

SIMILARITIES AND DIFFERENCES EXISTING IN CULTURAL PROFILES OF COLOMBIAN ORGANIZATIONS OF HIGHER AND LOWER PERFORMANCE*

IGNACIO GÓMEZ ROLDÁN** & RAFAEL GUILLERMO RICARDO BRAY***
UNIVERSIDAD DE LA SABANA

Recibido/ Received/ Recebido: 05/02/2009 - Aceptado/ Accepted / Aprovado: 20/04/2009

Abstract

Organisational culture influences members' behaviour and therefore organisational performance. The specialised literature has documented a variety of performance outcomes related to specific characteristics of organisational culture profiles. This paper reviews the similarities and differences existing among organisations of higher and lower performance profiles as they relate to specific characteristics of their cultural profiles. The organizations examined belong to a sample of 66 organisations located in Bogotá, Colombia. The study is founded on the Organisational Culture Model of Daniel Denison. This model describes and applies a theory of culture related to behaviour and performance from a managerial perspective oriented to the attainment of results which are critical for the survival and viability of organizations.

Keywords: Organizational culture, behavior, organizational performance, cultural profile, performance profile.

SEMEJANZAS Y DIFERENCIAS EXISTENTES EN LOS PERFILES CULTURALES DE LAS ORGANIZACIONES DE ALTO Y BAJO DESEMPEÑO EN COLOMBIA

Resumen

La cultura organizacional influye en el comportamiento de los miembros y, por lo tanto, en el desempeño organizacional. La literatura especializada ha documentado una variedad de resultados de desempeño que se relacionan con características específicas de los perfiles de cultura organizacional. Este artículo analiza las semejanzas y diferencias existentes entre organizaciones de mayor y menor desempeño en la medida que se relacionan con características específicas de sus perfiles culturales. Las organizaciones estudiadas pertenecen a una muestra de 66 organizaciones localizadas en Bogotá. El estudio se fundamenta en el Modelo de Cultura Organizacional de Daniel Denison. Este modelo describe y aplica una teoría de la cultura relacionada con el comportamiento y el desempeño desde una perspectiva gerencial que se orienta a la obtención de resultados críticos para la supervivencia y la viabilidad de las organizaciones.

Palabras clave: Cultura organizacional; comportamiento; desempeño organizacional; perfil cultural; perfil de desempeño.

SEMELHANÇAS E DIFERENÇAS NOS PERFIS DAS ORGANIZAÇÕES CULTURAIS DE ALTO E BAIXO DESEMPENHO NA COLÔMBIA

Resumo

Este artigo analisa as semelhanças e diferenças existentes entre organizações de maior e menor desempenho à medida que se relacionam com características específicas de seus perfis culturais. O estudo se realiza sobre uma mostra de 66 organizações localizadas em Bogotá. Com fins comparativos, as implicações dos resultados sobre cultura e desempenho encontrados na Colômbia são discutidas em relação a resultados de uma pesquisa sobre o mesmo tema, encontrados numa mostra de empresas de propriedade estrangeira que operam na Rússia. O estudo se fundamenta no Modelo de Cultura Organizacional de Daniel Denison. Este modelo descreve e aplica

* Este artículo es producto de la investigación realizada en el marco del proyecto "Cultura Organizacional, Desempeño e Innovación", financiado por el Fondo Patrimonial de la Universidad de La Sabana. El proyecto se realizó desde Septiembre de 2006 hasta Septiembre de 2008.

** Economista. Universidad Javeriana. Magíster en Economía. Universidad Nacional de Colombia. Profesor Asociado. Universidad de La Sabana. Escuela Internacional de Ciencias Económicas y Administrativas. Área de Economía. Grupo de Investigación "Cambio e Innovación Tecnológica". Correo electrónico: ignacio.gomez@unisabana.edu.co

*** Licenciado en Filosofía. Universidad de San Buenaventura. Magíster en Administración Educacional. Universidad del Valle. Master of Arts. The University of Chicago. Profesor Asociado. Universidad de La Sabana. Escuela Internacional de Ciencias Económicas y Administrativas. Área de Administración y Organizaciones. Grupo de Investigación "Cambio e Innovación Tecnológica". Correo electrónico: rafael.ricardo@unisabana.edu.co

uma teoria da cultura relacionada com o comportamento e o desempenho desde uma perspectiva gerencial que se orienta à obtenção de resultados críticos para a sobrevivência e a viabilidade das organizações.

Palavras chave: Cultura Organizacional, comportamento, desempenho organizacional, perfil cultural, perfil de desempenho.

Gómez, I. & Ricardo, R. (2009) Similarities and Differences Existing in Cultural Profiles of Colombian Organisations of Higher and Lower Performance. En: Revista de la Facultad de Ciencias Económicas de la Universidad Militar Nueva Granada. revfac.cienc.econ, XVII (1), 9-24

JEL: M19, M54.

1. Introduction

The research project that sustains this paper pursued the following objectives: to evaluate the characteristics of the cultures existing in a sample of 66 Colombian organisations located in Bogotá by means of the application of the Denison Organisational Culture Survey; and to evaluate the influence of those cultural characteristics in a set of critical organisational performance indicators.

This paper focuses especially on the examination of the similarities and differences existing among organisations of higher performance (10 organisations and 568 individual surveys) and lower performance (10 organisations and 496 individual surveys) profiles chosen from the above mentioned sample as they relate to specific characteristics of their cultural profiles. At the beginning, the theoretical foundations on culture and performance and the Denison culture model are explained. Afterwards, the methodology is described, and the research results are exposed, analysed and discussed. Finally, a set of conclusions is presented.

2. Culture and Organisational Performance

2.1. The Concept of Culture

According to Baker, the organisational effectiveness literature has been increasingly emphasising the importance of culture in motivating and maximising the value of its intellectual assets, particularly its human capital. Although the concept of organisational culture was popularised in the early 1980s, its roots can be traced back to the early human relations view of organisations that originated in the 1940s. Human relations theorists viewed the informal, nonmaterial, interpersonal, and moral bases of cooperation and

commitment as perhaps more important than the formal, material, and instrumental controls stressed by the rational system theorists (Baker, 2004, 1).

A critical examination of the diverse definitions of organisational culture is beyond the limits of this paper. According to Baker, many definitions stress the cognitive elements of culture, such as assumptions, beliefs and values, whereas other definitions extend the concept of culture to include pattern behaviours and artifacts. Therefore, the distinction between the tangible and the intangible levels of culture has arisen. (Baker, 2004, 3).

The definitions of organisational culture usually associate the concept to something supported in common or shared among the members: beliefs, assumptions, values and norms. (Jacques, 1952, 25; Pettigrew, 1979, 574; Siehl and Martin, 1984, 227; Trice and Beyer, 1993, 2; Smircich and Stubbart, 1985, 727; Walsh and Ungson, 1991, 60). For the purposes of this paper, the definition of culture suggested by Schein seems more appropriate. This author defines culture:

“As the pattern of basic beliefs and assumptions that a group has invented, discovered or developed while it learns to cope with its problems of external adaptation and internal integration, and that has functioned so well to be considered valid, and consequently is taught to new members as the correct way of perceiving, thinking and feeling regarding those problems”. (Schein, 1985, 6).

Denison agrees with Schein in affirming that at the core of the model are underlying beliefs and assumptions from which behaviour and action spring. (Denison, 2000) In fact, Denison affirms that culture also includes the behaviour patterns and practises that exemplify and reinforce those basic beliefs and

assumptions. The combined contribution of these two authors to the comprehension of what culture means seems to be the best suited for laying the foundations of a managerial perspective of it. Consequently, this paper incorporates the proposal of Denison because it theoretically and operationally integrates the tangible and intangible levels of organisational culture and therefore facilitates the articulation among culture, behaviour and organisational performance. This articulation fits properly with the assumption that organisational culture is now viewed less as a natural, organically emergent phenomenon and more as a manipulable and manageable competitive asset (Baker, 2004, 2).

2.2. Research on Culture and Performance

Because it is shared, culture drives behaviour of people and therefore organisational performance and capacity of response to the challenges of the business environment. Actually, the behaviour patterns or practises in a given cultural context can establish the difference between a successful organisation and another one bound to failure. In this sense, organisational culture can drive or hinder the achievement of a real competitive advantage. Following Schein, organisational culture can augment the effectiveness of people if their beliefs and assumptions motivate behaviours patterns favorable to the attainment of critical indicators of organisational performance.

In support of the preceding exposition, the specialised literature has documented empirically a variety of research findings on culture and organisational performance. In the first place, a relation between organisational culture and business growth (Calori and Sarnin, 1991) and the business global performance was found (Denison, 1990; Denison and Mishra, 1995; Kotter and Heskett, 1992). Other studies have pointed that the cultural effect is observed at the individual level in results such as commitment (O'Reilly et al., 1991). Moreover, organisational researchers have developed cultural typologies to describe the successful firms (Cheng, 1998; Denison and Mishra, 1995, O'Reilly et al., 1991). Along the

same vein, Kotter and Heskett (1992) related the business performance average during a ten year period with strength measurements of organisational culture and found that, among industries, the enterprises perceived as possessing strong cultures usually had superior average levels of return on investment, net income growth and positive change in stock price. Similarly, Gordon and DiTomaso (1992) discovered that the performance of insurance companies increased to the extent of the internal consensus existing about cultural values. Denison, from qualitative and quantitative evidence, also affirmed that the consensus around cultural values augmented the organisational effectiveness (Denison, 1990).

As it was clear, the above mentioned studies tend to understand culture as a competitive asset susceptible to be measured, intervened and managed in terms of performance rather than a natural and organically emergent phenomenon. (Baker, 2004, 2) On this matter, Schein contends that leadership is essential nowadays for the creation, management, and once in a while, for the destruction and reconstruction of organisational culture. In fact, this author stresses that:

“The only matter of concern for leaders to do is to create and manage culture and... the unique talent of leaders is their ability to understand culture and work with it” (Schein, 1992, 5).

The Denison culture model is placed within the described theoretical vein that sees culture as a competitive asset susceptible of measurement, intervention and management in front of organisational performance. This theoretical and practical bias obviously defines and limits the scope of the analysis and interpretation of the research results examined in this paper.

3. The Denison Model for the Diagnosis of Organisational Culture¹

According to Denison, to provide leverage for organisational change the concepts and analytic strate-

¹ The description of the model draws extensively on Denison D. (2000.)

gies of culture research must be relevant to the narrow range of priorities of managers and must be presented in a style and form that are as instrumental and oriented to results as managers are. Denison also proposes that in order to convince managers about the instrumental value of culture they should be aware of the evidence that links culture and performance, understand the impacts, both positive and negative, that culture has on their own business, and quickly link culture to their own behaviour.

As stressed by Denison, cultural assumptions and beliefs expressed themselves in a series of observable and measurable behaviour patterns or practises. Those behaviour patterns in turn drive performance and its results. Because they are quantifiable; those behaviour patterns can be correlated with critical organisational performance indicators. In this regard, Fisher affirms:

“So when your interest is in the realm of results, Denison argued, it is both practical and appropriate to approach culture via its most obvious dimension ... the way people act!” (Fisher, 2000, 45).

The model is based on four cultural traits that have been shown to have a strong influence on organisational performance: Involvement, Consistency, Adaptability, and Mission. The underlying beliefs and assumptions of any organisational culture result in organisational practises (or behavioural patterns) that are observable and that are represented by the four key traits. According to Denison, the ideas about the four cultural traits came from and popular management literature. What is unique about the model is that it brings these concepts together, and presents them in a form that links managerial actions, cultural traits, and underlying assumptions into a framework based on research about what impacts performance. (Denison, 1984, 1990, 1996; Denison and Mishra, 1995, 1998; Denison and Neale, 1996; Denison et al. 2002).

The quadrants of the model depicted in graphic 1 represent the four basic traits of any organisational culture. In turn, each quadrant includes three indexes of behaviour patterns or practises connected with each one of the traits. Traits and indexes are

shown in terms of the underlying dimensions of flexibility versus stability on the horizontal axis and of the external focus and the internal focus on the vertical axis. Each index is measured through five survey items. Denison's research shows that the highest performing companies are those that show strength in all four areas. (Mobley, Wang & Hungi, 2005). In Fisher's opinion:

“They have developed cultures that fully address the paradoxical demands facing them.” (Fisher, 2000, 47).

This model has been developed from a series of research efforts undertaken during more than twenty years in more than 3,000 organisations and with more than 100,000 individuals surveyed. (Denison, 1990; Denison y Mishra, 1995; Denison y Neale, 1996).

The four cultural traits of effective organizations are briefly described below with references to their foundations in the organizational studies literature.

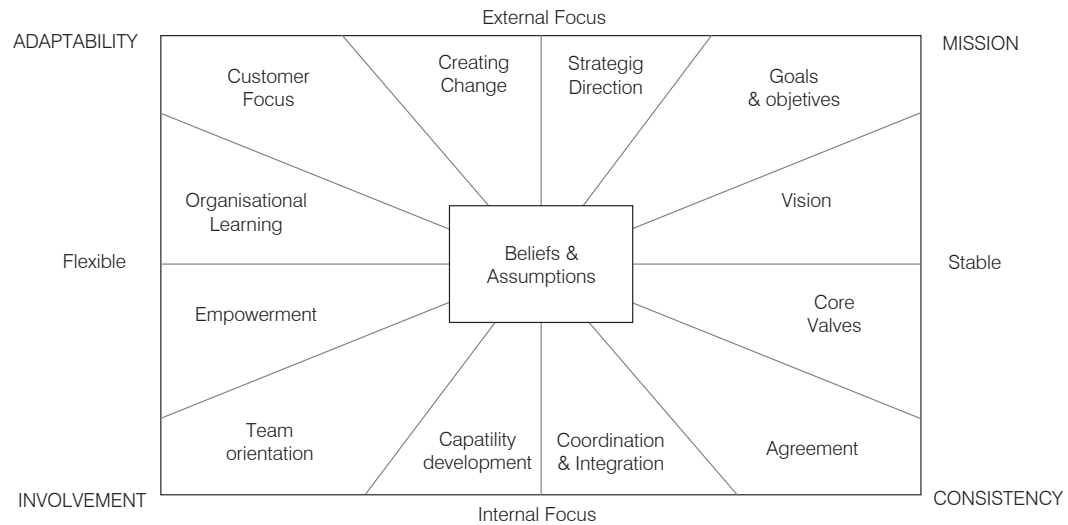
3.1. Involvement

Effective organisations empower people, organise around teams, and develop human capability (Becker, 1964; Lawler, 1996; Likert, 1961). Organisational members are committed and feel a strong sense of ownership. People at all levels feel that they have input into decisions that will affect their work and see a direct connection to the goals of the organisation (Spreitzer, 1995). This trait is measured with three indexes: Empowerment, Team Orientation, and Capability Development.

3.2. Consistency

Effective organisations tend to have “strong” cultures that are highly consistent, well coordinated, and well integrated (Davenport, 1993; Saffold, 1988). Behavioural norms are rooted in core values, and leaders and followers are able to reach agreement even with diverse points of view (Block, 1991). Consistency is a source of stability and internal integration resulting from a common mindset (Senge, 1990). This trait is measured with three indexes: Core Values, Agreement, and Coordination and Integration.

**SIMILARITIES AND DIFFERENCES EXISTING IN CULTURAL PROFILES OF COLOMBIAN ORGANIZATIONS
OF HIGHER AND LOWER PERFORMANCE**



Graphic 1. The Denison Organisational Culture Model²

3.3. Adaptability

Adaptable organisations are driven by their customers, take risks and learn from their mistakes, and have capability and experience at creating change (Nadler, 1998; Senge, 1990; Stalk, 1988). This trait is measured with three indexes: Creating Change, Customer Focus, and Organisational Learning.

3.4. Mission

Effective organisations have a clear sense of purpose and direction, defining goals and strategic objectives, and expressing a vision of the future (Mintzberg, 1987, 1994; Ohmae, 1982; Hamel and Prahalad, 1994). This trait is measured by three indexes: Strategic Direction and Intent, Goals and Objectives, and Vision.

In summary, the model measures four basic organisational culture traits:

- “1. Mission—the degree to which the company knows why it exists and what its direction is;
2. Involvement—the degree to which individuals at all levels of the company are engaged in and hold that direction as their own;
3. Adaptability—the ability of the company to know what customers want, and the degree to which it can respond to external forces and demands;
4. Consistency—the company’s systems and processes that support efficiency and effectiveness in reaching goals” (Fisher, 2000, 46).

4. Cultural Characteristics and Organisational Performance

Denison and Mishra (1995) showed that four different cultural traits were related to several criteria of effectiveness. Revenue growth and market share (both externally oriented performance measures) are

² Source: Deninson & Nenle (1996).

supported by the externally oriented cultural traits of *mission* and *adaptability*. Quality and employee satisfaction (internally oriented performance measures) are supported by the internally oriented culture traits of *involvement* and *consistency*. Innovation (a performance measure related to flexibility) is supported by the flexibility-enhancing culture traits of *involvement* and *adaptability*. The performance measure of profitability is supported by strength in all four cultural areas. (Fisher, 2000, 47, 48). Table 1 summarises the impact of culture in the critical variables of organisational performance.

5. Studies on Denison Model and Survey around the World

Although developed first in the United States, the Denison model and survey have been applied in some studies around the relationship between organisational culture and performance within different countries and regions of the world (Mobley, W. H., Wang, L., Fang, K., 2005; Denison, D.R, Haaland, S., Goelzer, P., 2003; Fey, C., Denison, D. R. 2003; Denison, D.R, Haaland, S., Goelzer, P., 2003). A comparison with Colombian results is not the purpose of this article. Nevertheless, it is important to recognise the global reach of the Denison model and survey and their potential for future cross-cultural organisational research endeavors.

6. Studies about Organisational Culture in Colombia

According to Dávila and others (2000) research on organisational culture are scarce and recent. In their study, this author and his associates tried to identify and interpret business innovation in relation with regional, entrepreneurial and organisational cultures, as a process relevant for competitiveness and as a leverage point for policy formulation and knowledge of regional cultures of the country. Dávila also mention six more research efforts about the subject (Savage, Lombard, 1985; Archila, 1991; Weiss, 1997; Ferro, 1994; Villaveces, 1998; Ogliastri, 1998). The first five works belong to the ethnographic tradition and their findings are limited to the organisations where the respective case studies were done. Other studies also mention the subject of organisational or corporate culture (Delgado, Forero, 2004; Anzola (without date; Méndez, 2003).

The text of Ogliastri was part of the GLOBE project, a large-scale research effort on international management. This research project addressed the culture of particular countries, and leadership qualities within those countries. According to Ogliastri, the research results for Colombia point to a highly elitist and collectivist culture. Around the world, the average of the managers included in the Globe survey favored these “modern” values: performance orientation; fu-

Table 1. Impact of Culture in the Critical Variables of Organisational Performance.³

Profitability/Return on Assets	Revenue Growth/Sales Growth	Market Share	Innovation	Quality of Products and Services	Employee Satisfaction
<i>Supported by</i>	<i>Supported by</i>	<i>Supported by</i>	<i>Supported by</i>	<i>Supported by</i>	<i>Supported by</i>
Mission	Mission	Mission	–	–	[Mission]
Involvement	–	–	Involvement	Involvement	Involvement
Adaptability	Adaptability	Adaptability	Adaptability	–	[Adaptability]
Consistency	–	–	–	Consistency	Consistency

³ Source: Denison, D.R., & Neale, W.S. (1996).

ture orientation; humanitarianism; collectivism; equality and non-assertiveness. These “universal” values are given fuller expression within Colombian organisations than within society, due to the fact that the former make up a subculture whose values are more modern and international.

The works of Ogliastri and Méndez are the more related to the subject of this article. The first one introduces the study of values as the core of organisational leadership and culture. However, the Denison model of organisational culture, although recognises the importance of values on directing organisational behaviour, centers the study of organisational culture on the identification and assessment of specific behavioural patterns or practices grouped together around cultural indexes and traits. On the other hand, the work of Mendez formulates a methodology to describe the corporate culture of an organisation but does not articulates organizational culture with specific performance indicators as the Denison model does. Finally, in reviewing the available literature no references were found in regard to studies done in Colombia using the Denison model and survey.

7. Methodology

In the research project that sustains this paper the Denison Organisational Culture Survey (DOCS) made by 73 closed questions was applied in 66 organisations from a variety of economic sectors located in Bogotá, Colombia. 3338 individual surveys constituted the data base.⁴ The participant organisations accepted voluntarily to be included in the sample. The only selection criteria were to be located in Bogotá and the legal incorporation.

The Denison Organisational Culture Survey was chosen for the study because of its instrumental capacity to generate a systemic description and a direct, comprehensible analysis of the organisational culture

by means of the assessment of behaviour patterns associated with performance.⁵

The DOCS measured 12 indices of organisational culture using 5 questions each for a total of 60 questions. All item assessments used a five-point Likert scale with response categories ranging from strongly disagree to strongly agree. These 12 indices were used to measure the four main cultural traits defined by the model—involvement, consistency, adaptability, and mission. The survey also assessed employees’ perceptions of organisational performance on variables including: sales growth, market share, profitability, quality of products and services, employee satisfaction, and overall performance. All perception assessments used a five-point Likert scale with response categories ranging from low performer to high performer. All measures were aggregated to the organisational level for this analysis. Once the data were tabulated, the mean scores for characteristics, indexes, items and performance indicators were obtained. Afterwards, the correlations between the aggregated traits and indexes mean scores and the aggregated performance indicators mean scores were calculated.

8. Exposition, Analysis and Discussion of Research Results

8.1. Performance Profiles of the Organisations Studied

The mean scores of all indicators for organisations of higher performance were significantly higher than those for organisations of lower performance. Quality of products or services appeared to be the strongest performance indicator for both higher and lower performance organisations. New product development (innovation) obtained the second position for organisations of higher performance, whereas employee satisfaction was second for organisations of lower performance. Both types of organisations seemed to

⁴ The sample size assumes a 95% confidence level and an n error margin of 5 points. Teams of students applied the survey and tabulated the data. Afterwards, student research assistants prepared the aggregated data base for the total sample of organisations.

⁵ A set of different language versions of DOCS (Denison Organisational Culture Survey) can be found in the respective link (online demos) in www.denisonconsulting.com. For this study the official Spanish version posted in that web page was used. sonconsulting.com. For this study the official Spanish version posted in that web page was used.

have undertaken great efforts for improving quality, obviously with different results. In the case of higher performance organisations, the mean score of new product development (innovation) was an especially critical indicator of appreciable readiness for competitiveness in the context of globalisation. Employee satisfaction was the weakest indicator for higher performance organisations. Although the mean score is acceptable, this indicator should be improved because of its equal importance for organisational competitiveness.

8.2. Cultural Profiles of the Organisations of Lower Performance

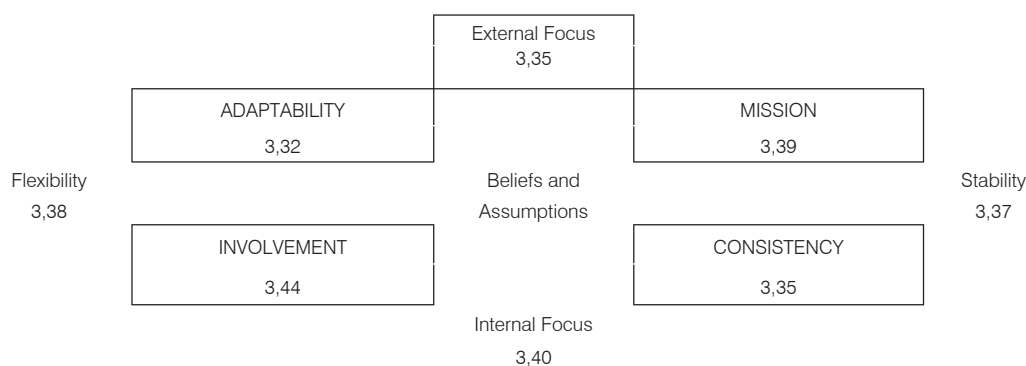
8.2.1. Cultural Characteristics and Dimensions

The next graphic summarizes the aggregated mean scores of the four cultural characteristics and the four dimensions for the 10 organisations of lower performance. The mean score for each characteristic was built from the mean scores of its respective indexes. In the case of dimensions, the mean scores were built from the two respective characteristics that support each one of them.

Involvement appears to be the strongest cultural trait followed by mission. In general, there is a balance between the four cultural dimensions of flexibility, stability, external focus and internal focus.

Table 2. Performance Profiles for the Organisations Studied

PERFORMANCE MEAN SCORES	LOWER PERFORMANCE ORGANISATIONS(10)	HIGHER PERFORMANCE ORGANISATIONS(10)	TOTAL SAMPLE(66)
1. Sales / Revenue Growth	3,08	3,93	3,72
2. Market Share	3,02	3,90	3,62
3. Profitability / ROA	3,05	3,92	3,67
4. Quality of Products or Services	3,45	4,11	3,89
5. New Product Development (Innovation)	3,16	3,96	3,64
6. Employee Satisfaction	3,25	3,79	3,62
7. Overall Organisation Performance	3,17	4,20	3,88



Graphic 2. Cultural Traits and Dimensions of the 10 Organisations of Lower Performance

SIMILARITIES AND DIFFERENCES EXISTING IN CULTURAL PROFILES OF COLOMBIAN ORGANIZATIONS
OF HIGHER AND LOWER PERFORMANCE

8.2.2. Cultural Characteristics and Indexes

The next table summarizes the aggregated mean scores of the four cultural traits and their respective indexes for the 10 organisations of lower performance.

For this level of analysis, the two indexes of higher mean score and the two indexes of lower mean score were calculated for each one of the four cultural traits. The mean score for each index was built from the mean scores of its respective items.

Table 3. Cultural Traits and Indexes of the 10 Organisations of Lower Performance

CULTURAL TRAIT MEAN SCORES

INVOLVEMENT	3,44	Higher
CONSISTENCY	3,35	–
ADAPTABILITY	3,32	Lower
MISSION	3,39	–

INDEX MEAN SCORES

INVOLVEMENT		
1. EMPOWERMENT	3,51	Higher
2. TEAM ORIENTATION	3,46	–
3. CAPABILITY DEVELOPMENT	3,35	Lower
CONSISTENCY		
4. CORE VALUES	3,56	Higher
5. AGREEMENT	3,28	–
6. COORDINATION AND INTEGRATION	3,22	Lower
ADAPTABILITY		
7. CREATING CHANGE	3,26	Lower
8. CUSTOMER FOCUS	3,26	Lower
9. ORGANISATIONAL LEARNING	3,45	Higher
MISSION		
10. STRATEGIC DIRECTION AND INTENT	3,35	–
11. GOALS AND OBJECTIVES	3,47	Higher
12. VISION	3,34	Lower

The indexes core values and empowerment obtained the highest aggregated mean scores. On the contrary, the indexes coordination and integration, creating change and customer focus obtained the lowest aggregated mean scores.

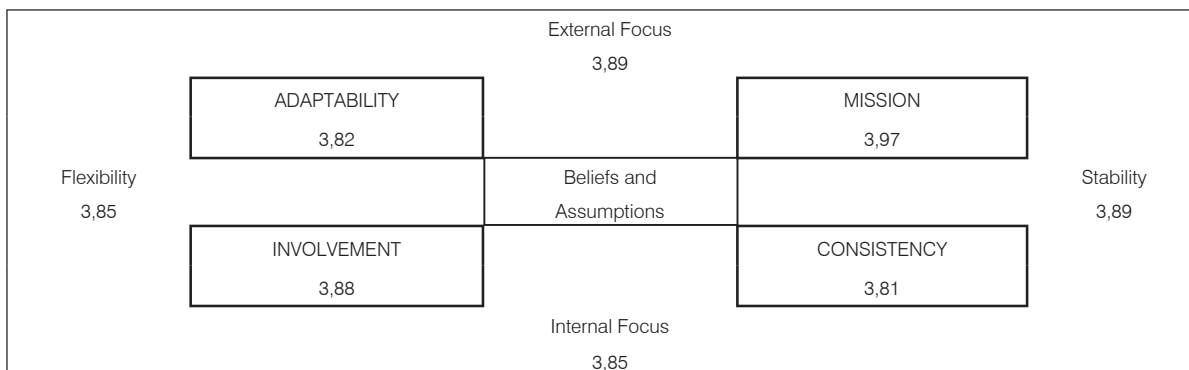
dimensions for the 10 organisations of higher performance. The mean score for each trait was built from the mean scores of its respective indexes. In the case of dimensions, the mean scores were built from the two respective traits that support each one of them.

8.3. Cultural Profiles of the Organisations of Higher Performance

8.3.1. Cultural Traits and Dimensions

The following graphic summarizes the aggregated mean scores of the four cultural traits and the four

Mission appears to be the strongest cultural characteristic followed by involvement. In general, there is a balance between the four cultural dimensions of flexibility, stability, external focus and internal focus.



Graphic 3. Cultural Traits and Dimensions of the 10 Organisations of Higher Performance

8.3.2. Cultural Traits and Indexes

The next table summarises the aggregated mean scores of the four cultural traits and their respective indexes for the 10 organisations of higher perfor-

mance. For this level of analysis, the two indexes of higher mean score and the two indexes of lower mean score were calculated for each one of the four cultural traits. The mean score for each index was built from the mean scores of its respective items.

Table 4. Cultural Traits and Indexes of the 10 Organisations of Higher Performance

CULTURAL TRAIT MEAN SCORES

INVOLVEMENT	3,88
CONSISTENCY	3,81
ADAPTABILITY	3,82
MISSION	3,97

INDEX MEAN SCORES

INVOLVEMENT	
1. EMPOWERMENT	3,94
2. TEAM ORIENTATION	3,91
3. CAPABILITY DEVELOPMENT	3,78
CONSISTENCY	
4. CORE VALUES	3,94
5. AGREEMENT	3,72
6. COORDINATION AND INTEGRATION	3,78
ADAPTABILITY	
7. CREATING CHANGE	3,76
8. CUSTOMER FOCUS	3,82
9. ORGANISATIONAL LEARNING	3,88
MISSION	
10. STRATEGIG DIRECTION AND INTENT	4,05
11. GOALS AND OBJECTIVES	4,04
12. VISION	3,82

*SIMILARITIES AND DIFFERENCES EXISTING IN CULTURAL PROFILES OF COLOMBIAN ORGANIZATIONS
OF HIGHER AND LOWER PERFORMANCE*

The indexes strategic direction and intent and goals and objectives obtained the highest aggregated mean scores. On the contrary, strategic direction and intent and goals and objectives obtained the lowest aggregated mean scores.

In summary, the mean scores of all the cultural dimensions and traits for organisations of higher performance were significantly higher than those of the organisations of lower performance. It was clear that organisations of higher scores in performance indi-

cators had also higher scores in the items, indexes, traits and dimensions of their cultural profiles.

8.4. Statistical Analysis of 12 more Important Items of Organisational Culture in relation with the Overall Performance Indicator

In the first place, the 12 items that showed the more significant coefficients with their respective indexes were chosen. The table 5 depicts those items arranged within their indexes and cultural traits.

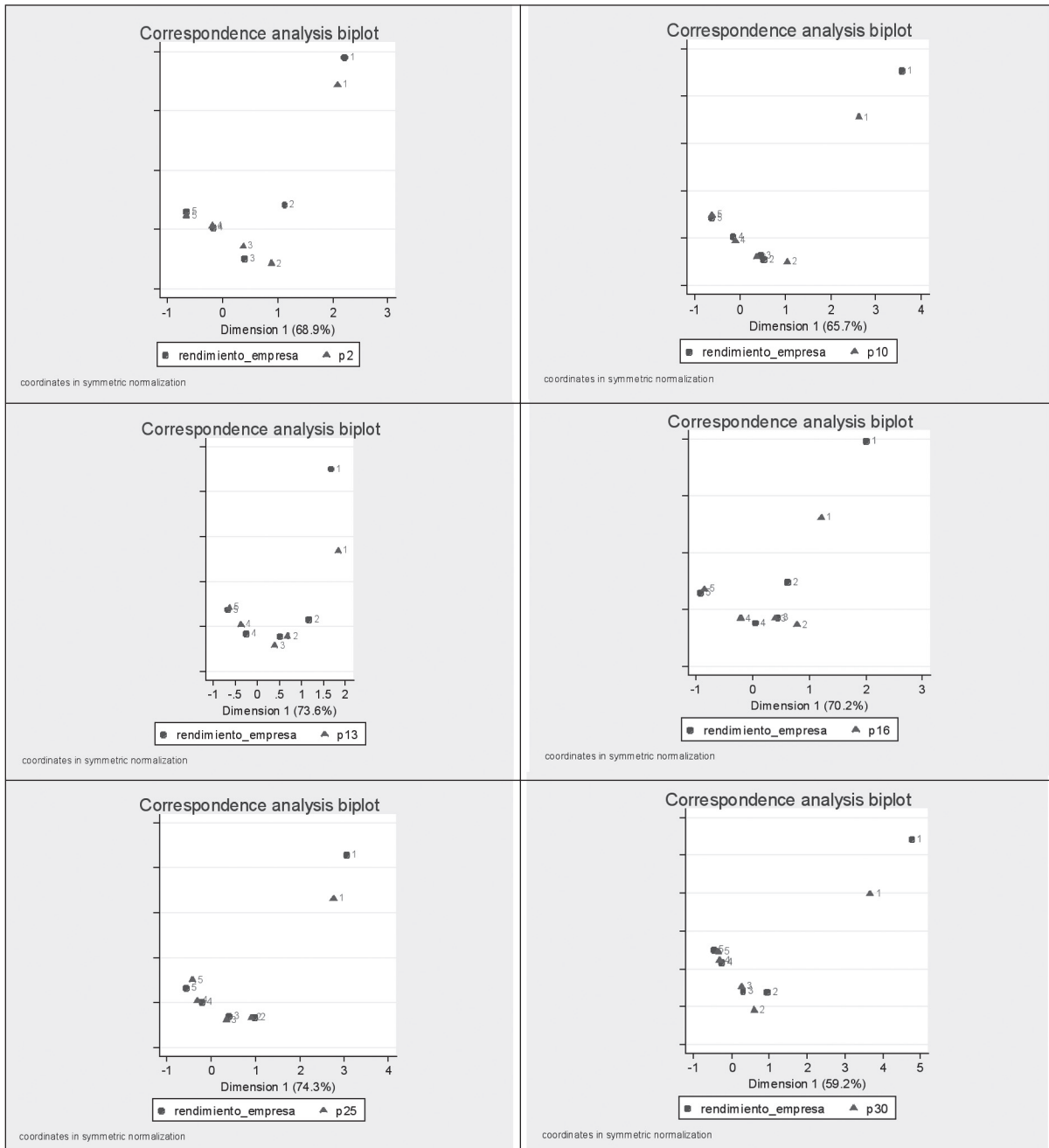
Table 5. 12 more Important Items of Organisational Culture

TRAIT	INDEX	ITEM
Involvement	Empowerment	2. Decisions are usually made at the level where the best information is available.
	Team Orientation	10. Work is organized so that each person can see the relationship between his or her job and the goals of the organization.
	Capability Development	13. There is continuous investment in the skills of employees.
Consistency	Core Values	16. The leaders and managers "practice what they preach."
	Agreement	25. There is a clear agreement about the right way and the wrong way to do things.
	Coordination and Integration	30. There is good alignment of goals across levels.
Adaptability	Creating Change	35. Different parts of the organization often cooperate to create change.
	Customer Focus	37. Customer input directly influences our decisions.
	Organisational Learning.	45. We make certain that the "right hand knows what the left hand is doing."
Mission	Strategic Direction and Intent	47. Our strategy leads other organizations to change the way they compete in the industry.
	Goals and Objectives	55. People understand what needs to be done for us to succeed in the long run.
	Vision	59. Our vision creates excitement and motivation for our employees.

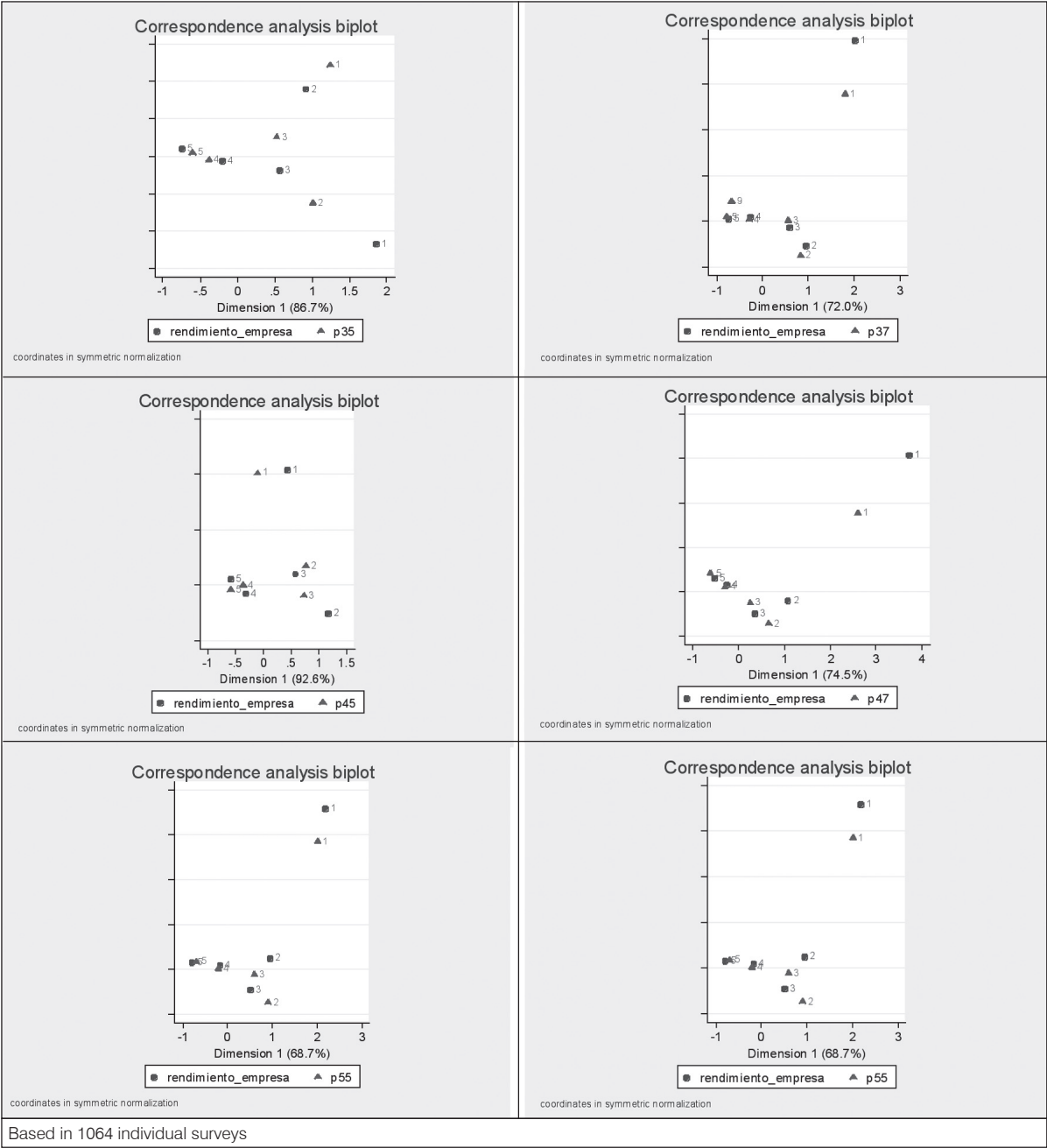
Afterwards, a correspondence analysis between those 12 items and the overall performance indicator (question 67 in the Denison survey) was undertaken. The graphic 4 represent the close relation existing between each item or "p" and the perceptions of the respondents of the Denison survey about the overall organisational performance. The closeness existing between circles and triangles with same numbers shows the correspondence in the behaviour of each variable or item with the overall organisational performance indicator. For instance, the circles ac-

companied with number 2 are in coordinates close to those of triangles accompanied with number 2, and so forth.

The table 6 depicts the results of the statistical tests. Accordingly, a robust statistical relationship exists between the components of organisational culture, as represented by the 12 items above mentioned, and the overall organisational performance indicator represented by question 67.



SIMILARITIES AND DIFFERENCES EXISTING IN CULTURAL PROFILES OF COLOMBIAN ORGANIZATIONS
OF HIGHER AND LOWER PERFORMANCE



Graphic 4. Correspondence Analysis between the 12 more Important Items and the Overall Performance Indicator

Table 6. Correspondence Analysis between Chosen Items and Overall Organisational Performance Indicator

P2 Pearson $\chi^2(16) = 147.33$ Prob > $\chi^2 = 0.0000$	P10 Pearson $\chi^2(16) = 160.83$ Prob > $\chi^2 = 0.0000$	P13 Pearson $\chi^2(16) = 170.28$ Prob > $\chi^2 = 0.0000$
P16 Pearson $\chi^2(16) = 159.47$ Prob > $\chi^2 = 0.0000$	P25 Pearson $\chi^2(16) = 138.38$ Prob > $\chi^2 = 0.0000$	P30 Pearson $\chi^2(16) = 302.99$ Prob > $\chi^2 = 0.0000$
P35 Pearson $\chi^2(16) = 138.30$ Prob > $\chi^2 = 0.0000$	P37 Pearson $\chi^2(20) = 200.54$ Prob > $\chi^2 = 0.0000$	P45 Pearson $\chi^2(16) = 121.86$ Prob > $\chi^2 = 0.0000$
P47 Pearson $\chi^2(16) = 185.39$ Prob > $\chi^2 = 0.0000$	P55 Pearson $\chi^2(16) = 191.64$ Prob > $\chi^2 = 0.0000$	P59 Pearson $\chi^2(16) = 216.74$ Prob > $\chi^2 = 0.0000$

Based in 1064 individual surveys

Finally, in order to jointly examine the relationship between organisational culture and the overall organisational performance indicator an ordinate probit model was run in accord with the correspondence analysis. Question 67 was taken again to review the relationship existing between the perceptions of over-

rall organisational performance and the 12 representative items of the indexes of organisational culture. Additionally, a dummy variable was employed to differentiate the organisations with higher performance. The table 7 shows the results of the ordinate probit model test.

Table 7. Ordinate Probit Model Test between Chosen Items and Overall Organisational Performance Indicator

Item	Coefficient.	Standard. Error.
2. Decisions are usually made at the level where the best information is available.	.0795691*	.0419914
10. Work is organised so that each person can see the relationship between his or her job and the goals of the organisation.	.0518516	.0435748
13. There is continuous investment in the skills of employees.	.0466875	.0402724
16. The leaders and managers "practice what they preach."	.1625918*	.0373339
25. There is a clear agreement about the right way and the wrong way to do things.	-.0406287	.0448262
30. There is good alignment of goals across levels.	.0978895	.0427443
35. Different parts of the organisation often cooperate to create change.	.0025892*	.0457743
37. Customer input directly influences our decisions.	.0784353	.0412865
45. We make certain that the "right hand knows what the left hand is doing."	.0192813	.0409003
47. Our strategy leads other organisations to change the way they compete in the industry.	.0226925	.03981
55. People understand what needs to be done for us to succeed in the long run.	.0827967*	.0437393
59. Our vision creates excitement and motivation for our employees.	.0687152**	.0423951
Overall organisational performance indicator	1,27*	.0887606
* 5% significance		
**10% significance		

To specify the ordinate probit model all the 12 items were included. Coefficients higher than zero were found. Five of them obtained a statistical significance lesser than 10%. In summary, through the Chi -squa-

re test the relationship existing between organisational culture, as represented by a sample of 12 items out of a total of 60, and the overall organisational performance was statistically supported. Moreover,

the dummy variable named performance allows affirming with a 95% probability that the existence of differences in organisational culture between the two groups of organizations examined explains the higher performance of one of them.

9. Conclusions

The precedent exposition, analysis and discussion demonstrated how the Denison Organisational Culture Survey facilitated the measurement and evaluation of the behaviour patterns that expressed the cultural traits present in a sample of 66 organisations located in Bogotá. Additionally, the survey allowed the comparison of the cultural profiles of organisations of higher and lower performance profiles chosen from that sample. In this regard, the research results clearly signaled how the robustness of cultural profiles was associated with better perceptions of performance by the organisational members. More balanced organisational culture profiles were articulated with higher organisational performance. In this regard, the statistical analysis supported how differences in organisational profiles could explain differences in overall organisational performance as inferred from the perceptions of respondents of the Denison Organisational Culture Survey.

Finally, as proposed by the Denison model, the research results showed how culture could have a valuable impact on the organisational bottom line. Culture could be a controllable aspect of any organisation that can improve profitability, sales growth, market share, product quality, innovation, employee satisfaction and overall performance. In managerial terms, the development of culture today can improve performance tomorrow for organisations in Colombia and elsewhere. Organisational culture can a key lever for driving organisational change aimed to the betterment of performance.

10. References

- Anzola, O. *Importancia dada a la cultura corporativa por los responsables de las áreas de gestión humana*. In <http://administracion.uexternado.edu.co/DIRINV/media/Olga%20Anzola.pdf>.
- Archila, M. *Cultura e identidad obrera*. 1992. Cinep. Bogotá.
- Baker, K (2004). Chapter 11. "Organisational culture". In <http://www.maxwell.af.mil/au/awc/awcgate/doe/benchmark/ch11.pdf>.
- Becker, G. (1964). *Human capital. A theoretical and empirical analysis with special reference to education*. New York. Columbia University Press.
- Block, P. (1991). *The empowered manager: Positive political skills at work*. San Francisco. Jossey Bass.
- Calori, R., Sarnin, P. (1991). "Corporate culture and economic performance: A French study". *Organisation Studies*, 12(1): 49-74.
- Cheng, B. S. (1998). "Organisational culture across the Taiwan Strait: A comparison of the PRC and Taiwanese enterprises". In B. S. Cheng, K. L. Huang, & C. C. Kuo (Eds.). *Management in Taiwan and China*, 1: 1-53. Taipei, Taiwan: Yuanliu.
- Davenport, T. (1993). *Process innovation: Re-engineering work through information technology*. Boston. Harvard Business School Press.
- Delgado L, Forero C. (2004). "Estado del arte de las investigaciones sobre factores psicológicos en la cultura organizacional, realizadas en facultades de psicología de Bogotá adscritas a ASCOFAPSI (1998-2003)". *Acta Colombiana de Psicología* 11: 81-96. In http://portalweb.ucatolica.edu.co/easyWeb2/acta/pdfs/n11/art_7_acta_11.pdf.
- Denison, D. R. (1990). *Corporate culture and organisational effectiveness*. New York. John Wiley and Sons.
- Denison, D.R, Haaland, Goelzer, P., (2003) "Corporate culture and organizational effectiveness: Is Asia different From the rest of the world?". *Organizational Dynamics*. Vol. 33, No.1: 98-109.
- Denison, D.R, Haaland, S, Goelzer, P., (2003) "Corporate culture and organizational effectiveness: Is there a similar pattern around the world?". *Advances in Global Leadership*. Volume 3: 205-227
- Denison, D.R., Mishra, A.K. (1995). *Toward a theory of organisational culture and effectiveness*. *Organisation Science*, 6 (2), 204-223).
- Denison, D.R., Neale, W.S. (1996). *Denison organisational culture survey. Facilitator guide*. Denison Consulting. Ann Arbor. Michigan.
- Denison, D. R. (2001). "Organisational Culture: Can it be a key lever for driving organisational change?" June 2000. *International Institute for Management Development*.
- Elenkov, D. S. (1997). Differences and similarities in managerial values between U.S. and Russian managers. *Internat. Stud. Management Organ.* 27(1) 85-106.
- Ferro, G. *A lomo de mula*. (1994). Bogotá. Fondo Cultural Cafetero.
- Fey, C, Denison, D. (2003). *Organisational Culture and Effectiveness: Can American Theory Be Applied in Russia?* *Organisation Science*. Vol. 14, No. 6, November-December 2003, pp. 686-706.
- Fisher, C. (2000). "Like or not...Culture matters". *Employment Relations Today. Summer*. John Wiley & Sons, Inc.
- Gordon, G. G., and N. DiTomaso. (1992). "Predicting corporate performance from organisational culture." *Journal of Management Studies*, 29: 783-799.
- Hamel, G., and Prahalad, C. (1994). *Competing for the future*. Boston. Harvard Business School Press.
- Hofstede, G. (1980). *Culture's Consequences*. Sage, Newbury Park, CA.

- Kotter, J. R. and J. L. Heskett. (1992). *Corporate culture and performance*. New York. Free Press.
- Jacques, E. (1952). *The Changing culture of a factory*. New York. Dryden Press.
- Lawler, E.E., III. 1996. *From the ground up: Six principles for building the new logic corporation*. San Francisco. Jossey Bass.
- Likert, R. (1961). *New patterns of management*. New York. McGraw Hill.
- Méndez C. (2003). "Metodología para describir la cultura corporativa: estudio de caso en una empresa colombiana del sector industrial". *Cuadernos de Administración*. 16(25): 139-171.
- Mintzberg, H. (1987). "Crafting strategy". *Harvard Business Review*, 65, 66-75.
- Mobley, W. H., Wang, L. and Fang, K.. (2005). "Organisational culture: measuring and developing it in your organisation". *Harvard Business Review China*. March: 6.
- Nadler, D. (1998). *Champions of change: How CEOs and their companies are mastering the skills of radical change*. San Francisco. Jossey Bass.
- Ogliastri E. (1998) *Culture and organizational leadership in Colombia*. In http://www.hsfulda.de/fileadmin/Fachbereich_SW/Downloads/Profs/Wolf/Studies/colombian/colombian.pdf.
- Ohmae, K. (1982). *The mind of the strategist: The art of Japanese business*. New York. McGraw Hill.
- O'Reilly, C. A., III, Chatman, J., & Caldwell, D. F. (1991). "People and organisational culture: A profile comparisons approach to assessing person-organisation fit". *Academy of Management Journal*, 34: 487-516.
- Saffold, G.(1988). "Culture traits, strength, and organisational performance: Moving beyond "strong" culture". *Academy of Management Review*. 13(4), 546-558.
- Savage C, Lombard G. (1985). *The sons of the machine. Case studies of social change in the workplace*. Cambridge. The MIT Press.
- Schein, E.H. (1985). *Organisational culture and leadership*. San Francisco. Jossey-Bass.
- Schein, E. H. (1992). *Organisational culture and leadership*. 2nd ed. San Francisco. Jossey-Bass.
- Senge, P. (1990). *The fifth discipline: The art and practise of the learning organisation*. New York. Doubleday/Currency.
- Siehl, C., and J. Martin. (1990). "Organisational culture: A key to financial performance?" in B. Schneider (ed.), *Organisational Climate and Culture*: 241-281. San Francisco. Jossey-Bass.
- Smircich, L., and Stubbart Ch . (1985). "Strategic management in an enacted world". *Academy of Management Review* 10.
- Spreitzer, G. (1995). "Psychological empowerment in the workplace: Dimensions, measurement, and validation". *Academy of Management Journal*, 38-1442-1465.
- Stalk, J. (1988). *Competing against time: How time-based competition is reshaping global markets*. New York. Free Press.
- Trice, H., and Beyer J. (1993). *The Cultures of work organisations*. Englewood Cliffs, NJ. Prentice Hall.
- Vlachoutsicos, C. 2001. "Russian communitarism: An invisible fist in the transformation process of Russia". D. Denison, ed. *Managing Organisational Change in Transition Economies*. Lawrence Erlbaum Associates, Mahway, NJ.
- Vlachoutsicos, C. and , P. L. Lawrence. 1990. "What we don't know about Soviet management". *Harvard Business Review*. 68(November-December) 50-63.
- Villaveces S. (1998). "Colombo-Japanese mixtures amidst a corporate reinvention. In Marcus, G. (editor). *Corporate futures. The diffusion of the culturally sensitive corporate form*: 141-176. Chicago. The University of Chicago Press.
- Urrea, F., Arango, L., Dávila, C., Mejía, C., Parada, J., Bernal, C. (2000). *Innovación y cultura de las organizaciones en tres regiones de Colombia*. Colciencias. Bogotá. Corporación Calidad.
- Walsh, J., and Ungson, G. 1991. "Organisational memory". *Academy of Management Review*. 16.
- Weiss A. (1997). *Modernización industrial: empresas y trabajadores*. Bogotá. Departamento de Sociología. Universidad Nacional de Colombia.