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PERCEPTIONS OF PSYCHOSOCIAL ASPECTS IN VARIOUS WORK ENVIRONMENTS

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Abstract. *This study presents comparative psychological analysis between work organizations from diverse ownership and activity in Republic of Macedonia. The sample consisted of 513 employees in 25 work organizations (private service, state-owned service, private production, and state-owned production orgs). WES Work Environment Scale (Moos, 1994.) was applied for estimate of social climate. The fundamental assumption that WES dimensions would discriminate significantly between work organizations owing to the type of organizational ownership and activity, was proved with the analysis of variance and discriminant analysis. Both analyses revealed the most favorable and the most efficient work environments embodied in the private service organizations owing to their high-quality social climate and the flexible structure. The other organizations were less- quality work settings especially the private production organizations. It was recommended the future research of organizational characteristics to include the social climate just so as the structure of any organization.*

Key words: *social climate, ownership, activity, organizations.*

Extensive research of work setting aspects had unambiguously showed that a precious and universal description of any work environment may be accomplished on the base of three important environmental factors: the *social climate*, *organizational structure* and *architectural-physical design,* including common measures of the factors for an appraisal of work setting (Moos, 1973; 1978).

- *The social climate* is the most important factor of the work setting which enables a precise identification of psychosocial aspects by the degree of expression of three general environmental dimensions: Relations, Personal Growth, and Maintenance

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and Change System (Moos, 1974 according Dorman, 2000). General social dimensions characterize every type of work setting, determine the work atmosphere and affect directly the individual and organizational issues: a productivity, an adaptability, employees' wellbeing, job satisfaction, attitudes and reactions towards work environment etc. The social climate in each type of a work organization is estimated by the harmony in the interpersonal relations, practiced styles of management, rewards' system and is closely related to the dominant organizational values i.e. the culture, tradition, code of behavior, work ethics etc (McKenna, 2000).

- The social climate is tightly related to the degree of a power in the *organizational structure* and functioning regarding to the decision style, communication system, economic position, strategy, goals and work politics; job specification, work tasks, job organization (a regime and pace of work), hygienic-technical protection, quality and safety of work setting etc. The social climate is a function of an adequate organizational structure that may vary among mechanistic (rigid) and organic (flexible) as two ends along a continuum (according to McKenna, 2000).
- Through the social climate, the employees reflect their perceptions of the *architectural and physical design of the organization*, its size, location of the building, material forms (an outlook, disposition and equipment of work offices), arrangement of the surroundings and greenery, accessibility, disposal of parking space, sport and recreation objects etc.

The suitable developed social climate in the adequate work setting initiates organizational behavior concordant to the organizational code and business ethics as increased job ethics, enlarged efficiency, keeping to the ethical principles, growing job satisfaction and wellbeing, enhanced self respect, and successful dealing with job and life stress on the base of Scheafer and Moos' model of life crises and personal growth (according to Murray, 2000). The increased job efforts, engagements and achievements lead to a realization of the most important managerial goals such as higher employee and organizational productivity, accompanied by quality work life and wellbeing of employees.

Litwin & Stringer, 1968 conceive the social climate as a mediator among the effects of organizational system's factors and individual motivation and subsequent behavior. Schneider & Bartlett, 1968 have searched out the social climate as a moderator of relations between individual differences and individual performance (according to Ostroff, Kinicki & Tamkins, in Weiner, 2003).

The employee individual perceptions of their work environment characteristics define the social climate until employee combined and shared work setting perceptions present the organizational climate. Also, the organizational climate and its outcomes have been explained similarly to the elaboration of the social climate and its consequences. Thus, Lin, Madu & Kuei, 1999 consider the organizational climate as a mediating variable between organizational systems and individual motivation, and therefore directly influences behaviors that relate to productivity and retention, and attitudes such as satisfaction and optimism (according to Palermo, 2001). Denison, 2006 emphasized that organizational climate research was based on the impact that organizational systems have on groups and individuals just so as the research of social climate encompasses the psychological impact of the work environment on employees.

The phenomena of organizational climate and organizational culture are interrelated owing to their relation to the social context and general psychic software of human resources in organizations (Hofestede, 1991). Organizational culture encompasses shared norms, beliefs and behavioral expectations that drive behavior and communicate what is valued in organizations, presenting the basis for socializing coworkers. Langan- Fox and Tan, 1997 accentuate that organizational culture underpins and enables positive economic consequences for organizations such as increased employee commitment and cooperation, greater efficiency, improved job performance and better decision- making (according to Palermo, 2001). The incorporated values, views and basic assumptions in the organizational culture about accepted ways of behavior, interaction with the others, expression of emotions, work norms etc. affect the organizational and social climate (McKenna, 2000).

The organizational culture that creates and develops the organizational climate also presents a part of the wider social culture i.e. a culture of the concrete community (Ellis & Dick, 2000). The social traditions, customs, rituals, symbols, stories etc. are led over generations in a cultural community equally as in the organizations and institutions of the society. Therefore the impact of the wider social context ought to be considered in the analysis of the organizational culture and climate. Such analysis should include also the operation of organizational external environment (working regulative, suppliers, customers, share-holders, labor market, law mechanisms etc) and the internal factors such as size, structure, technology, mission and goals of organization.

The changes in the internal and external factors of any organization conditioned by the process of privatization, technological innovations, globalization, competition, demographic alterations of work force, deregulations etc. inevitably affect the social climate of the work environment (Drenth, Thierry and de Wolff, 1998). The social changes caused by the process of transition from socialist into capitalist society and from projected centralized into market economy, that in Republic of Macedonia continually unfold during the last 16 years, stimulated this study to determine the adequate alterations of the psychosocial climate in various organizations.

The aim of the study was to be identified dimensions of social climate which differ significantly among four types of work organizations (private service, state-owned service, private production and state-owned production orgs). The service organizations encompass an educational, financial, health-care and telecommunication activity whereas production organizations an electro industry, energetics and textile industry.

The basic assumption was that studied work organizations would vary on the social climate dependent on their ownership and activity appertaining.

Hemmelgarn et al., 2006 point out that psychological climate has been searched out in various types of work organizations with application of well-established quantitative measures. It seems that research of psychological climate has got a long history. The psychological climate and social climate are often interchanged pointing out the psychological impact of the work environment on employee own well-being (James & James, 1989; James, James & Ache, 1990; James & Jones, 1974 in Hemmelgran et al., 2006). In this study, the social climate was assessed by 10 work environment dimensions and 2 indexes in the *WES Work Environment Scale*: I involvement, PC peer cohesion, SS supervisor support, A autonomy, TO task orientation, WP work pressure, C clarity, Ctl managerial control, Inn innovations and Com physical comfort, IWR index of work relations and IWS index of work stressors (Moos, 1994).

METHOD

Participants in this study were 513 employees into 25 organizations (7 private service, 4 private production, 10 state-owned service and 4 state-owned production orgs). High school completed 49 percent, two years college 22 percent and 4 years college 29 percent of respondents. Men represented 45 percent and women 55 percent of the sample. The respondents were among 19 and 63 years old with an average of 39 years. Their total job experience was between 4m. and 40 years with an average of 16 years.

WES consists of 90 items arranged into 10 subscales by 9, which concern to 10 psychosocial aspects in the work environment. Each item defined as true or false can obtain 1 point if it shows a presence of the working aspect to which it concerns.

Cronbach subscale alpha moves from 0.62 to 0.82 and average 0.72 whereas subscale intercorrelation from 0.06 to 0.77 and average 0.47.

Data analysis

First, mean and standard deviation of WES subscales in any organization were calculated. Then, analysis of variance was used to identify dimensions of social climate that discriminate significantly among various types of work organizations. In addition, the discriminant analysis ought to confirm dimension models (discriminant functions) that are characteristic for any type of organization.

Procedure

The study was carried out during 3 years (2001-2004) into work organizations from various ownership and activity (private and state-owned service as well as private and state-owned production orgs) through out R. of Macedonia. The data were obtained at the workplaces of employees during rest pauses with a demand to fill in the distributed instruments[1].

RESULTS

Results for **significant** differences among private service, state-owned service, private production and state-owned production organizations on dimensions of social climate are presented in Tables 1 and 2.

Results in Tables 1 and 2 point out that except peer cohesion (PC) all other WES dimensions and two indexes - IWR and IWS, make significant difference among work organizations. The involvement (I), supervisor support (SS), autonomy (A), task orientation (TO), clarity (C), Inn (innovations) and physical comfort (Com) are the most expressive and the index of work relations (IWR) is the highest in the private service organizations compared with the other organizations. Also optimum work pressure (WP) and optimum index of work stressors (IWS) characterize this type of work organizations until their

[1] This study was a part of a scientific-research project that had searched out the social climate, employee attitudes and behavior towards their work environment.

managerial control (Ctl) is pretty hard. The estimated WES dimensions point at the private service organizations as work environments with the best quality of social climate exept for managerial control (Ctl) that is stronger than into the state- owned service organizations. Despite them, the least quality of social climate is present in the private production organizations which is due to to their unsatisfactory supervisor support (SS), the hardest control (Ctl), the most expressive work pressure (WP), the highest index of work stressors (IWS), the lowest index of work relations (IWR) and unsufficient innovations (Inn).

Table 1. Significant differences among work organizations on WES subscales[2]

	Private service		State-owned service		Private production		State-owned productionorgs.			
	(N_1=158)		(N_2=191)		(N_3=50)		(N_4=114)			
WES	M_1	SD_1	M_2	SD_2	M_3	SD_3	M_4	SD_4	F	Sig
I	6.62	2.01	5.36	2.08	5.52	2.38	5.55	1.97	11.99	.00
SS	5.38	2.03	5.20	2.12	3.66	2.34	4.39	1.91	12.40	.00
A	5.25	1.81	5.07	2.05	4.94	2.17	4.42	1.95	4.17	.01
TO	6.98	2.00	5.92	2.33	6.10	2.10	6.00	2.12	7.98	.00
WP	4.13	1.82	3.64	1.67	4.80	2.05	3.76	1.73	6.74	.00
C	6.66	2.14	5.78	2.44	5.10	2.72	5.32	2.43	9.80	.00
Ctl	5.71	1.54	5.38	1.85	6.16	1.75	5.93	1.69	4.06	.01
Inn	4.55	2.29	3.65	2.41	3.88	1.92	3.35	1.90	7.64	.00
Com	5.78	2.45	4.05	2.26	5.16	2.62	4.53	2.24	16.68	.00
IWR	17.64	4.44	16.35	4.87	14.82	5.36	15.72	4.38	6.40	.00
IWS	15.90	4.36	16.10	4.69	18.84	5.70	17.85	3.78	9.00	.00

Table 2. MD Mean differences among work organizations in multiple comparisons on WES subscales

	MD	Sig	MD	Sig	MD	Sig	MD	Sig	MD	Sig	MD	Sig
WES	M_1–M_2		M_1–M_3		M_1–M_4		M_2–M_3		M_2–M_4		M_3–M_4	
I	1.26	.00	1.10	.01	1.07	.00						
SS			1.72	.00	.98	.00	1.54	.00	.80	.00	–.73	.04
A					.83	.01						
TO	1.06	.00			.97	.00						
WP	.49	.01					–1.16	.00			1.04	.01
C	.88	.01	1.56	.00	1.35	.00						
Ctl							–.78	.04				
Inn	.90	.00			1.20	.00						
Com	1.74	.00			1.26	.00	–1.11	.03				
IWR	1.29	.01	2.83	.00	1.93	.01						
IWS			–2.94	.00	–1.95	.01	–2.74	.00	–1.75	.01		

[2] WES subscale value can move from 0 to 9 and average 4.5, till IWR from 0 to 27 and average 13.5, and IWS from 0 to 36 and average 18.

The main findings of discriminant analysis on WES dimensions in diverse types of work organizations (summary of canonical discriminant functions, structure matrix and functions on group centroids) will be presented in tables 3, 4 and 5.

All discriminant models that are elaborated and each dimension they consist of, possess significant discriminating power. Discriminant functions include dimensions that with the analysis of variance, have been revealed to discriminate significantly between organizations. The contribution of each dimension to the respective discriminant model was assessed with tests of group means, discriminant function coefficients, Wilks' lambda and correlation between each predictor variable and discriminant function.

Table 3. Summary of Canonical Discriminant Functions on WES dimensions

Function	Eigenvalue	% of Variance	Cumulative %	Canonical corr
1	.193	54.5	54.5	.403
2	.131	36.8	91.3	.340
3	.031	8.7	100.0	.173
Wilks' Lambda				
Test of Function(s)	Wilks' Lambda	Chi-Square	df	Sig
1 through 3	.719	166.594	33	.000
2 through 3	.858	77.389	20	.000
3	.970	15.395	9	.081

Table 4. Structure Matrix on WES dimensions

WES dimensions	Function		
	1	2	3
Com	.704*	.117	-.153
I	.526*	.324	-.333
TO	.433*	.272	-.181
Inn	.397*	.319	.203
SS	-.014	.745*	-.135
IWS	.021	-.636*	-.032
C	.296	.557*	-.102
IWR	.194	.470*	-.223
Ctl	.205	-.338*	-.170
A	.121	.324	.508*
WP	.366	-.223	.486*

* Largest absolute corelation between each variable (dimension) and any discriminant function

Table 5. Functions at Group Centroids on WES dimensions

Types of organizations	Function		
	1	2	3
Privateservice orgs	.539	.298	-4.02E-02
State-owned service orgs	-.464	.186	9.591E-02
Private production orgs	.421	-.751	.350
State-owned production orgs	-.154	-.395	-.259

Regarding to the per cent of overall intergroup variance[3] that relates to given eigenvalue (table 3), the first discriminant function on WES dimensions shows 54.5 % of overall discriminant power whereas the second discriminant function, points at 36.8 % of overall discriminant power. The third one reaches just 8.7 % of overall discriminant power. Canonical correlation that links assignment to any type of organization with any discriminant function, confirms the first model as better predictor of organizational type (Can. Corr=.403). Also, the value of chi-square for the first model amounts 166.594 and reaches small significance value (sig .000) confirming that group centroids (means of the first model) vary across diverse types of organizations. The second function discriminates among organizations too, but less effectively than the first function owing to its correlation (Can. Cor .340) and the amount of chi-square (77.389 sig .000).

Regarding to the structure matrix (table 4), WES dimensions that exhibit the largest absolute correlation with the first discriminant function (model) are physical comfort Com, involvement I, task orientation TO and innovations Inn. The largest absolute correlation with the second model show supervisor support SS, index of work stressors IWS, clarity C, index of work relations IWR and managerial control Ctl. The third model is connected with autonomy A and work pressure WP by the largest absolute correlation, but this function does not significantly discriminate, so it is not further elaborated.

Regarding to the group centroids of WES dimension models (table 5), the first function shows that both private organizations are characterized by Com, I, TO and Inn dimensions that are more expressive into the service than in the production orgs (private service .539, private production .421). Group centroids show that these dimensions are less present in both state-owned organizations and especially in the service orgs (state-owned service -.464, state-owned production -.154).

The second function points out that supervisor support SS, clarity C and index of work relations IWR are expressive whereas index of work stressors IWS and managerial control Ctl are less present in both service organizations. Group centroid for such pattern of WES dimensions is higher in private than into the state-owned organizations (private service .298, state-owned service .186). In both production organizations, group centroids show an opposite trend of this pattern and especially in private orgs (private production -.751 and state-owned production -.395).

WES dimension functions point at the highest quality of social climate that characterizes the private service organizations. Such finding is reconciled with the results of analysis of variance for the quality of social climate in different work organizations.

DISCUSSION

The fundamental assumption that among work organizatons would appear significant differences on WES dimensions regarding to the type of organizational ownership and activity was proved in this research. Comparative analysis underlined the private service organizations as high-quality and high-effective work environments on estimate of the social climate (tables 1 and 2). On the base of analysed discriminant models (table 3) fol-

[3] Intergroup variance is variance among work organizations.

lows that organizational type is modestly correlated with the first and second function of WES dimensions (Can cor .403 and .340). The high-quality social climate of private service organizations was confirmed with both discriminant functions on WES dimensions (tables 4 and 5). Physical comfort Com, involvement I, task orientation TO, innovations Inn, supervisor support SS, clarity C and index of work relations IWR are expressed most whereas managerial control Ctl is less and the index of work stressors IWS is least in the private service organizations.

The social climate is a function of an adequate organizational structure that may be among mechanistic (rigid) and organic (flexible) as two ends along a continuum (according to McKenna, 2000). Relatively flexible structure in the private service organizations is due to explicitly defined mutual goals of performers and organization, openness to changes, implementation of innovations and attained high quality of working life express through improved work conditions and supportive work environment for employee personal growth. The finding that convenient organizational culture in the private service organizations is a result of their more flexible organizational structure than in the other organizations, is concordant with the structure impact imposed by the technology and market conditions as Burns & Stalker, 1961 have emphasized (according to McKenna, 2000).

On the contrary, low quality of working life, discontent, high level of work stress, petty need for power and small need for achievement distinguish the private production organizations from the other work organizations (Tables 1 and 2). The findings of discriminant analysis confirm low quality of social climate too. This is especially noticeable regarding to the second discriminant function on WES dimensions that includes supervisor support SS, clarity C, index of work relations IWR, managerial control Ctl and index of work stressors IWS (tables 4 and 5).

In order to rise more productive and efficient, private production organizations need to overcome the wreck of bureaucracy with aim to complete their flexible structure that should express with openness for changes, undertaking risks and investments, implementation of innovations and attraction of investments. The state-owned production organizations ought to be restructured according to the market principles.

This research explicitly pointed out that the high quality of social climate might be added to the positive outcomes of the organizational culture for organization such as an enlarged efficiency and a convenient employee behaviour that have already been established by Langan- Fox & Tan, 1997 (according to Palermo, 2001). Also, the studied dimensions of social climate present satisfactory predictors of any organizational type regarding to the ownership and activity.

Regarding to the results of this study, the future research should determine the level of organic flexible structure which is necessary for survival and subsequent development of contemporary organizations (national as well as international) under dynamic complex working and market conditions. Precisely in the research of organizational characteristics should be included the social climate that is a part of the organizational culture as well as the structure of organization. These variables make significant contribution to organizational functioning and efficiency that are express through employee performance and behaviour at work.

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PERCEPCIJE PSIHOSOCIJALNIH ASPEKATA U RAZLIČITOM RADNOM OKRUŽENJU

Elisaveta Sardžoska

Studija predstavlja komparativnu psihološku analizu između radnih organizacija različitih oblika svojine i aktivnosti u Republici Makedoniji. Uzorak se sastoji od 513 upošljenih u 25 radnih organizacija (privatnih servisa, državnih servisa, privatnih proizvodnih organizacija i državnih proizvodnih organizacija). Korišćena je WES Work Environment Scale –skala radne sredine (Moos, 1994.) za procenu socijalne klime. Osnovna pretpostavka je da će se WES dimenzije značajno razlikovati između organizacija usled oblika svojine organizacije i aktivnosti, što se utvrđuje analizom varijanse i diskriminativnom analizom. Obe analize otkrivaju da su najpoželjnija i najefikasnija radna okruženja ostvarena u privatnim uslužnim organizacijama zbog visoko kvalitetne socijalne klime i fleksibilne strukture. Ostale organizacije imaju manje kvalitetan radni seting, posebno privatne proizvodne organizacije. To pretpostavlja da buduća istraživanja organizacionih karakteristika uključuju socijalnu klimu kao i strukturu svake od organizacija.

Ključne reči: *socijalna klima, oblik svojine, aktivnost, organizacije*