

**ORGANIZATIONAL CULTURE AND EFFECTIVENESS:
THE CASE OF FOREIGN FIRMS IN RUSSIA**

Carl F. Fey

Assistant Professor

Stockholm School of Economics in St. Petersburg

Nevsky Prospect 1

Tel/fax. (7-812)-311-3044

and

Institute of International Business

Stockholm School of Economics

P.O. Box 6501

S-11383 Stockholm School

Sweden

Tel. (46-8)-736-9501

Fax. (46-8)-31-9927

E-mail: iibcf@hhs.se

and

Daniel R. Denison

Associate Professor

University of Michigan Business School

701 Tappan St.

Ann Arbor, MI 48109

Tel (1-734)-763-4717

E-mail: ddenison@umich.edu

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January 1999

The authors would like to thank the William Davidson Institute at the University of Michigan Business School and the Institute of International Business at Stockholm School of Economics for their financial support of this project.

We would also like to thank participants of the IIB seminar series, participants in the Nordic Workshop on International Business, Julian Birkinshaw, Julia Vysotskaia, Olga Danshikova, Palina Matulyensk, Anna Federova, Natsha Libo, Marina Libo, Michael Babenko, Irina Shiriava, Tatiana Prizhimova, Dmitry Prizhimov, Nadezhda Pekhova, Claes Nordahl, Heike Zätterström, PontusEngström, Johan Simonsson, Marion Fey, and participating firms. Please do not quote without permission.

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ABSTRACT

This paper extends the literature on organizational culture and effectiveness by examining a set of foreign-owned firms operating in Russia. Based on a large-scale empirical study of 179 firms and four in-depth case studies, this study examines the applicability of an American model of organizational culture and effectiveness in the Russian context. The results of the empirical study are presented first and are compared to results for a sample of firms in the USA. Next, four case studies are used to ground the empirical results and to identify other aspects of organizational culture in the Russian context which appear to be linked to effectiveness, but are not included in the model.

KEY WORDS

Organizational Culture

Russia

Effectiveness

The relationship between the culture and effectiveness of organizations has drawn attention from researchers for many years. Several authors have investigated culture from a strategic perspective and have examined it as an important source of competitive advantage (Wilkins & Ouchi, 1983; Barney, 1986; Saffold, 1988; Ott, 1989). But those authors that have developed explicit theories of organizational culture and effectiveness (Denison, 1990; Denison & Mishra, 1995; O’Riley, 1989; Kotter & Heskett, 1992) have focused almost exclusively on the American context. Cross-cultural research by Adler (1991), Hofstede (1980), Trompenaars (1994) and others, however, has suggested that most management theories need modification for different national contexts.

To begin to address these issues, this paper presents two linked studies of foreign firms operating in Russia. It first presents a quantitative study of 179 firms that is used to test the theory of culture and effectiveness developed by Denison and Mishra (1995). Next, the paper presents brief case studies of four firms from this sample to ground the empirical results in the Russian context and to examine several aspects of culture, derived from the case studies, that go beyond the concepts of culture and effectiveness presented by this model.

Since foreign firms have shown increased interest in Russia, but have often experienced cultural difficulties after they enter that market (Cattaneo, 1992, Fey, 1997), research on this topic should have value for both theory and practice. As Luthans, Welsh, and Rosenkratz (1993: 742) have noted, “The assumptions coming out of the news media are that the Russians are failing badly because they know little about modern anagement techniques and, in fact, US and Russian management systems are quite different. The time has come to assess these assumptions.”

THE RUSSIAN CONTEXT

Russia's transformation to a market economy has not been easy. In 1994-1995 Russia had an annual inflation rate of 100-200% per year. Inflation declined drastically to 21.8% in 1996 and to 10.1% in 1997 (RECEP, 1997, 1998), but has now increased again due to the August 1998 financial crisis. GDP has declined throughout the 1990s. Official unemployment, although increasing, is still rather low by world standards at about 9% (RECEP, 1998). Until the most recent crisis, exchange rates had stabilized, varying less than 10% during 1996-1997. Foreign direct investment has been allowed in Russia since 1987, and since 1991 wholly-owned foreign firms have been legal in Russia. Despite this change in policy, foreign direct investment in Russia has remained fairly modest at about \$47/person (BISNIS, 1997).

With vast natural resources, a well-educated and inexpensive labor force, and 150 million people, Russia has attracted many foreign firms. Nonetheless, doing business in Russia can be very risky. Risks include factors such as organized crime, intractable bureaucracy, uncertain legislation, an arbitrary tax system, and an unstable political and economic system. These environmental factors are characteristics of the market place and are difficult for any single company to influence. In contrast, this paper seeks to examine the influence of enterprise factors such as organizational culture on the success of foreign firms operating in Russia.

Relatively little research has focused on Russian management issues. The research that has been conducted has primarily been based on anecdotal evidence or small-sample studies. The most extensive study on comparative US-Russian management issues is Lawrence and Vlachoutsicos (1990)'s book *Behind Factory Walls*

and two related articles (Lawrence & Vlachoutsicos, 1993; Vlachoutsicos & Lawrence, 1990). Their project was based on data collected by the Harvard research team and its Russian colleagues at two US and two Russian electronic and truck factories. The study provided some powerful insights into managerial decision making in Russia, but the results are still limited by their focus on four case studies.

A second influential stream of Russian management research is that done by Luthans and his colleagues at the Tver Cotton Mill. Luthans, Welsch, & Rosenkratz (1993) systematically observed the activities of 66 Russian managers. Welsch, Luthans, & Sommer (1993) tested several HRM theories developed in the USA. They found that extrinsic rewards and behavioral management increased worker performance, but participative techniques resulted in decreased performance.

Sheila Puffer has also been a prolific writer on Russian management issues. She has written a variety of articles investigating issues such as compensation (Puffer, 1993a), the differences between Russian and US business ethics (Puffer & McCarthy, 1995), Russian business leaders (Puffer, 1994), and Russian managerial motivation (Puffer, 1993b). Her work has made an important contribution to understanding Russian management practices, but like Lawrence and Vlachoutsicos, can still be difficult to generalize from because of her reliance on case study methods.

Other important studies also exist in the field of Russian management. For example, Cattaneo (1992) studied conflicts in joint ventures, Fey (1995,1997) has examined design issues in Russian-foreign joint ventures; and Filatotchev, Buck, and Wright (1993) have investigated the management of large Russian all-union enterprises in post communist Russia. In addition, Ivanavich, DeFrank, and Gregory (1992) have

explored Russian leadership issues, Kvint (1994) has investigated the promises of various Russian regions, Ralsten, Holt, Terpstra, and Kai-Cheng (1997) have studied Russian managerial values, and Rosten (1991) has investigated Russian-foreign joint venture management.

Another interesting reference point is provided by Naumov's (1996) application of Hofstede's (1980) model to 250 Russian managers. His results provide an interesting comparison to Hofstede's results for the USA and Sweden:

	<u>Russia</u>	<u>USA</u>	<u>Sweden</u>
Individualism	41	91	71
Uncertainty Avoidance	68	46	29
Masculinity	45	62	5
Power Distance	40	40	31

These results show that Russians are group oriented, a characteristic encouraged by communism. Russians also prefer to avoid uncertainty, which might be expected given the security of the communist system and the surprises dealt to Russia in the past. Russians report moderate masculinity and consider they have only moderate control over events. Naumov (1996) questions his power distance results, suggesting that these results may be wishful thinking since large differences exist between workers and managers in Russia. Nonetheless, diminished power distance was, in principle, one of the primary objectives of the communist system.

Further understanding of Russian national character is offered by Kliuchevskii (1990). He describes a set of stereotypical Russian behaviors including resourcefulness, patience in the face of adversity and deprivation, and spurts of energy, combined with a tendency to dissemble and an inconsistency in seeing things through. He also describes Russians as being circumspect, cautious, and ambiguous and having a tendency to look

back instead of forward. Finally, he describes Russians as having a tendency to work in groups, and to monitor results rather than set goals.

ORGANIZATIONAL CULTURE AND EFFECTIVENESS

A number of scholars have developed integrative frameworks of organizational culture (Allaire & Firsirotu, 1984; Ott, 1989; Schein, 1985, 1990; Hatch, 1993; Martin, 1992), but there is still little consensus with regard to a general theory of organizational culture. In addition, since culture is a complex phenomenon that ranges from underlying beliefs and assumptions to visible structures and practices, healthy skepticism exists about whether organizational culture can actually be “measured” in a comparative sense. Finally, research on the link between organizational culture and effectiveness is limited by lack of agreement about the appropriate measures of effectiveness. Despite these challenges, better understanding of this topic seems critical to the development of organizational studies.

Although the connection between organizational culture and effectiveness has a long history, most current literature has its key roots in the early 1980s. Deal and Kennedy (1982) and Peters and Waterman (1982) focused attention on the strategic importance of organizational culture and created interest in the topic that is still visible today. Kotter and Heskett (1992) expanded on this by exploring the importance of the “fit” between an organization and its environment and emphasizing adaptability.

Denison (Denison 1984, 1990, 1996; Denison & Mishra 1995; 1998; Denison & Neale, 1996; Denison & Young, 1998) has also made an important contribution by developing an explicit model of organizational culture and effectiveness and a valid method to measure organizational culture. Using this approach with top executives in

764 organizations, Denison and Mishra (1995) showed that four different cultural traits were related to different criteria of effectiveness. For example, this research found that the stability traits of mission and consistency were the best predictors of profitability, while the flexibility traits of involvement and adaptability best predicted sales growth. A literature review conducted by the first author of this paper identified this stream of research as the most well developed model and method for examining organizational culture and effectiveness.

The Denison model is based on four cultural traits of effective organizations.

These four traits are described briefly below.

Involvement. Effective organizations empower their people, build their organizations around teams, and develop human capability at all levels (Lawler, 1996). Executives, managers, and employees are committed to their work and feel that they *own* a piece of the organization. People at all levels feel that they have at least some input into decisions that will affect their work and that their work is directly connected to the goals of the organization.

Consistency. Organizations also tend to be effective because they have “strong” cultures that are highly consistent, well coordinated, and well integrated (Saffold, 1988). Behavior is rooted in a set of core values, and leaders and followers are skilled at reaching agreement even when there are diverse points of view. This type of consistency is a powerful source of stability and internal integration that results from a common mindset and a high degree of conformity.

Adaptability. Ironically, organizations that are well integrated are often the most difficult ones to change. Internal integration and external adaptation can often be at odds. Adaptable organizations are driven by their customers, take risks and learn from their mistakes, and have capability and experience at creating change (Nadler, 1998; Senge, 1990). They are continuously changing the system so that they are improving the organizations’ collective abilities to provide value for their customers.

Mission. Successful organizations have a clear sense of purpose and direction that defines organizational goals and strategic objectives and expresses a vision of how the organization will look in the future (Hamel & Prahalad, 1994). When an organization’s underlying mission changes, changes also occur in other aspects of the organization’s culture.

Like many contemporary models of leadership and organizational effectiveness, this model focuses the contradictions that occur as organizations try to achieve internal integration and external adaptation at the same time (Schein, 1990; Hatch, 1993). For example, organizations that are market-focused and opportunistic often have problems with internal integration. Organizations that are well-integrated and over-controlled usually have a hard time adapting to the business environment. Organizations with a powerful top-down vision often find it difficult to focus on the empowerment and “bottom-up” dynamics needed to implement that vision. Organizations with strong bottom-up participation often have difficulty establishing direction. Effective organizations are those that are able to resolve these contradictions without relying on simple trade-offs.

At the core of this model are underlying beliefs and assumptions. These “deeper” levels of organizational culture are typically quite unique to each firm and are thus difficult to measure. Nonetheless, they provide the foundation from which behavior and action spring (Schein, 1985).

The four traits of organizational culture presented by Denison & Mishra (1995) have been expanded by Denison & Neale (1996) and Denison & Young (1998) to include three sub-dimensions for each trait for a total of 12 dimensions. This expanded version of the model is presented in Figure 1.

[insert Figure 1 about here]

This model served as the starting point for the two linked studies of organizational culture and effectiveness that are presented in this paper. The first study begins by

attempting to validate the model and method and then examining the relationship between the culture and effectiveness measures to see if the pattern is similar to that observed among US firms. The second study then goes on to examine the four case study firms in greater detail both to ground the empirical findings in the Russian context and to identify other important aspects of culture in the Russian context that are not anticipated by the Denison model.

TESTING THE MODEL IN THE RUSSIAN CONTEXT

The first part of this study analyses survey data from 179 foreign firms operating in Russia to examine the impact of organizational culture on effectiveness. These results are then compared to similar results for a sample of US firms to see how comparable to findings are. Following a brief statement of our hypotheses, and a description of our methodology, the results are presented in terms of correlation and regression analysis of the culture and effectiveness measures.

Hypotheses

Since our review of the literature suggests that the Denison model may be applicable in the Russian context, our first hypotheses simply states that the four core culture measures in the model will be related to effectiveness in the Russian context.

***Hypothesis 1:** Involvement, consistency, adaptability, and mission are cultural traits associated with organizational effectiveness for foreign firms operating in Russia.*

This study also hypothesizes, as was found in the US context, that different aspects of culture will impact different elements of effectiveness. We predict that the same pattern will be found in the Russian context.

Hypothesis 2: *Different culture traits will impact different criteria of effectiveness. Specifically,*

- a) *The externally focused traits of mission and adaptability will be the best predictors of sales growth and market share*
- b) *The internally focused traits of involvement and consistency will be the best predictors of quality and employee satisfaction.*

Our third hypothesis, however, suggests a key difference between the expected pattern in the US and Russian contexts. Even before the August 1998 financial crisis, and perhaps even before the beginning of the market reform, Russia has been widely known for its turbulent and unpredictable environment. As a result, it is important for firms operating in Russia to be able to adapt rapidly to changes in their environment.

In addition to adaptability, the second flexibility trait of involvement also appears to be very important. First, since groups were one of the central building blocks of communist society, creating a culture that allows for continued involvement of all employees would be beneficial. Second, since managers and employees need to learn how they can work well in a market economy creating an organizational culture that values training and capability development for all employees seems to be very important. In contrast, the stability traits of mission and consistency would appear to be difficult to achieve in the turbulent Russian environment, and perhaps even a liability as firms struggle to adapt. For these reasons we pose our third hypothesis:

Hypothesis 3: *Adaptability and involvement are the two most important dimensions of organizational culture necessary for a firm to be effective in Russia.*

Methodology

Sample. The sample for this study included all foreign firms operating in Russia with a parent firm headquartered in Sweden, France, Finland, Germany, Canada, or the

USA. Combining the lists of firms obtained from the commercial section of each country's embassy gave us a total of 789 firms. 186 of these firms could not be contacted because of incorrect information. 478 of those firms contacted met our criteria of having at least 15 employees in Russia, operating in Russia before June 31, 1995, and being located in Moscow or St. Petersburg.

Following a telephone call to confirm that the firm met the sampling criteria, a questionnaire was personally taken to the firm for a senior manager to complete. Upon meeting the senior manager, the researcher gave a verbal description of the project. Whenever possible, the senior manager filled out the questionnaire at that time. However, many times the senior manager promised to complete the questionnaire and return it later by fax. If questionnaires were not received within one week, an extensive follow-up procedure was undertaken which included making three telephone calls, faxing a replacement questionnaire, and making a fourth final reminder telephone call. Companies whose questionnaires had not been returned at the end of this procedure were considered non-respondents. Using this procedure we obtained 179 usable questionnaires completed by one senior manager in the firm. This gave us a 37% response rate.

Measurement and Analysis

Survey items were used in this study to measure organizational culture, organizational effectiveness, and several control variables. The items were translated into Russian using an extensive back translation process, checked by Russian experts and pilot tested. After the data were collected, we did a factor analysis on the culture items and examined the relationship between the culture and effectiveness measures using correlations and ordinary least squares multiple regression.

Independent Variables. The questionnaire items measuring organizational culture and effectiveness were drawn from the Denison Organizational Culture Survey (Denison & Neale, 1996; Denison & Young, 1998). The four main dimensions of this model, involvement, consistency, adaptability and mission each have three sub-dimensions as shown in Figure 1. Each of these sub-dimensions was measured with three Likert scale questions ranging from 1=strongly disagree to 5=strongly agree. For example, the questions for the “Creating Change” sub-dimension of adaptability are as follows: 1) this organization is very responsive and changes easily, 2) this organization responds well to competitors and other changes in the external business environment, and 3) this organization continually adopts new and improved ways to do work.” The twelve indexes were constructed by computing the mean of the three component items.

Dependent Variables. Following Denison and Mishra (1995), firm effectiveness was measured using seven five-point Likert scale questions ranging from 1=poor and 5=excellent. These scales measured the following dimensions: overall performance, market share, sales growth, profitability, employee satisfaction, quality of products and services, and new product development.

While some scholars have criticized the use of perceptual measures of effectiveness, we found these measures useful for several reasons. First, since Russian accounting standards are still emerging, it is virtually impossible to obtain comparable financial information from firms. Second, since firms operating in Russia have diverse goals, it seems unwise to compare the short-term financial performance of firms with differing goals. Third, virtually no centrally-collected financial information is available in Russia. Fourth, Russians are very secretive and unwilling to share financial

information. Thus, in the Russian context the benefits of using perceptual measures outweigh the drawbacks. Furthermore, there is ample precedence for using perceptual measures (Delaney & Huselid 1996; Denison & Mishra, 1995), and prior research has shown that subjective measures of performance correlate well with objective measures of performance (Powell, 1992).

This research design also runs the risk that the single respondent survey measures might be too superficial, may only reflect a top management point of view or may ignore the importance of contextualized meaning. If these sources of bias are large, then it is unlikely that the culture measures will be related to effectiveness. Thus, if a relationship between organizational culture and effectiveness does emerge from this data, it is likely to be a fundamental relationship. We acknowledge that measurement error could potentially inflate these correlations; however, if a wide range of correlations that appear in these results, it is difficult to attribute all of the findings to measurement error. Despite these limitations, there are obvious strengths to this design. Most significantly, this design offers the ability to compare culture effectiveness using a large sample of firms operating in the Russian context. Single respondent studies are also quite common in the recent culture, HRM, and strategy literature (Denison & Mishra, 1995; Shaw, Delery, Jenkins, & Gupta, 1998; Delery & Doty; Geringer & Hebert; 1989; Lee & Beamish, 1995)

Control Variables. This study includes control variables for size, concentration in manufacturing, industry, firm age, country of origin, and nationality of the respondent. We measured firm size as the number of employees in the firm, and also controlled for the percentage of a firm's activity that is in manufacturing. Firm age has little variance in

this study since foreign firms were not allowed into Russia prior to 1987. Nonetheless, we controlled for firm age in number of years.

We also include dummy variables to control for industry. Based on SIC classification, we created categories that were prevalent in our sample and placed the remaining firms in “other manufacturing” or “other service.” These groupings were:

1. Electrical, industrial, and precision instrument manufacturing
2. Wood, paper, textiles, food, and metal manufacturing
3. All other manufacturing
4. Banking, insurance, real estate, advertising, and accounting
5. Wholesale and Retail trade
6. Other services

Some researchers have also suggested that performance differences might be expected based on home country of the parent firm. Thus we control for parent firm home country with a series of dummy variables. Finally, we included a dummy variable was included to control for the nationality of the respondent.

RESULTS

To establish the validity of the culture measures using the Russian translation, we performed a factor analysis on the twelve organizational culture sub-dimensions. These results are presented in Table 1. The data factor nicely into the four expected dimensions with relatively low cross loadings (all but two under .26 and all under .37). All of the Cronbach alphas are greater than .70 (Nunnally, 1967). Thus, the factor analysis demonstrates good discriminate and convergent validity.

[Insert Table 1 about here]

Table 2 summarizes the correlations between the dimensions of organizational culture and the effectiveness measures. In general the correlations provide good support

for the model of organizational culture and effectiveness with 27 of 28 correlations between organizational culture dimensions and effectiveness measures being significant. Thus, Hypothesis 1, that involvement, adaptability, consistency, and mission are correlated with organizational effectiveness is supported. Table 2 also shows the results for previous research on 136 firms in the USA (Denison & Young, 1998). This comparison shows that the culture data, in the Russian context, are somewhat weaker predictors of overall performance, employee satisfaction, quality, and product development, than in the USA, but are somewhat stronger predictors of market share, sales growth, and profitability.

[Insert Table 2 about here]

The predictions of Hypotheses 2 and 3 can also be addressed through Table 2. The data show that different culture traits do indeed predict different criteria of effectiveness, but it is a different pattern than that observed in the USA data. In the Russian context, involvement and adaptability are the strongest predictors of all the effectiveness measures except one. This is in contrast to the typical pattern in the USA data in which criteria such as employee satisfaction and quality are best predicted by internal traits such as involvement and consistency and criteria such as market share and sales growth are best predicted by external traits such as adaptability and mission. This pattern suggests that the flexibility traits of involvement and adaptability are more powerful predictors of effectiveness in the Russian context.

A more refined look at the relationship between culture and effectiveness is provided by the regression results. The regression results for the Russian data are presented in Table 3 and for the USA data in Table 4.

[Insert Tables 3 & 4 about here]

The regression results, with two minor exceptions, show that the control variables are insignificant. Those two exceptions show that the firms in one industry (electrical, industrial, & instrument manufacturing) are slightly less profitable, and that larger firms tend to have somewhat higher quality ratings. These results also show that all of the culture traits except consistency are significant predictors of some aspect of effectiveness, providing substantial support for Hypothesis 1.

The regression results present a similar picture with respect to Hypotheses 2 and 3 as the correlations that were presented in Table 2. The Russian data do support the idea that different aspects of culture are linked to different elements of effectiveness. For example, Table 3 shows that mission is the most important organizational culture characteristic for firms focusing on sales growth. Mission had a beta of .357 which was significant at $p < .001$. Table 3 also shows that adaptability is the most important dimension of organizational culture for firms primarily concerned with profitability. Adaptability has a beta of .308 which is significant at $p < .001$. Finally, Table 3 also shows that involvement is the most important dimension of organizational culture for firms whose primary goal is employee satisfaction. It has a beta of .332 which is significant at $p < .001$.

Even though some culture measures are better predictors of some aspects of effectiveness than others, the Russian data do not show the same pattern as would be expected based upon the USA data. Once again adaptability and involvement appear to be more important predictors of effectiveness, accounting for 10 of the 13 significant

relationships. The only exception to this pattern is that Mission is the strongest predictor of sales growth.

These results are also encouraging with respect to the risk that response bias and correlated error between the independent and dependent measures may be accounting for most of the significant results. If this were a major problem, we would expect to find all of the variance claimed by the first variable entered into the regression equation and thus only one predictor would be significant. Since all of the equations with significant predictors have more than one significant predictor, this suggests that the results are quite robust. A correlation matrix of all the variables used in the regression analyses is presented in Appendix A.

TAKING A CLOSER LOOK: FOUR CASE STUDIES

The empirical study of 179 firms has shown that many of the general concepts in the Denison model can be measured accurately and appear to have an impact in the Russian. But even where the results appear to indicate that there is a similar impact in the US and Russian contexts, it would be a mistake to conclude that the concepts in the organizational culture model have the same *meaning* in the Russian context that they do in the USA. For example, empowerment may be a salient aspect of culture in both contexts, but this should not be taken to mean that the same behaviors will constitute empowerment in both contexts. For this reason, the first objective of these case studies is to ground the model's abstract concepts in the Russian context by describing some of the specific behaviors they entail.

The second objective of these case studies is to focus on those aspects of the cultures of the four firms that cannot easily be described in terms of the model. This

approach helps to identify aspects of the firm's culture that may have an impact on the effectiveness of the enterprise and yet be relatively unique to the Russian context. These aspects of Russian business culture can make an important contribution to future theory-building about culture and effectiveness in the Russian context.

This section begins with a description of the case study methodology, followed by a brief description of the four firms and a table summarizing their culture and level of effectiveness. This is followed by a discussion, framed in terms of the model, which grounds the abstract concepts of the model in the Russian reality of the cases. The final part of this section focuses on those aspects of the culture of these four firms that cannot easily be so easily described in terms of the model.

Case Study Methods

From the 179 firms that were a part of the survey study, we identified a sub-set of firms that had at least 70 employees and manufacturing and sales operations in Russia. To control for the national culture of the parent firm and to facilitate access, we identified 13 Swedish firms that met these criteria. Several of these firms had been part of previous research projects conducted by the first author. Based on the authors' knowledge of the firms and additional sources of public data four case study firms were chosen to represent a good distribution of effectiveness.

Ten interviews were conducted in each firm. In each case study one expatriate was interviewed (either the GM or Deputy GM), and the remaining nine interviews were with Russian natives. In each firm, we interviewed the GM, the Human Resource Manager, two production employees, one production manager, one marketing employee, one marketing manager, one financial or accounting employee, and one engineer, and one

engineering manager. 80% of the interviews were conducted in English. Remaining interviews were conducted in Russian with a translator present to clarify misunderstandings.

The interviews were semi-structured, following the approach described by Merton, Fiske, and Kendall (1963). A core set of questions facilitated comparisons across organizations, but also allowed flexibility for specific topics to be explored in greater depth in each interview. The core questions focused on the following topics: the interviewee's identity and career history, the values of the organization, the unique aspects of the organization and its history, the presence of sub-groups in the firm, the organization's management and business practices, and the interviewee's perception of the link between their organization's culture and its effectiveness.

Two researchers were present at each interview taking independent notes that were typed up each night. We followed the recommendations of Yin (1984) and Eisenhardt (1989) for the write-ups: 1) researcher's impressions were kept separate from the interviewees' impressions; 2) all data were included in the write-ups even when not specifically requested in the interview guide; and 3) researchers continually asked themselves questions such as, "what did I learn from this interview?" and "how does the data from this interview compare to the other interviews?" Interview notes from the two researchers were then compared to highlight any differences and produce a master set of interview notes. The memoing process described by Glaser (1978) was the next step in the analysis of the qualitative data. This process involves recording patterns that the researcher notices within each unique site and then recording those that appear across

sites to identify both matches and mis-matches between the empirically based pattern and the predicted pattern (Yin, 1984).

Four Case Studies

AGA. Headquartered in Stockholm, Sweden, AGA is one of the world's leading producers of industrial gasses with 1996 sales of US\$1.6 billion and over 10,000 employees in 40 countries. AGA has a new matrix structure with three business areas (manufacturing industry, process industry, and health care industry) and country organizations.

AGA entered Russia in 1908. Despite an interruption during the 1917 Russian revolution, AGA began supplying the Russian market via its Finnish subsidiaries in 1934. Today, with a head office in Moscow and a large sales office in St. Petersburg, AGA has added two factories, one in Kaliningrad in 1993 and one in Moscow in 1995. With over 500 employees in Russia, AGA is losing money and shareholders are demanding improved results. Despite a loss of 4 million USD in Eastern Europe in 1996 and 6 million USD in 1997, management points out that these losses can be seen as a cost of developing AGA's presence in the Russian market.

In 1995, AGA Moscow invested 10 million USD in a new production facility producing oxygen, hydrogen, and argon with a capacity of 100 tons per day. The factory was an old AGA factory from Finland that AGA disassembled, shipped to Russia, and then reassembled—a large logistical feat! The factory was reassembled at an old gas production plant in Balashikha, just outside of Moscow. This local factory was supposed to bring a cost advantage to AGA, but by mid 1997, the factory was producing 80 tons of gas per day and had cost AGA 15 million USD. To assist in distributing, AGA Moscow set up 20 distribution stations throughout Russian. The Moscow office in Balashikha is divided into the sales department mainly made up of new personnel, and the production side, mostly comprised of workers from the acquired production company. AGA Moscow has had difficulty in the many potential customers that exist in Russia because its price is too high and the industry has over capacity.

Alfa Laval. Alfa Laval produces separators, dairy equipment, and heat exchangers and has 13,800 employees in 110 subsidiaries in 50 countries producing revenues of USD 1.8 billion. Today, Alfa Laval, has a matrix organization and is part of the Tetra Laval group.

Alfa Laval acquired the Potok factory outside Moscow in 1993. Alfa Laval spent much money to renovate this factory to create a modern-looking factory that began new production in early 1996. To the disappointment of Alfa Laval Russia's general manager Mr. Bengt Celsing, this factory is somewhat too large

for Alfa Laval Potok's current needs. Today the factory has approximately 300 employees.

Alfa Laval Potok had poor initial results and many challenges to overcome. However, it appears that Alfa Laval has done a good job of adapting to the Russian environment and has turned the corner to financial success. Alfa Laval Potok was originally supposed to focus on producing separation equipment, but this market had over-capacity. As a result, Alfa Laval Potok switched the majority of its efforts to producing heat exchange equipment for district heating which is a promising business in Russia. This move took considerable courage on the part of Alfa Laval and shows a good ability to adapt to the Russian market. Today, Alfa Laval Potok consists of three units—separation, thermal (heating), and beverage. Currently, the thermal division accounts for approximately 60 percent of the total turnover. Beverages make up 30% of turnover and the separation unit accounts for the remaining 10% of sales.

Alfa Laval Potok sells through 20 different distributors to different regions of Russia. In Novosibirsk Alfa Laval Potok has a successful distributor covering most of Siberia and accounting for 50 percent of the total Alfa Laval Potok revenues in heating. Choice of distributors has been driven by where good people could be found rather than by the location.

Though initially the performance of Alfa Laval Potok was poor, it has improved markedly as it has shifted its focus towards heat exchangers and trimmed excess personnel and assets. The heating division is now running at full capacity with net sales growing by 50 percent during 1997 and the same rate of growth expected for 1998. Thus, despite the poor profitability in the early years, Alfa Laval Potok's general manager is pleased with the current performance and believes the initial investments will be paid back within the next two years.

AssiDomän. AssiDomän is one of Europe's largest forestry companies with 18,000 employees and sales of USD 2.5 billion, 60 percent of which comes from outside Sweden. AssiDomän is divided into 5 business areas: forestry, packaging, craft products, cartons, and barrier coating. It first entered Russia through its subsidiary, the Stratton Paper Company of which AssiDomän owns 50 percent. Stratton acquired 57 percent of the paper-producing company Segezhabumprom in Karilea. This company ran into serious problems and AssiDomän has only recently managed to get out of this company.

Nonetheless, AssiDomän still saw opportunity in the Russian market and invested USD 25 million to open a 100% owned greenfield packaging factory in St. Petersburg in 1997. This modern factory focuses on the production and sale of corrugated packaging in northwestern Russia. Russian native Dennis Belkovsky (Managing Director) and his Danish wife Malene Ratajczak (Finance and Administration Director) manage the plant with a very enlightened management

style. Prior to this, Ms. Ratajczak worked for two years at AssiDomän in Denmark.

According to AssiDomän, the Russian market for corrugated cardboard is growing rapidly. They aim to serve both Russian firms and foreign firms operating in Russia. Their factory, which covers 15,000m², is capable of producing 60 million m² of cardboard box material when working three shifts. However, presently only one shift is used. AssiDomän hopes that the plant will be operating at full capacity within five years. Today the factory has 70 employees.

Lift. Lift, which is a pseudonym, is a global firm that develops, produces, sells, and services elevators. It is a division of a firm with over 200,000 people and an annual turnover of over US\$30 billion. Lift is organized in a matrix structure with national companies in one dimension and 30 business areas organized into 4 business segments in the other dimension.

Lift Moscow is officially a joint venture formed in 1994 with Lift owning 80 percent equity and the Moscow Mechanical Complex owning the remaining 20 percent. However, in reality, Lift Moscow functions like a wholly-owned subsidiary of Lift. Lift Moscow was supposed to be Lift's golden door to Russia, but their potential has not been reached since they have been unable to sell many elevators. Fortunately they have been able to adapt by cutting their work force from 550 to 350 employees and by aggressively pursuing service contracts.

Since Lift Moscow produces only small elevators designed for residential use, cites are their primary customers and they have limited resources. Thus, Lift has had great difficulty selling elevators for cash and has resorted to barter. For example, in one recent deal, Lift "sold" a US\$1.2 million elevator system to a town. The town administration paid for the system by bartering US\$1.15 million in electricity to a pulp and paper company, that bartered US\$ 1.1 million in paper to a trading company that paid Lift US\$1 million in cash.

Adapting to the local environment with barter deals and service contracts has saved Lift Moscow. Many foreign firms refuse to consider barter deals even though they are an effective way of doing business in Russia. But barter deals do have several drawbacks. It often takes two months to arrange a deal and a 20 percent markup needs to be added to the selling price.

Grounding the Model

To begin examining the link between the qualitative case studies and the model, we made summary ratings of the cultural traits and overall effectiveness of each of the firms. This summary is presented below.

	Involvement	Consistency	Adaptability	Mission	Overall Effectiveness
AGA	low	low	low	low	low
Lift	low	high	medium	medium	low
Alfa Laval	high	low	high	medium	medium
AssiDomän	medium	medium	high	high	high

Each of these cases provides examples that fit the model. Some of the examples show direct similarities to firms in a Western context, while other examples appear to illustrate the general concepts outlined in the model, but show many differences from firms in the west. This section of the paper presents qualitative findings that help to ground the concepts in the model to the realities of the Russian context. This section is framed in terms of the four main traits in the model.

Involvement. Several of the cases provide examples of involvement that are very similar to what might be found in a western firm. For example, the AssiDomän Production Manager rewarded workers who developed the capability to operate multiple machines and put a chart on the wall where workers could see how many machines they were certified to operate. But the same manager exerted very tight control over workers and would not allow them to make personal calls home, even if they had a sick child. Workers complained that management often made them clean their aging machinery over and over again when work was slow. Strong leaders who exert tight control are a Russian tradition that endures. Interestingly enough, in AssiDomän, this tradition is far stronger in production than in any other functional area. . Nonetheless, in this same organization, when workers were asked whether they would prefer an extra month's pay or the chance to attend a one-week training course, most said that they would choose the training course. This indicates that they attach much higher value to capability development than many of their counterparts in the west.

But other examples of involvement have a far different feel and appear to be more unique to the Russian context. For example, top management at Alfa Laval would often delegate decisions to middle management. Because top management had an “open-door” policy, the middle managers would come back over and over again to try to get the top management to “decide” on an issue that had officially been delegated to middle management. Top management would respond by asking for the pros and cons of different alternatives, but in the end would try to force middle managers to decide. Top management thought that this was better than abruptly telling middle management that it was their job to decide. Over time the middle managers slowly learned. Alfa Laval, in fact, was probably the best example of high involvement among the four case studies.

AGA also provided a useful example of how expectations of involvement and the sense of belonging to a team often followed functional lines. AGA was made up of two very different sub-cultures. People in the top management, sales, and accounting departments were young, new to the firm, and highly motivated. People in the production department were older and have been working at the Balashikha plant for many years. Both groups were highly motivated by membership in their own functional sub-groups, but not by their membership in the organization as a whole. While this general phenomenon occurs in Western firms as well, it was clearly much more extreme in AGA. For example, the first time we interviewed two factory workers, we asked, “how does it feel to work for AGA?” They replied, “we don’t work for AGA.” Upon further examination what they meant was that they worked for the Balashikha plant, and regarded AGA as being merely an investor. The management/sales/accounting group viewed the production workers as ineffective employees that they inherited with the

plant, many of whom wanted their salaries without having to work hard. But the factory employees saw the management group's high salaries and fancy offices as a major problem that was preventing AGA from being profitable. After all, one of the production workers commented, "the sales employees are not producing anything."

These examples help to show how the concepts from a Western theory may translate reasonably well into the Russian context even though the actual behavior that illustrates the concept may be quite different in the two contexts.

Consistency. Several of the cases also illustrate aspects of consistency that are similar to those that exist in Western firms. As the AGA and AssiDomän examples from the previous sections illustrate, these Russian firms both had considerable problems with coordination and integration that stemmed from the differing mindset across functions and the poor communication between departments. This is also a familiar problem in Western firms, but once again, we must argue for a major difference in the scale and scope of the problems in these two contexts. Several other examples help to illustrate.

In each case study, we asked questions about the core values of the firm. In Lift, several of the employees gave the same answer, "the core value of the firm is to maintain the formal system." The responses to this question generally indicated that core values were important to the interviewees. But this particular response essentially indicates that the primary purpose of the firm is to maintain the integrity of the existing authority structure – not a response that an employee of a Western firm would typically give. Another example that illustrates both the applicability of the general concept and the specificity of its application in the Russian context came from AGA. When we asked one lower level employee about the degree to which he agreed with management's decisions,

he replied, “right now, people really have no other choice than to agree.” This response again shows the applicability of a general concept like alignment across levels, or value consensus, but it also illustrates the extreme differences that exist in the Russian context compared to the USA.

Adaptability. The case studies also illustrate a number of interesting aspects of adaptability. As the empirical results have shown, adaptability is a critical trait in the Russian business environment. Once again, the qualitative data regarding adaptability reflect dynamics similar to those encountered in a Western organization, but other aspects of adaptability are quite different. AssiDomän’s use of two-person sales teams provides an example that is perhaps closest to the types of dynamics that would illustrate adaptability in a Western environment. In order to respond more quickly to their customers, AssiDomän would have one sales person on the road, paired up with another sales person who remained in the office. This assured that customers would be able to contact someone even when their sales representative was on the road. This was also helpful in that the sales person who was on the road could rely upon his or her partner to make certain that orders were placed with the production department on a timely basis. Even though the more likely situation in a Western organization would be to have a single salesperson on the road with a lap top and cell phone, this example shows the use of a small team with shared responsibility that is used to make the system respond quickly to a customer’s needs.

Examples of more extreme forms of adaptability that may be more specific to the Russian context came from Alfa Laval and Lift. In Alfa Laval, the focus of the business changed quickly from separation equipment to heat exchangers in an effort to survive. In

Lift, the original concept of producing, selling, and servicing elevators in Russia was quickly abandoned for a focus on servicing any manufacturer's elevators. The few elevators that Lift was able to "sell" were increasingly arranged through barter deals that were inefficient and time-consuming. Drastic changes such as these certainly occur as a part of restructuring and re-organizations, but in the Russian context, they are clearly a more integral form of "business-as-usual." Nonetheless, they underscore the importance of adaptability as a concept, even if it takes a different form in the Russian context. The approaches taken to creating these changes are also interesting. On one hand Russians appear to be able to endure anything with their combination of resignation, fatalism, and the use of ingenuity in the service of survival. But on the other hand, the concept of a proactive approach to change in which individuals shape their own future is quite limited. Interestingly enough, the most adaptable firm, AssiDomän used "open to changing mindset" as a clear criterion in their recruitment of new employees.

Mission. Because of the continuous state of turbulence in the Russian business environment over the last ten years, a clear sense of mission is unusually difficult to establish. Thus, with a few exceptions, most of the positive examples in our case studies had to do with the way in which drastic organizational changes were communicated to employees. For example, the two least effective organizations, Lift and AGA both changed direction quite quickly, but did little to communicate these changes to their employees. In Lift's case, the change from production, sales, & service to a service was not communicated throughout the organization in terms of strategy, goals, or a new vision. Changes were simply made on the operational level and employees expected to follow. In AGA's case, a series of unmet sales targets quickly changed their strategic

goals from fast expansion to survival. But employees seemed largely unaware of the reasons and rationale for these changes.

The other two cases, Alfa Laval and AssiDomän, are both examples of more effective organizations. The qualitative data that reflect on the sense of mission in these two organizations appear to support this idea. In Alfa Laval, the strategic rationale for the change from separation equipment to heat exchangers was well communicated and well understood throughout the firm. In AssiDomän, we saw what was one of the few examples of an attempt to create a positive proactive sense of mission. AssiDomän was led by a husband and wife team who made a deliberate attempt to create an organization that was, in their words, “a good place to work.” This effort was reflected in employees comments in many different ways.

Our analysis of the data from these four case studies also supported the quantitative findings in another important way. There were far more examples of adaptability and involvement, which appeared from the quantitative study to be the best predictors of effectiveness, than there were of consistency and mission, which appeared to be less powerful predictors in the Russian context. Involvement and adaptability also appeared to offer many examples that represented creative solutions to the problems posed by the Russian context. Consistency and mission provided some interesting examples, but were clearly areas that received much less attention given the turbulent nature of the business environment.

Moving Beyond the Model

The cases also served to illustrate several aspects of organizational culture that were more difficult to present in terms of the Denison model but were highly salient in

the Russian context. In this discussion, we have focused on two concepts, 1) the use of time as a resource, and 2) the presence of sub-cultures that forced a more powerful definition of reality on managers and employees than any overarching sense of organization, firm, or enterprise.

Time is a Scarce Resource. One of the most striking differences in firms operating in the Russian context is their concept of time as a resource. In many Western firms, competitive strategies based on time as a resource are well established and time perspective may well be important to examine as an aspect of culture that influences effectiveness. But in the Russian context, the perspective is very different. It is not unusual, for example, for a busy executive to take one hour to go and purchase an item at a store or mail a letter at the post office rather than having an assistant do it. Thus, it seems much clearer that the concept of time as a resource is a factor that likely has a major impact on effectiveness in the Russian context. Several examples help to illustrate.

In AGA we interviewed several production workers who complained because only one of their four new fork lifts were working. When we inquired further, we learned that the fork lifts that were purchased three months before had been idle for the last five weeks because some of the sparkplugs were broken. As we traced this problem through the system, the operators told us that they had informed their management of the problem. Those managers told us that they had reported the problem to the repair center managers. The managers in the repair center told us that those parts were difficult to get in Russia. Each person felt that he had done his job and thus that there was little left to do but wait for the spark plugs to eventually appear. While the workers were certainly upset that they did not have three of their four fork lifts to work with, no one took it upon

themselves to ensuring that spark plugs arrived. The fact that a major investment in fork lifts was going to waste and that workers' time was being used ineffectively for lack of a few sparkplugs did not seem to upset anyone. In reality, a phone call to Germany could have had a couple of boxes of sparkplugs delivered FedEx to Moscow in a few days. Top management at AGA Russia was unaware of this problem and may well have taken action if it had been brought to their attention.

A second example from Alfa Laval was presented earlier in the section on involvement. Top management allowed middle management to come back again and again to discuss decisions that had already been delegated to them to decide. Neither top or middle managers mentioned this as major waste of time in the decision process. Instead, they viewed this as an issue about authority and responsibility rather than about the effective use of time as a resource.

Most of the positive examples of the use of time as a resource came from AssiDomän. As noted earlier under the adaptability section, the creation of two-person sales teams was a means to respond quickly to customers' needs. In addition, workers in AssiDomän reported, "we are always made to feel in a hurry by management."

Although most of these examples can be linked to some aspect of the model, the pervasive neglect of time as a critical resource in the Russian context is such a major difference that it should command greater attention in both future research and practice.

Sub-Cultures Live in Different Worlds. The dynamics of sub-cultures are well established in the organizational research literature (Hatch, 1993; Martin, 1995; Van Maanen & Barley 1984). Indeed, one of the inherent difficulties with general models of organizational culture such as Denison & Mishra (1995), Hofstede (1980), or Kotter &

Heskett (1992) is that they tend to create the impression of organizations as unitary cultures. Researchers using such an approaches need to be aware of their limitations in order to understand the dynamics of sub-cultures and dominant cultures.

In the Russian context, however, our case studies showed that it may be even more misleading to assume the existence of a unitary enterprise culture. Kliuchevskii's (1990) comments on the Russian "tendency to dissemble," "preference for working in groups," and "circumspect nature" outlines a potent combination that gives rise to organizational sub-cultures that live in very different worlds. Our case studies give several examples of the nature of sub-cultures in the Russian context.

One of the first impressions of AGA is of two worlds co-existing. As noted earlier, top management and the sales and accounting departments make up one world, while the manufacturing department makes up the other. Most employees in the former group are young, new to the firm, and highly driven. The second group of employees is older and have been working at the factory in Balashikha for many years. To make matters worse, the first group was originally located in the center of Moscow and recently moved out to the Balashikha plant. But they are still located in a separate building, much nicer than the factory building where manufacturing managers have their offices. Communication between the two groups is very poor.

A similar picture comes from Alfa Laval. Since most of Alfa Laval management is of Swedish origin, they have poor knowledge of Russian and tend to work with English-speaking Russians, an obvious language barrier exists creating an "us" and "them" feeling leading to lack of team spirit. The "us" are the people at the fourth floor who speak good English and who are new at the production plant or worked at Alfa Laval

prior to the acquisition. The “them” are the older management from Potok who have limited knowledge of English and are located on the third floor.

One employee at the Potok plant told us about the difficulty he had understanding the Alfa Laval culture at the time of the merger. Prior to Alfa Laval’s acquisition of Potok, meetings were very formal with different chairs for people of different positions. Now, Alfa Laval Potok employees all work together to try to solve problems. This is difficult for older manager because, for them, communication between people of different levels is not “normal.” To try to teach them the new style, the old managers were sent to Sweden for a week to see for themselves how the new management style worked in Sweden. As one participant said, “I understood right then how work was to be done. It is like the old Russian proverb that says it is better to see something once than to hear it one hundred times.” In Lift, we got a similar picture very quickly when we asked one manager whether an average worker could make suggestions about product modifications. The manager answered, “you don’t understand: workers work; engineers know everything.”

These examples illustrate an important challenge faced by firms in the Russian context. Many firms, in effect, have “two workforces.” The first group consists of older workers who have a traditional Russian mindset and are resistant to change. Such workers are primarily found in production and engineering where there is no substitute for the experience they have accumulated from years of work. The second group of employees is typically younger and consists of aggressive “New Russians” who are generally eager to try to adapt ideas. The “New Russians” are driven by career ambitions and often have some training in business, English, or a few years experience working for

a foreign firm in sales or marketing. It also appears to be a common pattern to have younger workers placed in charge of older workers at a very early point in their careers.

These four case studies have served to ground the findings of the empirical study in the realities of the Russian context and serve as a powerful reminder that abstract concepts can have far different meanings in different contexts, even as they have wide applicability across those different contexts. These case studies have also shown how several important aspects of culture and effectiveness in the Russian context require going beyond the bounds of our initial model.

DISCUSSION

There has long been a debate about the extent to which organizational theories developed in the US context are useful in other contexts. This study provides an interesting point of reference in that debate. On one hand, this study has shown that a model of organizational culture developed in the USA can be validated in the Russian context and is useful in predicting differences in effectiveness among a set of foreign firms operating in the Russian context. The model was a useful foundation for understanding differences in effectiveness. On the other hand, many of the specific relationships between culture and effectiveness were quite different in the Russian context, suggesting that a literal application of the theory could be quite misleading.

Attempting to ground the empirical findings with a set of case studies urged even more caution on a literal application of the model in the Russian context. In the case studies, the general concepts appeared to be quite salient, but the concrete behaviors and situations that exemplified the concept were very different than they would be in the US context. As Denison (1996) noted, the link between concepts and behavior can vary

greatly between countries. He cited the example of the meaning attached to an individual wearing surgical masks on the streets of Tokyo and Los Angeles. In Tokyo, wearing surgical masks is a form of pro-social behavior by those who have a cold and want to make certain that others don't catch it. In L.A., wearing a surgical mask is a means of protecting one's self from the dangers of the natural and social environment. The concept of collectivism and self-interest are salient in both contexts, and the same behavior exists in both contexts. But the link between the two is exactly the opposite.

The case studies also focused on two issues, time and sub-cultures, that appeared critical to an understanding of the relationship between culture and effectiveness in the Russian environment, but go well beyond the concepts presented in the model. This suggests that researchers who attempt to work in multiple contexts should always keep in mind that models and theories are simplifications of reality. The further one ventures from the context in which the theory was created the more exceptions one will find. Nonetheless, a good theory may also be a good foundation from which to identify those exceptions.

The clearest differences between the Russian and US contexts that emerge from this study are the importance of flexibility traits in Russia. Adaptability proves to be the most important dimension of organizational culture with respect to overall firm performance and profitability. This result is quite believable since one of the major differences is Russia's turbulent and unpredictable environment. The data for this study were collected prior to the August 1998 financial crisis, so the need to respond to turbulence, if anything, is even greater today. One might argue that this characteristic of the Russian business environment is a temporary aberration, rather than an enduring

characteristic of the “culture,” but in the 10 years since the fall of the Berlin Wall this aberration has been a constant and is likely to continue for the foreseeable future.

The other flexibility trait, involvement, also appears to be highly important to effectiveness in Russia. Under communism, competition between groups was encouraged, but competition between individuals was often discouraged. Russians were always taught to work to help the group to be successful. The result of this deeply-rooted tradition is that Russians like working in groups and are good at doing it. Russians also valued education. On average, they have more formal education than Americans (Fey, 1995). In addition, Russians are known for being technically skilled and possessing diverse knowledge about history, art, and literature. Today, most Russians have come to appreciate that they also need knowledge about how to function in a market economy. Given their thirst for knowledge and the benefits that having such knowledge will give them, most Russians are pleased when a firm values training, involvement, and other types of capability development. In the West, most managers go to executive education courses only because their boss told them to or because they think will help lead to a promotion. They rarely go to such programs because they think they need to learn something. In contrast, in Russia, workers consider it a significant benefit to be able to take part in such training. Therefore an organizational culture that provides opportunities for capability development is very desirable.

This study is undoubtedly only a first step in developing an understanding cultural issues for foreign firms operating in Russia. Nevertheless, given the scarcity of empirical research in Russian and the difficulties in conducting such research, this multi-method study provides a good place to start. Future research can build on this study and consider

important questions such as the facilitation of culture change and the capability of firms to change quickly. In addition, future research might also examine the management systems of firms with effective organizational cultures, including such important features as the relationship with headquarters, the dynamics between the local culture and the culture of the management team, and the development of organizational capability.

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Table 1

Factor Analysis of Organizational Culture Measures

	Factor 1	Factor 2	Factor 3	Factor 4
Involvement				
Empowerment	.206	.830	.075	.141
Team Orientation	.009	.792	.182	.087
Capability Development	.101	.749	.124	.307
Consistency				
Core Values	.886	.107	.051	.231
Agreement	.889	.263	.182	.094
Coordination & Integration	.826	.173	.236	.258
Adaptability				
Organizational Learning	.143	.213	.801	.160
Customer Focus	.260	.102	.828	.171
Creating Change	.159	.073	.800	.357
Mission				
Vision	.222	.329	.162	.668
Goals and Objectives	.002	.057	.267	.841
Strategic Directions	.001	.290	.140	.779
Eigenvalue	5.106	1.793	1.175	1.026
% Variance Explained	42.6	14.9	9.790	8.548
Alpha (for bold items)	.806	.888	.864	.758

Table 2
Culture & Effectiveness Correlations

Russian Data	Overall Perform	Market Share	Sales Growth	Profits	Employ Satisfact.	Quality	Product Develop
Involvement	.442****	.332****	.384****	.366****	.460****	.424****	.330****
Team Orientation	.422****	.281****	.347****	.341****	.439****	.413****	.298****
Capability Devop.	.378****	.329****	.334****	.338****	.352****	.339****	.319****
Empowerment	.349****	.254****	.320****	.272****	.410****	.354****	.237****
Consistency	.306****	.218****	.252****	.275****	.230****	.265****	.116
Core Values	.299****	.299****	.220****	.253****	.212****	.238****	.110
Agreement	.236****	.169****	.241****	.198****	.158****	.205****	.067
Integration	.288****	.200****	.221****	.290****	.249****	.273****	.133
Adaptability	.458****	.296****	.274****	.453****	.331****	.305****	.358****
Org.Learning	.439****	.296****	.239****	.393****	.277****	.263****	.328****
Customer Focus	.387****	.160****	.243****	.401****	.291****	.240****	.307****
Creating Change	.349****	.324****	.215****	.362****	.275****	.281****	.281****
Mission	.202**	.301****	.454****	.260****	.383****	.370****	.269****
Vision	.074	.097	.330****	.127	.183*	.192*	.126
Goals	.190**	.304****	.311****	.194**	.339****	.331****	.233****
Strategy	.257****	.380****	.475****	.335****	.451****	.414****	.326****
USA Data	Overall Perform	Market Share	Sales Growth	Profits	Employ Satisfact.	Quality	Product Develop
Involvement	.554****	.143	.257****	.222**	.734****	.536****	.424****
Team Orientation	.503****	.070	.215*	.197*	.655****	.486****	.340****
Capability Devop.	.553****	.267****	.322****	.258****	.700****	.548****	.461****
Empowerment	.500****	.089	.195*	.174*	.705****	.472****	.400****
Consistency	.550****	.189*	.263****	.277****	.701****	.578****	.369****
Core Values	.526****	.216*	.257****	.273****	.690****	.534****	.319****
Agreement	.490****	.206*	.252****	.278****	.583****	.512****	.342****
Integration	.486****	.091	.203*	.202*	.636****	.536****	.399****
Adaptability	.508****	.135	.257****	.164	.649****	.504****	.454****
Org.Learning	.450****	.038	.200*	.126	.646****	.442****	.340****
Customer Focus	.430****	.142	.191*	.087	.527****	.470****	.354****
Creating Change	.477****	.183*	.292****	.220**	.560****	.439****	.511****
Mission	.584****	.262****	.377****	.333****	.676****	.509****	.432****
Vision	.568****	.176*	.337****	.265****	.728****	.558****	.444****
Goals	.502****	.215*	.333****	.352****	.564****	.400****	.328****
Strategy	.572****	.338****	.389****	.323****	.610****	.469****	.439****

**** Δ<.001, *** Δ<.005, **Δ<.01, *Δ<.05

Table 3
Regressions on Effectiveness Variables: Russian Data

Independent Variable	Dependent Variables						
	Gen_Perform	Market_Share	Sales_Growth	Profitability	Employee_Sat	Quality	Prod_Develop
Constant							
Involvement	.266***	.202*	.209*	.180*	.332****	.294****	.178*
Consistency	.138	.053	.127	.069	.052	.116	-.062
Adaptability	.297****	.094	.047	.308****	.017	.004	.259***
Mission	.093	.104	.357****	-.011	.219**	.205**	.082
Employee#	.081	.142	.062	.113	.096	.180**	.016
Manufact%	-.030	-.053	-.045	-.111	-.108	-.128	-.016
Years	.083	.120	.012	.068	.048	.000	.072
SIC7A1	-.025	-.103	-.026	-.172*	-.088	-.140	-.027
SIC7A2	.064	.036	.039	-.052	.017	.065	.107
SIC7A3	.091	-.058	.006	.002	-.002	.024	-.078
SIC7A4	-.008	-.056	.092	-.011	-.096	.011	-.026
SIC7A5	.083	-.097	.033	-.096	.020	.018	-.009
Co_Canada	.100	-.077	-.049	-.019	.032	.049	.009
Co_Finland	.088	-.118	.092	-.083	.080	-.007	-.012
Co_Germany	.009	-.153	.020	-.093	-.105	-.083	.046
Co_Sweden	.037	.021	-.029	.031	.004	.018	.078
Co_USA	.049	-.133	-.022	-.078	-.004	-.047	-.074
Man_US/R	.062	-.092	.127	.007	.054	.025	.013
F	4.27	2.72	4.08	4.32	4.14	4.10	2.39
Full model R ²	.324	.234	.314	.327	.318	.316	.212
Adjusted R ²	.249	.148	.237	.252	.241	.239	.123
Δ adjusted R ² ¹	.235	.104	.230	.197	.233	.213	.101
Df	160	160	160	160	160	160	160

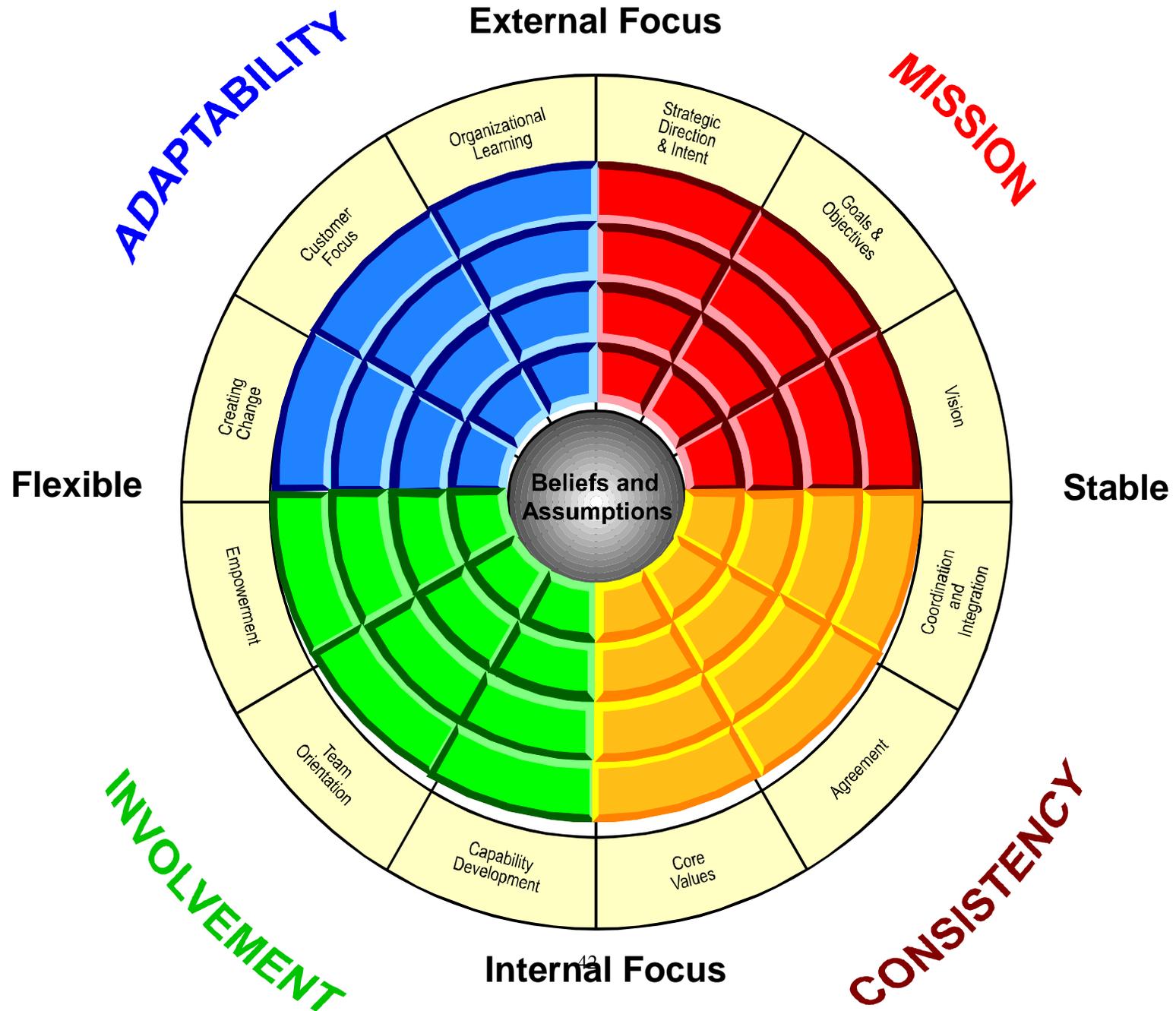
**** Δ<.001, *** Δ<.005, **Δ<.01, *Δ<.05; 1. “Δ adjusted R²” shows the amount of variance due to adding the four organizational culture variables as a set to regressions which only had the control variables (all other independent variables in the table above).

Table 4
Regressions on Effectiveness Variables: USA Data

Independent Variable	Dependent Variables						
	Gen_Perform	Market_Share	Sales_Growth	Profitability	Employee_Sat	Quality	Prod_Develop
Constant							
Involvement	0,356	-0,466	-0,274	-0,033	.899****	0,227	0,108
Consistency	0,191	0,217	-0,447	0,683	0,393	.937**	-0,294
Adaptability	-0,117	-0,417	-0,022	-1.249*	-0,217	-0,045	0,711
Mission	.606**	1.196**	1.606****	1.314***	0,282	0,064	0,448
F	18.087****	3.133*	5.899****	5.638****	41.438****	16.362****	9.210****
Full model R ²	0,359	0,089	0,156	0,15	0,562	0,338	0,222
Adjusted R ²	0,339	0,061	0,129	0,123	0,549	0,318	0,198
DF	129	129	129	129	129	129	129

**** Δ<.001, *** Δ<.005, **Δ<.01, *Δ<.05

FIGURE 1.
MODEL OF ORGANIZATIONAL CULTURE



Appendix A
Correlations for Russian Data

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. BADAPT																	
2. BCONSIST	.435**																
3. BINVOLVE	.529**	.340**															
4. BMISSION	.455**	.296**	.446**														
5. EMP#9	-.029	.000	-.015	.029													
6. MAN10A	-.122	-.070	-.089	-.056	.072												
7. YEARSR8	.048	.039	.120	.110	.289	.106											
8. SIC7A1	.057	.063	.105	.023	-.035	.019	-.052										
9. SIC7A2	-.076	-.168	-.005	-.013	-.041	.018	-.053	-.100									
10. SIC7A3	.028	.017	-.005	.020	-.047	.042	.130	-.119	-.141								
11. SIC7A4	-.028	-.025	.046	.045	.139	.036	.025	-.119	-.141	-.169*							
12. SIC7A5	-.082	-.007	-.053	-.118	.040	-.072	-.036	-.140	-.073	-.198**	-.198**						
13. COCANADA	.003	-.043	.066	-.066	-.031	-.059	-.109	-.088	.027	.048	-.067	.009					
14. COFINLAN	.043	-.099	.010	.050	.043	.039	-.007	.087	.083	-.020	-.062	-.070	-.138				
15. COGERMAN	-.075	-.046	-.045	.038	.125	-.051	-.009	-.038	-.032	-.042	.078	-.058	-.148*	-.224**			
16. COSWEDEN	.033	.048	-.068	-.008	-.040	-.017	.105	.041	-.054	-.084	-.032	.076	-.101	-.152*	-.164*		
17. COUSA	-.031	.052	-.010	-.074	-.081	.098	-.025	-.039	.013	.030	.030	.092	-.221**	-.335**	-.361**	-.245**	
18. Man_US/R	-.068	-.121	-.066	-.211**	-.012	-.162*	.066	-.069	-.076	.112	.010	-.097	.034	-.067	.125	.109	-.149

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

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