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The Impact of Organizational Climate upon the Innovative Behavior at Jordanian Private Universities as Perceived by Employees: A Field Study

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Abstract

The study aims at investigating the impact of organizational climate on the innovative behavior at Jordanian private Universities. To achieve the purposes of this study, a questionnaire was developed and distributed to 841 employees, of which 612 questionnaire were analyzed. The Statistical Package of Social Sciences (SPSS.15) was used to analyze the relevant data. The results indicate that the level of the perception of the respondents towards the dimensions of organizational climate was medium, and their perceptions towards the innovation behavior were high. In addition, the study finds out there was a significant effect with statistical indicators for the dimensions of the organizational climate on the innovation behavior among respondents. The study recommends the need to enhance and develop the employees and to allocate sufficient funds to support the employees creativity at Jordanian private Universities through a good system of incentives.

Key words: Organizational climate; The innovative behavior; Jordanian private universities

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INTRODUCTION

The human element is largely regarded as the most important element in the environment of organization because there is a mutual relationship in between, affected

by all of the administrative, structural, and technical dimensions. The Administration is responsible for the development of the human resources in the organization in order to achieve the goals of its employees for the purposes of achieving cooperation. Ganadela (2006) confirms that organizations have recently been facing pressures and challenges, highlighted in the lack of available resources, the multiplicity of objectives, the low levels of productivity, increasing societal needs, the low level of satisfaction of beneficiaries and employees, etc. So, it is urgent to improve both profit and productivity, which, in turn, requires dynamic changes in all aspects of the organization so as to ensure the survival and continuity in the light of the rapid changes.

Saleh and Rashid (2006) have emphasized the idea that the successful organizations must make use of the recent methods and administrative models such as “management via objectives”, re-establishment of administrative processes, total quality management, and e-management involving the administrative creativity.

Taamna and Younis (2001) indicate that the organizations operating at the level of excellence in their performance represent an example which must be imitated by other institutions. So, they must be working to encourage individual and collective creativity.

According to Al Shammari (2002), creativity is one's vision to a phenomenon through a new way. It is how to think away from the traditional contexts and introduce all methods and techniques that will transfer these ideas into a reality to achieve the organizational goals and adopt the change processes to achieve creative shifts in the environment of organizations and their operations. Accordingly, this study identifies the impact of the business climate on the creative behavior among the employees at the private Jordanian universities.

1. THE PROBLEM OF THE STUDY

The need of organizations for innovation has been

demanding and urgent especially for those organizations that seek excellence in performance and maintain continuity in a competitive environment. Such organizations face renewable challenges, which get the higher management, adopt policies and strategies to adapt with these challenges to achieve the objectives of the organization successfully (Hayjan, 1999).

The organizational climate is considered very important in the life of organizations due to its clear effects and relations to the various regulatory activities. It affects employees' satisfaction and performance and, thus, the success of the organization and its ability to continue (Francisco *et al.*, 2004). That is because selecting personnel with high performance and capacity is not enough to ensure completing the work as required. The organizations have to interest of individuals, the rule of interaction and dialogue among individuals. Thus, this study was to look at the impact of the business climate in the creative behavior among employees at the private Jordanian universities.

2. SIGNIFICANCE OF THE STUDY

This study looks at the impact of organizational climate on the creative behavior among employees at the private Jordanian universities. Thus, this study is of paramount importance for the following reasons:

- Addressing one of the regulatory concepts, the organizational climate among employees at the private Jordanian universities.

- Adopting the innovative behavior among employees at the private Jordanian universities to help them adopt new working methods different from the typical traditional work, helping them to solve their problems and adopt the change as a method.

3. THE OBJECTIVES OF THE STUDY

This study aims at identifying the impact of organizational climate on creative behavior among employees at the private Jordanian universities. However, there are other related purposes including:

Identifying the employees' perceptions at the private Jordanian universities about the organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of contact).

Identifying the level of creative behavior (problem solving, the ability to change, the spirit of risk, communication capacity, and innovation encouragement) among employees at the private Jordanian universities.

Providing practical recommendations based on the results of the study for the officials at the Jordanian private universities to get them pay attention to the dimensions of organizational climate in order to enhance

creative behavior among workers at the private Jordanian universities.

4. QUESTIONS OF THE STUDY

As the organizational climate is of the factors influencing the creative behavior; therefore, the study purports to answer the following questions:

(1) What are the employees' perceptions at the private Jordanian universities about the organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication)?

(2) What are the employees' perceptions at the private Jordanian universities about creative behavior (problem solving, the ability to change, the spirit of risk, communication capacity, and innovation encouragement)?

5. THE HYPOTHESES OF THE STUDY

The first hypothesis: the organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to solve problems as a dimension of creative behavior.

The second assumption: the organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to change as a dimension of creative behavior.

The third hypothesis: the organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to the spirit of risk as a dimension of creative behavior.

The fourth hypothesis: the organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to the capacity of communication as a dimension of creative behavior.

The fifth hypothesis: the organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to encourage creativity as a dimension of creative behavior.

6. METHODOLOGY OF THE STUDY

The researcher relied on the descriptive and statistical analysis, which stems from investigating the impact of the work environment on a creative organization. That is conducted by surveying all related studies in order to lay down the theoretical framework. In addition, the study

adopted the field method through using a questionnaire to collect data from the study population in order to answer the study questions and test hypotheses.

6.1 The Study Population

The study population is consisted of administrative staff of the private universities of Jordan (Amman Private University, the University of Applied Sciences,

Philadelphia University, Al-Isra University, Jordan Academy of Music, Al-Zaytoonah Private University of Jordan, Princess Sumaya University for Technology, the University of Petra, Jerash National University, Zarqa University, Irbid National University, the college of Educational Sciences, the Amman Arab University for Graduate Studies, and the University of Graduate Studies)

Table 1
Indicates both the Names of Jordanian Universities and the Number of Employees in Each

University name	Establishment year	Employees No.	%
Amman Private University	1989	220	9.66%
The University of Applied Sciences	1989	317	13.92%
Philadelphia University*	1989	270	11.86%
Al-Isra University*	1989	302	13.26%
Jordan Academy of Music*	1989	14	0.61%
Al-Zaytoonah Private University of Jordan*	1990	161	7.07%
Princess Sumaya University for Technology	1990	87	3.82%
The University of Petra*	1990	302	13.26%
Jerash National University*	1991	152	6.68%
Zarqa University*	1991	203	8.92%
Irbid National University*	1991	137	6.02%
The college of Educational Sciences	1995	17	0.75%
The Amman Arab University for Graduate Studies	1999	77	3.38%
The University of Graduate Studies	2005	18	0.79%
Sum		2277	100%

* Universities randomly selected as a sample for this study.

6.2 Sample of Study

A simple random sample was selected. This sample included seven private universities; namely, (Philadelphia University, Al-Isra University, Al-Zaytoonah Private University of Jordan, the University of Petra, Jerash National University, Zarqa University, Irbid National University) which represented about 50% of the population community. Besides, a simple random sample with 55% was selected from each university to distribute the questionnaire in with 37.1% of the total community of the study.

841 questionnaires were distributed; 682 questionnaires were retrieved with 81.09% of the study sample. On the other hand, 69 questionnaires were excluded because of their invalidity and reliability. Thus, 612 questionnaires representing 72.77% of the study sample were analyzed, comprising 26.88% of total community, which is acceptable for the purposes of academic research.

6.3 Characteristics of Study Sample

Table 2
Description of the Characteristics of the Study Sample According to the Personal and Occupational Variables

Variable	Frequency (N = 612)	%	
Sex	Male	424	69.30%
	Female	188	30.70%
Marital status	Single	197	32.20%
	Married	415	67.80%
Age	>30	262	42.80%
	31-40	202	33.00%
	41-50	80	13.10%
	51 <	68	11.10%
Educational level	Secondary education and below	51	8.30%
	Diploma	195	31.90%
	Bachelor	300	49.00%
	Graduate studies	66	10.80%

To be continued

Continued

Job level	Unit manager	33	5.40%
	Department manager	52	8.50%
	Vise Manager	66	10.80%
	Unit chair	84	13.70%
	Employee	377	61.60%
Experience years No	5 >	253	41.30%
	10 June	214	35.00%
	15 November	95	15.50%
	< 16	50	8.20%
University	Irbid National University	57	9.30%
	Zaraqa University	83	13.60%
	Jerash National University	55	9.00%
	Petra University	119	19.40%
	Al-Zaytoonah Private University of Jordan*	64	10.50%
	Al-Isra University	120	19.60%
	Philadelphia University	114	18.60%

Frequencies and percentages were found out to identify the personal and administrative characteristics of the study sample, consisting of 612 subjects who work for the private Jordanian universities. It was found out that 19.6% of respondents working at Al-Isra University, 19.4% at the University of Petra, 18.6% at Philadelphia University, and 13.6% at Zarqa University. The lowest percentage is at the Jerash National University with 9%.

As shown in Table 2, the vast majority of the study sample subjects were male with 69.3%. The percentage of married subjects was 67.8% of the study sample. This finding reflects the reality of the labor forces in the Jordanian organizations, where the proportion of males always exceeds that of females. In terms of the job level, employees were the biggest category with 61.6%, whereas the lowest was the managers with 5.4%. With regard to the years of experience, the highest category was the category of (5 years or less) with 41.3%, whereas the lowest one was that of (16 years and above) with 8.2% for.

Regarding the educational level, the highest proportion with the category is that of Bachelor degrees with 49%, whereas the lowest one was that of (secondary education or below) with 8.3%. This can be accounted for by the fact that holding Bachelor degrees may be a pre-condition

of appointment in the most administrative functions at the private Jordanian universities.

7. THE TOOL OF THE STUDY

Upon accessing to the previous studies on the organizational climate and creative behavior and in line with the main objectives of the present study in order to gather the necessary information and test the potential hypotheses, a questionnaire was developed, consisting of three main parts:

Part I includes personal information of the study sample subjects, including: sex, age, and the educational level,

Part II consists of 36 items measuring the organizational climate. Indeed, this part was designed based on Muasher (2001) Alkfawin (2005) Maaytah (2006), and Harem and Mansour (2006). It includes six sub-scales to measure the organizational climate such as: (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication)

Part III consists of 22 items measuring the creative behavior. Indeed, this part was designed based on a scale of Ettlie and Okeefe (1984), used by Salem (1999), Diab, *et al.* (1995), and Hawamdeh and Maaytah (2003). In addition, this scale was amended to suit the nature of employees' duties. It includes five sub-scales to measure creative behavior, such as: (Problem Solving, scalability, the spirit of risk, communication capacity, and encouragement of creativity)

Items were measured using the five-part scale of Likert. The respondent is asked to tick (X) on one of the choices given. These choices are: "always apply" (5), "often apply" (4), "sometimes apply" (3), "apply rarely" (2), and "never apply to" (1).

7.1 Validity of the Study Tool

The questionnaire was validated by 8 specialized professors working in both the public and private Jordanian universities. All of their comments were taken into consideration; some items were re-phrased.

7.2 Reliability of the Study Tool

Reliability coefficient was calculated, according to Cronbach Alpha for internal consistency totally and to each variable. The results were as shown in Table 3:

Table 3
The Value of Reliability Coefficient for Internal Consistency of the Dependent and Independent Variables of the Study

Item No	The variable and dimension	Cronbach alpha
1-36	Independent variables (the organizational climate)	0.9129
37-58	Dependent variables (creative behavior)	0.9246
1-58	Of all questionnaire (variables, dimensions, and items)	0.9387

Due to values of Cronbach alpha, reliability coefficients of all the variables of the study are high and suitable for the purposes of the study. The high values of Cronbach alpha would be accounted for by homogeneity of the study sample in terms of qualifications and quality.

8. FORM OF STUDY

The independent variable in this study is the organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication). The dependent variable is the creative behavior and consists of the following secondary dimensions and variables: “problem solving, the ability to change, the spirit of risk, communication capacity, encouragement of innovation”.

8.1 Statistical Treatment

To answer the study questions and test the validity of hypotheses, the descriptive and analytical statistical techniques were employed, using the statistical package (SPSS.15)

- Descriptive Statistic Measures to describe the characteristics of the study sample by percentages, to answer the questions of the study and to arrange dimensions in a descending order.

- Multiple Regression Analysis to test the validity of the study forms, the impact of the independent variable and its dimensions on the dependent variable and its dimensions.

- Stepwise Multiple Regression Analysis to test the entry of independent variables in the prediction equation of the dependent variable.

- Variance Inflation Factory (VIF) and Tolerance to make sure that there is multicollinearity between the independent variables.

- Skewness to ensure that the data follow normal distributions

8.2 The Theoretical Framework

The organizational climate is defined as a sum of characteristics related to the working environment in the organization. These characteristics include the formal organization, special needs of employees, the pattern of organizational communication, and the pattern of prevailing supervision (Zubi, 2006). It includes also other organizational factors that can be recognized by the organization staff in a way that affects their behavior. Besides, it is defined as overall impression of the organization staff, based on the treatment method of managers against employees, the philosophy of management, working conditions and the pattern of supervision (Al-Bashayrh, 2003). In addition, it is defined as the internal environment of a particular organization with some characteristics and qualities perceived by staff (Al-Muasher, 2001). Moreover, Alqtauna (2000) defines

it as the set of properties of the internal environment and internal work which have a degree of relative stability, perceived by the workers in a way which affects their values, attitudes and behavior.

The climate is the self-effects of the formal system and informal management patterns. The climate has several dimensions, including: structure, rewards, and support from the organization (Saurabhi, 2007).

Ismail (2005) defines the organizational climate as the way in which individuals see the organizational environment. Furthermore, the organizational climate includes several considerations, including: individual autonomy, restructure of the system, the system of incentives, and trust.

Maharmeh (1993) defines it a set of properties characterizing, describing the organization, differentiating it from other organizations, and affecting the behavior of workers. In addition, it is defined as employees' attitudes, values, and standards in the organization.

Qaryouti (1994) defines it as a set the properties of the internal environment of the work, which are characterized by relative stability, realized by the workers in a way that affects their values, attitudes, and behavior. In fact, management climate is considered as part of the organizational climate referring to the administrative climate which impinges on the personnel in a way that either frustrates or raises the motivation of them. (Alqtauna, 2000; Muasher, 2001).

8.3 Importance of Organizational Climate

The importance of organizational climate emerges from the notion that it helps the institution to achieve its objectives efficiently and effectively in order to achieve the objectives of their staff and society in general (Al Khaja, 2006). Alkfawin (2005) confirms that investigating the organizational climate is necessary because of being an important component to achieve convergence between organization goals and those of its employees. Zoubi (2006) adds that the importance of investigating the extent to which the employees of the Organization perceive the characteristics of the organizational climate identifies their attitudes toward the organizations in which they work for, either positive or negative.

Many studies have been confirming that it should provide an appropriate organizational environment seeking to instill the spirit of work for individuals so as to achieve job satisfaction and the performance desired (Alqtauna, 2000). Of these studies, which have focused on the importance of organizational climate are Mahsneh (2001) and Khaja (2006).

9. THE CREATIVE BEHAVIOR

The creative behavior is defined as “creating useful methods and techniques to complete the work. Besides, the creative decision is what has solutions to the existing

problem uniquely” (Jawad, 1992). Also, it is defined as “the application of an idea, developed within the organization or borrowed from outside whether it is related to the product, method, system, process, policy, program, or service, taking into consideration that it is brand new when applied” (Harem, 2003, p. 467). Goetsh and Davis (1997) define it as “The way to solve the problems and making decisions, provided that the special knowledge of the issues under study is available.” Roffins (1999) indicates that it is “the processes leading to create an idea through a product or performance of a useful service or methods of operation.” According to Marinus (2002), it is the process that provides something which has not already been there. However, there are other studies dealing with creative behavior such as: Cortese (2001), Zipple (2001), Al-Emeian (2004), Kwasniewska, and Necka (2004) and Kratzer, *et al.*(2004).

10. REVIEW OF RELATED LITERATURE

Upon surveying all of related literature, the researcher has the courage to state that there are no studies, looking directly at the impact of organizational climate on the creative behavior among the employees at Jordanian private universities. Thus, this study has attempted to apply all of tangible findings of other studies as far as possible to achieve its objectives, noting that field studies are very limited:

Awad (2007) aimed at investigating the factors influencing the innovative and administrative behavior in the government departments in the governorates of South Jordan. A random sample of 689 subjects was selected. The study has come out with certain findings including: the level of employees’ perception in government departments in the governorates of South Jordan towards the factors influencing the innovative behavior and the dimensions was moderate. Saleh, and Rashid (2006) aimed to provide an analytical framework based on a combination of factors and dimensions that get organizations accept the philosophies of modern management. The study found out that department heads are in the first place with 10 creative measures, followed by the vice deans with 8 creative measures, whereas the deans come third with 14 creative measures.

Al Khaja (2006) aimed to identify the reality of the organizational climate and its impact on the empowerment of employees working in the federal government of the UAE. The study found out that existing organizational climate in the federal government of the UAE was high. Maaytah (2006) aimed at identifying the perceptions of employees at Jordanian private universities to the impact of the concept of the work environment and dimensions in the organizational creativity. A simple random sample with 55% of each university and with 37.1% of the total

community was selected. The study found out certain findings; of most notably one was that the level of employees’ awareness at the private Jordanian universities to the variables of the work environment was moderate.

Harem and Mansour (2006) aimed at identifying the extent to which the employees perceive the characteristics of the internal and organizational environment in the pharmaceutical sector in Jordan and their encouragement to the organizational creativity. They adopted the descriptive analytical method. The findings indicate that the organizational environment in the pharmaceutical sector encourages creativity moderately. Abdul Halim and Ababneh (2006) aimed at identifying the extent to which transparency, administrative authorization, creative environment and creative practice are available to nine institutions and government departments applying for King Abdullah II Award for Excellence. The study found out that the descending order of the availability of study fields, due to averages, is as follows: transparency, the creative environment, administrative authorization and, finally, the creative practice.

Alkfawin (2005) aimed to investigate the relationship between dimensions of organizational climate and the degree of involvement of faculty members in the decision-making process at the public universities. The findings of the study indicated that the perceptions of staff members to the degree of participation in decision-making process and the dimensions of organizational climate were moderate.

Of other studies that deal with this prominent topic are Abu Sheikha (2005), Muasher and Ali (2004), Saraireh (2003), Hawamdeh, and Maaytah (2003), Mikdadi (2003), Gharaibeh (2003), Alinfiei (2003), Abu Tayeh (2003), Al-Dhmour (2003) and (2001), Hunaiti (2001), Mahasna (2001), Tarawneh (2001), Ayoub (2000), and AlQatauna (2000).

There are a number of foreign studies that deal with this topic. Jeffery (2006) aimed at developing a model of self-leadership and its role in creativity and innovation in German industrial organizations. The study found out that individuals who receive organizational support are more capable of creativity and innovation.

Camelo, *et al.*(2006) aimed to analyze the vision of senior management teams and the characteristics of work teams to the creative performance creative of Spanish companies. The study community is consisted of 960 companies having (50) employees and more. The results of the study indicated that the vision of senior management teams are not sufficient alone to explain the variation of the creative performance; it requires the presence of autonomous specialized teams and.

Of other foreign studies that deal with this prominent topic are Politis (2005), Kratzer, *et al.*(2004), Kwasniewska and Necka (2004), Lapirre and Giroux (2003), Mcadam *et al.* (2002).

11. ANSWERING THE STUDY QUESTIONS

Answering the first question: What are the employees' perceptions at the private Jordanian universities about

the organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication)?

Table 4
Averages and Standard Deviations (SD) of the Employees' Perceptions at the Private Jordanian Universities About the Dimensions of the Organizational Climate

Items	Item	Averages	SD	The rank	The level
1-6	Organizational structure	3.27	0.74	3	Moderate
7-12	Rules and regulations	3.62	0.67	2	High
13-19	Incentives and bonuses	2.88	0.97	6	Moderate
20-24	Technology	3.80	0.81	1	High
25-30	Participation	3.16	0.89	5	Moderate
31-36	Pattern of communication	3.23	0.99	4	Moderate
1-36	The independent variable "the organizational climate"	3.33	0.56	-	Moderate

As indicated from Table 4, the overall average for the employees' perceptions at the private Jordanian universities about the organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) was 3.33, and this indicates that the employees' perceptions at Jordanian private universities to the organizational climate were moderate. Technology comes first with an average of 3.80, followed by incentives and bonuses with an average of 2.88. The results indicate that the dimensions of organizational

climate are available in general at the Jordanian private universities, but with moderate degrees. However, some of which may be available with a high degree such as technology, which is an indication that the environment available at these universities pays special importance to technology and the methods of modern technology.

Answering the second question: What are the employees' perceptions at the private Jordanian universities about creative behavior (problem solving, the ability to change, the spirit of risk, communication capacity, and innovation encouragement)?

Table 5
Averages and Standard Deviations of the Subjects' Answers to the Dimensions of Creative Behavior

The level	The rank	SD	Averages	Item	Items
37-41	Problem solving	3.84	0.80	1	High
42-45	The ability to change	3.65	0.79	3	High
46-49	The spirit of risk	2.79	0.99	5	High
50-53	Communication capacity	3.72	0.68	2	High
54-58	Innovation encouragement	3.51	0.85	4	High
37-58	Creative behavior	3.50	0.55	-	High

As indicated from Table 5, the overall average for creative behavior was high with average of 3.50 and standard deviations of 0.55. Problem solving comes first with an average of 3.84, followed by communication capacity with an average of 3.72. The ability to change comes third with an average of 3.65, followed by innovation encouragement with an average of 3.51. The spirit of risk comes finally with an average of 2.79. It indicates that the subjects at the private universities have a positive creative behavior, characterized by the desire to solve problems, capacity of communication, and ability to change.

11.1 Testing the hypotheses

The researchers make sure that there is no high correlation between independent variables (Multicollinearity), using Variance Inflation Factory (VIF) and Tolerance Test for each variable, taking into account (VIF) does not exceed value 10 and the value of Tolerance Test is greater than 0.05. In addition, the researchers make sure that data of Normal Distribution were followed, calculating (Skewness), taking into consideration that the data follow the normal distribution if the value of Skewness is less than 1. Table 6 shows the results of these tests.

Table 6
Tests of VIF, Tolerance, and Skewness

Independent variables	VIF	Tolerance	Skewness
Organizational structure	2.403	0.416	0.625
Rules and regulations	2.246	0.445	0.624
Incentives and bonuses	3.192	0.313	0.616
Technology	3.519	0.373	0.781
Participation	3.410	0.284	0.786
Pattern of communication	3.075	0.325	0.789

It is noted that the values of (VIF) for all variables are less than 10, ranging from 2.246 to 3.519. In addition, the values of Tolerance Test range between 0.284-0.445, which are more than 0.05. This is an indication to absence of high correlation between independent variables

(Multicollinearity). It has made sure that data follow the normal distribution, calculating (Skewness), in which the values are less than 1. The validity of each form for each hypothesis will separately be made.

Table 7
Results of Analysis of Variance to Ensure the Validity of the Form to Test the Hypotheses of the Study

Independent variable	Source	R ²	Sum of squares	Average of squares	F value	F significance
Problem Solving	Regression	0.798	198.52	33.09	185.37*	0.000
	Error		80.34	0.13		
The ability to change	Regression	0.783	225.44	28.18	169.59*	0.000
	Error		92.48	0.15		
The spirit for risk	Regression	0.637	182.65	22.83	82.38*	0.000
	Error		104.21	0.17		
Communication capacity	Regression	0.672	202.33	25.29	96.33*	0.000
	Error		98.72	0.16		
Innovation encouragement	Regression	0.624	195.98	24.49	78.12*	0.000
	Error		117.90	0.19		

* Statistically significant at the level of significance ($\alpha \geq 0.01$).

Table 7 explains the validity of testing hypotheses form, due to the high value of (F) calculated for its tabulated value at the level of significance ($0.01 \leq \alpha$) and degrees of freedom 605.6 of 2.51. The dimensions of organizational climate account for 79.8% of the variance of the total dependent variable (problem solving) and account for 78.3% of the variance of (the ability to change). In addition, these dimensions account for 63.7% of the variance of (the spirit of risk) and 67.2% of the variance of (capacity communication). Finally,

they account for 62.4% of the variance of (innovation encouragement). All of this confirms the role and impact of the dimensions of organizational climate to account for the dimensions of creative behavior. Accordingly, the hypotheses of the study can be tested as follows:

11.1.1 The First Hypothesis

The organizational climate has no statistically significant effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to solve problems as a dimension of creative behavior.

Table 8
The Results of Multiple Regression Analysis to Test the Impact of the Independent Variable Dimensions of Organizational Climate on Solving Problems

The independent variable	B	Regression error	Beta	T calculated	Significance level T
Organizational structure	0.135	0.040	0.122	3.380*	0.001
Rules and regulations	0.149	0.038	0.149	3.931*	0.000
Incentives and bonuses	0.235	0.033	0.288	7.120*	0.000
Technology	0.191	0.041	0.191	4.691*	0.000
Participation	0.211	0.038	0.244	5.617*	0.000
Pattern of communication	0.031	0.041	0.033	0.762**	0.447

* Statistically significant at the level of $\alpha \leq 0.01$

** not significant

Based on Table 8, Beta coefficients, and T test, the secondary variables related to (organizational structure, rules and regulations, incentives and bonuses, technology, and participation) are the dimensions of the organizational climate more affecting the solution of problems, in terms of the coefficients (Beta) of these variables as stated in table 8 and in terms of high values of (t) calculated for its tabulated value of 2.326 at the level of significance ($0.01 \leq \alpha$). The results indicated that the secondary variable related to the (pattern of communication) has no effect in solving the problems in terms of low value (t) calculated for it tabulated value at the level of significance ($0.05 \leq \alpha$). Accordingly, the first hypothesis is declined; the hypothesis related to (the pattern of communication) is accepted.

When Stepwise Multiple Regression is carried out to determine the importance of each independent variable separately in contributing with the mathematical model, which represents the impact of the dimensions of organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) in (problem solving), Table 9 comes into being to indicate the order of independent variables in the regression equation. The variable of incentives and bonuses ranked first and accounted for 65.8% of the variance of the dependent variable, followed by the variable of participation which, with the variable of incentives and bonuses, account for 73.2% of the variance of the dependent variable.

Table 9
The Results of “Stepwise Multiple Regression” to Predict the Solution of Problems Through the Dimensions of Organizational Climate as Independent Variables

The order the independent variables the regression equation	R2 the coefficient of accumulated determination	The Value of T calculated	Level of significance T
Incentives and bonuses	0.658	7.403*	0.000
Participation	0.732	6.279*	0.000
Technology	0.774	5.179*	0.000
Rules and regulations	0.789	4.511*	0.000
Organizational structure	0.796	*3.544	0.000

* Statistically significant at the level of $\alpha \leq 0.01$

The pattern of communication was not calculated in the regression of equation.

11.1.2 The Second Assumption

The organizational climate has no statistically significant

effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to change as a dimension of creative behavior.

Table 10
The Results of Multiple Regression Analysis to Test the Impact of the Independent Variable Dimensions of Organizational Climate on Ability to Change

The independent variable	B	Regression error	Beta	T calculated	Significance level T
Organizational structure	0.143	0.045	0.120	3.210*	0.001
Rules and regulations	0.156	0.042	0.146	3.701*	0.000
Incentives and bonuses	0.379	0.037	0.432	10.311*	0.000
Technology	0.18	0.045	0.172	4.072*	0.000
Participation	0.096	0.042	0.103	2.285**	0.023
Pattern of communication	0.047	0.046	0.045	1.023***	0.307

* Statistically significant at the level of ($\alpha \geq 0.01$)

* Statistically significant at the level of ($\alpha \geq 0.05$)

** not significant.

Based on Table 10, Beta coefficients, and T test, the secondary variables related to (organizational structure, rules and regulations, incentives and bonuses, and technology) are the dimensions of the organizational climate which are more able to change in terms of high values of (t) calculated for its tabulated value of 2.326 at the level of significance ($\alpha \geq 0.01$). Due to Beta coefficients and T test, it can be noted that the secondary variable related to the (participation) has an effect in

the ability to change in terms of high value (t) 2.285 calculated, and it is higher than its tabulated value 1.645. The results indicate that the secondary variable related to (the pattern of communication) has no effect in the ability to change at the level of significance ($\alpha \geq 0.05$), in terms of low values of (t) calculated for its tabulated value at the level of significance ($0.05 \leq \alpha$). Accordingly, the second hypothesis is declined.

When Stepwise Multiple Regression is carried out to

determine the importance of each independent variable separately in contributing with the mathematical model, which represents the impact of the dimensions of organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) in (problem solving), Table 11 comes into

being to indicate the order of independent variables in the regression equation. The variable of incentives and bonuses ranked first and accounted for 67.8% of the variance of the dependent variable, followed by the variable of technology which accounts for 75% of the variance of the dependent variable.

Table 11
The Results of “Stepwise Multiple Regression” to Predict the Ability to Change Through the Dimensions of Organizational Climate as Independent Variables

The order the independent variables the regression equation	R2 the coefficient of accumulated determination	The Value of T calculated	Level of significance T
Incentives and bonuses	0.678	10.635	0.000
Technology	0.750	4.665	0.000
Rules and regulations	0.768	4.193	0.000
Organizational structure	0.778	3.971	0.000
Participation	0.782	2.630	0.009

* Statistically significant at the level of $\alpha \leq 0.01$

The pattern of communication was not calculated in the regression of equation.

11.1.3 The Third Hypothesis

The organizational climate has no statistically significant

effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to the spirit of risk as a dimension of creative behavior.

Table 12
The Results of Multiple Regression Analysis to Test the Effect of the Independent Variable Dimensions of Organizational Climate in the Spirit of Risk

The independent variable	B	Regression Error	Beta	T calculated	Significance level T
Organizational structure	0.190	0.058	0.159	3.299*	0.001
Rules and regulations	0.193	0.054	0.180	3.539*	0.000
Incentives and bonuses	0.318	0.054	0.343	5.875*	0.000
Technology	0.167	0.059	0.156	2.858*	0.004
Participation	0.198	0.048	0.226	4.169*	0.000
Pattern of communication	0.047	0.060	0.045	0.784**	0.433

* Statistically significant at the level of ($\alpha \geq 0.01$)

** not significant

Based on Table 12, Beta coefficients, and T test, the secondary variables related to (organizational structure, rules and regulations, incentives and bonuses, participation, and technology) are the dimensions of the organizational climate which are affected by the spirit of risk in terms of high values of (t) calculated for its tabulated value of 2.326 at the level of significance ($\alpha \geq 0.01$). The results indicate that the secondary variable related to (the pattern of communication) has no effect in the spirit of risk, in terms of low values of (t) calculated for its tabulated value at the level of significance ($\alpha \geq 0.05$). Accordingly, the third hypothesis is declined.

When Stepwise Multiple Regression is carried

out to determine the importance of each independent variable separately in contributing with the mathematical model, which represents the impact of the dimensions of organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) in (problem solving), Table 13 comes into being to indicate the order of independent variables in the regression equation. The variable of incentives and bonuses ranked first and accounted for 55.1% of the variance of the dependent variable, followed by the variable of participation which accounts for 59.5% of the variance of the dependent variable.

Table 13
The Results of “Stepwise Multiple Regression” to Predict the Spirit of Risk of the Dimensions of Organizational Climate as Variables Independent

The order the independent variables the regression equation	R ² the coefficient of accumulated determination	The Value of T calculated	Level of significance T
Incentives and bonuses	0.551	5.903*	0.000
Participation	0.595	3.046*	0.002
Rules and regulations	0.614	3.852*	0.000
Organizational structure	0.627	2.666*	0.008
Technology	0.632	2.265*	0.024

* Statistically significant at the level of $\alpha \leq 0.01$

The pattern of communication was not calculated in the regression of equation.

11.1.4 The Fourth Hypothesis

The organizational climate has no statistically significant

effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to the capacity of communication as a dimension of creative behavior.

Table 14
The Results of Multiple Regression Analysis to Test the Effect of the Independent Variable Dimensions of Organizational Climate in Communication Capacity

The independent variable	B	Regression error	Beta	T calculated	Significance level T
Organizational structure	0.170	0.055	0.165	3.122*	0.002
Rules and regulations	0.171	0.053	0.156	3.223*	0.001
Incentives and bonuses	0.207	0.046	0.231	4.484*	0.000
Technology	0.166	0.057	0.151	2.909*	0.004
Participation	0.173	0.053	0.182	3.293*	0.001
Pattern of communication	0.019	0.058	0.018	0.323**	0.747

* Statistically significant at the level of ($\alpha \geq 0.01$)

** Not significant

Based on Table 14, Beta coefficients, and T test, the secondary variables related to (organizational structure, rules and regulations, incentives and bonuses, participation, and technology) are the dimensions of the organizational climate which are affected by communication capacity in terms of high values of (t) calculated 2.326 for its tabulated value at the level of significance ($\alpha \geq 0.01$). The results indicate that the secondary variable related to (the pattern of communication) has no effect in communication capacity, in terms of low values of (t) calculated for its tabulated value at the level of significance ($\alpha \geq 0.05$). Accordingly, the fourth hypothesis is declined.

When Stepwise Multiple Regression is carried out to determine the importance of each independent variable separately in contributing with the mathematical model, which represents the impact of the dimensions of organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) in (problem solving), Table 15 comes into being to indicate the order of independent variables in the regression equation. The variable of incentives and bonuses ranked first and accounted for 53.4% of the variance of the dependent variable, followed by the variable of participation which, with the variable of incentives and bonuses, accounts for 61.5% of the variance of the dependent variable.

Table 15
The Results of “Stepwise Multiple Regression” to Predict the Communication Capacity of the Dimensions of Organizational Climate as Variables Independent

The order the independent variables the regression equation	R ² the coefficient of accumulated determination	The Value of T calculated	Level of significance T
Incentives and bonuses	0.534	3.658*	0.000
Participation	0.615	3.641*	0.000
Rules and regulations	0.644	4.433*	0.000
Organizational structure	0.660	3.590*	0.000
Technology	0.670	*3.476	0.001

* Statistically significant at the level of $\alpha \leq 0.01$

The pattern of communication was not calculated in the regression of equation.

11.1.5 The Fifth Hypothesis

The organizational climate has no statistically significant

effect (organizational structure, rules and regulations, participation, incentives and bonuses, technology, and the pattern of communication) to encourage creativity as a dimension of creative behavior.

Table 16
The Results of Multiple Regression Analysis to Test the Effect of the Independent Variable Dimensions of Organizational Climate in Innovation Encouragement

The independent variable	B	Regression Error	Beta	T calculated	Significance level T
Organizational structure	0.128	0.061	0.103	2.094**	0.037
Rules and regulations	0.130	0.060	0.102	2.147**	0.032
Incentives and bonuses	0.258	0.058	0.266	4.482*	0.000
Technology	0.246	0.062	0.219	3.946*	0.000
Participation	0.156	0.051	0.170	3.080*	0.002
Pattern of communication	0.107	0.063	0.098	1.607***	0.092

* Statistically significant at the level of ($\alpha \geq 0.01$)
 * Statistically significant at the level of ($\alpha \geq 0.05$)
 ** not significant.

Based on Table 14, Beta coefficients, and T test, the secondary variables related to (incentives and bonuses, participation, and technology) are the dimensions of the organizational climate which are affected by innovation encouragement in terms of high values of (t) calculated 2.326 for its tabulated value at the level of significance ($\alpha \geq 0.01$). Due to Beta coefficients and T test, it can be noted that the secondary variable related to the (organizational structure and regulations and rules) have an effect in innovation encouragement in terms of high value (t) 1.645 calculated at the level of significance ($\alpha \geq 0.05$). The results indicate that the secondary variable related to (the pattern of communication) has no effect in innovation encouragement, in terms of low values of (t) calculated

for its tabulated value at the level of significance ($\alpha \geq 0.05$). Accordingly, the fifth hypothesis is declined.

When Stepwise Multiple Regression is carried out to determine the importance of each independent variable separately in contributing with the mathematical model, which represents the impact of the dimensions of organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) in (problem solving), Table 16 comes into being to indicate the order of independent variables in the regression equation. The variable of incentives and bonuses ranked first and accounted for 53% of the variance of the dependent variable.

Table 17
The Results of “Stepwise Multiple Regression” to Predict the Innovation Encouragement of the Dimensions of Organizational Climate as Variables Independent

The order the independent variables the regression equation	R2 the coefficient of accumulated determination	The value of T calculated	Level of significance T
Incentives and bonuses	0.530	5.043	0.000
Technology	0.590	4.761	0.000
Participation	0.614	3.654	0.000

** Statistically significant at the level of $\alpha \leq 0.01$

The organizational structure, rules and regulations, and the pattern of communication were not calculated in the regression of equation.

FINDINGS AND DISCUSSION

The results indicated that the overall average of the employees’ perceptions at Jordanian universities towards organizational climate (organizational structure, rules and regulations, participation, incentives and bonuses, technology, the pattern of communication) have a medium

degree. The technology ranked first, followed by the regulations; organizational structure ranked third followed by the pattern of communication and participation, respectively.

This result indicates that the organizational climate is considered as one of the stimulating effects to generate new ideas. This kind of climate is characterized by the rule of interaction and dialogue between individuals, existence of cooperation and harmony between them and administration, and the opportunity for growth and development so as to achieve the individual aspirations.

This result is consistent with the result reached by other studies (Alqtaunh, 2000; Hagbani, 1997; Harem & Mansour, 2006; Ayoub, 2000; Halim & Ababneh, 2006; Lapiirre & Girouk, 2003; Maaytah, 2006; Al Khaja, 2006; Alkfawin, 2005; Abu Sheikha, 2005).

The results indicated that the subjects' answers to all dimensions of innovative behavior are with high degrees. The solution of problems ranked first, followed by capacity of communication. The ability to change came third, followed by the encouragement of creativity and the spirit of risk, respectively. This, in turn, indicates that the subjects at the Jordanian private universities have a positive creative behavior, characterized by the desire to solve problems and have the capacity of communication and ability to change. This result is consistent with the findings of other studies, including (Maaytah, 2006; Muasher & Ali, 2004; Jeffery & Trudy, 2006; Harem & Mansour, 2006; Ayoub, 2000).

The results indicated that the dimensions of organizational climate gave a strong relationship with the dimensions of the innovative behavior. The dimensions of organizational climate explain about 79.8% of the variance in the total dependent variable (problem solving), 78.3% of the variance in the dimension of ability to change, 63.7% of the variance in the dimension of (the spirit of risk), 67.2% of the variance in the dimension of capacity of communication, and 62.4% of the variance in the dimension of creativity encouragement. This can be due to the importance of the institution's clear future and the goals that are sought to achieve, through constructing flexible organizational structures, decentralization, and employees' decision-making participation. This result is consistent with the findings of other studies (Harem & Mansour, 2006; Ayoub, 2000; Lapiirre & Girouk, 2003; Maaytah, 2006; Muasher & Ali, 2004; Jeffery & Trudy, 2006; Alinfiei, 2003)

RECOMMENDATIONS

In light of the results obtained, the study suggests a number of recommendations, including:

(1) Adopting creative individuals and developing their creative development in addition to allocating of funds to support innovation at the private universities

(2) Establishing organizational units (a unit of management development) at any university in order to take care of methods of modern management of creative perspectives.

(3) The need to get the physical and intellectual works harmonized due to their importance of integration in the creative processes.

(4) Removing obstacles that limit the administrative creativity by encouraging staff to get rid of fear and anxiety that hamper their creativity and developing the internal motivation they have by adopting the principle of

transparency in the relationship between management and employees.

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