

Perspectives regarding the organizational culture within the Romanian textile industry

DOI: 10.35530/IT.071.01.1778

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ABSTRACT – REZUMAT

Perspectives regarding the organizational culture within the Romanian textile industry

The present paper proposes to determine the types of organizational cultures that exist within the Romanian textile industry, starting off from Handy's typology according to which there are four types of cultures, respectively the Task Types, the Power Types, the Role Types and the Person Type. In this sense, we have conducted an empirical study made up of two questionnaires, the first regarding the organizational culture within the Romanian textile industry – from the point of view of employees without leadership positions, and the second regarding the organizational culture within the Romanian textile industry – from the managerial point of view. Interviews were conducted on employees and managers from local companies, by using direct questions, with multiple choice answers, with the purpose of ensuring transparency and objectivity when processing and analyzing the data. The database of this study contains 110 completed and validated questionnaires, divided into the two respondent categories: employees in leadership positions – 65 questionnaires, operating personnel – 45 questionnaires. By utilizing the Cronbach Alpha test, a correlation matrix, the KMO and Bartlett test, a functional analysis, we have validated the viability, the relevance of the items, the existence of a correlation between them, the construction of synthetic variables, thus demonstrating the presence of 4 types of organizational cultures within the Romanian textile industry.

Keywords: organizational culture, types of organizational culture, Power Type, Task Type, Role Type, Person Type, correlation matrix, Cronbach Alpha test, KMO and Bartlett test

Perspective privind cultura organizațională în industria textilă românească

Lucrarea de față își propune să determine tipurile de culturi organizaționale care există în industria textilă românească, pornind de la tipologia lui Handy, conform căreia există patru tipuri de culturi, respectiv Tipuri de sarcini, Tipuri de putere, Tipuri de rol și Tip de persoană. În acest sens, s-a realizat un studiu empiric alcătuit din două chestionare, primul privind cultura organizațională din industria textilă românească – din punctul de vedere al angajaților fără funcții de conducere și al doilea cu privire la cultura organizațională în cadrul industriei românești de textile – din punct de vedere managerial. Interveniurile au fost adresate angajaților și managerilor companiilor locale, prin utilizarea întrebărilor directe, cu răspunsuri cu alegere multiplă, cu scopul de a asigura transparența și obiectivitatea la prelucrarea și analizarea datelor. Baza de date a acestui studiu conține 110 chestionare completate și validate, împărțite în cele două categorii de respondenți: angajați în funcții de conducere – 65 de chestionare, personal de execuție – 45 de chestionare. Folosind testul Cronbach Alpha, o matrice de corelație, testul KMO și Bartlett și o analiză funcțională, au fost validate viabilitatea, relevanța datelor, existența unei corelații între ele, construcția de variabile sintetice, demonstrând astfel prezența a 4 tipuri de culturi organizaționale în industria textilă românească.

Cuvinte-cheie: cultură organizațională, tipuri de cultură organizațională, Tip de putere, Tip sarcină, Tip rol, Tip persoană, matrice de corelație, test Cronbach Alpha, test KMO și Bartlett

INTRODUCTION

The need to know the types of organizational cultures primordially reside in the impact that they have at an organizational level. Seeing that they rely on human resources, its typology can sometimes envelop the typology of its members, as they often adhere to the ideas promoted by the organization.

In trying to construct an agreeable work environment and to form employees that are responsible and content with the work done, the organization delineates certain norms regarding behaviours, habits and rituals specific to different types of organizational cultures.

As mentioned by Hofstede [1] (2012) an organization's excellence is given by its members, by the way they think, act and learn together.

Another opinion that is worthy of remembrance is that of Schein [2], according to whom internal integration of the members of the organization is determined by modes of communication, degree of inclusion, power distribution, organizational climate, reward system, ideology and religion, elements taken into consideration when determining types of organizational cultures.

Although the specialized literature tackles the innumerable benefits that culture has on an organization, stress is not always placed on the notion of analysing the specific type of culture for each organization. Although at first glance one might conclude that organizations have a single type of organizational culture, our opinion differs. We consider thus that we can encounter elements or values from several types of organizational cultures within the same organization. Moreover, even where there isn't a question of a specific type of strong organizational culture, one can identify certain constitutive elements belonging to other culture types [3]. The textile industry is one which, from this perspective, is a combination of organizational culture types since in this sector, we consider that the elements inherent to the culture types are determined both by the national specificities and the types of culture specific to the external organizations that have acquired control upon becoming the majority shareholders [4]. Since individual behaviour is the result of experience and development, researchers have proven the existence of some discrepancies with respect to professional level, results, information presentation, ethics and actions undertaken.

In our opinion, regardless of the different opinions that attempt to make explicit the existence of a type of organizational culture this concept has in mind certain constitutive elements: rules of behaviour, the norms that develop within the work group, the dominating values adopted by the organization, the philosophy that guides policy regarding business partners, the rules established for the efficient functioning of the organization, the spirit and climate that characterize the organization internally and in relation to the surrounding environment [5].

The importance of analysing the types of organizational cultures is given also by the practical bonds that it presents, in potentiating the organization's performance. Peters and Waterman provide a strong argument through studies conducted within successful companies, showing that [6] top performers create a wide culture, a coherent framework in which people seek to adapt accordingly [7].

If we refer to the types of organizational cultures within companies in the Romanian textile industry that have undergone a major restructuring due to the privatization process, it is natural for us to analyse to what extent the type of organizational culture of a foreign company that has become a majority shareholder of a national companies have left their mark on the national organizational culture [8].

Starting from this data but also from the conceptual foundation of the issues analysed, we have set out to determine the types of organizational cultures that exist within the Romanian textile industry.

We cannot analyse the existing organizational cultures within the Romanian textile industry without researching the types as they are defined by various specialists. Analysing the specialized literature, we can affirm that a vast number of studies have been comprised with the purpose of understanding what

an organizational culture is, of quantifying its impact or of understanding where the diverse taxonomy comes from. In addition, we can state that there is no definitive mode of evaluating an organizational culture, in this respect, a series of dimensions have been identified that can be utilized from case to case. Here we note: individual initiative, integration, managerial aid offered to employees, identity, reward system, attitude concerning risk, conflict tolerance and modes of communication or control.

These dimensions are presented individually or in various combinations, in order to establish various classifications of the different types of cultures that may be encountered within organizations. Outline the main types of cultures that have been developed over time, depending on several factors such as: contribution to performance, the configuration and role of the leadership, risk levels, communication methods, level of participation etc. Starting from these theoretical classifications we have developed the present study [9–11].

RESEARCH METHODOLOGY

In order to study the types of organizational cultures that are manifest within Romanian textile industry, we have conducted a research based on 2 types of questionnaires: one regarding the organizational culture within the Romanian textile industry from the perspective of operating personnel, and the second regarding the organizational culture within the Romanian textile industry from the perspective of management.

As mentioned above, the main research instrument used is the questionnaire, and the associated research method is the indirect administration through an electronic communication format and channel, as well as the direct distribution in the company headquarters. The results have been synthesized within an electronic format, forming the database needed to process and analyze the acquired information [12].

The study is based on the data from 110 completed and validated questionnaires, divided along the 2 categories of respondents (employees with leadership roles – 65 questionnaires, operating personnel – 45 questionnaires).

The questionnaire that was applied has captured aspects of the textile industry at the national level. We have chosen this approach since at the national level there are no ample studies in this direction of research [13]. The premises that we've started off from when making our choice are as follows:

(1) *The Questionnaire* offers the authors of the research the possibility of also setting up questions with nonstandard answers. We considered this research instrument to be opportune, considering the specificity of the domain. Seeing that it makes use of the opinions, values and psychological demeanor of human resources in the evaluation of the taxonomy of organizational cultures, the questionnaire offered us the perfect premise in this endeavor.

(2) The data collection method was the on-site administration of questionnaires within the textile companies, as well as the indirect method, by electronic communication.

(3) The applied questionnaire was a mixed one, including both open ended and closed ended questions, as well as control questions. In addition, it includes dichotomous questions (with YES or NO answers), *open ended questions* that allow for answers of an unspecified length, *multiple-choice questions*, also called *semi-open ended* (a limited number of given answers), *scaling responses*, also called *questions with ranked answers within a hierarchy* (the Likert scale – through which individual preferences can be tested gradually).

(4) The results were recorded, stored and structured, resulting in a *database* required for the analysis. In determining the existing types of organizational culture within the Romanian textile industry, we start off from Handy's typology, which analyzes four types of cultures, respectively Task Type cultures, Power Type cultures, Role Type cultures and Person Type cultures – We continued the research utilizing the Cronbach Alpha test (for the viability of the selected variables and items), a correlation matrix, the KMO and Bartlett test (to determine the existence of a significant correlation between them) as well as a functional analysis in order to establish the weight value of each variable and to identify the retained percentage from the initial information; Afterwards we used the graphic representation of the four types of cultures as well as a comparison between them for respondents that are operating personnel as well as for managers, by grouping the answers.

DETERMINING THE TYPES OF ORGANIZATIONAL CULTURES THAT EXIST WITHIN THE ROMANIAN TEXTILE INDUSTRY

In order to identify the types of organizational structures we have proposed to analyze the responses of 110 respondents, respectively 65 manages, 45 operating personnel. We have developed an empirical study based on questionnaires, at the level of the Romanian textile industry, both at the level of operating personnel as well as with leadership positions. We have built the 4 variables: *Task Type culture* – “we work together”, *Power Type culture* – we take it upon ourselves to do things first”, *Role Type culture* – “let’s do things right” and *Person Type culture* – “let’s complete our tasks very well”, using items such as – the questions from the questionnaires.

Starting from the source documents mentioned we have constructed and processed the database covering the following stages

a) *Identifying the questions related to the proposed objective*

Twenty-seven questions were selected from questionnaire no. 1 *Section B* for operating personnel, and from questionnaires no. 2 *Section C*, 26 questions for

manages, questions that capture the 4 types of organizational cultures (*Task Type* – 9 items, *Power Type* – 5 items, *Role Type* – 7 items and *Person Type* – 6 items in the case of the first questionnaire, respectively 5 items in the case of the second).

b) *The precision of the data and the internal consistency of the synthetic variables (Task, Power, Role and Person) that were built with the help of a set of items (the questionnaire questions were encoded in order to be processed)*

In this sense, for each type of organizational culture we had in mind the 2 categories of respondents, following these steps:

- 1) *Validating the reliability of the items used in the construction of the variables (quality of data) – Cronbach Alpha Test*
- 2) *Certifying the existence of a relationship between items – Correlation Matrix and KMO and Bartlett Test*
- 3) *Factorial analysis in order to elaborate and validate a factor/variable that ties together the chosen items – Principle component Analysis and determining the equation that expresses the link between the synthetic variable and the items*

Research methodology for the Task Type organizational structure in the case of managers

1) Cronbach Alpha Test – this coefficient can have a value between 0 and 1 [14], however in order to significantly influence the synthetic variable, the minimum value has to be 0.7 [15].

The instrument for measuring the *Task* dimension was made up of 9 items. We have tested the viability, obtaining an initial value for this coefficient of 0.842, which demonstrates that the items which refer to the measurement of the *Task Type* organizational culture have a high degree of viability. Seeing that eliminating the first item would lead to a slight, insignificant increase in the value of the test (a new coefficient of 0.850), we decide to keep them all (table 1).

Table 1

VIABILITY OF ITEMS – CRONBACH ALPHA TEST FOR THE TASK TYPE CULTURE (MANAGERS)		
Item name (selected questions)	Cronbach Alpha if the item is eliminated	Cronbach Alpha Final
C1	0.850	No variable eliminated
C5	0.829	
C8	0.824	
C12	0.815	
C18	0.821	
C21	0.823	
C24	0.816	
C33	0.825	
C35	0.827	

Source: authors' projection

Table 2

CORRELATION MATRIX BETWEEN ITEMS FOR THE TASK TYPE CULTURE (MANAGERS)									
Item name	C1	C5	C8	C12	C18	C21	C24	C33	C35
C1	1.000								
C5	0.236	1.000							
C8	0.259	0.423	1.000						
C12	0.368	0.434	0.491	1.000					
C18	0.146	0.369	0.347	0.452	1.000				
C21	0.208	0.420	0.359	0.361	0.488	1.000			
C24	0.256	0.373	0.460	0.494	0.607	0.497	1.000		
C33	0.247	0.309	0.366	0.439	0.428	0.343	0.400	1.000	
C35	0.156	0.275	0.369	0.401	0.409	0.462	0.362	0.507	1.000

Source: authors' projection

Conclusion: The Cronbach Alpha test confirms that all selected items can be used in constructing the synthetic variable of the Task Type organizational culture.

2) Correlation Matrix – maximum values recommended are 0.8 – 0.9 (table 2) [16].

All the values are positive and do not surpass the maximum recommended values, this being proof that the data analysis is not affected by multicollinearity. KMO and Bartlett Test – the KMO coefficient has to have a value above 0.5 (table 3).

Table 3

KMO AND BARTLETT TEST FOR THE TASK TYPE CULTURE (MANAGERS)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.870
Bartlett's Test of Sphericity	Approx. Chi-Square	418.715
	Df	36
	Sig.	0.000

Source: authors' projection

The KMO coefficient registered a value of 0.870 (>0.5), while the Bartlett coefficient obtained the following values: $c^2 = 418.715$; Df = 36; $p = .000$, within which Sig ($p = .000$) has a value lower than 0.05.

Based on these tests, we can affirm that between the 9 items there exist significant correlations and the data can be subject to factorial analysis.

3) Analysis of the Principle Components – shows the degree of importance (the relevance of the analysis)

Within this analysis, a factor is highlighted that explains the 45.16% of the total variation of the 9 remaining items.

In table 4 Matrix Component one can observe that all the items have a factorial charge greater than 0.5, all maintained for the validity of the study.

The charge of the synthetic variable Task Type Culture is high, 45.16% of the initial information is

Table 4

COMPONENT MATRIX	
Item name	Synthetic variable
	Charge
C1	0.528
C5	0.633
C8	0.679
C12	0.743
C18	0.725
C21	0.695
C24	0.756
C33	0.673
C35	0.659

Source: authors' projection

retained. The equation that expresses the link between the synthetic variable and the chosen items is the following:

$$\text{Charge} = 0.105C1 + 0.156C5 + 0.167C8 + 0.183C12 + 0.178C18 + 0.171C21 + 0.186C24 + 0.165C33 + 0.163C35$$

After wards we conducted a Centralization of Results – Cronbach Alpha test – data quality (table 5).

In the case of managers, the initial value of the Cronbach Alpha coefficient was 0.511; by eliminating the item C20, it becomes 0.569; finally, by renouncing the item C17, the value reaches the level of 0.634, close to the minimum of 0.7.

In the case of operating personnel, the initial value of the Cronbach Alpha coefficient was 0.533; by eliminating the items C20 and C17, the value reaches the level of 0.707, surpassing the minimum 0.7.

Valid conclusions for managers and employees are as followed:

- In the case of the Rope Type organizational culture, 2 items were eliminated, only 5 items remaining in the variable construction;
- In the case of the other organizational cultures, the quality of data has been certified, all items having

RESULTS OF THE CRONBACH ALPHA COEFFICIENT				
Synthetic variable	Managers		Operating personnel	
	Cronbach Alpha Coefficient	Item number	Cronbach Alpha Coefficient	Item number
Task Type Culture	0.842	9	0.857	9
Power Type Culture	0.803	5	0.836	5
Role Type Culture*	0.634	5	0.707	5
Person Type Culture	0.753	5	0.827	6

Source: authors' projection

been validated that were considered initially for the construction of the variables.

1) Correlation matrix – Both in the case of managers and operating personnel, the registered values are positive and do not surpass the maximum of 0.8, which demonstrates the existence of a relationship between the items that are considered for the construction of each variable, respectively, each type of organizational culture.

The KMO and Bartlett Test – Both in the case of managers and operating personnel, the KMO coefficient has values that are above 0.5, arguing for the existence of a significant correlation between the chosen items, an aspect that allows for the carrying out of a factorial analysis of the 4 variables.

2) Factorial analysis – The results obtained from the application of the Principal Component Analysis is presented in figure 1.

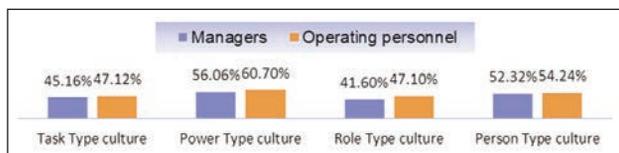


Fig. 1. Factorial Analysis results
(Source: authors' projection)

All 4 synthetic variables, respectively Task Type culture, Power Type culture, Role Type culture, Person Type culture, have a high charge, the percentage of initial information that is retained for each variable being significant. Thus, the equations for the 4 variables are as followed:

Equations – Managers

- Task = $0.105C1 + 0.156C5 + 0.167C8 + 0.183C12 + 0.178C18 + 0.171C21 + 0.186C24 + 0.165C33 + 0.163C35$;
- Power = $0.258C2 + 0.273C6 + 0.273C9 + 0.268C13 + 0.263C16$;
- Role = $0.335C3 + 0.374C10 + 0.231C14 + 0.231C22 + 0.349C34$;
- Person = $0.240C4 + 0.294C7 + 0.313C11 + 0.296C15 + 0.230C29$.

Equations – Operating personnel

- Task = $0.135B1 + 0.175B5 + 0.169B8 + 0.175B12 + 0.169B18 + 0.128B21 + 0.170B24 +$

$+ 0.158B34 + + 0.170B36$;

- Power = $0.253B2 + 0.260B6 + 0.272B9 + 0.240B13 + 0.258B16$;
- Role = $0.300B3 + 0.333B10 + 0.302B14 + 0.227B22 + 0.286B35$;
- Person = $0.216B4 + 0.239B7 + 0.245B11 + 0.229B15 + 0.216B23 + 0.211B30$.

As a result of processing the data from a statistical point of view, using the Cronbach Alpha test, correlation matrix, KMO and Bartlett text and factorial analysis, the viability of the items, the existence of a correlation between them and the construction of the 4 synthetic variables, respectively Task Type culture, Power Type culture, Role Type culture, Person type culture, have been validated based on the items identified, a fact that permitted us to continue the research by means of a graphic centralization of the answers given (figures 2–11).

Based on the data gathered, the four types of organizational cultures have been represented graphically, both for operating personnel as well as managers, by grouping respondents according to the Likert scale used, respectively: (5) Totally agree, (4) Partially agree, (3) Neither agree or disagree, (2) Partially disagree, (1) Totally disagree.

Perspective of the operating personnel

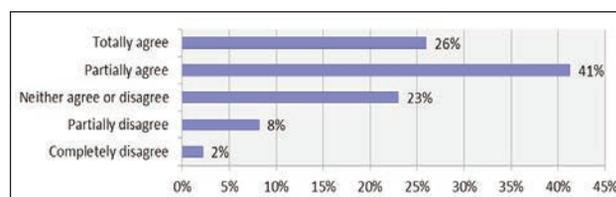


Fig. 2. Task Type organizational culture from the perspective of operational personnel
(Source: authors' projection)

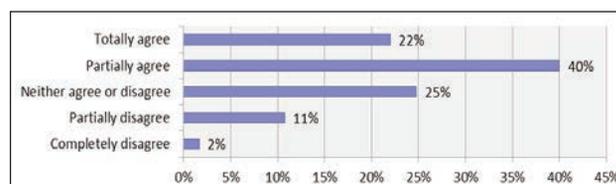


Fig. 3. Power Type organizational culture from the perspective of operational personnel
(Source: authors' projection)

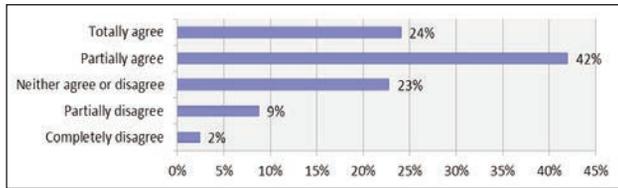


Fig. 4. Role Type organizational culture from the perspective of operational personnel (Source: authors' projection)

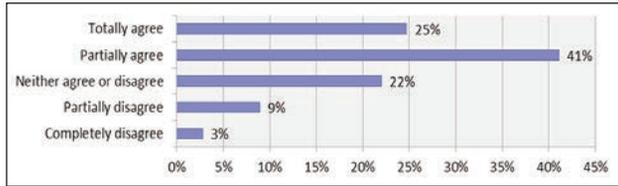


Fig. 5. Person Type organizational culture from the perspective of operational personnel (Source: authors' projection)

In order to increase the degree of observation of the results we graphically present a comparison of the resulting types of organizational cultures.

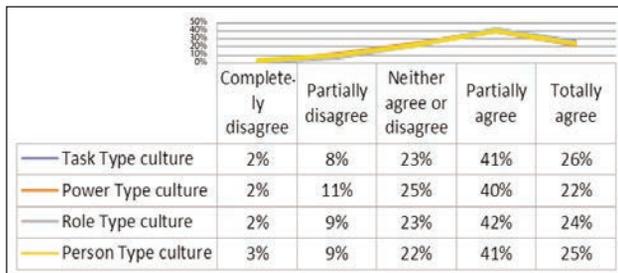


Fig. 6. Comparison between the types of organizational cultures from the perspective of operational personnel (Source: authors' projection)

Management perspective

We may conclude that, irrespective of the types of organizational cultures found within a analyzed companies that they belong to, both operational personnel

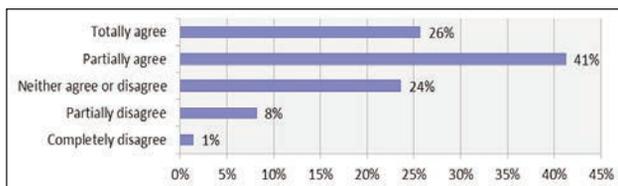


Fig. 7. Task Type organizational culture from the perspective of managers (Source: authors' projection)

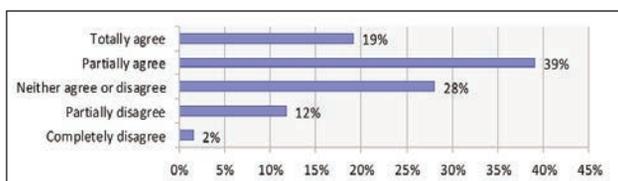


Fig. 8. Power Type organizational culture from the perspective of managers (Source: authors' projection)

and employees in leadership positions accept them, being in agreement with their characteristics.

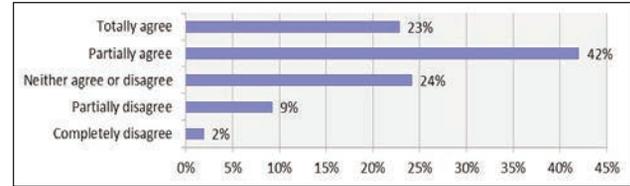


Fig. 9. Role Type organizational culture from the perspective of managers (Source: authors' projection)

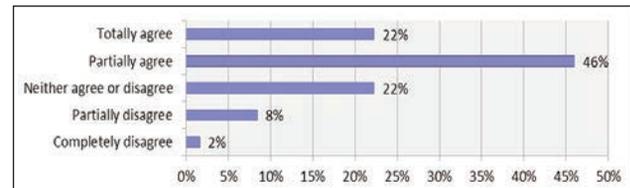


Fig. 10. Person Type organizational culture from the perspective of managers (Source: authors' projection)

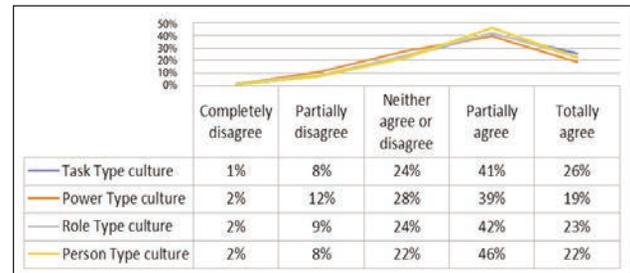


Fig. 11. Comparison between the types of organizational cultures from the perspective of managers (Source: authors' projection)

CONCLUSIONS

Considering the steps taken during the statistical analysis of the data gathered, respectively:

- testing data quality, the viability of the items, by using the Cronbach Alpha coefficient;
- demonstrating the existence of a relationship between the items that were identified when constructing each variable in turn, by using the correlation matrix and the KMO and Bartlett test;
- identifying a high degree of charge of the 4 constructed variables and a high percentage of initial information retained, applying the Main Component principle and stabilizing the equation that expresses the link between these variables and the considered items.

We may conclude that all the synthetic variables considered respectively, the Task Type, Power Type, Role Type and Person Type organizational cultures have a high charge level, retaining a significant percentage of the initial information, and the items that were considered for each culture type are viable. Since each type of organizational culture relies on human resources, its typology can sometimes encompass the typologies of its members, these often adhere to the ideas promoted by the organization.

Moreover, even where one can speak of a certain type of strong organizational culture, certain constitutive elements belonging to other types of cultures can be identified, reiterating the idea that an organization cannot exist without elements of an organizational culture.

Since individual behavior is the result of experience and development, research has shown the existence of a discrepancy with respect to professional level, obtained results, presentation of information, ethics or actions taken.

In our opinion, irrespective of the different points of view that try to highlight the basis for organizational cultures, this concept has in mind certain constitutive elements: rules of behavior, the norms that are developed within the work group, the dominant values adopted by the organization, the philosophy that guides the policy regarding business partners, the rules that have been established for the efficient functioning of the organization, the spirit and climate that characterizes the organization internally and in relation to the outside world.

Diagnosing the type of organizational culture permits one to observe the human behavior within the organization and the valuing of the relationships that are relevant for its functioning, which can contribute both to adaptation to the outside world, as well as to the need for internal integration by connecting the whole personnel to the strategic objectives of the organization, a cohesion of the working groups being vital for its efficient functioning.

In order to implement the strategies and policies of each company in the textile industry, it is important to know the environment in which they work, to identify the types of culture that are manifested. In this regard, it is important to know the shareholding structure, the culture of the country of origin, the organizational structure, the infrastructure, the people and their values. Employees will reflect on the standards regarding systems of value, knowledge and behavior so as to adapt the elements of the national culture to the specifics of the organizational culture within the organizations they belong to.

All 4 types of organizational cultures presented above promote certain typologies, modes of behavior and values. Some of these cultures condense rapid and repeated changes, others are subjected to innovation with greater difficulty. For example, Handy [12]

associates 2 of the 4 types respectively, the Role Type culture and the Person Type culture with stability and reluctance to change, while the other 2 types (the Task Type culture and the Power Type culture) he associates with flexibility and adaptability to change. Thus, the last two types of organizational cultures promote change and implement very rapidly the modifications that they undergo. Organizations will develop a dominant style of organizational culture, however it is important to remember that these include elements that are characteristic to all 4 types of cultures, a fact which expresses the character diversity of groups and individuals.

Closely related to the results of the audit, in order to meet the challenges of globalization, a dynamic environment and the need for innovation [17], the companies should be permanently open to changes [18]. In this respect, it will be important to build up a vision of what the organization should be and how the organizational culture can contribute. The vision represents a powerful tool about the leaders' conception of what is the company, where it should go in few years, what the ways to arrive there are and what the managers value most.

The project for redesigning the organizational culture is a complex one and it is going to use a wide range of tools, going from anthropological and management till the mathematical fields [19]. Changing and realigning the components of a new culture, a stronger one, ask from the leaders a high commitment in order to create a more attractive company for its members. This should lead to a higher functionality and better results that can be revealed by the financial statements of the textile companies [20]. The vision and the new dimensions of the organization culture that will be adopted and applied will significantly contribute to the companies' competitiveness, both at regional, national and international levels.

ACKNOWLEDGEMENT

This research was supported financially by the project CNFIS-FDI-2018-0582 – Supporting Excellence Research within The Bucharest University of Economic Studies in the context of the principles of sustainable development and open research. 6. Supporting field research excellence in universities Beneficiary: The Bucharest University of Economic Studies.

REFERENCES

- [1] Hofstede, G., Hofstede, G.J., Minkow, M., *Culturi și Organizații. Softul Mental: Cooperarea Interculturală și Importanța ei pentru Supraviețuire*, Ed. Humanitas, 2021, Bucharest
- [2] Schein, E.H., *Organizational Culture and Leadership*, University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, 2015
- [3] Popescu, M., *Comunicare și Cultură Organizațională. O Abordare de Business*, Ed. Pro Universitaria, 2012, Bucharest
- [4] Schein, E.H., *Organizational Culture and Leadership*, 3rd Edition, Jossey-Bass, John Wiley & Sons Inc., 2004
- [5] Ionescu, Gh.Gh., *Dimensiunile culturale ale managementului*, Ed. Economică, 1996, Bucharest
- [6] Harris, R.J., *A Primer of Multivariate Statistics*, 3rd ed. Hillsdale, NJ: Lawrence Erlbaum Associates, 2001
- [7] Morrison, D.F., *Multivariate Statistical Methods*, 4th ed. Belmont, CA: Duxbury Press, 2012

- [8] Caputo, A., Palumbo, M., *Manufacturing re-insourcing in the textile industry: A case study*, In: *Industrial Management & Data Systems*, 2005, 105, 2
- [9] Florescu, M.S., Ivanov, F., *Globalization as a factor of influence on the R&D activity and the case of the textile industry in Romania*, In: *Industria Textila*, 2016, 67, 5, 345–350
- [10] Gănescu, C., *Cultura Organizațională și Competitivitatea*, Ed. Universitară, 2011, Bucharest
- [11] Peters, T.J., Waterman, R.H., *In Search of Excellence: Lessons from America's Best-Run Companies*, Harper & Row, 1982
- [12] Handy, C.B., *Understanding Organizations*, Penguin Books, 1985
- [13] Anderson, T.W., *Introduction to Multivariate Statistical Analysis*, 3rd ed. New York: Wiley, 2003
- [14] Cătoi, I., *Cercetări de Marketing – Tratat*, Ed. Uranus, 2009, Bucharest
- [15] Winer, B.J., Brown, D.R., Michels, K.M., *Statistical Principles in Experimental Design*, 3rd ed. New York: McGraw-Hill, 2010
- [16] Field, A., *Factor Analytical Examination of the Evidence-Based Practice Beliefs Scale: Indications of a Two-Factor Structure*, In: *Journal of Communications*, 2009, 4, 146–154
- [17] Florescu, M.S., Ivanov, F., *Globalization as a factor of influence on the R&D activity and the case of the textile industry in Romania*, In: *Industria Textilă*, 2016, 67, 5, 345–350
- [18] Tudor, L., *Change in Textile and Clothing Industry*, In: *Industria Textila*, 2018, 69, 1, 37–43, <http://doi.org/10.35530/IT.069.01.1449>
- [19] Florescu, M.S., Mihai, C., Ene, A., *Mathematical and statistical modelling of project management performance*, In: *Industria Textilă*, 2014, 65, 3, 166–172
- [20] Hada, T., Bărbuță-Mișu, N., Avram, T.A., *Evaluating firms' financial performance in textile industry of Romania*, In: *Industria Textila*, 2019, 70, 3, 272-277, <http://doi.org/10.35530/IT.070.03.1398>

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