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A STUDY OF CORRELATIONS BETWEEN HUMAN SYNERGISTICS AND DENISON MODELS FOR EVALUATING THE ORGANIZATIONAL CULTURE

This article is part of a larger PhD research which is proposing to analyze the organizational culture for a sample of companies, both Romanian and multinational, by using two well-known models (Denison and Human Synergistics OCI), in order to obtain a more complex representation of the organizational culture. The PhD research will try to identify patterns, behaviors and values that form the basement for a performance-oriented company. A specificity of the organizational culture in Romania is the high level of power distance and the increased tolerance to uncertain situations. In our opinion, the high power distance generates communication barriers between managers and employees, and the increased level of tolerance to uncertainty reduces willingness to take on responsibility and increases the resistance to change. We believe that for the companies that are operating in Romania, it is essential to shape the organizational culture in order to promote a culture of dialogue between management and employees, to boost the accountability of the employees and to foster the development of the „thinking outside the box” behaviors. The result of our research could form the underpinning framework of a future process of modeling the cultural transformation for a company in order to obtain a better adaptation to the Romanian business environment. The present article aims to propose a comparative analysis framework to depict the heterogeneity that characterizes the models for organizational culture evaluation in order to demonstrate some possible correlations between the different cultural traits and styles of each model.

Introduction

This study aims to analyze two models for evaluating the organizational culture, among the most used internationally: the Denison model and the Human Synergistics Organizational Culture Inventory model. These models complement the range of tools for analysis and evaluation of culture, focus-

ing - unlike Hofstede models (Hofstede, 2001) and GLOBE¹¹ (Grove, 2005) - on the analysis and evaluation of organizational culture at company level. In „Intercultural Management” professor Dumitru Zait defined company culture as „a sign of high culture (national, regional, ethnic) by which the company marks more deeply its intimate identity, in order to move on in a particular and often hostile context”(Zait, 2002, p. 83). For this reason, we expect to find at the company level organizational behavior that shapes the organizational culture and which are rooted in values, traditions, norms and rules shared by most of its members and specific to the society to which they belong.

In reality, it is extremely difficult to separate managerial practices that derive from the fundamental values of individuals from management practices derived from shared values of their organization. For this reason, some researchers¹² consider the organizational culture as „mystical and practical at the same time”(Denison, *Corporate Culture and Organizational Effectiveness*, 1990, p.5). Dumitru Constantinescu states that organizations „are reproducing at the micro level the social system allowed in the considered society”(Constantinescu, 2008, p.408). A change in national values can only come over several generations (some believe that it takes at least two generations for a society to produce significant changes in these values), so we can consider these values very stable in time.

1. Models for the evaluation of organizational culture at company level

American researchers R. E. Quinn and J. Rohrbaugh (1983) created an evaluation model based on four factors distributed along two axes: control-flexibility and internal focus-external focus (Quinn & Rohrbaugh, 1983, pp. 369-373). This is the underlying theory of the organizational culture assessment tool called FOCUS, a model that represented the starting point for many current tools for the evaluation of organizational culture. The models mentioned above use a bottom-up approach, namely, starting from organizational culture based on individuals' values in order to determine the overall organizational culture, as result of individual behaviors.

¹¹ Because these models address cultural dimensions at society level, the results of using these models has little relevance to explain the particular organizational culture at the company level.

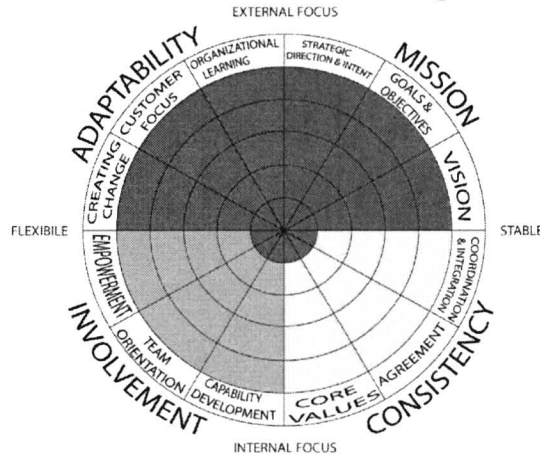
¹² British sociologist Anthony Giddens believes that we cannot study the relationship between social structure and organization without taking into account the fact that individuals are affected by social structure and, in turn, affect the social structure of the organization. A similar argument can be used when talking about organizational culture and the fundamental values of the organization.

1.1. The Denison Model¹³

Professor Daniel Denison proposed an approach—the Denison model®—for analyzing organizational culture as a result of four features of the organizations: *involvement*, *consistency*, *mission* and *adaptability*, to each of them corresponding three subfactors, named *cultural indices*. (Denison, Janovics, Young&Hee, 2006) The novelty of this model is the fact that it draws a link between the current business management („day to day”management) and the deep implications that this practice produces at the level of behavior, attitude and values shared by the employees. In this way, the Denison circumplex (shown in Figure 2) is a chart easily understood by managers and it allows a quick interpretation of organizational culture.

In relation with the sizes and calculated indices, one can identify specific beliefs and behaviors, the model focusing on two axes: stability/flexibility and internal focus/external focus.

Figure 1
Denison Model®. Fundamental features of organizational culture



Source: Denison D. and others, 2006

Involvement

Involvement is a key factor in shaping an effective organizational culture and it means encouraging the development of human capacity in the company, creating a sense of responsibility and the idea that the smooth running of each organization will improve the employees' lives. As professor Denison shown, involvement creates a sense of ownership and individual accountability (Denison, Corporate Culture and Organizational Effectiveness, 1990,

¹³ Acknowledgement: The Denison model is a registered trademark owned by Denison Consulting LLC Company. Model description is based on material available to researchers on the company's official website, www.denisonconsulting.com, accessed on 30 November 2010.

p.5). At the same time, developing a high degree of involvement among employees can also have negative effects. A high involvement creates important expectations and hence a higher risk of failure if they are not met (Denison, Corporate Culture and Organizational Effectiveness, 1990, p.6-8). In our opinion, the greatest benefit to organizations that enjoy a high degree of involvement from the part of their employees is a significant decrease of the transaction costs¹⁴.

The Denison model proposes three sub-factors (cultural indices) to measure this cultural feature: **empowerment, team orientation and development ability**.

Consistency

This dimension characterizes an organizational culture based on developing a common system of beliefs, values and symbols that are understood and shared by everyone in the organization.

A high index of consistency means an alignment of values and beliefs to the organization's policies and management practices. Conversely, the existence of a rift between the organization's values and behaviors and the business style imposed by the leaders will jeopardize the system of shared values and affect the members' sense of belonging.

Although there are similarities between Involvement and Consistency, the two dimensions characterize different sides of organizational culture. Involvement refers to participation of employees in the processes taking place within the organization, while consistency shows to what extent the existence of a common value system can offset the negative effects of a low involvement. (Denison, Corporate Culture and Organizational Effectiveness, 1990, p. 8-11). The Denison model proposes three sub-factors to measure the consistency: **coordination and integration, core values and agreement**.

Mission

Mission shows the extent to which there is a strategic vision and direction and, especially, to what extent they are known and shared from the first to the last employee. Mission shows that employees know „why” they do what they do and know how their daily work contributes to this „why”.

Measuring Mission will be achieved through three sub-factors: **strategic direction and intents, goals and objectives and vision**.

Adaptability

¹⁴ *Transaction costs* are costs of the economic system functioning. Although there is no universally accepted definition, professor R. Matthews gives the following distinction: transaction costs are those expenses necessary to prepare for signing a contract ex-ante and monitoring its implementation or ex-post, thus opposing the production costs which are the expenses required for the execution of a contract. (Mathews R. apud Iacobuta& Frunza, 2006)

If the first two cultural dimensions characterized only the organization's internal environment, measuring the degree of internal integration, a concept defined by E.H. Schein (Schein, 2004), the following two features refer to the external adaptation ability of the organization.

Adaptability highlights an organization's ability to receive signals from the external environment, interpret them and turn them into employee behavior change to increase the responsiveness of the organization.

These three characteristics have an impact on the adaptability and will be measured by the following cultural indexes: **creating change, customer focus and organizational learning**.

Integration of the four cultural features into the Denison model

The four cultural dimensions presented above provide an insight into the perceptions of employees about the adaptation of the organization to which they belong to the external environment and their degree of internal integration.

We conclude by saying that the *Mission* refers to the organization's long-term orientation. *Consistency* defines the values that form the basis of a strong company culture: cohesion, coordination and control. *Involvement* shows human resource capacity development, sense of responsibility and autonomy. *Adaptability* shows how pressure from the external environment generates change. These dimensions can be also analyzed in pairs. As we have seen, Involvement and Consistency refer to how the process of internal integration and organizational culture influence each other. The other two dimensions, Adaptability and Mission, focus on the relationship between the organization and its external environment. But there are other aspects to Denison's Circumplex analysis. For example, if we look to the left of Figure 1, we note that Involvement and Adaptability show the flexibility of the organization, characterizing its ability to change easily. A flexible organization will always be able to find innovative solutions to a new problem. Conversely, on the right side, Mission and Consistency show the organization's orientation towards stability. Such an organization will resist change, but the organization may be ideal if the environment in which it operates is stable and predictable. (Denison, Corporate Culture and Organizational Effectiveness, 1990, pp. 14-16) Each pair of factors has distinct effects on the organizational performance.

Thus, **mission and consistency** can significantly improve the financial performance of the organization, **consistency and involvement** increase the employee satisfaction and motivation, **involvement and adaptability** contribute to the development of innovation capabilities and **adaptability and mission** influence the growth of turnover. (Denison, Haaland, & Goelzer,

Corporate Culture and Organizational Effectiveness: Is Asia different from the rest of the world, 2004).

1.2. The Human Synergetics Organizational Culture Inventory Model¹⁵

Human Synergetics Performance Improvement System consists of five separate instruments: Life Styles Inventory™ (LSI), Leadership/Impact® (L/I), Group Styles Inventory™ (GSI), Organizational Culture Inventory® (OCI®) and Organizational Effectiveness Inventory™ (OEI). These instruments measure personal thinking and behavioral styles (LSI), the thinking and behavioral styles promoted by leaders (L/I), group styles or ways of working as a team (GSI), and the behavioral norms and expectations that define the organization culture (OCI®) (Szumal). We will limit our comparative analysis with the Denison model to the Human Synergetics OCI® instrument.

Professor Robert A. Cooke started research into the organizational culture to identify those cultural factors that affect, positively or negatively, the organizational climate. Based on this division, three cultural styles (Constructive Styles, Passive/Defensive Styles and Aggressive/Defensive Styles) were identified, each containing four types of culture. The organizational culture of an enterprise can be fully described by uniting the three Circumplex styles-Human Synergetics Organizational Culture Inventory® model—as a result thereof (Figure 2.). (Jones, Dunphy D., Fishman, & Larne, 2006)

The Human Synergetics OCI® measures 12 styles that are defined by two dimensions:

- Task orientation versus people orientation
- Orientation toward needs for growth and satisfaction versus orientation toward needs for security and safety.

These dimensions define the three styles measured by the Human Synergetics model: Constructive Styles, Passive/Defensive Styles and Aggressive/Defensive Styles¹⁶.

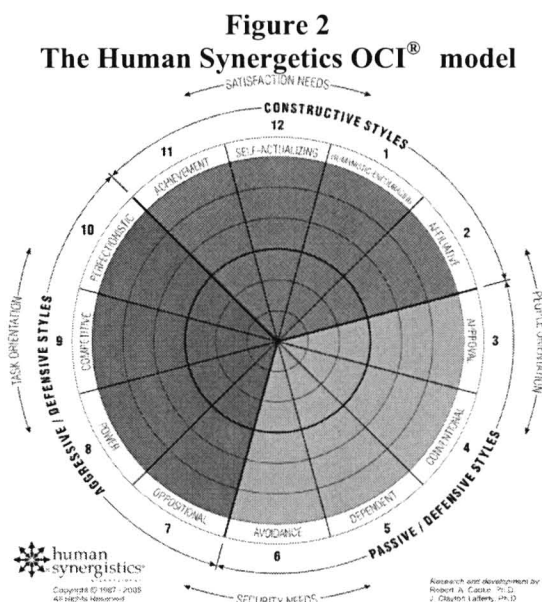
Constructive Styles

Constructive styles reflect a concern for both task and people and characterize the organizational culture in which members are encouraged to interact

¹⁵ Acknowledgement: The Human Synergetics is a registered trademark owned by Human Synergetics International. The description of Human Synergetics OCI® model is based on the presentation included in the book „In Great Company”. Reproduced by permission[15]

¹⁶ Note. From *Organizational Culture Inventory* by R.A. Cooke and J.C. Lafferty, 1983, 1986, 1987, 1989, Plymouth, MI: Human Synergetics. Copyright 1989 by Human Synergetics, Inc. Adapted by permission; The OCI style descriptions and items may not be reproduced without the express and written permission of Human Synergetics.

with each other, and tasks are addressed in a way that steers their performance towards their needs for satisfaction and fulfillment.
Cultural styles characteristic to Constructive cluster are (*orientation towards*):



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Achievement, Self-Actualizing, Humanistic/Encouraging and Affiliation.

An Achievement culture characterizes organizations that do things well and value members who set and accomplish their own goals. Members are expected to set challenging but realistic goals, establish plans to reach these goals, and pursue them with enthusiasm.

A Self-Actualizing culture characterizes organizations that value creativity, quality over quantity, and both task accomplishment and individual growth. Members are encouraged to gain enjoyment from their work, improve themselves, and take on new and interesting activities.

A Humanistic/Encouraging culture characterizes organizations that are managed in a participative and person-centered way. Members are expected to be supportive, constructive, and open to influence in their dealings with one another.

An Affiliative culture characterizes organizations that place a high priority on constructive interpersonal relationships. Members are expected to be friendly, open, and sensitive to the satisfaction of their work group.

Passive/Defensive Styles

Passive-defensive styles are characteristic of cultures in which members interact with each other by a defensive manner, so that this interaction does not threaten their own needs for security.

Cultural styles characteristic to Passive-Defensive cluster (*orientation towards*):

Approval, Conventional, Dependent and Avoidance.

An Approval culture describes organizations in which conflicts are avoided and interpersonal relationships are pleasant--at least superficially. Members feel that they should agree with, gain the approval of, and be liked by others.

A Conventional culture is descriptive of organizations that are conservative, traditional, and bureaucratically controlled. Members are expected to conform, follow the rules, and make a good impression.

A Dependent culture is descriptive of organizations that are hierarchically controlled and do not empower their members. Centralized decision making in such organizations leads members to do only what they are told and to clear all decisions with superiors. An Avoidance culture characterizes organizations that fail to reward success but nevertheless punish mistakes. This negative reward system leads members to shift responsibilities to others and avoid any possibility of being blamed for a mistake.

Aggressive/Defensive Styles

Aggressive/defensive styles are characteristic of cultures in which members of the organization approach tasks in an aggressive manner, such as to protect their status, ensuring through this attitude the fulfillment of their security needs.

Cultural styles characteristic to Aggressive-Defensive clusters are (*orientation towards*):

Oppositional, Power, Competitive and Perfectionistic.

An Oppositional culture describes organizations in which confrontation and negativism are rewarded. Members gain status and influence by being critical and thus are reinforced to oppose the ideas of others.

A Power culture is descriptive of nonparticipative organizations structured on the basis of the authority inherent in members' positions. Members believe they will be rewarded for taking charge, controlling subordinates and, at the same time, being responsive to the demands of superiors.

A Competitive culture is one in which winning is valued and members are rewarded for outperforming one another. Members operate in a "win-lose" framework and believe they must work against (rather than with) their peers to be noticed.

A Perfectionistic culture characterizes organizations in which perfectionism, persistence, and hard work are valued. Members feel they must avoid any

mistakes, keep track of everything, and work long hours to attain narrowly defined objectives.

2. Comparative analysis between the two models

The Denison Method and Human Synergetics' Organizational Culture Inventory[®] are two approaches to providing quantitative (survey-based) feedback of the employee's perception regarding the company organizational culture. Also, both models use a five point Likert scale. In order to compare the two models we selected a sample made up of 27 managers (in various management positions) from 3 companies, from different business sectors (household retail, beauty and cosmetics and IT services). All managers filled in both surveys during March-April 2011. The composition of the sample was the following:

Table 1
The sample composition by sex, age, education and years within the organization

Sample composition:		
Sex	Men	68%
	Women	32%
Age	20-29 years	20%
	30-39 years	60%
	40-49 years	20%
Education	Highschool	10%
	College studies	40%
	Postgraduate studies	50%
Years within the organization	0-1 years	16%
	1-3 years	5%
	3-5 years	13%
	+5 years	68%

Due to the fact that the sample was below 30 persons we used parametric tests (F-test and t-test) in order to compare the variance of the cultural of Denison model with the cultural styles of Human Synergetics OCI[®] model. The null hypothesis is that the mean difference between each pair of indexes is zero. Since the two models are not "paired" or dependent in any way, the first step was to run the F-test for equal variance in order to determine which t-test to use. For the pairs with equal variance we run the t-test for two samples, assuming equal variances. (Bucea-Manea-Țoniș & others, 2010) The results are shown in Table 2.

The parametric tests show several correlations between the two models, although most indexes are independent. We may say that an orientation toward

the Humanist/Encouraging style (in Human Synergistics model) will be measured in the Denison model as an orientation toward Empowerment, Capability development, Customer focus, Organizational learning, Strategic direction & Intent and Vision. Also, an orientation toward Affiliative style (from Human Synergistics instrument) will be found in the Denison model as an orientation toward Empowerment, Team Orientation, Customer Focus and Goals&Objectives. Finally, an orientation toward Self-Actualizing style will be found in the Denison model as an orientation toward Team Orientation and Goals&Objectives.

Table 2
Correlation between models - Denison® and Human Synergistics OCI®

	HS STYLES	CONSTRUCTIVE				PASSIVE DEFENSIVE			AGGRESSIVE DEFENSIVE				
DIMENSION		Achievements	Self-actualizing	Humanist-encouraging	Affiliative	Approval	Conventional	Dependent	Avoidance	Oppositional	Power	Competitive	Perfectionistic
INVOLVEMENT	Empowerment	-	-	yes	yes	-	-	-	-	-	-	-	-
	Team orientation	-	yes	-	yes	-	-	-	-	-	-	-	-
	Capability development	-	-	yes	-	-	-	-	-	-	-	-	-
CONSISTENCY	Core values	-	-	-	-	-	-	-	-	-	-	-	-
	Agreement	-	-	-	-	-	-	yes	-	-	-	-	-
	Coordination & Integration	-	-	-	-	-	-	-	-	-	-	-	-
ADAPTABILITY	Creating change	-	-	-	-	-	-	-	-	-	-	-	-
	Customer focus	-	-	yes	yes	-	-	-	-	-	-	-	-
	Organizational learning	-	-	yes	-	-	-	-	-	-	-	-	-
MISSION	Strategic direction & Intent	-	-	yes	-	-	-	-	-	-	-	-	-
	Goals & Objectives	-	yes	-	yes	-	-	-	-	-	-	-	-
	Vision	-	-	yes	-	-	-	-	-	-	-	-	-

We can conclude that there are correlations between some of the Constructive clusters (Achievement, Self-Actualizing, Humanist/Encouraging and Affiliative) and some of the dimensions of the Denison model (Involvement, Adaptability and Mission). According to our data, there is no correlation between the Human Synergistics OCI® model and the Consistency dimension of the Denison model, which meant that other Human Synergistics instruments have to be used for obtaining an image of the common system of beliefs and values that form the basis of a strong company culture: cohesion, coordination and control.

An unaccountable correlation was found between a Passive Defensive Style (Dependent index) and a Consistency dimension (Agreement index). A possible explanation could be the fact that when a difficult issue appears the employees from a Dependent culture are more likely to engage in a dialogue and to support multiple views in order to solve the problem, but finally the decision will be checked with their superiors.

Another odd outcome could be the non-correlation between the Achievement orientation with any of the Denison indexes. However, the existence of certain correlations or the lack of correlations needs further investigation. We intend to do this by widening the sample to include the employees, statistically selected, and/or adding other companies.

Conclusion

A complete analysis of the organizational culture at company level requires taking into account the specifics of the organizational culture at society level. Results from both models are similar, indicating their ability to achieve an accurate image of Romanian society in terms of organizational culture. Professor Bibu shows that the GLOBE model highlights a wish for change, „a migration of the Romanian society towards Western culture”(Bibu&Bracu, 2008).

The two models, Denison and Human Synergistics, unlike the better known Hofstede and Globe models, focus on the culture at company level. The independent use of each model does not totally explain, in our view, the specific culture of an organization.

Regarding the evaluation of the organizational culture at company level, the Denison and Human Synergistics models approaches are neither redundant nor contradictory, they are complementary. Thus, the Human Synergistics model explains individual behavior in the organization especially with reference to the extent to which employee expectations and needs are met. The Human Synergistics captures people's basic behavior in interaction with others and, further, how employees' behavior as a whole makes up the company culture. Nevertheless, if the organization's abilities to respond to change in the external environment, or the coherence between the em-

employees' values and the strategic vision of their leaders have to be measured, in our opinion, Human Synergistics OCI[®] instrument offers little information and it has to be used in conjunction with an organizational climate measuring tool – the Organizational effectiveness Inventory[™] (OEI).

The Denison model offers an accurate image of the culture at the organization level and is easily understandable by managers, but can hardly predict which individual behavior has to be supported or changed in order to obtain an organizational culture in-keeping with all stakeholders' vision. Why use one model rather than the other? In general, the issue of whether an organization may use both approaches or only one is dependent on what it intends to do with the information that is collected. If an organization wants to use the data for developing more effective work behavior at individual level, then the Human Synergistics model is the answer. If the organization would like to gauge its external adaptation and its internal integration compared to other companies, then the Denison model would be appropriate. If both types of information are pursued, then both models should be considered.

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RÉSUMÉ

Cette étude vise à comparer deux des modèles internationaux les plus utilisés pour évaluer la culture organisationnelle au niveau de l'entreprise. Les modèles - Denison et Human Synergistics OCI - utilisent une approche bottom-up, qui démarre au niveau des employés, afin de déterminer les profils de culture organisationnelle. La recherche permettra de tester l'existence de corrélations statistiques entre les deux modèles et d'illustrer la complémentarité entre Denison et Human Synergistics OCI dans l'évaluation de la culture organisationnelle à partir des comportements individuels et des moyens de l'entreprise. L'existence de plusieurs corrélations entre les deux modèles suggère la nécessité d'une approche complémentaire pour évaluer la culture organisationnelle. Afin d'obtenir une représentation plus complexe de la culture organisationnelle, les deux modèles peuvent être utilisés simultanément. Le résultat pourrait constituer une base pour définir le futur processus de modélisation d'un nouvel instrument d'évaluation mieux adapté à l'environnement d'affaires roumain

ABSTRACT

The present study aims to compare two of the most used international models for evaluating the organizational culture at company level. The models – Denison or Human Synergistics OCI® – both use a bottom-up approach, which starts from the employee level, in order to determine the organizational culture profiles, seen as the combination of individual values and behaviors. The research will test the existence of statistical correlations between both models and will show that Denison and Human Synergistics OCI® complement each other in evaluating the organizational culture from individual behaviors up to companies' activity. The existence of several correlations between both models suggests the necessity of a complementary approach for evaluating the organizational culture. In order to obtain a more complex representation of the organizational culture both models could be used simultaneously. The result could form a foundation to define a future process of modeling a new instrument for assessing the organizational culture, better adapted to the Romanian business environment.

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