INTERDEPENDENCE OF ORGANIZATIONAL CULTURE AND LEADERSHIP STYLES IN LARGE FIRMS

Mario Buble*

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The purpose of this paper is to present results of a study on the interdependence between organizational culture and leadership styles in large firms in Croatia. In order to assess the correlation between these two variables, a research model based on the Mergerison's typology of organizational culture (Bennett, 1981) and Likert's (1961) concept of leadership styles was used. Each of these two variables were operationalized with 6 characteristics (6x6 matrix of interdependence) representing the research model. The research was conducted during the first quarter of the year 2012, using a sample of 32 large firms in Croatia with 500 participants. The collected data was processed in PC programs SPSS 13.0 for Windows and Microsoft Excel 2000.

1. INTRODUCTION

Organizational culture had been neglected for a long time. Only since the 1980s, has importance been given to organizational culture. The reason for this lies in the misunderstanding that values and other characteristics of organizational culture are something objectively granted. However, previous research showed the influence of organizational culture on individual and organizational behavior with this influence manifested at various levels. Kotter & Heskett (1992) showed that:

- 1. Corporate culture can have a significant impact on a firm's long-term economic performance.
- 2. Corporate culture will probably be an even more important factor in determining the success or failure of firms in the next decade.

Mario Buble, MBA, Suvremeno učilište, Mike Tripala 6, 21 000 Split, Croatia, Fax: ++385 21 323 078; Phone: ++385 21 323 077, E-mail: mario.buble@suvremenouciliste.hr

- 3. Corporate cultures that inhibit strong long-term financial performance are not rare; they develop easily, even in firms that are full of reasonable and intelligent people.
- 4. Although tough to change, corporate cultures can be changed to support performance.

In this context, it was concluded (Dale & Kennedy, 1982) that organizational culture is twined into all of an organization's activities, influencing the manner of organizing, type of organizational structure, degree of centralization/decentralization, level of standardization and formalization, application of authority or delegation, type of power, manner of control, allocation of resources, policies of human resources control, rewarding system, scope and way of planning, etc. Such a significance of organizational culture encourages the conclusion that a strong organizational culture is the prerequisite for the success and development of modern organizations.

However, it should be noted that not only the strength, but also the functionality of the organizational culture are essential for enterprise success and development, considering that a strong organizational culture may also be dysfunctional, i.e. oriented toward 'wrong' objectives. The role of management is essential, as it has to decide whether to adopt an orientation to internal policies or the market, or to 'numbers', instead of results and people. This determines the style of leadership, representing the managers' way of acting, their modus operandi. An important study has been conducted by Cameron & Quinn (1999), demonstrating that most organizations develop a dominant style of leadership, from whence they developed a model of mutual relationship between organizational culture, leadership, and efficiency. This, as well as numerous other studies, was focused on organizational culture (Smircich, 1983; Bennett, 1981; Handy, 1986; etc.) and leadership styles (Schein, 1997; Yukl, 2002).

All of them confirmed the importance of these variables, as well as their influence on the firms' efficiency. This has significantly influenced the affirmation of organizational culture and leadership styles as research variables, which are now considered as essential for the success of a modern firm. Nevertheless, relatively few studies are currently oriented to establishing the relationship between organizational culture and leadership styles. This further justifies the empirical research of the existence of such a relationship, its intensity and importance, as well as its possible implications.

The fundamental objective of this study is based on the three following research questions:

- 1. Is there a relationship between organizational culture and leadership styles in large firms?
- 2. If such a relationship exists, what would be its importance and intensity?
- 3. What are the possible implications of the existence or non-existence of the relationship between organizational culture and leadership styles for a large firm?

To provide answers to these questions, a study has been conducted, based on the Mergerison's typology of organizational culture (Bennett, 1981) and Likert's (1961) concept of leadership styles.

2. RESEARCH HYPOTHESES AND METHODOLOGY

2.1. Research Hypotheses

The objective of this study is to determine the existence of a relationship between organizational culture and leadership style in large firms. To this purpose, the following four hypotheses were set:

- Hypothesis 1: The interdependence between organizational culture and leadership style is positive and statistically significant.
- Hypothesis 2: The interdependence between all variables of organizational culture and all variables of leadership style is not positive and is not statistically significant.
- Hypothesis 3: There are numerous implications of the existence or non-existence of the relationship between organizational culture and leadership style.

2.2. Operational Measures

In order to conduct the research it was necessary to operationalize each the two variables, i.e. the *organizational culture* and the *leadership style* constructs. Each of these variables was operationalized with 6 characteristics, so that a 6x6 matrix of interdependence was formed, as illustrated by Table 1.

Table 1. Interdependence matrix of organizational culture and leadership styles variables

	Organizational culture variables					
Leadership styles variables	Developmental/ entrepreneurship orientation	Bureaucracy	Social orientation	Decentralization	Maintaining the status quo	Formalization
Leadership						
Motivation						
Communication						
Decision making						
Objectives						
Control						

A scale of 1 to 4 was used to measure the intensity of each of the two characteristics, with the value of 4 reflecting the full presence of the respective characteristic, while the value of 1 indicates its non-existence. For each firm from the sample, the arithmetic average was calculated for all questions and, thus, an average rating of a particular variable was obtained.

2.3. Methodology

2.3.1. Sample

The study was conducted from January to April 2012, by using the sample of 32 large firms, with 500 participants - from lower management to firm's president. Structure of firms in the sample, according to the industries to which they belong, is illustrated by Table 2.

Table 2. Numbers of participants in the sample

Activity	Number	%
Commerce	130	26.00
Manufacture	210	42.00
Services	160	32.00
Total:	500	100.00

The largest number of participants comes from the manufacturing industry, which means that this type of firms exerts decisive influence on the results of this research on organizational culture and leadership styles.

2.3.2. Research Instrument

A questionnaire, containing 79 questions and classified into four groups, was designed, as to conduct this study.

The first set of 4 questions was related to the characteristics of the firm, the second one had 18 questions and was related to data on persons interviewed; the third set of 18 questions related to the leadership style and the fourth one comprised of 39 questions, related to organizational culture.

Considering that the study was oriented towards organizational culture and leadership styles, the third and fourth groups of questions were designed in accordance to the 6x6 matrix. The questions in these two sets were of the close-ended type with four levels of intensity. For the questions on leadership styles, these four levels referred to the Likert's leadership system, and for the questions concerning organizational culture, they corresponded to the following ratings: 1-not at all, 2-slightly, 3-significantly, 4-fully.

2.3.3. Analysis of data

Appropriate statistical methods were used for data analysis and hypotheses testing. For analyzing the parameters of organizational culture and leadership styles, methods of arithmetic average and standard deviation were used. Computer programs used for the statistical analysis were SPSS 13 for Windows and Microsoft Excel 2000.

3. RESULTS

3.1. Level of Organizational Culture

Starting from the types of organizational culture, as defined by Mergerison, this study addressed the issue of the dominant type of organizational culture in large firms in Croatia. An answer to this question is provided by the statistical data presented in Table 3.

Factors of organizational culture	N	min	Max	Mean
Factors of developmental/	500	2.32	3.32	2.92
entrepreneurial orientation				
Factors of bureaucracy	500	2.90	3.08	3.01
Factors of social orientation	500	2.06	2.78	2.46
Factors of decentralization	500	2.10	2.62	2.36
Factors of maintaining status quo	500	2.74	3.00	2.87
Factors of formalization	500	2.82	3.10	2.96
Organizational culture:				2.76

Table 3. Ratings of organizational culture development

The rank of development of each group of factors, determining the type of organizational culture, can be clearly seen from Table 3. The most developed are the factors of bureaucracy orientation. It should, however, be noted that the second-ranking are the factors of formalization, followed by the factors of bureaucracy. This means that there is a rather strong tendency toward the retention of the existing state in the firms in the sample, which prevents a faster development of the developmental/entrepreneurial orientation.

Less developed are the factors of social orientation: they are ranked even somewhat higher than those of bureaucracy orientation. This probably means that, in large firms in Croatia, less attention is being paid to the human factors, which, indeed, does not make firms successful.

Least developed are the factors of decentralization. This means that the bureaucratic orientation is more expressed through unwritten, rather than written rules. The low degree of decentralization is logical, since the sample is dominated by firms whose size makes this factor meaningless.

If, in accordance with the selected typology all six groups of factors are arranged into adequate types of organizational culture, the following statements can be made:

- The dynamic organizational culture, comprising the factors of developmental/ entrepreneurial orientation, social orientation and decentralization has an average rating of 2.58.
- The static organizational culture, comprising the factors of bureaucracy, formalization and status quo, has an average rating of 2.95.

Thus, it can be concluded that, in large firms in Croatia, both the dynamic and static organizational culture are almost equally developed. This can be quite

dangerous for further development of these firm, considering the significant and quick changes in the globalized world.

3.2. Leadership Style of Managers in Large Firms

Based on variables of leadership style, defined in accordance with Likert's model, this study shows the existence of differences among various leadership variables. It is interesting to present the value of leadership variables, respective to the leadership style in large Croatian firms, which is demonstrated by data in Table 4.

Table 4. Variables related to the leadership style

Organizational variables:	Style
1. Trust in subordinates	2.36
2. Subordinates feeling free in communication with the leader	2.60
3. Use of subordinates' ideas by the leader	2.02
Leadership:	2.33
1. Responsibility for meeting objectives	2.96
2. Team work	2.90
Motivation:	2.93
1. Usual direction of information flow	2.52
2. Acceptance of information by the employees	3.10
3. Accuracy of information from the employees	2.60
4. Understanding employees' problems by the manager	1.82
Communication:	2.51
1. Level of decision - making	1.50
2. Subordinates' participation in decision -making	2.12
3. Motivation of employees	2.80
Decision - making:	2.16
1. Manner of determining objectives	2.08
2. Existence of resistance toward designated objectives	2.94
Objectives:	2.51
1. Persons responsible for control	2.30
2. Existence of resistance to rules	3.00
3. Primary purpose of control data	2.38
Control:	2.56
Leadership style:	2.51

It can be seen from Table 4 that, as demonstrated by the six key variables, which, according to Likert, determine the leadership style, there are different explanations. Namely, all of them indicate that the management has developed a *authoritative style of leadership*, except for the variable related to motivation,

which indicates the existence of a consultative style of leadership. Therefore, it is necessary to create a profile of organizational characteristics of managers in large firms in Croatia by summing up the above presented results (see Figure 1).

Organizational variables	System 1	System 2	System 3	System 4
How much trust do you show toward your subordinates?	Practically none	Some	Quite a lot	A lot
How free do the employees feel in discussing business matters with you?	Not at all	To a certain extent	Quite free	Very free
How often do you effectively use your subordinates' ideas/suggestions?	Rarely	Sometimes	Often	Very often
What do you use to ensure the required performance: (1) fear, (2) threats, (3) punishment, (4) rewards, (5) participation?	1, 2, 3, sometimes 4	4, some 3	4, some 2 and 5	5, 4 - based on objectives agreed with all the employees
Who is actually responsible for meeting the designated objectives of your enterprise?	Only the general manager	Enterprise management	None specific	All the employees
How much is teamwork used in your enterprise?	In a very small extent	In a relatively small extent	Moderately	Extensively
What is the usual flow of information?	Upside-down	Mostly upside-down	Both upside-down and bottom-up	Upside-down
How do the employees accept the information from the higher levels of hierarchy?	With suspicion	Sometimes with suspicion	Cautiously	With an "open mind"
How accurate is the information communicated to management by the employees?	Usually inaccurate	Often inaccurate	Often accurate	Almost always accurate
How well do you understand the problems faced by your subordinates?	Not so well	Well	Quite well	Very well
What is the principal hierarchical level on which the decisions are being made?	Mostly on the top of the hierarchy	Mostly on the top of the hierarchy, with some delecation		On all hierarchical levels, but all the decisions are well integrated
Are your subordinates involved in decision-making?	Almost never	They are sometimes consulted	They consulted	They are completely involved
How much does the involvement in decision-making contribute to the motivation of employees?	Not to a large extent	Only to a small extent	Only to a limited extent	To a large extent
How do you determine the enterprise objectives?	By giving orders	By giving orders, but accepting the comments	Both orders and discussions	Group actions (except in a crisis)
How much do the employees resist the designated objectives?	Significant resistance	Limited resistance	Occasional resistance	Small or no resistance
Who controls operations and business results?	Only general manager	General manager to a significant extent	All managass	All managers and employees
Are there any individuals/groups resisting the agreed rules and procedures?	Often	There are some	Sometimes	No
What is the primary purpose in which the control data (describing costs, productivity, etc.) is being used?	Mostly for managing operations/enterprise	To determine rewards and punishments	To determine rewards and facilitate self-direction of employees	Mostly to facilitate problem solving and self-direction of employees

Figure 1. Profile of managers' leadership styles in Croatia

Figure 1 leads to the conclusion that, in large firms in Croatia, the benevolent-authoritative style of leadership dominates, although it has certain elements of the soft variant of consultative style. The elements of the latter are visible in the rather centralized policies of setting objectives and making decisions, as well as in the significant concentration of control in the hands of the top management.

Nevertheless, training managers and applying organizational and other measures would permit the recovery of extreme characteristics of the authoritative style of leadership, thus contributing to the affirmation of the consultative style and the strengthening of the participative style of leadership, which is more appropriate to the contemporary and future business setings.

3.3. Interdependence of Organizational Culture and Leadership Style in Surveyed Firms

To examine the interdependence of organizational culture and leadership styles in large firms in Croatia, Spearman's rank correlation coefficient was used, provided that the variables are ordinal. A significant positive correlation was found between leadership styles and organizational culture. The rank

correlation coefficient amounts to r = 0.465, which is statistically significant at the significance level of p = 0.01.

A review of the correlation between organizational culture and leadership styles is presented in Table 5.

Table 5. Correlation coefficients between organizational culture and leadership styles

		Leadership	Organizational
		style	culture
	Pearson Correlation	1	.465**
Leadership style	Sig (2-tailed)		.001
	N	500	500
Organizational	Pearson Correlation		1
culture	Sig (2-tailed)		
	N		500

^{**} Correlation is significant at the 0.01 level (2.tailed)

The correlation coefficients between individual variables of organizational culture and management styles are given in Table 6. They indicate that:

- 1. There is a positive correlation between leadership and factors of organizational culture, which is:
 - statistically significant between leadership and factors of developmental/entrepreneurial orientation and factors of formalization;
 - statistically insignificant between leadership and factors of social orientation, factors of decentralization and factors of maintaining the *status quo*.
- 2. There is a positive correlation between motivation and factors of organizational culture, which is:
 - statistically significant between motivation and factors of developmental/entrepreneurial orientation;
 - statistically insignificant between motivation and factors of bureaucracy, factors of social orientation, factors of

decentralization, factors of maintaining the *status quo* and factors of formalization.

- 3. There is a positive correlation between communication and factors of organizational culture, which is:
 - statistically significant between communication and factors of developmental/entrepreneurial orientation;
 - statistically insignificant between communication and factors of bureaucracy, factors of social orientation, factors of decentralization, factors of maintaining the *status quo* and factors of formalization.
- 4. There is a correlation between decision making and factors of organizational culture, but it is not statistically significant and it is:
 - negative between decision making and factors of developmental/entrepreneurial orientation, as well as factors of decentralization;
 - positive between decision making and factors of bureaucracy, factors of social orientation, factors of maintaining the *status quo* and factors of formalization.
- 5. There is a weak positive correlation between objectives and all factors of organizational culture, but it is not statistically significant.
- 6. There is a weak positive correlation between control and all factors of organizational culture, but it is not statistically significant and it is:
 - negative between control and factors of bureaucracy, factors of maintaining the *status quo*, as well as factors of formalization correlation;
 - positive between control and factors of developmental (entrepreneurial) orientation, factors of social orientation and factors of decentralization.

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Table 6. Correlation coefficients between variables of organizational culture and
leadership styles

		Developmental/ entrepreneurial orientation	Bureaucracy	Social orientation	Decentralization	Maintaining the status quo	Formalization
Leadership	r p	.318* .024	.336* .017	.249 .081	.143 .322	.284* .046	.273 .055
Leadership	N	500	500	500	500	500	500
	r	.362**	.244	.245	.014	.063	.074
Motivation	p	.010	.088	.087	.922	.663	.610
	N	500	500	500	500	500	500
	r	.387**	.240	.104	.174	.046	.271
Communication	p	.006	.094	.472	.227	.778	.057
	N	500	500	500	500	500	500
	r	129	.011	.240	062	.081	.158
Decision making	p	.371	.938	.093	.670	.577	.280
	N	500	500	500	500	500	500
	r	.137	.085	.204	.082	.027	.048
Objectives	p	.343	.559	.155	.573	.854	.738
	N	500	500	500	500	500	500
	r	.227	044	.152	072	169	042
Control	p	.114	.764	.291	.618	.240	.774
	N	500	500	500	500	500	500

^{*} The correlation is significant at the level of 0.05, i.e. 5%

4. CONCLUSIONS

Concerning organizational culture in large firms in Croatia, this study has established a presence of various individual factors of organizational culture.

Considered in its entirety, the conclusion is that most developed are the factors of bureaucracy orientation, which are positioned even before the factors of developmental/entrepreneurial orientation. It should, however, be noted that second-ranked are the factors of formalization, followed by the factors of bureaucracy. This means that there is a rather strong tendency in these firms to maintain the existing state, which prevents a faster development of the developmental/entrepreneurial orientation. Less developed are the factors of

^{**} The correlation is significant at the level of 0.01, i.e. 1%

social orientation, which are ranked even somewhat higher than bureaucracy orientation. This means that, in large firms in Croatia, less attention is being paid to the human factors, which, indeed, do not make firms successful. Least developed are the factors of decentralization. This means that the bureaucratic orientation in these firms is more developed through unwritten rather than written rules, while the low degree of decentralization is logical.

If, in accordance with the selected typology, all six groups of factors are arranged into adequate types of organizational culture, the following statements can be made:

- 1. The dynamic organizational culture, comprising the factors of developmental/ entrepreneurial orientation, social orientation and decentralization has an average rating of 2.58.
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Thus, it can be concluded that, in large firms in Croatia, both the dynamic and static organizational culture are almost equally developed. This can be dangerous for further development of these firms in the globalized world.

As for the leadership styles in large firms in Croatia, this study has shown a differing level of development of individual variables, pertaining to these styles. The six key variables analyzed, which, according to Likert, determine the leadership style, demonstrate various manifestations. Namely, while some of them indicate that the management develops a consultative style of leadership, all others support the existence a benevolent-authoritative style of leadership, with some elements of the consultative style. The elements of the latter are visible in the rather centralized policies of setting objectives and making decisions, as well as in the significant concentration of control in the hands of the top management. Nevertheless, training managers and applying organizational and other measures would permit the recovery of extreme characteristics of the authoritative style of leadership, thus contributing to the affirmation of the consultative style and the strengthening of the participative style of leadership, which is more appropriate to the present and future business environment.

Summing up the results of research into the interdependence of organizational culture and leadership styles in large firms in Croatia, there is a significant positive correlation between leadership styles and organizational

culture. The rank correlation coefficient is r = 0.465, which is statistically significant at the significance level of p = 0.001.

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MEĐUOVISNOST ORGANIZACIJSKE KULTURE I STILOVA VOĐENJA U VELIKIM PODUZEĆIMA

Sažetak

U ovom se radu prezentiraju rezultati istraživanja međuovisnosti organizacijske kulture i stilova vođenja u velikim hrvatskim poduzećima. Kako bi se procijenio odnos između navedenih varijabili, formiran je istraživački model, zasnovan na Mergerisonovoj tipologiji organizacijske kulture i Likertovom konceptu stilova vođenja. Navedene varijable su operazionalicirane sa šest karakteristika i tako je razvijen 6x6 istraživački model međuovisnosti. Istraživanje je provedeno u prvom kvartalu 2012., na uzorku od 500 sudionika, zaposlena u 32 velika hrvatska poduzeća. Prikupljeni su podaci obrađeni na osobnom računalu, koristeći programske pakete SPSS 13 for Windows i Microsoft Excel 2000.