

Working Paper

Typology of Russian Enterprises' Adaptation to New Economic Realities

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Foreword

The Economic Transition and Integration (ETI) Project at the International Institute for Applied Systems Analysis (IIASA) started a research activity on the behavior of Russian enterprises under liberalization, privatization and restructuring in 1995–1996. This activity originated upon the initiative of the Ministry of Economy of the Russian Federation. The major reason for focusing on this subject was the fact that the current state and further transformation of Russian medium and large sized enterprises became a challenge for the continuation and success of transition related reforms. Despite certain positive tendencies, numerous enterprises still adjust themselves to ongoing changes without considerable market adaptation and modernization. The emerging ownership structure and financial markets demonstrate limited positive influence on stockholders' incentives, decision-making process and strategies of restructuring.

In the course of these enterprise studies, a workshop on “Russian Enterprises on the Path of Market Adaptation and Restructuring” was organized at IIASA on 1–3 February 1996. Russian and Western experts, extensively working in the area of enterprise performance under transition, focused the discussions on recent empirical findings and analyses concerning the following issues: typical models of enterprise behavior; development of the financial situation at the enterprises and its determinants; impact of emerging markets and competition on enterprises; the consequences of privatization and patterns of restructuring; and enterprise social assets divestiture and conversion. The workshop arrived at both analytical conclusions and recommendations for policy measures stimulating “constructive” enterprise behavior. Possibilities for a joint research project on the motivations and behavior of enterprises in transition economies were also discussed.

The circulation of selected workshop papers as IIASA Working Papers is undertaken in order to provoke broad discussions of presented analytical results. In this paper Professor Igor Gurkov examines the adaptation strategies of recently privatized enterprises in Russia, clarifies the overall level and main forms of companies' adaptation currently being implemented in Russian industries.

Contents

1	Introduction	1
2	Methodology for the Analysis of Adaptation	2
2.1	Basic definitions and assumptions in exploring adaptation processes	2
2.2	Research method	3
2.3	The sample	8
3	Two Major Prerequisites for Enterprises' Adaptation: Establishing Effective Control Arrangements and Building the Strategic Agenda for Company Survival	9
3.1	Macro and meso-economic conditions for the performance of Russian industrial enterprises	9
3.2	Establishing new control arrangements	13
3.3	Relationship between control arrangements and models of economic behavior	16
4	Quantitative Analysis of Economic Behavior — Towards the Typology of Corporate Adaptation	17
5	Qualitative Analysis of Adaptation Strategies in Russian Processing Industries	20
5.1	Some common features of the Russian corporate strategies	20
5.2	Creation of a new strategic vision	21
5.3	Developing sensitivity to customers	21
5.4	Vertical intergration	24
5.5	Overall low-cost leadership	24
5.6	Reshaping the industry structures	25
5.7	Edging to overseas markets	25
6	Dynamics of Social Adaptation	26
6.1	Self-assessment of living and working conditions by employees	26
6.2	Social adaptation — positional or situational phenomenon?	27
6.3	Typology of personal adaptation	28
7	Typology of Socio-economic Adaptation	29
8	Summary and Conclusions	31
	References	33
	APPENDIX: Tables and Figures	37

Typology of Russian Enterprises' Adaptation to New Economic Realities*

*Igor Gurkov***

1 Introduction

The process of social transformation in Russia has had a plethora of significant effects upon production. It is now provoking an economic depression of unprecedented proportions. It is also increasingly evident that any attempt to effect long-term political stabilization in Russia should be based on economic stabilization, or — at the very least — the successful adaptation of new rules of economic behavior by the country's principle industrial producers. The future will depend on the ingenuity of Russian managers to link the legacy of the communist regime and the national patterns of industrial organization with the prerequisites of a modern economy.

In analyzing transition economies and transition management, it is better to develop a set of knowledge clusters which can be applied to business transactions than to construct one universal theory. The exploration of organizational transformations in transition economies has attracted myriad management scholars. Numerous articles, attempting to explain particular aspects of organizational transformations, have been published in both academic and management journals. Analysts have concentrated upon changes in decision-making authority (McCarthy and Puffer, 1992; Luthans, Welsh and Rozenkrantz, 1993; Welsh, Luthans and Sommer, 1993); the emerging new model of leadership (Puffer, 1995); developing marketing strategies in the most vital sectors of the Russian economy (Elenkov, 1995); modification of human resource management (Koubek and Brewster, 1995) and the acquisition of new knowledge and skills (Holden and Cooper, 1994).

An examination of such studies, however, reveals a series of inadequacies. First, given the incredible speed of change in Russia, the technique of single observation used in most studies do not make it possible to accurately retrace emerging trends in organizational development and business policies. The limited scope of single observation studies robs them of the power of prediction, thereby limiting their usefulness as decision-making tools in an era of constantly changing reality. Second, the aim of most studies has been to

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retrace particular aspects of corporate transformations. Even the most complex surveys (such as Webster et. al., 1994) have focused almost exclusively on the decomposition of Russian businesses rather than their integration and reorganization.

This paper fills the aforementioned gaps in the study of the transformation of enterprises in Russia through an examination of the adaptation strategies of recently privatized industrial companies. Specifically, the goals of this study are:

1. To clarify the overall level of companies' adaptation in terms of productive efficiency and social adaptation dynamics.
2. To retrace the differences in corporate environment and business strategies between companies at various levels of adaptation.
3. To explore the algorithms of corporate success in main Russian industries.
4. To classify the main forms of adaptation currently being implemented in Russian industries and to assess the perspectives of each form for the further development of the Russian economy.

The paper is organized as follows. The second section outlines the main assumptions in the evaluation of adaptation processes and present the methodology and research instruments of the study. The third section describes the main prerequisites of the adaptation process. The fourth section is devoted to the results of quantitative analysis of the adaptation process — dynamics of productive efficiency. The fifth section presents the results of qualitative analysis of companies' strategies. "Micro case studies" are used here to illustrate the principal steps for corporate successes. The dynamics of personal adaptation is presented in the sixth section. The typology of corporate adaptation is exposed in the seventh section, while conclusions and suggestions for further studies are drawn in the last section.

2 Methodology for the Analysis of Adaptation

2.1 Basic definitions and assumptions in exploring adaptation processes

The adaptation of enterprises in transition economies is a complex phenomenon which may be viewed in three "dimensions":

- *the adaptation of enterprises as production systems to the radical changes in external conditions which determine their performance.* This includes the response to opening-up of domestic markets to foreign competition, accommodating conditions of high inflation, chaotic tax legislation and other "delights" of transition economies;

- *the social adaptation of employees, both managers and workers* to the new conditions of life, including the appearance of unemployment and the fall in the purchasing power of wages in industrial sectors;
- *the insertion of enterprises as networks of legal, economic and social relations to a new system of economic organization.* In a few words such insertion may be called a transition “from enterprise to firm” (see Ickes and Ryterman, 1994). This insertion comprises: privatization as the first step of legal transformation, the emergence of markets for corporate control, the establishment of harder budget constraints, the modification of enterprises’ objective functions, etc.

It is believed that these three “sides” of the adaptation process are closely interrelated. In exploring their relationship, our working hypothesis is based on the following causal connections:

1. The insertion of enterprises into the new system of economic organization rests upon the creation of new ownership arrangements. According to the classical conception of ownership (Barzel, 1988), ownership is identified as the right to exercise control over resource allocation and to receive any residual returns that may remain after contractual obligations have been fulfilled. Although agency theory (Jensen and Meckling, 1979; Fama and Jensen, 1983) raised the issue of separation between ownership and control, it argues that the control structure of the firm is part of the firm’s production function, together with the technology and productive resources. This implies that different control arrangements may result in different production possibilities sets and, therefore, in different production efficiency dynamics.
2. The production efficiency of companies in transition economies depends mainly upon the “inventiveness” of their managers in capturing the floating market conditions and their readiness to operate in a hyper-turbulent environment. Such a creativity is, in turn, the outcome of the optimal solution of the agency problem.
3. Both over-performing and under-achieving companies emerge as “goods” in the market for corporate control. The former present tempting “tid-bits” while the latter lack the means to resist corporate takeovers.
4. In principle, the level of social adaptation of employees should be the consequence of companies’ performance. On the one hand, however, such an assumption may be violated under the conditions of the various types of social policies implemented within companies. On the other hand, differences in social adaptation may affect the employees’ conduct thereby altering the company’s adaptability.

2.2 Research method

This study uses both qualitative and quantitative methods to generate insights into the organizational development and re-engineering of business in Russian companies. The

qualitative approach has been employed as a means of revealing several of the more obscure, unique and enigmatic aspects of Russian corporate life. The qualitative approach was also used in the basic formulation and classification of such complex phenomena as marketing strategies. This application of qualitative methods is consistent with the general function of qualitative research as a means “to seek answers to questions that stress how social experience is created and given meaning” (Denzin and Lincoln, 1994, p. 4). Quantitative methods were used mainly to assess the performance of companies and to estimate the popular perception of company life as a means of verifying and hence expanding the results of the qualitative analysis.

In this study three sources of information are used:

1. Interviews with top managers of industrial firms and observations of the companies' activities by some sort of “expert investigation”.
2. Records of business activities of the observed firms and an evaluation of their performance.
3. A survey of managers and employees using a specially developed questionnaire for each group.

The interviews with company presidents, chief accountants, chief engineers and personnel officers were conducted in an informal setting. The principal leading questions raised during the interviews concerned the current economic situation of the company; the goals of its top managers; the implemented marketing, human resource and organizational strategies; and the relationships with outside shareholders, business partners and local authorities.

The length of individual interviews depended largely upon the availability of a corporate executive, but usually lasted between one and three hours. Shortly after the interviews, the structural decomposition and normalization of answers were carried out using a special framework which enable us to construct some expert measures. As a result of interviews and personal observations of the companies' activities, a set of “expert” empirical indexes was created. The main variables were the following:

1. the share of export in sales — EXPORT;
2. the level of social orientation in corporate policy — SOCIAL ORIENT;
3. the intensity of contacts between the company and the local administration — LOCAL ADMIN;
4. the degree of the company's involvement in illegal business transactions — SHADOW;
5. the share of a company on the relevant market — MARKETS.

All these indicators enabled the construction of a “snapshot” of companies to be used in performance analysis.

The evaluation of company records provided additional insights into the economic viability of the companies under observation. All of the information concerning the performance of these companies was provided by their accounting offices. Quarterly balance sheets and income statements for the last three years were also obtained from these companies. In addition, copies of the official statistical forms — reporting the physical output of these companies in detailed nomenclature, cost structure, shutdown periods, etc., — were obtained. Most of the data, including financial data, was adjudged to be reasonably reliable. For each surveyed company, 54 quarterly performance indexes were constructed for 1992–1994. As an overall measure of performance, an integral index of economic efficiency was constructed.

A method for measuring efficiency known as Data Envelopment Analysis (DEA) was implemented. DEA floats a hyperplane on data for a set of operating units, such that units with maximal output/input ratios are on the surface and units with less-than-maximal output/input ratios are beneath it. DEA is a variation of linear programming, suitable for bench-marking efficiency among a set of comparable decision-making units (DMU’s). This method, invented in 1978 by Charnes, Cooper and Rhodes (1978), has been increasingly used for the last decade in studies on performance evaluation (see Norman and Stocker, 1991; Gurkov, 1992; Land, Lowell, and Thore, 1994; Leibenstein and Maital, 1994, Gurkov and Maital, forthcoming). This method is especially fruitful in the situations where organizational performance should be assessed in non-financial terms. The formal formulation of a DEA problem looks as follows:

$$\min h = \sum_{i=1}^m V_i X_{i0} / \sum_{r=1}^s u_r y_{r0}$$

subject to

$$\sum_{i=1}^m V_i X_{ij} / \sum_{r=1}^s u_r y_{rj} \geq 1$$

where

y_{rj} — output r ($r=1, \dots, s$) from producer j ;

x_{ij} — input i ($i=1, \dots, m$) used by each producer j in the sample;

$j=(1, \dots, n)$ — index of Decision-Making Units;

u_r — shadow prices (dual variable) of output;

v_i — shadow prices (dual variable) of input;

h — input based efficiency indices;

x_{i0}, y_{j0} — inputs and outputs of the particular producer whose efficiency is being measured.

The indicator of gross sales, adjusted for inflation, was chosen as a measure of output. For inputs, three indicators were chosen: the number of employees (labor input), the inverse liquidity ratio (as a measure of capital intensity), and the ratio of quarterly sales to stocks of finished goods (as a measure of marketing success/trouble).

Each firm's data was entered, for each of the 16 quarters (1991–I through 1994–IV) as a data point. DEA analysis provided an efficiency measure (a scalar varying from zero to 100%) for each firm and for each quarter. The quarterly average of the efficiency scores was taken as the performance measure.

The third component of the study was a survey of managers and workers. It involved all levels of the managerial staff, as well as production and clerical workers. The questionnaires were distributed and collected by research assistants — students of the Higher School of Economics, Moscow. Individual respondents were repeatedly and explicitly reassured that neither their supervisors nor their colleagues would have access to the answers which they provided the researchers.

The questionnaires consisted of several blocks used to measure and map the response to the following key variables:

- the perception of the present economic situation of a company and the causes of its successes and troubles;
- trust in the abilities of top managers to improve the companies' economic performance;
- transformations in the decision-making authority;
- perception of changes which took place after privatization.

Assessing the individual adaptation to the present economic and social conditions, job security and necessary knowledge and skills was done using the following instruments. The individual adaptation was assessed using an 11-item instrument, which contained statements about personal purchasing power and job characteristics. The reliability coefficient — Cronbach's α ("alpha") — of this instrument was 0.6018.

Job security was assessed using an original 6-item instrument, which contained statements about the security of a present job and the possibilities of finding another job in the same line of work. The reliability coefficient α of this instrument was 0.7248.

Assessing job satisfaction required a special 11-item instrument for evaluating overall job satisfaction and satisfaction with specific job features. This instrument is a modification of the Michigan Quality of Work Questionnaire (Moch, Cortlend and Cook, 1983), adopted to the specific Russian conditions. A 5-point scale ranging from "very dissatisfied" to "very satisfied" was used to rank the responses. The reliability coefficient for this scale was 0.7669.

Assessing the degree of partnership and mutual confidence between workers and managers was assessed using an original 11-item instrument. The respondents were asked to indicate their opinions about:

- the abilities of the management to improve the economic position of the firm;
- the loyalty of managers in defending the interests of their employees;

- the efficiency of conflict resolution within the firm.

The 5-point respondent scale ranged from “strongly disagree” to “strongly agree”. The reliability coefficient for this scale is 0.8060. The mutual partnership between workers and management and the cohesion within management teams may be considered as an important input for measuring changes in both production efficiency and power mapping.

Assessing the acuteness of routine problems and disturbances in business and production activities was done using an original 11-item instrument. The 5-point response scale ranged from “not significant at all” to “extremely significant”. The reliability coefficient for this scale is 0.8066. The examples of routine problems are “non-paying debtors”, “shortage of qualified managers”, etc. The appraisal of routine problems is a necessary element for understanding the companies’ situation. The types of problems for each company were also ranked and a pattern within the survey set was established.

All respondents were asked to give their opinion on the *real and desired owners* of a firm. They were able to choose one answer among 11 items, including “your fellow-workers”, “managing director” or even “nobody really owns”. Respondents were also asked to assess the changes they had observed in nine particular areas as a result of privatization. The 5-point scale ranged from “much worse” to “much improved” with “no change” set at the midpoint (a value of 3). The most valuable outcomes of this part of the survey was the opportunity to compare the perception of privatization, experienced by different groups within the company. This clarifies the results of the satisfaction measurement and adds more information for power mapping. The reliability coefficient for this instrument is 0.7058.

The above described instruments were used in the questionnaires for both managers and workers. The next parts of the questionnaires were reserved for managers only.

First, the questionnaire for managers contained 27 items pertaining to four types of decisions common in managerial work, namely:

1. strategic decision and capital investment — 8 items,
2. human resources — 7 items,
3. wage and benefits — 5 items,
4. production decisions (i.e., 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 (McCarthy and Puffer, 1992). The respondents indicated the perceived changes after privatization. The additional point on the scale, “beyond my duties”, allowed us to restrict the appraisal of perceived authority to strongly reliable points.

Second, managers were asked to indicate the influence of 15 business environment factors at two levels: operational business decisions and company policy. The response to the 7-point Stapel's two-pole scale ranged from "completely determines negatively" (a value of -3) to "completely determines positively" (a value of +3) with "no influence" set at the midpoint (a value of 0). The total number of factors, influencing the firm's activities, was limited to 15, from "political situation in Russia" to "local inspections' behavior". The set of different government bodies, that could affect the enterprises' behavior, was limited to 6 items; for example, "president administration", "central government", "local authorities", etc. The reliability coefficient for the first scale is 0.9409, for the second scale — 0.8445. The main reason for including this instrument into the survey was to get a picture of the macro environment and the industry environment of the surveyed companies. Listed in the macro-environment political, social and macroeconomic factors, were such items as the disintegration of the former USSR, high inflation, tax policy of the central government. The set of the industry environment factors follows the Porter's model and includes bargaining power suppliers, consumers and competitors (present and potential).

2.3 The sample

The large scope of data required from the companies and the very limited financial support for the research project restrained the scale of the field study to companies in one-day trip distance from Moscow. Field research was carried out in two steps. First, a pilot study, extending from November 1993 through May 1994, examined 35 companies in the central region of Russia. The pilot study proved the reliability of the measurements used and the general applicability of the research methodology. Twenty companies were then selected for repeat observation, conducted in April–May 1995. In general, 143 interviews were conducted with top executives, while questionnaires were administered to 399 managers and 804 workers. All of the surveyed firms were single-plant companies, privatized under the same "second variant of privatization". That meant that in 1993 in all of the companies at least 51% of the shares were acquired by employees. Moreover, in 12 companies there were complete employees' buy-outs, which transferred 100% of the stock to employees.

The use of DEA methodology put additional limitations of sample selection, because of the sensitivity of the method to missed data points. Therefore, in all the reported results which include the DEA-FIN variable, the subsample includes 13 companies in which 898 persons were surveyed.

3 Two Major Prerequisites for Enterprises' Adaptation: Establishing Effective Control Arrangements and Building the Strategic Agenda for Company Survival

3.1 Macro and meso-economic conditions for the performance of Russian industrial enterprises

The break-up of the Soviet Union and the liberalization of prices from state control on 1 January 1992 inaugurated a new economic era in Russia. The collapse of business ties between Russian companies and companies in the other former Soviet republics, high inflation and the reduction of government support to producers have combined to cause a deep fall in the nation's industrial output. In 1992, Russia's industrial output decreased by 16%, in 1993 by 15%, and in 1994 by 24% (Institute of Economy in Transition, 1995). Estimates for 1995, however, indicate that the rate of recession has slowed considerably. Indeed, industrial output for the first 10 months of 1995 fell only 4.7% from the levels reported for January–October 1994 (The Economist, January 6, 1996). However, two of the main causes of industrial decline — import substitution and the shortening of domestic solvable supply — are still valid.

First and foremost, import substitution affected the production of consumer goods. The share of imported goods on the Russian commodity market increased from approximately 30% in 1991, to 48% in the first half of 1994, and further to 54% in the first half of 1995 (Statistical Review, No. 8, 1995). Due to rapid export substitution the decline in commodity production was greater than average for all industries. While the physical dynamics of industrial production virtually stabilized in the third quarter of 1994 at 55% of the level for December 1991, the output of textiles, footwear and home electrical appliances continued to decline in 1995. The production of many types of commodities — tape recorders, video recorders, sewing machines, footwear, knitwear — almost ceased altogether in 1995. In those industries, the level of production consisted of less than one sixth of the 1991 level.

Real income also continued to decrease in 1995. In July 1995, real disposable income was only 89% of the July 1994 level. Official figures for real income, however, are quite misleading as they also encompass any income derived from benefits, business activities and speculation in real estate and financial operations. If we examine the disposable income of industrial employees, the economic situation of the individual Russian worsens dramatically. By 1994, the real purchasing power of industrial wages had plummeted to 55% from the 1989 level (Centre for Economic Conjuncture, 1994). The dollar equivalent of wages hovered around USD 100 per month from July 1994–July 1995. It is important to take into account, however, that in 1994–1995, the dynamics of the dollar exchange

rate was below the consumer price index. It should also be noted that multi-month delays in the payment of wages is the norm in many industries.

The companies observed in this study shared the same fate as Russian industry as a whole. In 1993, the industrial output, in constant prices, of the companies under observation was only about 40% of the 1989 level; while the industrial output of these companies for the first quarter of 1994 was only 20% of that posted during the first quarter of 1989.

Moreover, during the recession, Russian enterprises were forced to pass through a corporate restructuring process called privatization. According to the World Bank, "mass privatization is a process in which a substantial portion of an economy's public assets is quickly transferred to a large, diverse group of private buyers... Mass privatization usually involves the distribution of shares of state enterprises to the public, either for free or for a minimal charge, generally through a voucher allocation scheme. Vouchers take the form of certificates distributed to the population and are convertible into shares in state enterprises... The economic objective of such a programme is quickly privatizing a large number of firms to deepen market forces and competition within the economy" (World Bank, 1995, p. 3).

With the launching of the State Program of privatization in June 1992, Russian enterprises were given 60 days to corporatize (i.e., to transform their legal entity into a joint partnership or joint-stock company), select privatization variants and develop and submit their privatization plan to a supervisory privatization agency. Three variants of privatization were proposed for medium and large-sized industrial enterprises. In the so-called "second variant", for example, chosen by 74% of enterprises, workers and managers could purchase up to 51% of a company's stock by closed subscription at a nominal price: 1.7 times its July 1992 book value. The remaining 49% was divided into two parts. 29% was to be sold by voucher auction before June 1994 while the government retained possession of the remaining 20% which was to be sold off through cash auctions or investment tenders.

Until the middle of 1993, however, complete employee buyouts were still allowed. As a result, many state enterprises were transformed into 100% employee-owned closed partnerships or closed joint-stock companies. Since the middle of 1993, when complete employee buyouts were forbidden, managers have sought to circumvent this proscription by collecting vouchers from workers or buying vouchers on the "street market", thereby assuring the "working collective" the maximal possible share of corporate ownership. As a result, when the voucher privatization program was officially reported "successfully completed" on 1 July 1994, most of the managing directors of Russia's medium and large-sized industrial enterprises found themselves the newly elected presidents of failing joint-stock companies manned by employee-shareholders interested not in dividends but in keeping their jobs. Moreover, their companies' stock had been dangerously devalued. Many workers had been defrauded of their shares by investment companies interested only

in speculation, while large numbers of shares had been acquired by outsiders in exchange for vague promises of future investment.

Three years after price liberalization and the opening of domestic markets to foreign competition, the prevailing attitude within Russian firms could be encapsulated in the pathetic complaint of one re-engineering pioneer: “No more unearned, inherited brand loyalties; no more cordial rivals in the same markets; no more confident pass-alongs of rising wages and benefits in the form of higher prices; and no more indulgent protection by national government” (Champy, 1995, p. 18). In actuality, the everyday problems confronted by Russian industrial companies are quite similar to those faced by their American counterparts, particularly smaller companies, during a recession — lack of cash, high bank indebtedness, irregularity of production due to the absence of orders and uneven supply and poor work discipline (see National Institute of Business Management, 1991).

When surveyed, managers and workers were asked to indicate the most disturbing factors facing their company’s operations, using a 5-point scale ranging from “not important at all” to “extremely important” (see Table 1). Mutual arrears, lack of the means to purchase raw materials and semi-finished goods, high debts to banks and suppliers, and irregularity of production were listed as the most disturbing factors both in 1994 and 1995. The only statistically significant improvements in 1995 were the stabilization of energy supply and strengthening the work discipline. At the same time, the managers realized the increasing danger of unemployment as their companies moved towards bankruptcy. At this point the difference between 1994 and 1995 was quite significant (2-tailed probability <0.01).

The continuous nature of the above mentioned disturbances has seriously affected the functioning of the observed companies. By 1995, the acuteness of the situation had become glaringly evident to all employees, regardless of rank or seniority. In the 1995 survey, both managers and workers were asked to assess the status of their companies (see Table 2). On the whole, only 12% of the managers and 11% of the workers characterized companies as “stable”, while 18% of the workers and 13% of the managers viewed the situation as “extremely bad”. It is hardly surprising that managers were slightly more optimistic in their estimates than the workers, for managers are better informed about prospective contracts and hence able to perceive opportunities far earlier than workers.

The assessment of the current situation varied between companies in different industries. While 14% of the managers and 16% of the workers in construction-related companies perceived the situation as “stable”, there was not a single manager in a machine-building company who reported a “stable” situation. Almost half of the managers in machine-building companies described the situation as “bad” while another 27% reported the status of their enterprise as “very bad”.

Managers and workers were also asked to select a possible explanation for business failures. Managers and workers alike selected three main causes of failure: the “collapse of former business ties” (37% of the managers and 37% of the workers); “weak top management within the company” (20% — managers and 32% — workers); and “business

partners let us down” (17% — managers and 20% — workers). The explanations emphatically stressed the human element — namely, the incapability of top managers to maintain business ties or to establish new contacts.

The survey also revealed a profound discrepancy between managers and workers in their assessment of the abilities of current top-level management to improve the situation. Both managers and workers were asked to express their level of agreement on a 5-point scale ranging from “completely disagree” (coded as 1) to “completely agree” (coded as 5), with several statements that described the behavior of top management. In 1994, the assessment of managers by workers was positive. However, in the 1995 survey the assessment of current top-level management by workers was changed to overwhelmingly negative (see Table 3). The only segment of management singled out for positive assessment by workers were their direct supervisors — shop-floor managers, the majority of whom vigorously defend the rights of workers. In addition, while managers of lower ranks still assess positively the actions of top managers, the confidence of shop-floor and middle managers in the goodwill and abilities of top managers to protect jobs and to defend their other interests also deteriorated.

This situation presents a serious potential threat to top managers. It should be emphasized, however, that privatization initially transferred controlling interests in companies to employees. In most of the observed cases, the top managers did not own more than 5% of the shareholders’ equity at the beginning of 1994. Such findings are generally consistent with the results of other surveys of privatized Russian companies (Blasi, 1994). The profound dissatisfaction of worker-shareholders with present top management, therefore, may proceed to changes in corporate governance.

Currently, the top executives of Russia’s privatized companies face two major challenges: the expansion of their control over the companies they manage and the discovery of solutions which will enable their companies — and, by extension, themselves — to survive the recession. These tasks are closely interrelated. Indeed, on the one hand, in order to survive the recession, top executives should implement a major reorientation of their company’s operations thereby establishing new standards of performance and quality and new requirements for their company’s personnel. To realize this goal, however, these top-level executives need more power over, and more autonomy in, strategic decision-making. On the other hand, should an executive prove his ability to successfully run a company, despite an uncertain and unfavorable economic climate, that manager will have derived a tangible claim to ownership over that company. Moreover, a company’s improved performance increases both its cash-flow and its credit rating, potentially facilitating a managerial buy-out. The analysis of these companies, therefore, makes it possible to discern the interaction of these processes in real life.

3.2 Establishing new control arrangements

The first issue which these surveys explored was the configuration of control over privatized companies. In order to determine the extent of organizational transformation, managers were asked to select the “real owner” of the company they administer from a list of 11 options which included: “yourself and the employees of your level”; “the general director”; “the top managers”; “domestic financial institution”; “foreign firm”; and even “nobody really owns” this company. Since the number of respondents varied from company to company, the main intent of this line of inquiry was not to determine the general distribution of answers, but rather to discern the situation of individual companies.

Four prevalent types of control patterns for privatized companies in Russia emerged from the surveys conducted in 1994:

- dispersed control, defined as a situation where more than 40% of a company’s managers select themselves as the “real owners”;
- concentrated managerial control, where more than 40% of the managers consider top management as the “real owner” of their company;
- director’s control, where at least 40% of a company’s managers view the general director as the company’s “real owner”;
- unclear control, where more than 40% of the managers believe that “nobody really owns the company”.

Of the 20 companies surveyed in 1994, dispersed managerial control prevailed in 6, concentrated managerial control governed a further 6, the general director was viewed as the real owner of 3, while no clear control was reported in 5 companies (see Gurkov, 1995).

The 1995 survey revealed new evidence of post-privatization development. First, a slight rise in the director’s control — from 3 to 4 companies — was observed. Second, while the share of companies under concentrated managerial control remained unchanged, the number of companies under dispersed managerial control decreased from 6 to 4.

After cross-tabulation of “old” and “new” control arrangements, these changes become more evident. In two companies previously under dispersed managerial control, there was a shift towards concentrated control, while another shifted towards director’s control.

Another significant result of the comparison of control arrangements between the 1994 and 1995 surveys, was the appearance of a new type of control — “outsiders’ control”. It should be stressed that prior to 1994, “outsiders” had acquired considerable interests in 8 of the 20 companies which comprised the total sample. In only two instances, however, during the period extending from 1994 through the first half of 1995, did outsiders’ interests increase through investment tenders obtained through the selling off of the government’s 20% share of a privatized company’s holdings. In contrast, in 1994, there were no companies under the control of outsiders and none of the managers then surveyed

reported a significant influence over their company's business by foreign shareholders. In 1995, 3 companies previously reported as under unclear control had become controlled by outsiders, while in another 3 companies, at least 10% of the managers believed that outside shareholders — in particular foreign investment funds and banks — had become the “real owners” of their company. Clearly, the survey shows that by 1995, the intervention of foreign investors in the management of Russian industrial concerns — or at least the perception of such intervention — had become glaringly apparent to an ever-growing number of managers.

In both 1994 and 1995, almost half of the surveyed companies' managing directors or other top executives were viewed by other managers as “real owners” of their companies. However, despite this confluence of managerial opinion, the two surveys described above clearly illustrate the inherent instability of the corporate control arrangements present in post-privatization Russia. Between 1994 and 1995, the managers of three of the companies under observation reported that their general managers had lost control over corporate strategy. The second survey revealed that, while in one instance, the director now shared authority with the company's other top-level executives, the managers of the other two companies reported a situation of general strategic confusion, which had led to the loss of clear market orientation, resulting in the companies' deteriorated performance. Such a situation was characterized by managers as a shift to “nobody's control”. During the analysis of transformations in control arrangements some branch specifics were revealed. For surveyed milk factories the stability of “dispersed managerial control” was observed. All the surveyed machine-building enterprises experienced “unclear” control in 1994 and in 1995 became outsider-controlled. In textile, chemical and construction industries an unstable situation was observed, when similar companies moved in opposite directions in control transformations.

In an effort to avoid such instability, top-level corporate managers are attempting to acquire controlling interests in the companies they administer thereby converting themselves into the companies' legal owners. Executives view this step not only as a means of consolidating their personal control over corporate policy but as a shield against challenges to their authority from both employees and “outsiders”.

In-depth interviews with top executives revealed five principal methods employed in transferring employees' shares to top-level managers. The first method entails the direct buy-out of employees' shares at arbitrarily set prices. It should, however, be noted that the [current] face value of shares corresponds to the book value of fixed assets in 1992 prices. In order to counter-balance the deleterious effects of high inflation during the period of privatization, fixed assets were re-evaluated annually, in accordance with new replacement prices. The resultant increase in equity, however, was simply accounted as “additional capital”, without new stock being issued or an alteration of the face value of existing stock. As a result, the formal stockholders' equity (registered capital) amounts to less than 1% of the total equity in the majority of the surveyed companies. The usual price per share, paid to employees by executives, while 15 to 50 times the face value of

the stock, is at least several times lower than its real value. Since none of the joint-stock companies surveyed were listed on the stock exchange, employee-shareholders were forced to sell their stock for artificially low prices in a buyer's market which is manipulated and monopolized by the buyers.

The second method of transferring employees' shares in a joint-stock company to its top-level managers is the formation of an alliance between the company's top managers. This pattern of transference emerges in instances where the managing directors lack the financial and organizational wherewithal necessary to acquire the employees shares outright. The surveys conclusively demonstrated a pattern of clustering amongst the worker-shareholders. Each group of employees revolved around, and was identified with, one of the allied top managers. Each manager — for example, the general director, the chief engineer and the chief accountant — maintained such a “cultivated plot” of employees from whom he attempted to elicit control over the rights pertaining to their shares in the company. The assignment of voting and return rights to the manager was then legalized by a formal agreement, known as “passing the title”. There is considerable anecdotal evidence that similar schemes have been employed in many other privatized Russian companies. Few top managers, however, are willing to admit to complicity in such a scheme so as not to reveal the true extent of their extensive wealth and power.

When employees proved unwilling to sell their stock, top-managers engineered high levels of personnel turnover by employing such tactics as wage delays, the enforcement of absurd rules of employee conduct and by refusing to rectify poor or dangerous working conditions. Such extraordinarily high turnover rates were the culmination of a well-defined organizational agenda that comprised the third method of transferring employees' shares to top-level managers. By law, any employee-shareholder who was fired from a closed joint-stock company or from a limited partnership was required to sell his/her shares in the company back to the company for a nominal price. All the “liberated” shares were then concentrated in the hands of general directors and other top executives. While a stockholder who is fired from an open joint-stock company is free to keep or dispose of his/her shares as he/she sees fit, former employees of such companies overwhelmingly prefer to sell their shares back to the company for a standard nominal fee rather than risk a potential loss of principal in Russia's underdeveloped, unstable and largely unfamiliar capital markets.

In the fourth method of stock transference documented by this study, the general director served as the “black knight” of a corporate takeover — the point-man for the investment company, trading house or commercial bank which provided the means necessary to conclude an intensive buy-out of a company's workers' holdings. As payment for such service, the general director was awarded a significant amount of the company's stock (between 20% and 30%) once the outside investors' controlling interest had been consolidated.

Finally, the fifth method, used mainly by large companies, entailed the unification of workers' shares in holding companies. General directors were then elected to the presi-

dencies of these new companies, which functioned as “parent” companies, enabling the general directors to maintain control over “subsidiary” businesses. Top-level management was thus able to retain the profits accrued by the “subsidiary” companies thereby gaining sufficient credit to finance a stock buy-out of the “parent company”.

3.3 Relationship between control arrangements and models of economic behavior

It should be stressed that the distribution of control arrangements in our 13-companies subsample corresponds to the general distribution. Indeed, in the 1994 subsample “dispersed managerial control” was observed in 27% of companies (30% in the general sample), “concentrated managerial control” — in 35% (30%), “director’s control” — in 15% (15%) and “unclear control” — in 23% (25%) of the cases. In 1995, the distribution of control arrangements in the subsample also repeated the distribution of the total sample in general: “dispersed control” was reported in 21% of the cases (20% in the total sample), “concentrated control” in 21% (30%), “director’s control” in 16% (30%), “unclear control” in 26% (15%), and “outsiders’ control” in 16% (15%) of the cases. The performed T-test confirmed the low probability of unequal means of the total and subsample (2-tailed probability > 0.1). Therefore, it was decided to present the results of the relationship between expert and efficiency measures and the control arrangements for the subsample as sufficiently representative for the whole sample.

First at all, DEA efficiency measures for each company were computed. As an additional measure of financial performance the “financial stability ratio” was computed. The expert and performance measures for the surveyed companies are presented in Table 4.

The correlation analysis showed a high correlation between the efficiency scores and the measure of financial performance. Therefore, it was decided to base the assessment of performance solely on DEA scores. The averages of the principal expert and performance measures for each type of control are shown in Table 5.

It may be seen that concentrated managerial control was established in the companies with the highest dynamics of economic efficiency, some involvement in export operations, good relations with the local authorities and weak contacts with “the shadow economy”. Companies under “director’s control” are characterized by high economic efficiency, marked social orientation in corporate policy, low share of the relevant markets and relatively high involvement in “shadow transactions”. The prerequisite for the corporate take over of Russian enterprises by outsiders (financial companies, banks and diversified trading houses) was the existence of established relations between the outside interest and the company. The possibility of the targets’ corporate executives mounting an effective “anti-takeover” defence was severely depreciated by their companies’ weak financial performances. The main interest of those outsiders which invest in a Russian company is its influence on overseas markets. Companies under “unclear” control enjoy a quasi-monopolistic position in relevant markets that enables them, on the one hand, to devote

less attention to promoting export contacts while, on the other hand, to maintain social orientation. Finally, companies viewed by their managers as “collectively controlled” are characterized by the worst dynamics of productive efficiency and, therefore, possess severely limited means to realize social programs for their employees.

This step of analysis confirmed the first assumption of our working hypothesis — different control structures do result in different production possibilities sets and, therefore, in different production efficiency dynamics. The next step was to clarify how different aspects of adaptation behavior interact at the corporate level and what the consequences are of various adaptation models at the “micro-micro” level.

4 Quantitative Analysis of Economic Behavior — Towards the Typology of Corporate Adaptation

The forms of economic behavior are specific and there are various causal relations between them. Although the size of the subsample was very limited, it enabled the main tendencies of the parameters’ interaction to be revealed. Table 6 exhibits the results of the correlation analysis of the main efficiency and expert measures.

The closest positive relationship (corr. = 0.84, 2-tailed probability 0.001) was found between the export orientation of companies and the intensity of contacts with the local authorities. It is reasonable to suppose that local authorities profit in different ways from companies’ export contracts. Interviews with corporate executives also revealed an additional explanation for such close connections: in many of the observed cases, the local authorities serve as the promoters of contacts between local companies and foreign partners.

A close positive correlation (corr. 0.43, 2-tailed probability 0.01) was also found between the dynamics of economic efficiency and the social orientation of corporate policy. The results of such a policy are quite obvious. Indeed, the high motivation of employees, which manifests itself in higher production efficiency, may be attributed to the high visibility of a company’s “social care” program. Good performance, in turn, facilitates the implementation of social programs.

The most intriguing outcome of the correlation analysis, however, was the discovery of a strong negative relationship between involvement in the shadow economy and economic efficiency (corr. -0.22) — especially between involvement in the shadow economy and the share of relevant markets (corr. -0.53, 2-tailed probability 0.001). It was concluded, therefore, that companies which have an insufficient share of their relevant market and a low productive efficiency are liable to turn to the “shadow economy”.

The results of the correlational analysis between the principal expert measures and the variable, drawn upon managers’ surveys, revealed the consequences of involvement in the shadow economy as well as the sources of superior economic performance.

First at all, Mafia involvement was initiated when directors had less influence over the initial distribution of shares during privatization (corr. = -0.25, 2-tailed probability 0.01). In the surveys, managers were asked to assess the financial situation of their companies on a 3-point scale and also to report the layoff level at their company for the last three years. It was found that variable MAF95 strongly correlates negatively (corr. = -0.37, 2-tailed probability 0.01) with the assessed financial performance and also correlates positively with the intensity of layoffs (corr. = 0.31, 2-tailed probability 0.01). Based on these correlations, it was concluded that involvement in the shadow economy serves as an umbrella for ineffective, troubled companies. The costs of such protection are obvious. Indeed, there is a strong negative correlation between MAF95 and

- the level of managers' salaries (corr. = -0.23; 2-tailed probability 0.01);
- the possibility of lower-ranking managers receiving social benefits from the companies (corr. = -0.22, 2-tailed probability 0.01);
- the assessment of the influence of privatization on the personal economic situation of employees (corr. = -0.29; 2-tailed probability 0.01).

The negative correlation between the degree of involvement in the shadow economy and the change in the managers' influence on productive decision is also instructive. Out of a possible 27 types of productive decisions, involvement in the shadow economy is positively correlated with the expansion of managers' autonomy in only two cases — in decisions concerning the layoff of workers and the promotion of exports.

The correlation analysis also revealed a very interesting divergence in public opinion between effective and mafia-run companies. While the DEA-efficiency correlates positively with the perceived "impact of the public opinion on both operating business decisions" (corr. = 0.23; 2-tailed significance 0.01) and corporate policy (corr. = 0.26; 2-tailed significance 0.01), as involvement in the shadow economy increases, public opinion becomes increasingly negative (corr. = -0.18 for the impact on operating decisions and corr. = -0.20 for the impact on corporate policy). This correlation shows that Russian public opinion is starting to play a role in shaping socially accepted forms of corporate adaptation.

Correlation analysis between the DEA efficiency measures and variables drawn from the questionnaire for managers unveiled the source of good performance. First and foremost, the positive correlation between DEA efficiency and the "impact of solvable demand of population on corporate policy" (corr. = 0.26^a) signifies that the over-achieving companies have been successful in capturing the segments of solvable demand. This is also suggested by the positive correlation between DEA scores and the assessment of the managers of positive influence of privatization on consumer satisfaction (corr. = 0.24^a).

Currently over-achieving companies have a very good chance of surviving in the future. Such confidence is not only consistent with the self-assessment of managers (the correlation between DEA scores and the managers' agreement with the statement "The

present top management is capable of considerably improving the situation of the company” is 0.27^b). It is also confirmed by the fact that economic performance is correlated with “accessibility of external financial resources” (corr. = 0.24^a) and with “possibilities to improve responsibility and job requirements” (corr. = 0.22^a). Perhaps the most informative connection, however, is the strong positive correlation between the DEA efficiency scores and the admission — made by surveyed managers — that “it became interesting to work”. This is the only statistically significant correlation between DEA efficiency and the measures of personal adaptation.

Good performance provokes a placid assessment of the factors of micro-environment. There are statistically significant positive correlations between DEA scores and the behavior of suppliers (corr. = 0.25^a), banks (corr. = 0.28^a), customers (corr. = 0.24^a) and even tax inspectors (corr. = 0.26^a). Indeed, there are good suppliers, fair bankers and nice tax inspectors, but only if the bills, interest and taxes are paid on time.

There is also a positive correlation between performance and the assessment of the behavior of different subjects of corporate governance — the managing director, top executives and employee-shareholders (corr. = respectively 0.22^a ; 0.24^a and 0.22^a).

The correlation analysis also revealed Russian managers’ highly selective perception of the governmental economic policy. Indeed, as the role of exports rises, so too does the negative assessment of the impact that the disintegration of the USSR’s has had on strategic decisions and the negative impact of the current customs policy on corporate decisions (corr. = -0.20^a and -0.21^a respectively). On the other hand, there is a statistically significant negative correlation between the degree of involvement in the shadow economy and the assessment of the impact of local authorities (corr. = -0.21^a).

In general, the correlation analysis between DEA-FIN, EXP95, and MAF95 variables and selected results of the managers’ self-assessment of the overall situation of their companies revealed the following relationships:

- Good dynamics in productive efficiency are strongly related to sufficient financial performance (corr. = 0.34^a), while involvement in the shadow economy is strongly associated with bad financial performance (corr. = -0.37^b).
- The degree of export orientation has no direct impact upon the financial well-being of the companies.
- The dynamics of productive efficiency — especially the degree of export orientation — are strongly correlated positively with the size of companies (corr. = 0.36^b and 0.59^b respectively). This may reflect the effects of scale and scope on the economy, as well as the greater opportunities larger companies have to overcome entry barriers on overseas markets. Good dynamics in productive efficiency has a very strong positive impact on labor force dynamics (corr. = 0.71^b). This means that the “soft” employment policy still results in better performance at the micro-level.

- Export orientation, however, has a negative impact on labor force dynamics (corr. = -0.26^b).
- Finally, involvement in the shadow economy is characteristic mostly of small and medium sized companies (corr. = -0.44^b between size and MAF95). Moreover, mafia-involved companies are characterized by maximal layoffs (corr. = -0.31^a). The reader is reminded here that the administering of layoffs was the sole area where the managers of mafia-run companies had experienced an increase in their authority.

The next section will show how these quantitative results reflect actual, implemented adaptation strategies.

5 Qualitative Analysis of Adaptation Strategies in Russian Processing Industries

5.1 Some common features of the Russian corporate strategies

In this section the methods of analysis will be changed from organizational economics' approaches to strategic management. Some distinctive features of Russian industrial companies will be outlined. First of all, the most common feature of the surveyed companies in terms of their competitive situation is the single-business orientation. This is the consequence of 60 years of "specialization" policy. All of the surveyed companies are single-plant firms. Second, there is traditional separation between production and marketing. It is apparent that most Russian companies do not compare well with their Western counterparts in terms of *non-production* attributes such as delivery, convenience, information and attendant services (before, during and after sale) (Abell, 1992). Third, all of the surveyed industries (food processing, textile, basic chemicals, construction materials and machine-building) are mature or declined industries. Moreover, in textiles, construction materials and machine-building there is a situation of fragmented industries made up of numerous small and medium-sized companies. Increasing transportation costs and local "regulatory" requirements (from both the local authorities or local mafia dons) are making food processing markets also highly fragmented.

Finally, most of the Russian markets exhibit the conditions of emerging markets:

- There are no "rules of games"; the issue of how the market will function is open-ended.
- Firms lack solid information about competitors, buyer needs and preferences; industry participants are forced to grope for the "right" strategy.

- Difficulties in securing ample suppliers of raw materials and components are encountered and raising the capital needed is a strain (Thompson and Strickland, 1987, p. 122).

The only possible strategy in such conditions is offensive strategies — building and maintaining competitive advantages via simultaneous attack on many fronts. The following paragraphs exhibit some of the most distinctive cases of successful crafting and implementation of adaptation strategies.

5.2 Creation of a new strategic vision

The first, most crucial challenge for Russian companies is the creation of a new strategic vision. A new strategic vision has begun to noticeably permeate the agendas of director-controlled companies. Short-term goals have begun to be displaced by long-range planning, marketing strategies have begun to broaden and diversify, existing modes of business have begun to be critically examined and a genuine disdain for unprofitable and counter-productive activities and practices has emerged. It was observed, that as a result of their self-propelled transformation into the true owners of their companies, director-owners have begun to consider their companies not as sets of obsolete equipment, old buildings, outdated infrastructure and workers which they must maintain, recompense or feed, but as networks of tangible and intangible assets that must be augmented and safeguarded in order that they might be transferred to the next generation. This new strategic vision is, perhaps, the most significant shift in the mind-set of Russia's top executives.

5.3 Developing sensitivity to customers

The newly privatized Russian companies find themselves in a unique situation: after decades of operating in a closed market — complete with state subsidies and price controls — they must now develop the requisite marketing skills to protect local markets against both foreign and domestic competition. In order to achieve these goals, Russian companies must quickly learn the rudiments of customer satisfaction. As one production superintendent colorfully phrased it during his interview: “We have spent all our life sitting behind the high fence that separated us from the customers”.

The urgency of learning modern marketing techniques is also dictated by a threat from newcomers — imported commodities to Russian markets. Moreover, since 1992, Russia has been inundated with an ever-increasing influx of imported consumer goods. While not always of the highest quality, most of these imports are attractively and colorfully packaged, and shrewdly marketed through aggressive advertising campaigns. “New Russians” — the only group of domestic consumers with a high income and low price elasticity of demand — have constructed a conspicuous social image based upon a total aversion to domestic-made goods. Lower income groups have tried to emulate the spending habits of the New Russians. While they share the same appetites and aspirations as the New

Russians, lower income Russians are hamstrung by a high price elasticity of demand. The commercial cravings of this class of consumers have led to the development of a new strategy called “window-dressing” which entails the production of mediocre quality goods that are marketed at a sharp price.

An analysis of the data collected for this study indicates that the “window-dressing” strategy has been successfully adapted by the majority of successful Russian companies. The realization of such a strategy requires two preconditions:

- a good understanding of the preferences and tastes of the “poor” consumers who ape the tastes of “rich” consumers;
- selling at bargain prices.

In turn, these preconditions require an enormous amount of preliminary and constant work, which includes:

- the qualitative and geographical segmentation of consumers and markets;
- determining the demand elasticity of each type of consumers in each sales location for every kind of product to set “significantly” different competitive prices;
- the minimization of overhead, transport, distribution and production costs in order to maintain the profitability of sales at bottom prices.

Maintaining production operations at the lower limit of profitability and on the “sensitivity border” of the marketing department forces a company to completely reorganize its production and distribution systems. Successful implementation of the “window-dressing” strategy also necessitates a reorganization of the distribution system in order to enable the producing company to employ a direct sales strategy so as to maximize its profit from the production and sale of low-margin items. A direct sales strategy not only eliminates the role of the profit-draining middle-man but also enables the company to keep a close eye on the ever-shifting tastes and demands of the market for which it is in the business of producing goods. The “window-dressing” strategy, therefore, forces a company to be more flexible in its production schedules, to acquire new contracts and decrease the turn-around time of orders which are executed immediately so as not to lose the market.

Variants of the “window-dressing” strategy have been successfully applied in all of the observed industries. In, for example, the housing industry — an industry which is now catering to a small, relatively rich, Russian market consisting of businessmen, local Mafiosi, directors of privatized companies and the like — producers of panel-construction apartment blocks began to offer inexpensive “pseudo-cottages” built from large panels but decorated so as to resemble more expensive brick villas. Likewise, in the food processing industry, dedicated to the mass consumer, the main attention of managers is devoted to discerning every aspect of solvable demand. Company No. 22, for example, a dairy, divided its production lines into two segments: one producing small packages, retailed

from moving kiosks which served offices and factories, and another which produced large packages designed for household consumption that were retailed in supermarkets.

Another example of adaptation to market conditions can be found in the geographical segmentation of markets. In small towns, confectionery producers determined the location of commercial banks and installed retail outlets for the vending of more expensive confectionery at those locations. Spurred by the success of these ventures, several confectioners have effectively marketed goods in sophisticated packaging which imitates the style of imported — and hence, more expensive — goods, thereby increasing their profit-margins. Privatized bread factories, which face stiff competition from small private bakeries, have attempted to offer new and imaginative services to customers whose primary commercial impetus is no longer merely hunger but, increasingly, convenience. Many bread factory managers have discovered that the fleets of lorries which their companies maintain for the distribution and sale of their baked goods provides them with a “competitive advantage” over private bakeries. Several enterprise managers have exploited that “competitive advantage” by delivering fresh bread to summer-cottage communities, cementing a year-round link with their winter customers — city-dwellers who seek refuge from the crowded cities during the summer months.

None of the strategies enumerated above could have come to fruition had not new channels of distribution been established following the dissolution of the Soviet Union’s centrally planned economy. One of the primary features of the centrally planned system was a tightly controlled monopoly over the distribution of goods. After the collapse of the communist system, around one million new private wholesalers and retailers have been established. Most of these new economic distributorships are little more than small scale traders which conduct business within a small geographic area. Manufacturers have thus been forced to deal with a large number of distributors operating under vastly different conditions. Moreover, the extremely high commission rates applied by private retailers make it impossible for producers to maintain competitive consumer prices. Fortunately, Russian managers entered the recession without textbooks such as “How to Survive the Recession”, which suggested that “strategies should (at least until the crisis is over) generally avoid a fundamental change in the character of business and major changes in the business at the interface with consumers” (Prescott, 1982, p. 117).

One of the most original solutions to this problem was proposed in a director-controlled company No. 15. This company produces winter outer-wear. Production has a strict seasonal character; in March–April the demand falls by 70–80%. During the summer downtime, almost all middle and shop floor managers and engineers work as distributors. A flexible system of benefits, which rewards managers for every contract they conclude, makes the summer distributorship a highly attractive activity. Direct observation of company No. 15 revealed that the managers had already divided Russia into separate trading areas and competed among themselves, establishing long-term relations with retailers. As a result of such close contact with the retailers in their designated sales area, each manager obtains a clear and detailed picture of consumers’ needs and preferences. Thus, potential

misunderstandings between the marketing, engineering and production departments are circumvented, and a constant stimulus towards production innovations and high quality was firmly established.

5.4 Vertical intergration

Another example of an enterprise reorganizing its marketing strategies in order to adjust to economic realities was observed when a second textile plant — a large factory which had tremendous difficulty finding a market for its material — took over several clothing factories. The textile plant first forced the clothiers to tailor exclusively with the material it produced. It then concluded long-term agreements with more than 100 retail shops concerning the marketing of both the material and the clothing it produced. This scheme enabled the textile factory to establish close contact with the consumers of its products that led to the implementation of strict new quality standards for its material. This vertical intergration strategy led to superior financial performance of the company.

5.5 Overall low-cost leadership

The maintenance of low prices should be based on cost advantages which, in turn, lead to the optimization of the production structure, the exploitation of the economies of scale and the minimization of organization expenses. An excellent example of this principle in action is company No. 1 which produces furniture. Over the last two years, the list of suppliers was drastically revised by the company's procurement department. The main criteria for the choice of a supplier were:

- the quality of the semi-finished products and raw materials it supplied;
- reasonable price;
- stability of supply;
- the financial position of the supplier.

The last two points were of crucial importance. Company No. 1 preferred to deal with suppliers which were in dire financial straights and which suffered from problems of procurement. The company's strategy towards such firms was to intercept their key lines of procurement, thereby forcing a supplier to conclude a special agreement of barter trade. Such long-term bilateral agreements granted firm No. 1 the exclusive rights to the supplier's stock of raw materials. A special Russian term, "davalcheskoe syrie", describes this system of multi-level barter trade, in which a consumer provides a manufacturer with the raw materials necessary to fashion the desired product. The terms of these agreements, concluded while suppliers are in dire fiscal distress, are naturally extremely favorable towards company No. 1. The prices the company sets for raw materials are 50% to 60% below average market prices (see Gurkov and Kuzminov, 1995).

5.6 Reshaping the industry structures

When the above described strategies are difficult to implement, the natural exit is inter-enterprise agreements and cartelization. The initiation of inter-enterprise agreements starts from two sides. First, there are tacit or open agreements between producers of some basic commodities. Usually the agreements determine the territorial segmentation of markets, because in the conditions of high inflation the price agreements are difficult to monitor. Some of the well-known examples are the cement cartel in Central Russia, panel brick producers' cartel, etc. Second, the impulse for cartelization originates from large banks and investment companies. Having acquired controlling interests in a number of main producers of inter-related industries, Russian banks create a mechanism of inter-industrial integrations. Sometimes such mechanisms embrace not only Russian companies, but producers from other CIS countries.

Irrespective of the welfare effects of monopolization and vertical restraints, it should be stressed that at least in the USA both areas are the objects of more and more permissive anti-trust policy (see Mueller, forthcoming). Mergers in globally oriented industries (aerospace, electronics) have also received "softer" treatment in the USA in the last two decades. In this respect, in the author's opinion the "J.P. Morganization" of Russian industries by the creation of diversified concerns is an unavoidable step of creating a market economy. The main question here is to create such a set of economic regulations so the business concentration would have a positive impact on competitiveness.

5.7 Edging to overseas markets

The last type of adaptation strategy observed in the surveyed companies can be called "edging towards overseas markets". Such a strategy entails the concentration of a company's efforts on the maximization of export sales. Of the 35 observed companies, four — two textile companies, an electronic plant and a producer of fertilizers — exported more than 70% of their total production.

The initial impetus behind the evolution of exclusively export-oriented enterprises was a shortage of domestic solvable demand. The development of this strategy, however, cannot be traced to the initiative of Russian corporate executives but to those trade intermediaries who "discovered" these companies and "betrayed" them to foreign partners. As a result, none of the intensively export-oriented companies among those surveyed has had direct access to foreign retail, or even small wholesale, markets. In all such cases, foreign intermediaries completely controlled the companies' marketing channels. In the textiles industry, foreign intermediaries also control the supply channels. Their foreign partners provide them with raw materials such as wool and cotton — commodity credits which are satisfied with supplies of finished products.

It is obvious that under such conditions the foreign partners are able to manage the value-adding chain so as to set the minimal share in value added to Russian producers. In all of the cases observed, the prices set by foreign partners have not covered the

discounted production costs of the Russian producers (accounted for in the production cycle and inflation index). The freezing of the exchange rate in July 1995, however, has made exports absolutely unprofitable as prices have not covered even the current variable costs.

The fixed exchange rate policy has resulted in a “stalemate” situation for export-oriented companies. On the one hand, they cannot return to the local markets they abandoned in favor of an export-oriented enterprise, for over the last few years they have not only lost the necessary local contacts but have also dismantled their local-oriented marketing management. On the other hand, these companies also lack the requisite financial wherewithal and technical skills necessary to succeed in direct sales in overseas markets. They lack brand-name recognition, experience in modern sales techniques and even often have no staff with a sufficient knowledge of foreign languages.

The obvious economic inefficiency of these export-oriented enterprises may have serious negative repercussions on the future adaptability of Russian industry. Indeed, direct foreign investment in the Russian economy is still infinitesimal. More than half of the total foreign investment was oriented towards energy-related sectors, finance, banking and trade. From January–July 1995, the machine-building industry received an impressive amount — USD 22.9 million. Under such conditions, the participation of Russian industrial enterprises in the international division of labor, even as unequal partners, will lead to the transfer of managerial techniques, methods of quality control, marketing knowledge, etc. Viewed in perspective, export-oriented enterprises should serve as “benchmarks” for other Russian companies within the same branch of industry. In this respect, the further shortening of exports by manufacturing industries will extend the gaps in production and managerial technologies.

6 Dynamics of Social Adaptation

Beyond the dynamics of economic efficiency and sophisticated marketing strategies we should recognize the adaptation process at the “micro-micro” level — the personal adaptation of managers and workers to swapped living and working conditions. In this study the self-assessment of adaptation was preferred to doubtful figures of “real wages”, “consumption power” and other aggregated measures.

6.1 Self-assessment of living and working conditions by employees

First, the dynamics of self-assessment of the living conditions of managers and workers were retraced, comparing the results of the 1994 and 1995 surveys (see Table 7).

It may be seen that the most visible change that has occurred in the last few years is the increased feeling of instability and uncertainty. Indeed, 85–90% of both the surveyed

managers and workers confirmed that “they worried much more about tomorrow” and around 80% “might rely only upon themselves”.

Second, the majority of employees have experienced a reduction of food consumption and purchase of clothes. It should be stressed that the significant difference between managers and workers in these two points, observed in 1994, completely smoothed in 1995.

Third, the changes related to job conditions were recorded. It became more difficult to work for workers and especially for managers; both managers and workers had to work much more and to search for additional sources of income. However, for a considerable number of the managers (25% in 1994 and 30% in 1995) the work became more interesting.

The mentioned types of changes in living and working conditions are reflected in the dynamics of overall job satisfaction (see Table 8). Around half of the surveyed employees were unable to assess their overall job satisfaction, but expressed their satisfaction by different facets of the jobs.

It may be seen that the overall job satisfaction considerably decreased between 1994 and 1995 for both managers and workers. Among the different job facets the main deterioration occurred in payment satisfaction. At the same time, for workers a significant regress in satisfaction was recorded in 1995 by the conditions of displaying skills and faculties. The share of workers completely dissatisfied in 1995 at this point is two times greater than that of managers. This reflects the under-utilization of labor potential in Russian industries.

6.2 Social adaptation — positional or situational phenomenon?

To understand the source of social adaptation one should distinguish positional and situational factors. The positional factors reflect external, non-controllable conditions, especially the line of business (industry) of companies. Traditionally, in the Russian economic and social life a watershed exists between “socially soft” industries, especially food processing and sometimes chemicals and “socially hard” industries — machine-building and construction. The level of social “rigidity” of the industries was determined not by the formal working conditions or the level of salary, but by the “informal opportunities” to profit beyond the salary and official social benefits. The situational factor is the economic performance of companies. Therefore, in the course of this study it was decided to observe the variation of job satisfaction across industries and companies in different economic situations.

First, the 20 surveyed companies were devised into economically “weak” and “strong”. The measure of economic success was the relation between the dynamics of DEA efficiency of a company and the average DEA dynamics within the industry. A series of T-test was performed to estimate the statistical differences in the assessment of job facets’ satisfaction by managers of “successful” and “troubled” companies (see Table 9).

The strongest statistically proved difference was found in “satisfaction by job security” between successful and troubled companies (2-tailed probability of equality of means = 0.000). There are also statistically significant differences in satisfaction by “overall job satisfaction” (2-tailed probability = 0.003), “possibility of receiving social benefits” (2-tailed probability = 0.012), “salary” (2-tailed probability = 0.18), “regime of work” (2-tailed probability = 0.047) and, finally, “labor conditions” (2-tailed probability = 0.084). From another side, the differences in satisfaction by prestige, displaying knowledge and skills and especially career possibilities, were not statistically significant. Therefore, it may be seen that until now the consequences of good performance on social adaptation is the satisfaction of “basic needs” — job security, salary and physical labor conditions. At the same time, some “higher” needs like “displaying knowledge and skills”, “career” are still not affected by the level of company performance. This means that the personal adaptation in over-performed companies still has a today-oriented, occasional character.

It was also attempted to clarify the impact of industry characteristics on the level of social adaptation. Table 10 displays the distribution of answers about overall job satisfaction by industries.

It may be seen that the social state significantly depends on the economic situation of an industry. The food processing industry, as the most prosperous as well as traditionally “soft” industry, is characterized by the highest level of job satisfaction among the workers. The most troubled machine-building industry has the lowest level of job satisfaction by workers while in the textile industry, which is also experiencing serious difficulties, managers display the greatest discontent. It should be stressed that the absolute differences between the shares of satisfied managers, as well as the differences between the shares of unsatisfied workers, are greater across industries than between successful and troubled companies. This means the industry specifics still play a considerable role in the determination of social adaptation processes.

6.3 Typology of personal adaptation

In order to clarify the above mentioned fact, two aggregate measures of adaptation were constructed — one for “current adaptation” and another for “potential adaptation”. The index of “current adaptation” is the sum of the answers to three questions — about the level of consumption of food, clothing and furniture and appliances. The index of “potential adaptation” was compiled from the sum of the respondents’ self-assessments concerning the prospect of finding another job (better job according to the specialty of the respondent, better job in another field, any job). For all questions a 5-point scale, with values ranging from “completely disagree” (recorded as “1”) to “completely agree” (recorded as “5”), was used.

The group of “presently adapted” people is composed of employees who did not, at least, report a deterioration in consumption. The stability of consumption of the industrial population of Russia from 1993–1995, therefore, may be viewed as a significant

achievement. This group entailed 35% of the managers and 33% of the workers. The medium adapted group (composed of employees who reported a moderate deterioration) comprises 23% of the managers and 21% of the workers. Finally, badly adapted employees constitute almost 42% of the managers and 46% of the workers.

It was found that the level of “current adaptation” has no impact on “potential adaptation” (corr. = 0.03 for managers and 0.00001 for workers). This means that the self-confidence of people is not related to their present income. Some additional reasoning revealed that the “current adaptation” is a very temporary situation, which is not influenced by savings or other sources of social stability. This was revealed when the models of job-hunting behavior provided by employees with different levels of “current adaptation” were compared. Both managers and workers were asked about their planned behavior if their company should fall bankrupt. To the author’s surprise, the share of employees (both managers and workers) who would accept any new job, monotonically increases as the level of current adaptation rises (see Figure 2). Indeed, only 3% of the surveyed managers who reported a deterioration in their level of consumption would accept any job, while 16% of the well-adapted managers and 27% of the well-adapted workers would prefer any job to unemployment benefits. At the same time, possible unemployment benefits would present a reliable source of income for badly-adapted managers and workers. In addition, we observed a sort of “carelessness of poor people” — almost one third of the badly-adapted managers “has not brooded about their actions after the company’s possible bankruptcy”. The share of well-adapted managers who have chosen such an answer is almost two times smaller.

In general, our findings suggest that social adaptation is the most dramatic and longest process within the transition to a market economy. The level of employee satisfaction significantly decreased in 1995, in comparison to 1994, for both the managers and workers that were surveyed. The differences between managers and workers in the level of adaptation, however, has smoothed. The level of social anxiety and uncertainty has reached the maximal possible level — 85% of the workers and 93% of the managers worry much more about tomorrow. The acute feeling of uncertainty, like any “irritant” experienced for a long period, provokes a specific “inhibition” — 32% of unadapted managers expressed their estrangement from the affairs and the future of their companies. This disaffection in company life represents the main source of danger for successful adaptation at the corporate level. In this regard, the typology of socio-economic adaptation is presented in the next section, taking the indexes of social adaptation as the basic criteria.

7 Typology of Socio-economic Adaptation

Two measures of adaptation — personal and institutional adaptation — are closely interrelated. To clarify the possible “configuration” of socio-economic adaptation, a cluster analysis was used (SPSS for WINDOWS 6.0). The following indexes were chosen for the clusterization of the surveyed companies:

1. the change of employment level. The scale used: “1” — fall in employment more than 50% in the last three years; “2” — fall between 10% and 50%; “3” — fall up to 10%; “4” — raise in employment.
2. the average job satisfaction of employees (as an average of the 10 questions for all the employees within a company). The scale used: “1” — completely dissatisfied; “5” — completely satisfied.
3. the assessment of top managers’ actions by employees (as a weighted average of 5 questions about top managers’ actions). The scale used: “1” — the top managers neglect completely the interests of employees; “5” — the top managers do their best to protect the interests of employees.
4. the direction of changes in living conditions (as a weighted average of 10 questions). The scale: “1” — life became much more difficult; “5” — life became easier.
5. the subjective appraisal of the economic situation of a company. The scale: “1” — the company is on the verge of bankruptcy; “5” — the company is stable and there are good business perspectives.

The 13 surveyed companies were allocated into three clusters (see Figure 2). In order to understand the nature of the selected groups the averages of expert and efficiency measures for each cluster were computed (see Table 12). It is evident that the main difference is created by the first and the fifth parameters — “change in employment” and “economic situation of enterprises”.

For the first cluster the value of parameter “change in employment” is 1.79; that signifies a fall in employment of more than 10%. Simultaneously, the respondents assessed the financial situation of their companies as “very bad”. The subjective measures are confirmed by objective criteria. Indeed, the fall in economic efficiency for the enterprises of the first cluster was 45%. The first cluster may be called “troubled companies”. The values of other expert measures confirm previous findings about the behavior of troubled companies. Indeed, one can observe that the companies of that cluster maintain close contacts with “shadow structures”. Such companies display some involvement in overseas operations (the level of variable EXPORT is 1.75 on a 3-point scale).

The second cluster may be called “socially stable” companies. Indeed, there is a minimal fall in employment. In general, their employees do approve the actions of their top managers in pursuing the employees’ interests. The employees also at least express positive satisfaction with job conditions. The situation of these enterprises is viewed as “stable” which is confirmed by a moderate fall in economic efficiency (26%). The prosperous companies have, on average, an insignificant involvement in export operations. The “socially stable” companies probably have little need for risky foreign business alliances because of their high shares in their relevant markets (the value of variable MARKET is 3.6 that corresponds to the share, around 50%).

The third cluster presents the most interesting case. On the one hand, it unifies the best performing companies — the fall in economic efficiency is 23%. That their top managers are quite persistent in defending the interests of employees, can be inferred from their very moderate amount of layoffs. On the other hand, the economic situation of these companies is not too stable (assessment 2.5 of a 4-point scale). Moreover, the employees of those companies indicate the greatest fall in living conditions (assessment 1.99 on a 5-point scale) despite all of the “noble impulses” of top management. This contradiction can be explained by the popular perception that the positive dynamics of economic efficiency invariably invoke a corresponding social outcome. Subsequently, their social claims are overestimated and, as a result, they are inclined to understate their appreciation. However, the key to understanding this situation is the very low share of relevant markets enjoyed by these companies (value of variable MARKET is 1.5 that corresponds to the share of less than 20%). While continuous “sparring” with competitors — including those in overseas markets — “keeps the companies in good form”, it forces them to invest in production improvement, quality control and advertising, but prevents them from accumulating any “fat” — i.e., financial and material reserves which can be spent on employee benefits. Such companies can be characterized as “actively adapting to real market conditions”. The fact that the employees of these third cluster companies appreciate the “goodwill” displayed by their top managers in defending their interests attests that these companies have not exhausted the reserves of their employees’ “social patience”.

8 Summary and Conclusions

In this paper the patterns of adaptation processes were presented at different levels in Russian enterprises’ framework — governance, management, behavior and performance (see Vogelsang, 1990). The key findings may be summarized as follows:

1. The economic situation of most Russian processing industries is still “alarming”. The partial economic stabilization achieved during the first months of 1995 was disturbed by the fixed exchange rate policy. Among the six surveyed industries, only in food processing and partly in construction materials did employees express some certainty about the economic future of their company.
2. The social situation in Russia is deteriorating. The comparison between the surveys of 1994 and 1995 revealed that the perception that working and living conditions are declining has grown stronger among employees. This perception has provoked an extremely low level of job satisfaction. The dilapidation of job satisfaction, in turn, has eroded the mutual trust between employees and corporate executives. The average assessment of managers by workers changed from positive to negative in 1995.

3. The wide dispersal of employee ownership — the result of the implementation of the privatization programs of 1992–1994 — transferred employees' discontent to the problem of corporate governance. This study reports the different types of methods employed in effecting the transfer of employees' shares in individual industries to top-level managers.
4. In this study, five types of control were identified in order to classify the configuration of power within and around the surveyed privatized companies. The dominance of top executives is associated with better dynamics in economic performance. Companies whose financial situation is weak, but which have good export potential, are the main targets of corporate take-overs by financial institutions. Finally, companies viewed by their managers as “collectively controlled” are characterized by the worst dynamics of productive efficiency and, therefore, possess limited means to realize social programs for their employees.
5. The quantitative analysis of elements of economic behavior revealed that larger companies out-perform small ones. Larger companies also have a better chance of edging into overseas markets. However, the degree of export orientation has no impact on company performance. Small and medium-sized companies are more likely to find the solution to their business problems through high involvement in the shadow economy, i.e., risky illegal business transactions. Involvement in the shadow economy may serve as a temporary buffer for “going-to-bankruptcy” companies, but it ultimately results in a higher layoff level thereby damaging the public image of such companies.
6. The list of corporate-level strategies, implemented by over-achieving companies, includes market segmentation, overall low-cost leadership, vertical integration along the production and marketing chains and the reshaping of their industrial structure. The mastering of a victorious strategy starts with the creation of a new strategic vision, when short-term goals begin to be displaced by long-range planning (in Russia's hyper-turbulent conditions, the long range is two to three years). The new strategic vision is more likely to be established in companies where the controlling interest has already been secured by its top executives.
7. In terms of overall socio-economic adaptation, the surveyed companies may be divided into three clusters:
 - (a) economically and socially successful;
 - (b) economically successful and socially troubled;
 - (c) economically and socially out-performed.

These findings made it possible to construct a conceptual model of the adaptation processes in Russian industries (see Figure 3).

One important limitation to this survey work should be underlined — the sample size. The sufficient reliability and validity of the research instruments used, however, enabled the author to regard this work as a pilot study for larger corporate surveys on adaptation mechanisms in Russian industries. Such surveys should provide a firm foundation for the development of practical and well-founded governmental economic policies, including selective state aid programs and foreign trade regulation.

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APPENDIX: Tables and Figures

Table 1: Assessment of the Importance of Business Problems by Managers

	1994	1995
Non-paying debtors	4.22	4.07
Disturbances in supply of raw materials	4.15	4.02
High bank debts and trade liabilities	4.02	3.72
Irregularity of production operations	3.96	3.88
Absence of orders, contracts	3.92	3.84
Irregularity in energy and fuel supply	3.84	3.42 ^a
Poor work discipline	3.76	3.54 ^a
Staffing by managers	3.69	3.78
Staffing by qualified workers	3.61	3.53
Delays in wage payment	3.37	3.42
Languor of the company's top management	3.31	3.49
Danger of unemployment	3.35	3.70 ^b

Notes:

^a — difference is statistically significant at 0.05 level;

^b — difference is statistically significant at 0.01 level.

Scale:

1 — not important at all;

2 — of small importance;

3 — significant;

4 — important;

5 — extremely important.

Table 2: Distribution of the Answers of Managers and Workers About the Situation of Their Companies

Branch	Managers					Workers				
	Stable	Difficult	Bad	Very Bad, May Be Called Bankrupt	Have Not Brooded About It	Stable	Difficult	Bad	Very Bad, May Be Called Bankrupt	Have Not Brooded About It
Textiles	7.4	25.9	33.3	22.2	11.1	8.6	22.4	46.6	10.3	12.1
Food processing	25.7	37.1	17.1	11.4	8.6	17.9	25.5	33.0	17.0	6.6
Chemicals	6.7	46.7	42.2	4.4	0.0	2.6	29.5	44.9	16.0	7.1
Construction complex	13.6	30.5	45.8	8.5	1.7	16.4	16.9	40.1	19.2	7.3
Machine-building	0.0	19.2	50.0	26.9	3.8	1.9	11.3	52.8	30.2	3.8
Average across all industries	11.5	33.3	38.5	12.5	4.2	10.5	22.2	42.0	18.0	7.3

Table 3: Assessment by Managers and Workers of the Present Top Management of Their Companies

Statement	Managers		Workers	
	1994	1995	1994	1995
The present top management is able to improve the economic situation of the firm	3.57	3.27 ^a	3.51	2.98 ^c
Management does its best for employees' benefits	3.70	3.29 ^b	3.16	2.63 ^c
Management does its best to maintain job security	4.03	3.60 ^c	3.42	2.98 ^c
Management does its best to protect the employee-shareholders' interests	3.58	3.14 ^c	3.17	2.55 ^c
My supervisor is sufficiently vigorous in defending the interests of his subordinates	3.82	3.62	3.86	3.36 ^c
The disagreements in our firm are settled quickly and effectively	3.41	3.18 ^a	3.25	2.89 ^c

Notes:

^a — 2-tailed probability of equality of means < 0.05;

^b — 2-tailed probability < 0.01;

^c — 2-tailed probability < 0.001.

The original scale:

1 — completely disagree;

5 — completely agree.

Table 4: Performance and “Expert” Measures for the Subsample of the Surveyed Companies

Number of a Company in the General Sample	9	12	13	15	16	17	18	19	22	23	24	25	27
Type of control ^a	4	5	1	3	3	1	3	5	1	2	2	4	4
Export orientation ^b	1	3	1	2	1	2	2	2	1	1	3	1	1
Social orientation ^c	4	3	3	5	4	3	3	4	4	4	4	3	4
Contacts with local authorities ^c	4	5	3	5	3	4	3	4	4	4	5	3	3
Involvement in shadow transactions ^c	4	3	2	3	3	3	3	4	1	1	2	3	3
Share on the relevant markets ^d	4	2	3	1	2	2	2	2	5	2	3	2	3
Efficiency score (average in 1994)	69.4	50.2	88.5	72.3	56.9	33.3	77.4	100	38.1	73.8	76.9	93.0	67.4
Financial stability ratio (average in 1994)	0.66	0.78	0.90	0.45	0.62	0.65	0.85	1.25	0.68	0.81	0.87	0.78	0.73

Notes:

^a Type of control: 1 — “collective”; 2 — concentrated managerial; 3 — directors; 4 — unclear; 5 — outsiders’.

^b Export orientation: 1 — complete absence of export; 3 — export is more than 50% of the total sales.

^c The levels of social orientation, contacts with local authorities, involvement in shadow transactions were assessed on a 5-point scale: 1 — almost absent; 5 — extremely intensive.

^d Shares on the relevant markets: 1 — less than 20%; 2 — 21–40%; 3 — 40–60%; 4 — 60–80%; 5 — more than 80%.

Table 5: Characteristics of Control Arrangements

Type of Control	Average Scores					Share on the Relevant Markets ^d
	Economic Efficiency ^a	Export Orientation ^b	Social Orientation ^c	Contacts With Local Authorities ^c	Involvement in Shadow Transactions ^c	
“Collective”	53.5	1.3	3.3	3.3	3.0	3.3
Managerial	73.8	2.0	4.0	4.5	1.5	1.5
Directors’	68.9	1.7	4.0	3.7	3.0	1.7
Unclear	76.6	1.0	3.7	3.3	3.3	3.0
Outsiders’	75.1	2.5	3.5	4.5	3.5	2.0

Notes:

^a Type of control: 1 — “collective”; 2 — concentrated managerial; 3 — directors; 4 — unclear; 5 — outsiders’.

^b Export orientation: 1 — complete absence of export; 3 — export is more than 50% of the total sales.

^c The levels of social orientation, contacts with local authorities, involvement in shadow transactions were assessed on a 5-point scale: 1 — almost absent; 5 — extremely intensive.

^d Shares on the relevant markets: 1 — less than 20%; 2 — 21–40%; 3 — 40–60%; 4 — 60–80%; 5 — more than 80%.

Table 6: Correlation Matrix of Expert and Performance Measures

Correlations:	DEA-FIN	EXP95	SOC95	LOC95	MAF95	MARK95
DEA-FIN	1.0000					
EXP95	0.0602	1.0000				
SOC95	0.3424 ^b	-0.0765	1.0000			
LOC95	-0.0954	0.7560 ^b	0.0691	1.0000		
MAF95	-0.3627 ^b	-0.1523	0.0648	-0.2168 ^a	1.0000	
MARK95	-0.0937	-0.3044 ^b	0.0462	-0.2922 ^b	-0.4358 ^b	1.0000

Notes:

2-tailed significance: ^a — 0.01; ^b — 0.001.

Table 7: Changes in Conditions of Life in the Last Two Years

	Workers		Managers	
	Agree %	Disagree %	Agree %	Disagree %
In the last two years:				
I have experienced a reduction in food consumption				
1994	52.6	23.4	36.5	26.5
1995	51.3	27.3	52.1	23.4
I buy less clothes				
1994	63.4	18.8	31.2	25.4
1995	58.2	24.5	60.6	19.5
I buy less home furniture and appliances				
1994	62.9	23.2	63.5	20.6
1995	63.3	23.3	67.5	17.0
I have to work much more				
1994	54.3	18.1	49.7	19.6
1995	44.8	25.0	55.2	12.5
I have to find additional sources of income				
1994	63.1	21.2	55.1	27.0
1995	60.7	26.0	60.6	21.5
It became much more difficult to work				
1994	52.3	20.0	65.8	13.9
1995	42.5	29.0	58.4	13.4
It became much more interesting to work				
1994	20.0	48.6	24.9	37.6
1995	15.4	55.7	29.6	44.1
The management became much more fault finding				
1994	41.8	27.5	31.1	28.9
1995	33.2	35.4	32.6	27.9
I can rely only upon myself				
1994	82.6	5.2	81.8	4.2
1995	80.5	6.4	85.4	5.2
I worry much more about tomorrow				
1994	90.2	5.3	83.8	3.9
1995	85.3	7.8	92.7	3.6

Note: The sum is not equal to 100% due to missing answers "difficult to say".

Table 8: Job Satisfaction of Workers and Managers

Job Facet	Workers		Managers	
	Agree %	Disagree %	Agree %	Disagree %
Payment				
1994	18.6	50.3	28.7	36.7
1995	11.3	62.6	21.9	48.8
Regime of work				
1994	70.1	13.8	80.5	5.5
1995	66.4	15.4	71.0	9.5
Conditions of work				
1994	38.5	33.7	64.5	11.3
1995	38.0	32.0	58.1	14.6
Conditions for displaying skills and faculties				
1994	38.5	28.0	59.2	14.7
1995	33.3	36.9	47.7	15.8
General job satisfaction				
1994	38.3	22.7	28.7	9.6
1995	29.7	36.3	23.1	14.6

Note: The sum is not equal to 100% due to missing answers "difficult to say".

Table 9: T-test Comparison of Managers' Job Satisfaction in "Troubled" (a) and "Successful" (b) Companies

Job Facet ^a	N of Cases		Means		Mean Difference	2-tailed Probability of Equality of Means ^b
	(a)	(b)	(a)	(b)		
Payment	61	95	2.20	2.66	-0.46	0.018
Regime of work	61	94	3.75	4.13	-0.38	0.047
Conditions of work	61	93	3.49	3.81	-0.32	0.084
Prestige of work place	60	90	3.11	3.42	-0.31	0.144
Conditions for displaying skills and faculties	59	95	3.27	3.53	-0.26	0.144
Level of independence in work	61	94	3.56	3.84	-0.28	0.092
Career possibilities	59	90	2.85	3.00	-0.15	0.489
Possibilities of receiving benefits	59	90	2.29	2.86	-0.57	0.012
Personal relations at the work place	59	94	3.68	3.76	-0.08	0.639
Job security	61	94	2.30	3.11	-0.81	0.000
Overall job satisfaction	58	91	2.90	3.45	-0.55	0.003

Notes:

^a The scale used: 1 — "completely dissatisfied"; 5 — "completely satisfied".

^b Equality of variance was assumed is the level of significance of Leven's test for equality of variance was above 0.10.

Table 10: General Job Satisfaction of Workers and Managers in Different Industries

	Textiles	Food Processing	Chemicals	Construction	Machine-building
Not satisfied (%)					
Managers	37.0	6.5	15.5	14.5	33.4
Workers	19.6	22.0	21.1	32.3	47.0
Satisfied (%)					
Managers	37.0	51.6	53.4	32.8	20.8
Workers	39.3	42.2	38.2	38.0	17.5

Note: The sum is not equal to 100% due to missing answers "difficult to say".

Table 11: Estimated Mobility of Workers and Managers (in the Case of the Possible Bankruptcy of Their Companies) in Relation with Their Present Adaptation

Type of Behavior	Workers			Managers		
	Low Adapted	Medium Adapted	Well Adapted	Low Adapted	Medium Adapted	Well Adapted
I would accept any job	13.3	22.6	26.5	3.1	8.9	15.8
I will search for a better job	38.1	26.4	33.2	28.1	28.9	28.9
I prefer to stay at my place	34.5	33.0	22.1	37.5	42.2	36.8
I have not thought about this	14.2	17.9	18.1	31.3	20.0	18.4

Table 12: Main Characteristics of Clusters in Socio-economic Adaptation

Variable	Number of Clusters		
	1	2	3
Change in employment	1.79	3.10	2.71
Job satisfaction	2.58	3.51	2.88
Top managers' actions	2.78	3.60	3.54
Changes in living conditions	2.33	2.63	1.99
Financial situation of the company	1.67	3.15	2.50
DEA-FIN	55.07	74.04	76.64
Export orientation (EXP95)	1.75	1.4	1.75
Social orientation of corporate policy (SOC95)	3.5	3.6	4
Intensity of contacts with local authorities (LOC95)	4	3.8	3.75
Involvement in shadow transactions (MAF95)	3.25	1.8	3.25
Share of the relevant markets (MARK95)	2.75	3.6	1.5
Current adaptation of managers	11.64	12.35	9.89
Current adaptation of workers	11.48	11.76	10.64

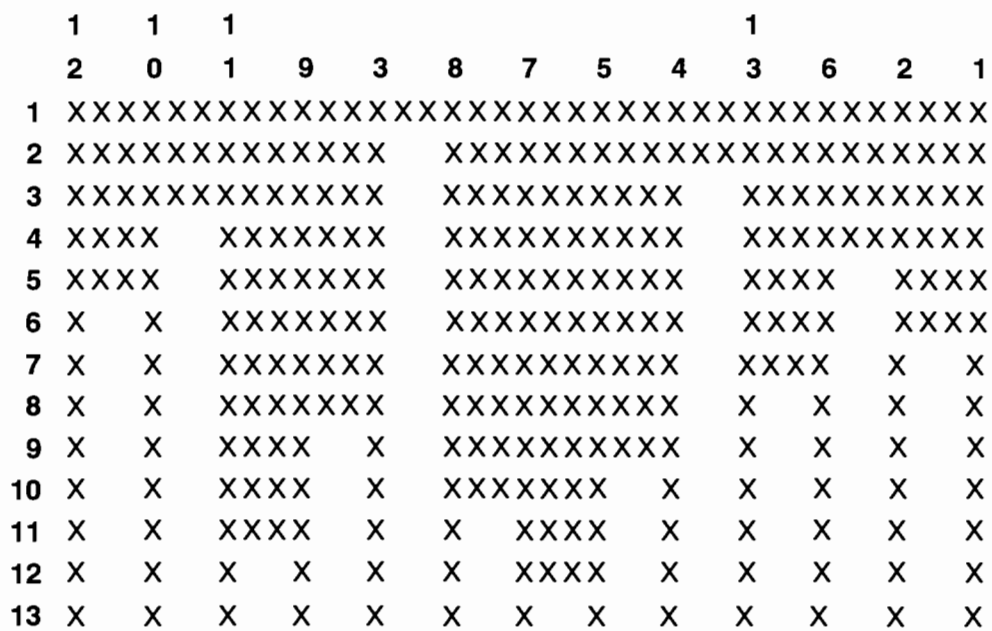
1995

Number of companies

	Dispersed	Concentrated	Directors'	Unclear	Outsiders	
Dispersed	**	*	*			7
Concentrated	**	**	**			6
Directors'	*	*	*	*		3
Unclear				*	**	4
Number of companies	4	6	4	3	3	Total 20

Note: Number of * corresponds to the number of companies of each type.

Figure 1: Changes in Control Arrangements in 1995 in Comparison to 1994.



Notes: Number of clusters (down)
Case label and number (across)

Figure 2: Verticle Icicle Plot Using Complete Linkage

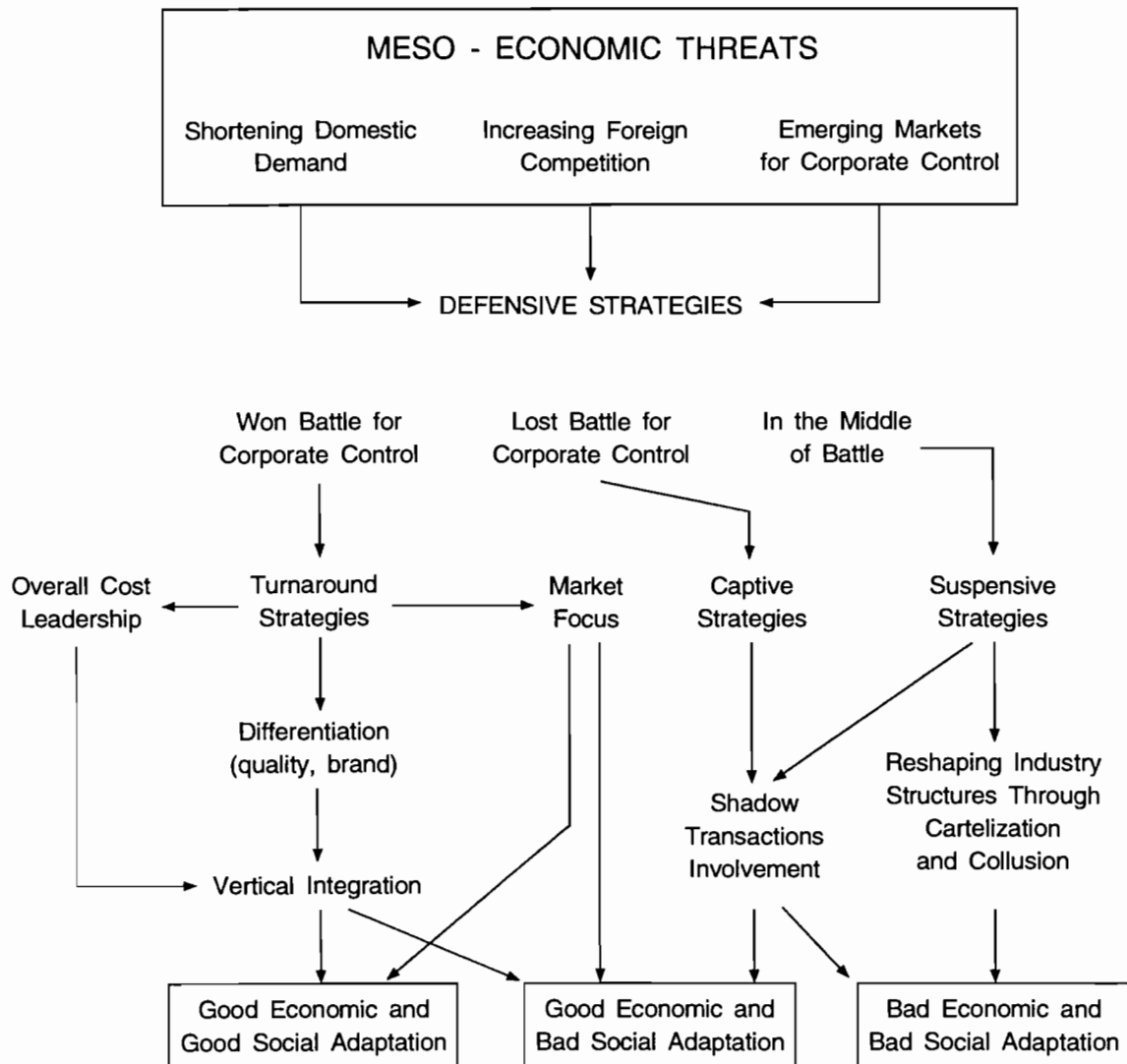


Figure 3: Conceptual Model of Russian Enterprises' Adaptation (A Managerial Perspective)