item instruments were used to assess awareness of the necessity to improve knowledge for career development and for possible job change. The reliability coefficient alpha for the first of the 11-item instruments was 0.97, for the second, 0.92. Finally, a special 12-item instrument was used to determine the useful areas of knowledge and skill application. The reliability coefficient of this instrument was 0.88. All used instruments had a 5-point response scale.

The acquisition of new social roles of managers and group learning was assessed using four different measures. First, both managers and workers were asked to describe their perception of real and desired owners of a firm. They were able to choose one answer among 11 options, including "your fellow-workers," "the managing director" or even "nobody really owns." Then, the decision-making authority of managers and workers-shareholders was compared, using a special 27-item instrument. These 27 items were related to four types of decisions common in managerial work, namely:

- strategic decisions and capital investment (8 items);
- human resources (7 items);
- wages and benefits (5 items);
- production decisions: product characteristics, value chain, quality issues (7 items).

Managers were asked to describe the level of decision-making authority they experienced for each decision item on a 6-point scale ranging from "beyond my position's duties" (a value of 0), through "marginal authority" (a value of 1), to "total authority" (a value of 5). This scale is the development of McCarthy and Puffer's instrument (1992). An

additional point on the scale, "beyond my duties," made it possible to restrict the appraisal of perceived authority to strongly reliable points. The respondents rated the items for two time periods: before privatization (before 1992/93) and after privatization (1993–1994). The degree of change in perceived authority was calculated as the mean after privatization minus the mean before privatization. The Cronbach's alpha of this scale is 0.94.

The possession of rights is closely related to responsibility. We assessed it by estimating the changes in workload, and the accessibility of necessary information for decision making. The changes in workload were assessed using a special 11-item instrument with a 5-point scale. The reliability coefficient—Cronbach's alpha—of this instrument was .60. The accessibility of necessary information was assessed using a 4-item instrument.

The type of leadership was clarified by assessing the degree of cohesion of the working collectives, the partnership and mutual confidence of employees and administration. We used here an original 11-item instrument. The respondents were asked to indicate their opinions about:

- tendencies of top management to protect jobs;
- self-aspiration to control their subordinates' activities;
- loyalty of supervisors in defending the interests of their subordinates;
- principles for settling conflicts within the firms.

The five-point respondent scale ranged from "strongly disagree" to "strongly agree." The alpha reliability coefficient for this scale was 0.81.

Organizational learning was evaluated primarily through in-depth interviews with top managers and the evaluation of companies' records. The principal topics discussed during the interviews were:

- the financial position of the company and its ability to survive in the near future;
- the present and potential competitiveness of the company on different markets;
- the principal goals of the company and main obstacles preventing the achievement of strategic goals;
- the company's production, organizational and marketing strategies;

- the personnel policy of the company.

The length of interviews varied between one and six hours. Shortly after the interviews, the structural decomposition and normalization of answers were carried out using a special framework. This framework enabled the interviewers to compare the situation of different enterprises.

The sample

The field research was carried out in two steps. First, in November–December 1993, a pilot study included nine companies in the central region of Russia. Attention was focused on the textile industry as the most depressed and crisis-prone branch of industry.

The size of the studied companies varied between 98 and 2,878 employees. The questionnaires were administered to 95 managers and 125 workers. The pilot study showed that the reliability of the used measures was sufficient and that the research instruments were generally applicable. For a detailed description of the results of the pilot study, see Gurkov (1994a).

The main field study was carried out in March–April 1994. It comprised eighteen companies, whose size ranged from 120 to 8,489 employees. Thirty-eight interviews were carried out with top executives, primarily chairmen, chief accountants, and personnel managers. The questionnaires were presented to 197 managers and 471 workers.

The main principle of the sample design was not to make a representative selection of all Russian branches, but rather to observe "pairs" and "triplets" of quite similar companies. For the same reason, a search was made for pairs in different but similar regions of Russia. This allowed a comparison of organizational effectiveness without taking into account the problems of economies of scale and scope and of regional differences.

In the total sample, branches in varying degrees of crisis were represented: the textile industry, whose output in 1993 was about 41 percent of the level of 1989; the construction material industry, with its output at about 53 percent of the 1989 level, and the food processing industry with the smallest output decrease, output being 65 percent of the 1989 level (Institute for Economic Transition, 1994). The observation of companies from the wood-processing industry, the chemical industry, and the metallurgic industry served to test the validity and applicability of the conclusions to other branches of Russian industry.

Sense of urgency

In a previous paper (Gurkov, 1994a), we have given a complete presentation of the causes and effects of the present crisis. The factors disturbing Russian manufacturing firms are the special consequences of restrictive macroeconomic policies (tax and credit policies) and of the bargaining power of suppliers. This gives rise to the following everyday problems faced by top managers:

- non-paying business debtors (mean 4.47),
- shortage of qualified managers (mean 4.20),
- high bank debt and trade liabilities (mean 4.19),
- absence of orders and contracts (mean 4.11),
- weak work discipline (mean 4.05).

The "mutual nonpayments" cause prolonged temporal closures of shops and whole factories. Among the 27 surveyed firms, 20 have been temporally closed since the beginning of 1992. These temporary closures lasted from one day to three months. On this account, we can really be convinced of the extremely high "sense of urgency" of Russian top managers.

Individual Learning

The aspiration of managers to acquire new knowledge and skills was assessed. In general, all managers agreed that there was a necessity to improve their practical knowledge (mean 3.58) and to receive additional education funded by their firm (mean 3.39). Top managers demonstrated the same type of preferences, but their estimation of the necessity of additional education was considerably higher (mean 4.00), and unfavorable attitudes to additional education were reported by none, the lowest value being 3.00.

In order to know the determinants of the felt necessity to enhance practical knowledge, correlation analysis and analysis of variance were applied. We used the ANOVA (analysis of variance) procedure from the SPSS-PC+ package. The analysis (see Table 1) indicates that the necessity of acquiring new skills correlates strongly (correlation coefficient 0.61) with "individual's difficulties of adapting to the new business conditions." These difficulties were a predictor of aspirations (F = 5.33, p 0.01), accounting for 18 percent of the variance. Other main

Table 1
Correlation matrix and analysis of variance of the necessity of additional management education

	Gender	Age	Education	Managerial level	Length of service	Adaptation	Uncertainty
Gender	1.00						
Age	–0.01	1.00					
Education	0.14	0.21	1.00				
Managerial level	0.30	0.46*	0.40*	1.00			
Length of service	0.16	0.67**	0.00	0.22	1.00		
Adaptation to the present conditions	0.03	–0.16	0.27	0.02	–0.20	1.00	
Uncertainty about the future	0.19	0.23	0.01	0.19	0.08	0.54**	1.00
Necessity of additional education	0.06	–0.30	0.13	0.13	–0.25	0.61**	0.25
Significance	0.53	0.06	0.53	0.44	0.28	0.01	0.46

$R^2 = 0.661$; one-tailed significance: * = 0.01; ** = 0.001.

factors influencing the variance of the necessity of acquiring new skills are age (16 percent of the variance) and length of service in the present position (10 percent of the variance). It is interesting that there is no significant correlation between formal education and the necessity of mastering new skills.

We may conclude that formal education imparted a number of skills which are becoming necessary in a market economy. Moreover, the negative correlation between the necessity of new skills acquisition and the length of service is evidence that a complete knowledge of one's position's requirements brings some advantages to a manager in crisis conditions. This conclusion is also suggested by the fact that the managers with a long term of service in their present positions score higher on indicators of adaptation (see Table 1).

Apart from the general aspiration to acquire practical knowledge, managers were asked to evaluate the demand for new knowledge and skills in 12 possible spheres of application (from "rational allocation of family budget" to "starting one's own business"). Those spheres may be represented as reasons for the acquisition of new skills. Ranking the reasons for all managers in the sample demonstrates that the spheres of

the highest demand for new knowledge are:

- to understand the company's business (mean 4.27);
- to meet the requirements of my job (mean 4.20);
- to be sure to find another job (mean 4.10);
- to defend rights as employees (mean 3.97).

The ranks of reasons vary for different groups of managers. For top managers, the most important area for knowledge and skill improvement is conformity with job requirements (mean 4.61); while for middle managers, there are such important reasons as advantages for preferment (second ranked among all reasons; mean 4.28) and possibilities to influence decision making (third ranked, mean 4.14).

From the above observations, we can see that the principal reasons for additional education are related to existing and possible job requirements. The next step of our analysis was to determine which subject matters are most necessary for the proper execution of existing jobs and which knowledge should be acquired for a change of job.

The results of the analysis for all managers in the sample confirm that the renewal of the general technical and administrative background of managerial work (especially computer literacy) and mastering new economic knowledge are of principal importance. The five principal subjects of knowledge to be improved are:

- computer literacy (mean 3.90);
- general economics (mean 3.88);
- accounting and auditing (mean 3.67);
- marketing (mean 3.66);
- business planning (mean 3.60).

It is not surprising that the importance of subject matters varies for managers in different positions. Top managers gave high priority to business law (ranked second, mean 4.50, minimal value 4.00) and foreign languages (ranked third, mean 4.40); while for middle managers, computer literacy occupied only the fifth rank, after accounting, business planning, general economics and marketing. Significantly, the necessity to improve skills in the initial (noneconomic) specialization of managers was placed close to the end of the general list of subjects.

This picture of managerial educational preferences was supplemented by an evaluation of the knowledge necessary for moving to another job. For all managers in the sample, computer literacy, general

economics, business planning, and accounting were the most preferred subjects. It should be noted that the necessity to improve the initial (noneconomic) scope for job change was not suggested by managers in general (mean 2.73), but only by top managers (for this group, the mean is 3.33). The most noticeable difference between the priorities for keeping the existing job and moving to another job was reported by middle managers. For them the principal subjects to be studied for moving to another job were:

- industrial engineering and management (mean 3.83);
- accounting (mean 3.67);
- business planning (mean 3.67).

As a whole, the mentioned variations are explained mostly by the different sets of professional duties. The high ranking for business law and foreign languages among the educational priorities of top managers signify the importance of their new areas of activity: the legal restructuring of companies and international marketing.

We should now move from aspiration for additional education to the real retraining of Russian managers. The results in this sphere are so far not impressive. Only 5 of the 27 surveyed firms have offered their managers any retraining programs or short-term courses. In three cases, there were special courses for marketing and commercial services of the companies; and in two, there were retraining programs for top managers. However, top managers reported that the quality of short-term retraining programs offered by domestic consulting firms was very low. As a result, the main methods of management education in Russia remain:

- "mentor" learning,
- distance learning,
- self-education.

The "mentor" learning approach is realized when a manager becomes both learner and trainer, trying to develop various skills and competencies of his subordinates in everyday communication. For a long time, this approach has been prevalent especially in accounting departments, where a chief accountant transmitted professional secrets to the most able and devoted bookkeepers. Now, this is the main method to build up marketing departments and commercial services, when a newly appointed manager retrains employees at high speed for positions as

sales agents and market analysts. In general, this education has primarily the character of "learning by doing."

The level of managerial culture

After the assessment of aspirations, motivation, subject matter, and main methods of individual learning, we are able to estimate the level of managerial culture. We distinguish here two types of cultures: the technical culture, and the administrative and economic culture of the management staff.

The technical culture of Russian managers can be estimated as close to sufficient. First, the generally high educational level (85 percent of surveyed managers had obtained university degrees in a technical specialization) and the long length of service at the same factory (13.4 years on average, and 16.7 years for senior staff managers) enabled them to have a good understanding of the technological process. Second, the adequacy of technical culture is guaranteed by the thus far very low demand for improving technical skills. However, there is some evidence that the educational level has no influence on the ability to adapt to market conditions (see Table 1). At the same time, the great shortage of computer literacy shows a lag in the general technical culture in the nondefense sectors of the Russian economy.

The results of the survey suggest that, despite the good technical background of industrial managers, the level of management may be estimated as seriously insufficient. The best indicator for the estimation of the level of management is the fact that "staffing by qualified managers" was stressed by top managers as the second most important problem, even more important than the "absence of orders and contracts." The key element to explain this is the epithet "qualified." This means that the existed knowledge and skills of Russian managers are not longer valid for the new market conditions.

Group learning

We have already mentioned two interrelated processes of learning by managers as a professional and social group. Here, it would be out of place to discuss the problem of establishing new property rights in an economy in transition. (For a detailed presentation of the property rights issue in the Russian privatization process, see Kuz'minov et al.,

1993, and Gurkov and Asselbergs, 1994.) We will only mention the principal outcomes of our empirical analysis. First, regardless of differences in privatization schemes and the resulting legal forms of privatized enterprises, the majority of Russian managers enjoy the present absence of any external control over their firms. We asked both managers and workers about their perception of real ownership of the firm: 79 percent of managers and 77 percent of workers believe that the management or the director himself is the real owner.

This subjective opinion is suggested by an assessment of the changes in perceived authority after privatization. The results bring the evidence that top managers experienced some real changes in their rights. The largest increases of their rights have occurred in "wage and current bonus of subordinates" (+1.47 on a 5-point scale), "authority over own job" (+1.00), "production for export" (+0.80), and "credit and borrowing" (+0.78). Various statistical analyses were carried out to determine the relationship between occupied position, satisfaction because independence in one's work, and influence in different types of decisions (see Table 2). The results show a close positive correlation between managerial level and his/her authority in strategic production decisions (corr. 0.54, $p < 0.001$), rights over distribution of dividends (return rights) (corr. 0.49, $p < 0.001$), and independence in work (corr. 0.31, $p < 0.01$).

However, usually the expansion of power and decision-making authority entails growing responsibilities. This often manifests itself in an increasing amount of information to be processed, longer working hours, and growing dependence on one's own qualities. The results of the survey suggest that all these trends occur in the everyday life of Russian top managers. Indeed, for 45 percent of them, the amount of information to be processed is excessive. Top managers also suggested that "they were forced to work much more" (mean 4.00), "it becomes much more difficult to work" (mean 4.47), and "they can rely only upon themselves" (mean 4.75).

It is obvious that, in such difficult circumstances, top managers ought to build effective management teams which are able to translate strategic approaches into everyday production, technical and marketing decisions. We tested this hypothesis by two methods. First, the cohesion of management teams was assessed. The results demonstrate the highly paternalistic character and authoritarian style of the Russian managerial culture. Indeed, 61 percent of top managers and 59 percent

Table 2
Correlation matrix of managerial characteristics

	Managerial position	Number of subordinates	Job satisfaction	Strategic rights	Staffing rights	Return rights
Position	1.00					
Number of subordinates	0.26	1.00				
Job satisfaction	0.31*	0.19	1.00			
Strategic rights	0.54**	0.42**	0.13	1.00		
Staffing rights	0.21	0.28	0.26	0.56**	1.00	
Return rights	0.49**	0.26	0.26	0.64**	0.50**	1.00

One-tailed significance: * = 0.01; ** = 0.001

of shop-floor managers strongly agreed with the statement that "management would be more effective if a manager controls fully the activities of subordinates" (mean 4.32 for top managers; 4.13 for shop-floor managers).

At the same time, according to Russian managers a "manager should be persistent in defending the interests of his subordinates." According to our analysis, managers really believe that their supervisors are indeed vigorous in defending their rights (mean 4.02). Shop-floor managers adhere even more strongly to this belief (mean 4.08). Top managers also claim that they try to maintain as long as possible the jobs of their subordinates (mean 4.25). Furthermore, it is believed that paternalistic relationships in managerial teams and mutual liabilities allow a quick and effective settlement of disagreements within firms (mean 3.52). An additional suggestion of our hypothesis of effective team building is that the circle of key decision makers has been slightly increased after privatization (mean 3.36).

The results of our study suggest that, in general, Russian top managers succeed in maintaining the corporate loyalty of subordinates: 64.9 percent of all managers in the sample suggested that they "would not move to another job, even for a higher wage." This cohesion of the management team facilitates organizational learning.

Organizational learning

In our overview of organizational learning, we intended to show several managerial activities which never existed in the former centrally planned economy. These activities do not exhaust the set of real recovery strategies of Russian manufacturing companies (see Gurkov and Maital, 1994). About 20 of the 27 surveyed companies are implementing several innovations in production, marketing, and human-resource strategies. These may not lead to immediate success, but they demonstrate the ability of managers to learn and to implement organizational change. Among the implemented strategies, we chose for demonstrative purposes the following ones:

- total cost leadership;
- international marketing for rebuilding the firm's value chain;
- antitakeover defense.

Case 1. Learning "total cost" management

In 1993, the rate of inflation in Russia was about 939 percent (Institute for Economic Transition, 1994). In the same year, the real disposable income of the population was only 57.4 percent of the level of 1991 (Center for Business Cycle Research, 1993). A successful marketing strategy, given high inflation and declining effective demand, is to supply the lowest segment of the domestic market. This segment consists of workers and low-level managers of former state-owned industrial enterprises and collective farms. These people do not put much attention to quality, but are looking for the cheapest second-rate goods. So, the strategy of operating in such a market is to supply goods of middle quality at bottom prices. This strategy is based on the cost advantages of domestic producers and presumes complete information about the cost structures of competitors. At the time of the in-depth interviews, top managers were unexpectedly well-informed about the suggested prices of similar or substitute products. We stress this fact because contract prices diverge largely from contract to contract, and the general price lists of many companies in Russia are not readily available. Several managers explained that their sales departments are especially skilled in applying indirect methods to price estimation through submitting false purchase offers to competitors, scrutinizing the advertisements of competitors, and regular surveys of retail stores for price changes.

In addition, the top managers were well-informed about the cost structure of their main domestic competitors. There are three different sources for such information. First, there is the legacy of the former centrally planned system, where the present competitors belonged to the same "industrial ministry." The data on technical schemes of production, quality and quantity of equipment, and on cooperation ties was in free circulation among enterprises of the same ministry. The second source of information on the cost structure of competitors is the analysis of their value chain. Finally, the third type is direct communications between competitors. It seems very strange for an outsider, but many Russian firms operating in the same markets exchange regularly information on costs in order to justify their prices and "fair profits." All this information allows better pricing decisions. One of these decisions is the setting of the lowest prices, below the total costs of competitors.

So-called "total cost management" is directed at minimizing the negative consequences of the high inflation and sharp rise of production costs. Total cost management is divisible into two parts: (1) intra-factory cost management is oriented to the optimization of the cost structure, the exploitation of economies of scale, and the minimization of organization expenses, while (2) extra-factory cost management aims at improving the external conditions of production activities and minimizing the costs of inputs, including raw materials, semi-finished products, energy and transport.

An example of a complete implementation of the system of "total cost management" is the transformation of purchase and production management of firm no. 1. It is a limited partnership which produces different types of furniture. The market share of firm no. 1 is about 20–30 percent of the market for domestic-made furniture in the central region of Russia. The average number of workers employed by this firm is 1,120. Gross sales amounted in the third quarter of 1993 to about Ruble 3.0 billion, and the return on sales was 12.7 percent. The current ratio in the third quarter of 1993 was 0.71, and the solvability ratio was 1.76.

The structure of total costs demonstrates a low share of value added. In the first quarter of 1993, the most important categories in the cost structure were:

- expenses for raw materials (61 percent of total costs);
- organizational overhead costs(20 percent);

- transportation expenses (7.5 percent).

Cost management of firm no. 1 included both extrafactory and intrafactory management. In the last two years, the procurement department of firm no. 1 revised drastically the list of suppliers. The main criteria for the choice of suppliers were:

- quality of supplied semi-finished products and raw materials;
- acceptable prices;
- stability of supply;
- financial condition of the supplier.

The last two points were of crucial importance. firm no. 1 preferred to deal with suppliers in an extremely difficult financial situation and experiencing disturbances of supply. The business strategy towards this type of firms was to intercept the key lines of procurement and to force a supplier to make a special agreement of barter trade. This long-term bilateral agreement stipulated firm no. 1 to have the exclusive rights of supplying raw materials to the supplier. The special Russian term "*davaltcheskoe syrie*" describes this system of multilevel barter trade, when a consumer provides its supplier with necessary raw materials.

The terms of agreements made in situations of urgency for suppliers were extremely favorable for firm no. 1. In 1993, the prices for raw materials for firm no. 1 were 50 to 60 percent below the average market prices. As a result, in the third quarter of 1993, the expenses for raw materials increased 2.7 times in comparison with the first quarter of 1993, while in the same period gross sales increased 4.6 times. Another vulnerable spot in the cost structure of firm no. 1 was transportation expenses. In the first quarter of 1993, they constituted about 7.5 percent of total costs. The strategic decision then made was a complete reorganization of the transportation scheme. firm no. 1 avoided external transportation services and performed its own transport services. All transport means, including special trucks, were leased to workers. Leasing contracts stipulated the possible buy-outs of leased trucks in the case of high quality of work. These terms ensured a steady rhythm of work of the transport service and motivated the proper maintenance of equipment. The share of transportation expenses of firm no. 1 decreased in half a year from 7.5 percent to 3.8 percent in total costs.

The internal cost management of firm no. 1 included decreases of the consumption rates of energy, heat and raw materials, and economizing on fixed costs. Emphasis was put on the maintenance and repair of energy equipment, on strict economy of energy, and on production scheduling to avoid the waste of raw materials. We evaluated the trends of "specific energy" and "specific heat" consumption. Specific energy was computed as a ratio between the gross sales in constant prices and the input of energy in physical units. The same was done for heat. The average specific energy in the third quarter of 1993 was 80.2 percent in comparison with the third quarter of 1992, and the average specific heat only 34.8 percent.

Such impressive results were obtained without replacing key personnel. The principal element of change were a well defined strategic agenda, intense personal involvement of top and senior staff managers, and an encouraging process of learning by doing.

Case 2. Learning international marketing for rebuilding the firm's value chain

The previous case described the firm at the end of a value-added chain, with direct access to final consumers. Another case is a firm situated in the middle of the chain, producing semi-finished products. This position significantly decreases the possibilities of extra-factory cost management. Moreover, it is very easy for such a company to fall into a "credit trap" when the company's consumers have no means to pay for deliveries. As a result, the company is unable to clear its accounts payable because assets consist of accumulated doubtful accounts receivable, but no cash. At the same time, all inventories consist of work in progress and finished goods, but no raw materials. There are no means to purchase raw materials, fuel, and energy for continuation of the production process. In this situation, there are no possibilities for a formal claim for bankruptcy, because current assets exceed current liabilities and, in many cases, accounts receivable also exceed accounts payable. Besides, there is no possibility to clear mutual liabilities because of the rigid position of the Russian government. The situation reverses itself when one of the business partners obtains a bank credit at extremely high interest rates (up to 240 percent) and makes a prepayment for deliveries or purchases. For a complete presentation of a "credit trap" situation and of the relations between the financial and

industrial sectors of the Russian economy, see Gurkov (1994c).

Firm no. 17 applied an international marketing strategy to successfully exit from the "credit trap." This firm is a large textile factory producing cotton yarn and cotton material. It was established in the 1840s and has for a long time been a leader in the branch. In previous periods, there were some 6,000 employees working in three shifts. Now, the personnel of the factory consists of some 99 managers, 75 specialists, and 2,700 clerical and production workers. Through privatization, the factory was transformed into a closed joint-stock company with 100 percent employee ownership. After the collapse of the Soviet Union, the factory met a severe shortage of raw materials. In 1992, shutdowns because of the lack of materials amounted to about 14 percent of the available working time, and such shutdowns continued in 1993. At the same time, the quick price rises for raw materials and energy decreased the profit margin of the firm. In 1992, the profitability of sales was 26.1 percent, but in 1993 it was only 2.7 percent. The company fell into a "credit trap" because it lacked liquid assets, and neither suppliers nor consumers had the means to prepay the purchases or deliveries. Under these conditions, the managing director implemented a large-scale change of business partners.

The factory was a pioneer in wide cotton-fabric production. This is a product of high quality, which is up to world standards not only as regards the material itself, but also as regards adequate packaging. The competitiveness of its production allowed it to establish several business schemes.

One scheme embraces cotton producers from Tadjikistan, the former Soviet Central Asian republic, and clothing factories in Bulgaria. Firm no. 17 provides Bulgarian firms with cotton material at a price 8 percent below the world level. In exchange for this discount, Bulgarian consumers prepay about 15 percent of the delivery. Firm no. 17 transfers this payment to Tadjikistan for prepayment of 25 percent of the cotton purchase. That prepayment allows a discount of 20 percent. The differences between the two discounts presents a net operating profit for the firm.

Another scheme includes firm no. 17, clothing factories in Poland, and clothing retailers in Russian and other CIS republics. Firm no. 17 supplies material to Poland with repayment through the deliveries of clothes and then sells clothes on the Russian market.

The third scheme involves firm no. 17, which finishes the cotton materials for an agreed share in the gross sales of clothes, clothing factories in Russia which use the cotton materials, and a final consumer in Sweden. The initial Swedish credit is repaid by deliveries of finished articles. In this scheme, firm no. 17 gradually moves forward to the end of the value-added chain, that is, to a higher share of value added: it plans to set up new clothing shops and to reallocate the labor force from the spinning production.

All mentioned organizational and business schemes were developed and implemented by the director himself together with several top managers. The general director started his career at the same factory as a repair worker 36 years ago, and his deputies are of the same age. None of them has an economic or business education, and nobody from the company management had direct contacts with foreign firms or operated with hard currency prior to 1991.

During the interviews and following direct observations of managerial activities, top managers displayed a good vision of world market trends, complete knowledge of the legal aspects of international business, and great skills in bargaining. The final objective of the international marketing strategy was to expand the production and not to allow the number of employees to decrease.

Case 3. Learning antitakeover defense

The last example of organizational learning is anti-takeover defense, which never existed in the former Soviet Union. For a long time, industrial companies in the USSR were subject to mergers or liquidation according to ministerial or government prescriptions. The largest wave of mergers in Soviet industry took place in 1972–78 when "production associations" were created from the factories, which were forced to lose their separate corporate bodies. Most of these associations disintegrated in the last three years. The factories which composed such associations received the rights of legal persons. Lately, most of the newly created firms have been privatized, which transformed the majority of small and medium-size enterprises into limited partnerships or closed joint-stock companies. (For a detailed description of present forms of ownership in Russia, see Frydman, Rapaczynski and Earle, 1993.) For managers of such companies, the retention of corporate control does not create serious problems. An-

other case is represented by the privatization of large enterprises with more than 1,000 employees. Those enterprises that had not been leased by their employees prior to privatization were transformed into joint-stock companies. Three variants of preferential terms for employees were used, and most companies chose the second variant, which allows the employees to purchase up to 51 percent of the shares at 170 percent of the nominal prices. The remaining shares are temporarily held by the State Property Committee and should be sold later in voucher and cash auctions. It is obvious that the management of large enterprises tries to maintain its control over their companies.

firm no. 20 demonstrated quick managerial learning of antitakeover devices and methods. This firm is the largest company in the sample and one of the largest chemical producers in the central region of Russia. It enjoys a strong monopolistic position in many segments of the Russian market for fertilizers. The average number of employees in 1993 was 8,817, and the gross sales amounted to Ruble 58.4 billion in current prices. In the same year, the profitability of sales was 29 percent, and the return on assets was 47.9 percent.

Historically, firm no. 20 has had a very specific power structure. All key decision makers are members of a few closely related families of alumni of one technical university. The privatization created a contradiction between this distribution of power and the ownership structure. firm no. 20 chose the second variant of the preferential terms for employees. Employees acquired 51 percent of the shares. A further 29 percent of the shares were sold at a voucher auction where two large financial companies acquired 16 percent and 13 percent of the shares. The remaining 20 percent are held by the State Property Committee, which delegated voting rights to the general director.

According to the Russian Law on Enterprises, the governing bodies of a joint-stock company are the shareholders' meeting, the Board of Directors, the Governing Board, and the Auditing Committee. The shareholders' meeting has the exclusive rights to alter the bylaws, increase or decrease the authorized capital, elect the directors, confirm the annual returns, and so on. The Board of Directors, elected by the general meeting from among the shareholders, is empowered to make decisions on all matters concerning the company's business not exclusively reserved for the general meeting. The first shareholders' meeting of firm no. 20 took place before the voucher auction. The board of directors elected at this meeting consisted of company managers only.

It comprised the general director, chief engineer, commercial director, chief economist, and five production superintendents. After the voucher auction, the large financial companies tried to insert their own nominees in the board of directors. This would have facilitated the further acquisition of the company's stock.

The company's management had very few tools to counterbalance these plans. On the one hand, there is a general inapplicability of standard antitakeover devices like the "poison pill," "scorched earth," or "white knight" defense. However, the director and other top managers themselves have minority holdings in the company property. At the same time, the stock of firm no. 20 was very attractive for private financial companies. Indeed, the shareholders' equity was determined by the book value of assets, with no adjustment for inflation. As a result, the shareholders' equity accounts for less then 2 percent of total assets. These assets, especially fixed assets, are extremely undervalued. For example, the book value of the fixed assets was practically stable in 1993, while the prices for new technological equipment increased by 1,000 percent. As a whole, a share of firm no. 20 of a nominal value of Rb. 1,000 is ensured by real assets worth Rb. 400,000. It should be remembered that this concerns not a small shop, but an industrial giant.

The top managers found a new device to prevent the election of new directors. A new closed joint-stock company was incorporated, which was formed only from employees of firm no. 20. This company accumulated some 38 percent of the shares. Together with 20 percent of the voting rights delegated by the Government to the general director, this created a practical veto right for alteration of the bylaws and control over the election of new directors.

The next steps for the management of firm no. 20 include the organization of an "investment tender." It means that a financial or industrial company willing to purchase the remaining 20 percent interest in the firm no. 20 should propose and then implement from its own resources a large investment program for reconstruction of firm no. 20.

Further questions

The previous sections offered the following answers to the research questions:

- The main subjects of individual learning of Russian managers

are computer literacy and the necessary knowledge for operating in a market economy, like marketing and business planning.

- The prevailing way of learning necessary skills is "learning by doing."
- A very high "sense of urgency" of top managers coexists with low managerial culture and a general shortage of qualified managers.
- Top managers must master not only marketing and planning skills, but also develop managerial competency in advanced financial management, including the issues of stock, mergers, and acquisition policies.
- Russian managers have successfully started the implementation of several sophisticated recovery strategies.

However, there are two unanswered questions, based upon the theory of organizational learning:

- What type of influence processes for triggering off organizational change are prevalent in Russian privatized companies?
- What stage of organizational change are they experiencing?

According to the contingency framework, the conjunction of the leader's high sense of urgency and an insufficient level of administrative competence should translate into "shock treatment." The results of our study do not support this hypothesis. Indeed, Russian top managers have implemented a real cultural revolution, not by quickly replacing key personnel, but by encouraging learning by doing. They maintain high company loyalty and intense personnel involvement in the change process by protecting the "social core" of their companies, while avoiding mass dismissals. In cases of an excess of clerical workers, the observed firms implemented a shortened work week and holiday without pay, but no final dismissals. Several times we observed a four-day week for production workers and a three-day week for clerical workers at headquarters. The results of this soft position are quick unfreezing, and a high degree of acceptance of ad hoc roles and tasks.

Another problem is the determination of the stage of the organizational-change process. In our opinion, the best way to determine this is not to deal with less relevant characteristics like changes of legal forms, structures, and processes, but to evaluate the output of the or-

ganizational change process, that is, the changes in quality, competitiveness, consumer satisfaction, and employee compensation. We tried to assess the perception of change using a special scale. The results shown in Table 3 suggest that the main improvements have taken place in the production mix, which was adjusted to customer requirements. This corresponds to the "marketization" of behavior.

However, we are able to trace only freezing and learning, that is, the early stage of organizational changes. There are no positive shifts in the competitiveness of production and, as a result, there is no improvement of the personal economic situation. It means that the renewal process has only begun.

Conclusions

We presented an overview of current management learning processes in Russian manufacturing firms. This overview highlighted both the serious problems which management faces and its ability to acquire and develop necessary skills to operate in a turbulent economic environment.

We have evaluated the patterns of individual learning and the necessity of different subject matters for career improvement. At the same time, a careful observation of managers' rights and responsibilities demonstrated that they are mastering new leadership principles, based upon private-property rights. Finally, we gave an insight into the successful recovery strategies of some Russian firms.

All of these facets of learning reveal the maturing market behavior of Russian managers. All surveyed managers expressed the opinion that the first phase of adjustment to the market conditions has already been completed. Russian managers have demonstrated great abilities for "learning by doing" and designing several mechanisms to survive under crisis conditions. It seems that the further evaluation of patterns of organizational restructuring of Russian privatizing companies is very promising not only for research on economies in transition, but also for the enrichment of the arsenal of crisis management methods for companies in market economies.

In this connection, the next stages of the research should center on three topics:

- further identification of training needs and learning opportunities for Russian industrial managers;

Table 3
Areas of the experienced postprivatization change

Area of change	All managers (n = 179)	Top managers (n = 29)	Senior staff managers (n = 65)	Middle managers (n = 51)	Shop-floor managers (n = 31)
Consumer satisfaction	3.46	3.48	3.44	3.49	3.39
Quality of goods	3.26	3.28	3.17	3.49	3.12
Product mix	3.43	3.59	3.32	3.53	3.39
Reliability of production	3.24	3.31	3.09	3.43	3.22
Relations in the workplace	3.11	3.10	3.05	3.29	3.00
Personal economic situation	2.93	3.00	2.94	2.98	2.85
Personal status	3.26	3.33	3.34	3.30	3.03
Competitiveness of production	3.04	2.97	3.14	3.04	2.87

Scale: 1 = much worse; 2 = somewhat worse; 3 = no change; 4 = somewhat improved; 5 = much improved.

- mapping the new power structure in Russian privatized companies;
- evaluating industrial performance and appraising the "business learning curve" in different industries.

Research on the first topic will assist domestic educational institutions and trainers as well as foreign-aid agencies in establishing the priorities of management retraining in the areas providing the highest return on investment in human capital. The second topic should explore the perspectives of a mixed economy. Finally, an evaluation of industrial performance by comparing inputs and general outputs should indicate the point where "learning by doing" in a Russian company will become "doing by learning."

References

Argyris, Chris, and Schoen, Donald. *Theory in Practice: Improving Professional Effectiveness*. San Francisco: Jossey-Bass, 1974

———. *Organizational Learning: A Theory of Action Perspective*, Reading, MA: Addison-Wesley, 1978.

Bateson, Gregory. *Steps to an Ecology of Mind*. St.Albans, UK: Palladin, 1973.
Bennis, Warren. *On Becoming a Leader*. Reading, MA : Addison-Wesley, 1989.
Boeva, Irina, and Dolgopyatova, Tatiana "State Enterprises during Transitions: Forming Strategies for Survival." In Anders Aslund (ed.), *Economic Transformation in Russia*. London: Pinter, 1994.
Booth, Simon A. *Crisis Management Strategy*. London: Routledge, 1993.
Center for Business Cycle Research of the Government of the Russian Federation. *The Macroeconomic Forecast for 1994*. Moscow: 1993.
Clarke, Simon, et al. *What about Workers? Workers and the Transition to Capitalism in Russia*. London: Verso, 1993.
Cohen, Solomon I., ed. *Patterns of Economic Restructuring for Eastern Europe*. Avebury: Aldershot, 1992.
Doz, Yves, and Thanheiser, Heinz. "Regaining Competitiveness: A Process of Organizational Renewal." In John Hendry and Garry Johnson (eds.), *Strategic Thinking: Leadership and the Management of Change*. New York: John Wiley, 1993, pp. 293–310.
Frydman, Roman, et al. *The Privatization Process in Russia, Ukraine and the Baltic States*. Budapest: Central European University Press, 1993.
Gurkov, Igor. *Strategies to Survive: New Patterns of the Organizational Behavior of Russian Privatized Enterprises*. Unpublished paper, Foundation for Economic Research, Rotterdam, 1994a.
———. *A Framework for Empirical Analysis of Organizational Behavior in Transitional Economies: A Pilot Exploration of Russian Industries*. Moscow and Rotterdam, Higher School of Economics Moscow and Foundation for Economic Research Rotterdam, Working paper no. 1, 1994b.
———. "Finansovyi i promyshlenny kapital v protsesse reform" [Banking and industrial capital in reforms]. *Obstchestvennye nauki i sovremennost*, *6* (1994c), 26–33.
Gurkov, Igor, and Asselbergs, Gary. *Socio-Economic Change at Russian Factories: Establishing New Property Rights*. Paper presented at the Sixth Annual International Conference on Social Economics, Paris, 1994.
———. "Ownership and Control in Russian Privatized Companies." *Communist Economies and Economic Transformations*, 7, 2 (1995).
Gurkov, Igor, and Maital, Shlomo. *Evaluating the Impact of Privatization: Methodological Aspects*. Paper presented at the 10th EARIE Conference, Tel Aviv, 1993.
Gurkov, Igor, and Siguinevich, Alexander. "Arendatory o sebe" [Leaseholders about Themselves]. *Ekonomika i jizn*, *31* (1990), 12.
Hampden-Turner, Charles. M. "Dilemmas of Strategic Learning Loops." In John Hendry and Garry Johnson (eds.), *Strategic Thinking: Leadership and the Management of Change*. New York: John Wiley, 1993, pp. 327–346.
Institute for Economic Transition. *The Russian Economy in 1993*. Moscow: 1994.
Ivancevich, John M.; DeFrank, Richard S.; and Gregory, Paul R. "The Soviet Enterprise Director: An Important Resource before and after the Coup." *Academy of Management Executive*, *6*, 1 (1992), 42–55.
Kuz'minov, Yaroslav, et al. "Economic Reform: Institutional and Structural Aspects." *Problems of Economic Transition* (November 1993), 59–86.
Lawrence, Paul R., and Vlachoutsicos, Charalambos A. *Behind the Factory*

Walls: Decision Making in Soviet and U.S. Enterprises. Boston: Harvard Business School Press, 1990.

Lenz, R. Thomas "Strategic Management and Organizational learning: A Metatheory of Executive Leadership." In John Hendry and Garry Johnson (eds.), *Strategic Thinking: Leadership and the Management of Change*. New York: John Wiley, 1993, pp. 153–180.

March, James "How We Talk and How We Act." In Martin Cohen and James March (eds.), *Leadership and Ambiguity*. Boston: Harvard Business School Press, 1974.

McCarthy, Daniel J., and Puffer, Sheila M. "Perestroika at the Plant Level." *Columbia Journal of World Business*, *27*, 1 (1992), 86–99.

Nabiullina, Elvira. *Enterprises in the Conditions of Reforms: New Models of Behavior*. Discussion Paper 04–93, Expert Institute of the Russian Union of Industrialists and Entrepreneurs, Moscow, 1993.

Puffer, Shela M., ed. *The Russian Management Revolution*. Armonk, NY: M.E. Sharpe, 1992.

Schein, Edgar. *Process Consultation. Vol. 2: Lessons for Managers and Consultants*. Reading, MA: Addison-Wesley, 1987.

Shama, Avraham. "Management under Fire." *Academy of Management Executive*, *7*, 1 (1993), 22–35.

Shaw, James B.; Fisher, Cynthia D.; and Randolph, W. Alan. "From Materialism to Accountability: The Changing Cultures of Ma Bell and Mother Russia." *Academy of Management Executive*, *5*, 1 (1991), 7–20.

Welsh, Dianne H.B.; Luthans, Fred; and Sommer, Steven M. "Managing Russian Factory Workers." *Academy of Management Journal*, *36*, 1 (1993), 58–79.

Zalesnick, Avraham. "Managers and Leaders: Are They Different?" *Harvard Business Review* (May–June 1977), 67–78.