

A PROPOSED MANAGEMENT VISION TO ACHIEVE THE INTERACTIVE ENVIRONMENT IN THE JORDANIAN TECHNICAL COLLEGES DUE TO SOME VARIABLES FROM THE POINT OF VIEW OF THE FACULTY MEMBERS WORKING THERE.

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Abstract

The study aimed to propose a management vision to achieve the interactive environment in the Jordanian technical colleges due to some variables. The study sample consisted of (278) faculty members from the Jordanian technical colleges, who were chosen in a stratified random manner.

The descriptive developmental survey method was used in the current study, and to achieve the objectives of the study, a questionnaire was developed, and its validity and reliability were confirmed.

The study concluded that the degree of the interactive environment in the Jordanian technical colleges due to the variables of: leadership, technology, and incentives from the point of view of the faculty members was average, in addition to statistically significant differences at the significance level ($\alpha \leq 0.05$) according to the variable of gender in all fields in favor of the male category, except for the field of technology. Furthermore, there were no statistically significant differences according to the variable of college type, except for the field of technology. Also, there were no statistically significant differences according to the variable of academic rank in all fields except for the leadership style field in favor of the Associate Professor rank.

According to the results of the study, a management vision was proposed to achieve the interactive environment in the Jordanian technical colleges due to some variables.

The study recommended that higher education institutions adopt the proposed management vision to achieve the interactive environment in their academic departments, and give the subject of the interactive environment the utmost importance so that it encourages studies and research from time to time. In addition, it recommended studying the conditions of the faculty members working there, and their academic, management, economic, social, and psychological problems related to the university work environment, which reflects positively on the outputs of higher education, and supplying the labor market with the distinguished quality of students.

Keywords: Technical Colleges; Interactive Environment.



INTRODUCTION:

Higher education is the key to the economical, social, scientific, and political success of any country. Therefore, if any country wants to raise the level of its society in various fields, it must pay attention to the level of education in general and higher education in particular.

Technical colleges come as educational institutions concerned with: teaching, scientific research, and community service and advancement, which requires those institutions which prioritize higher education in societies to ensure a positive internal environment and healthier atmosphere to be able to carry out their duties and responsibilities towards society as well as the students who constitute the selected elite from all classes of that society. This requires that university leaders work hard to ensure the stability of the university environment to be an incubator for science and knowledge, so as to provide society with all its economic, social, and educational institutions with distinguished competencies, in a way that contributes to raising their level and advancing their services, hence the importance of achieving an interactive environment in university environments.

Numerous studies and research confirm the importance of recognizing the nature of the interactive environment prevalent in any institution with its various dimensions, so that it emerges in its endeavor to adopt policies that will determine the positive aspects, correct the negative aspects, and improve the mental health of its employees and their morale, which is positively reflected in the achievement of the objectives of the institution and satisfying individual and collective needs and desires.

The interactive environment is defined as a set of environmental characteristics of work that enjoy a high degree of stability, as they affect the behavior of individuals and groups and their responses in a way that results in achieving satisfaction, and its reflection on the institution in reaching its goals (Al-louzi, 2010).

THE STUDY PROBLEM AND QUESTIONS:

Any educational institution seeks to achieve an interactive environment in it to achieve the highest levels of productivity efficiently and effectively, so that it focuses on everything that would raise the level of workers and ensure a high level of: interaction, integration, and active participation in achieving the duties and tasks assigned to them. With regard to the technical colleges, the researchers noticed there were many organizational conflicts in these colleges, and the stereotypical decisions in them in light of vertical communications, the absence of one-team management, exclusivity in performance and monopolization of it, and the dominance of the authoritarian leadership style in some management levels within the same educational institution and the lack of involvement of others in the vital activities of the institution. Moreover, the tendency to multiply complex routine procedures, which reflects negatively on the nature of the prevailing relationships in the educational institution - technical colleges - and the predominance of the unhealthy interactive environment, through the results of the studies of: (2002) Al-khashaine, (2003) Al-bashaira, (2004) Azaareer, (2005) Al-refae, (2015) Assmadi, (2015) Al-abaadi.

Therefore, this study seeks to propose a management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives by answering the following questions:

The first question: What is the degree of availability of the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives from the point of view of the faculty members working there?

The second question: Are there any statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the arithmetic means of the responses of the study sample towards the degree



of achieving the interactive environment in the technical colleges due to the variables of: leadership, technology, and incentives attributed to the variables of: (gender, college type, academic rank)?

The third question: What is the proposed management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives?

The fourth question: What is the degree of suitability of the proposed management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives from the point of view of experts and specialists?

THE STUDY IMPORTANCE:

It is hoped that the results of this study will benefit:

- Adding new knowledge in the field of interactive environment and ways to activate it from the theoretical point of view.
- Assisting the educational field and decision-makers and policies in higher education by ensuring the stability of the social system within the higher educational institution, generating loyalty and belonging among its employees, achieving full commitment to its general objectives, and facilitating behavioral control and control in it from the practical point of view.

STUDY TERMINOLOGY:

This study included the following terms:

The interactive environment: (Healthy Organizational Climate) is the internal environment of the organization through which the individual can satisfy his psychological, social, and economic needs, so as to enable him to work with high efficiency and effectiveness within organizational dimensions and standards (Al-hashmy, 2013).

Technical colleges: They are national institutions of higher education in Jordan in which the duration of study is not less than one academic year or its equivalent after the general secondary school certificate or its equivalent, and an intermediate diploma is awarded in the technical specializations available in it (Ministry of Higher Education, 2005).

Delimitations of the Study:

The delimitations of the study included the following:

- Human delimitations: faculty members in Jordanian technical colleges.
- Temporal delimitations: the academic year (2019/2020).
- Spatial delimitations: Jordanian technical colleges.

RELEVANT PREVIOUS STUDIES:

This part will include a presentation of the previous Arabic and foreign studies that were reviewed, arranged historically from oldest to newest, as follows:

Al-attawi (2008) conducted a study aimed at identifying the impact of the interactive environment on the creative behavior of employees in public and private Saudi universities. The sample consisted of (304) employees from public universities, and (116) employees from private universities. The study concluded that the perceptions of employees in public and private Saudi



universities of the organizational climate were at an average degree, and that the perceptions of employees in public and private Saudi universities of creative behavior was at a high degree.

Hanges (2010) conducted a study aimed at evaluating the interactive environment and culture of the staff team at the University of Maryland Library to find out whether there was a diversity and difference in the interactive environment of the university library during the four-year period since (2000), then focusing on the climate of the staff team and the dissemination of organizational information, interpersonal relationships, and a climate of continuous learning. The study sample was chosen randomly, as it was (50) employees out of (294) employees working in the University of Maryland Library, and the study reached some results, the most important of which were:

The climate of the staff team was highly feasible in accomplishing and achieving the tasks entrusted to it, in addition to the existence of a direct relationship between job satisfaction and the incentives provided by the library management to those with effective organizational behavior, and that the interaction of relations between employees and supervisors has a positive impact on the development of work within university libraries.

Bahar (2010) study aimed to identify the impact of the interactive environment on the job performance of management workers at the Islamic University of Gaza.

The sample consisted of (215) male and female employees, and the study concluded that there was a statistically significant positive relationship between the availability of a good interactive environment and the level of job performance of the employees at the Islamic University, and that there were no statistically significant differences in the opinions of the sample members about the degrees of influence of the interactive environment on job performance of employees attributed to: gender, age, educational qualification, and place of work.

Adenike's study (2011) aimed to identify the interactive environment and job satisfaction among faculty members working in southwestern Nigerian middle colleges, and to identify whether there are statistically significant differences between management academics and academics in the prevailing interactive environment in those universities.

The study sample consisted of (380) faculty members, and the results indicated that there was a statistically significant positive relationship between the interactive environment and job satisfaction among academics in the universities of southwestern Nigeria. It also indicated that there were statistically significant differences between management academics attributable to the prevailing organizational climate.

Assmadi's (2015) aimed to identify the interactive environment in Jordanian universities and its relationship to the organizational loyalty of faculty members at Yarmouk and Philadelphia Universities.

The sample included (352) individuals, and the study concluded that the interactive environment prevalent in the universities of Yarmouk and Philadelphia from the point of view of faculty members was positive, and the results showed that there were statistically significant differences between the arithmetic means of the organizational climate in those two universities from the point of view of faculty members attributed to the variables of: academic rank, college type, and experience in all areas of the tool, and the absence of statistically significant differences attributed to the variable of years of experience in all fields except for the fields of incentives and organizational structure.

Al-Abaadi (2015) conducted a study aimed at identifying the reality of the interactive environment prevailing in the public and private Jordanian universities in the central region from the point of view of faculty members.

The study sample consisted of (393) faculty members, who constituted (8.4%) of the total study population. The results indicated that the degree of the interactive environment prevalent in Jordanian universities was average, as it came after relations and communications, which were in the first rank with a high degree, while the leadership behavior came in the last rank with an average degree. They also indicated that there were no statistically significant differences in the total score attributed to gender, while statistically significant differences were found in the total score of the prevailing organizational climate and in: dimensions, organizational structure, and decision-making, incentives and rewards, and professional progress and development, attributed to the academic rank, and in favor of (professors) compared to (teachers), and there are statistically significant differences in the degree of the total interactive environment and the dimensions of morale and incentives and rewards, attributed to specialization, and in favor of scientific specialization. It was also found that there were statistically significant differences in the total interactive environment and dimensions attributed to the college type in favor of public universities.

SUMMARY OF PREVIOUS STUDIES AND HOW THE CURRENT STUDY RELATES TO THEM:

The current study benefited from previous studies in knowing the appropriate methodology and statistical processes to get acquainted with the theoretical framework of the study subjects and their variables through it, and in building the study tool, especially the study of Alabaadi (2015) and the study of Bahar (2010).

The current study agrees with previous studies in reviewing the concept of the interactive environment in institutions of higher education. The current study was similar to previous studies, especially the studies of: Alabaadi (2015) and Assmadi (2015) in terms of the study population, but it was distinguished from those studies in its focus on technical colleges only.

THE METHOD AND PROCEDURES:

Study methodology: The descriptive survey method was used to achieve the objectives of the study.

Study population: The study population consisted of all faculty members in technical colleges, who were (1186), and table (1) shows the distribution of the study population according to the study variables.

Table (1): The distribution of the community according to the variables of the study

Variables	Variable	Number	Total
Gender	Male	756	1186
	Female	430	
Academic Rank	Professor	94	1186
	Associate Professor	106	
	Assistant Professor	158	
	Teacher	828	

College Type	Humanitarian	366	1186
	Scientific	820	

Source: Ministry of Higher Education, 2019.

THE STUDY SAMPLE:

According to the Stephen Thompson equation, the minimum size of the stratified random sample representing the community was calculated at the level of significance ($\alpha \leq 0.05$), and it was (278) faculty members. In anticipation of waste in the sample and indifference in response, the actual sample size was determined as (300) faculty members.

Both researchers distributed the questionnaire to the study sample located in six intermediate university colleges distributed over three regions, namely:

The North Region: It includes Al-Hosn College for Engineering Professions and Ajloun National College.

The Central Region: it includes Al-Salt Humanitarian College and Princess Alia College.

And the Southern Region: It includes Al-Karak College and Al-Shobak College.

Also, (278) questionnaires were retrieved out of (300) questionnaires, and table (2) shows the distribution of the representative study sample that was extracted according to the Thompson equation according to the study variables.

Table (2): The sample is distributed according to the variables of the study

Variables	Variable	Number	Total
Gender	Male	194	300
	Female	106	
Academic Rank	Professor	28	300
	Associate Professor	43	
	Assistant Professor	75	
	Teacher	154	
College Type	Humanitarian	103	300
	Scientific	197	

STUDY TOOL:

The study tool was developed by referring to theoretical literature and some previous studies, such as: Alabaadi's study (2015), and Bahar's study (2010), in order to achieve the objectives of the study and answer its questions.



The study tool consisted in its initial form of (33) items, and in its final form of (29) items distributed over three fields, namely:

Leadership, which consisted of (14) items; technology, which consisted of eight items; incentives, which consisted of seven items.

In order to verify the validity of the tool, the validity of the content was applied, as it was presented in its initial form to (10) arbitrators specialized in the educational management. They were asked to express an opinion on the items of the study tool in terms of the wording of the items, and their suitability for the field in which they were placed, and whether to approve them, amend their wording, or delete them for lack of importance. Their observations were taken into account regarding: amendment, deletion, addition, and merging of items, as the total number became (29) items.

To verify the stability of the tool, the internal consistency coefficient was used according to the Cronbach Alpha equation to extract the stability of the study tool according to the fields. Table (3) shows the stability coefficients of the fields of the tool:

Table 3: Cronbach Alpha stability coefficients for the fields of the study tool

Number	Field	Cronbach Alpha
1	Leadership	0.98
2	Technology	0.95
3	Incentives	0.92

Table (3) shows that the stability coefficients were acceptable.

In order to judge the degree of availability of the interactive environment in technical colleges, the following scale was adopted: a low degree of availability (2.33 or less), an average degree of availability (2.34-3.67), and a high degree of availability (3.68 or more).

STUDY RESULTS AND DISCUSSION:

THE RESULTS RELATED TO THE ANSWER TO THE FIRST QUESTION, WHICH READS: WHAT IS THE DEGREE OF AVAILABILITY OF THE INTERACTIVE ENVIRONMENT IN TECHNICAL COLLEGES DUE TO THE VARIABLES OF: LEADERSHIP, TECHNOLOGY, AND INCENTIVES FROM THE POINT OF VIEW OF THE FACULTY MEMBERS WORKING THERE?

To answer this question, the arithmetic means and standard deviations were calculated for the responses of the study sample in general and for each field of the study, and Table (4) shows that.

Table 4: Arithmetic means, standard deviations, and ranking of the degree of interactive environment in technical colleges due to some variables from the point of view of faculty members

Number	Field	Arithmetic Mean	Standard Deviation	Ranking	Availability

2	Technology	3.55	0.91	1	Average
1	Leadership Style	3.44	0.57	2	Average
3	Incentives	3.29	1.01	3	Average
Grand Total		3.57	0.71	Average	

It is noted from Table (4) that the degree of availability of the interactive environment prevalent in technical colleges was average, with an arithmetic mean of (3.57) and a standard deviation of (0.71). The fields were average, and the field of technology came in the first rank, with an arithmetic mean (3.55) and a standard deviation of (0.91); the incentives field came in the last rank, with an arithmetic mean (3.29) and a standard deviation of (1.01)..

As for the items of each field, the results were as follows:

1. Technology field: The arithmetic means, standard deviations, ranking, and degree of availability were calculated for the items of this field, and Table (5) illustrates this.

Table 5: Arithmetic means, standard deviations, ranking, and degree of availability in the field of technology arranged in descending order

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
1	The department aims to keep abreast of technological developments in the surrounding environment	3.63	1.10	1	Average
6	The computer programs used in the department are easy to use	3.60	1.06	2	Average
7	The (information and data) available in the section is easy to handle	3.60	1.06	2	Average
4	The technology used in the department contributes to the fast completion of the work	3.57	1.10	4	Average
8	The department aimed to deal positively with technological changes in order to improve performance	3.54	1.05	5	Average
5	The technology used in the department contributes to raising the level of quality of services provided to faculty members	3.52	1.09	6	Average

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
2	The department provides the appropriate technical means to carry out the (educational and management) tasks.	3.51	1.09	7	Average
3	The technology used in the department is consistent with work requirements	3.49	1.04	8	Average
Grand Total		3.55	0.91	Average	

It is noted in Table (5) that the degree of availability of the interactive environment in technical colleges in the field of technology was average, as the arithmetic mean was (3.55) with a standard deviation of (0.91). The items of the field were average, as the arithmetic mean ranged between (3.63-3.49). Item (1) came in the first rank, which states: “The department aims to keep abreast of technological developments in the surrounding environment”. Item (3) came in the last rank, which states: “The technology used in the department is consistent with work requirements”.

The researchers attribute this to the lack of material capacity of the technical colleges to provide advanced technology that is commensurate with the work requirements in them, and that the material technology used is outdated and unable to carry out the required workloads or keep pace with the technological developments in the surrounding environment.

2. Leadership field: The arithmetic averages, standard deviations, rankings, and degree of availability were calculated for the items of this field, and Table (6) explains this.

Table (6): Means, standard deviations, rankings, and degree of availability in the field of leadership style

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
2	The academic leadership in the department acts as a representative of the faculty members in external meetings	3.98	0.89	1	High
8	The academic leadership in the department encourages continuous communication with faculty members	3.90	1.01	2	High
7	The academic leadership in the department seeks to apply the instructions strictly	3.81	0.89	3	High
1	The academic leadership in the department retains all (authorities and powers) when	3.79	0.96	4	High

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
	making decisions				
5	The academic leadership in the department takes into account the (capabilities and capacities) of the faculty members when assigning academic responsibilities to them	3.76	1.03	5	High
12	Academic leadership in the department provides feedback to faculty members on academic issues	3.69	0.96	6	High
11	The academic leadership in the department takes different perspectives of faculty members when solving problems	3.68	0.97	7	High
10	The academic leadership in the department seeks to meet the needs of the faculty member positively	3.55	1.06	8	Average
9	Academic leadership in the department provides opportunities for faculty members to develop their capabilities	3.53	1.16	9	Average
14	The academic leadership in the department delegates (powers and authorities) to faculty members to facilitate the performance of tasks	3.47	1.05	10	Average
13	The academic leadership in the department meets with each member of the faculty separately to discover his problems	3.13	1.21	11	Average
3	Academic leadership in the department depends on the method of participation in its dealings with faculty members	2.86	1.30	12	Average
4	The academic leadership of the department constantly	2.66	1.36	13	Average

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
	consults with faculty members				
6	When a faculty member discusses topics of academic work, it is a waste of time according to the academic leadership in the department	2.44	1.34	14	Average
Grand Total		3.44	0.57	Average	

It is noted in Table (6) that the degree of availability of the interactive environment in technical colleges from the point of view of faculty members in the field of leadership style was average, as the arithmetic mean was (3.44), the standard deviation was (0.57), and the arithmetic averages ranged between (3.98-2.44). Item (2) came in the first rank, which states: "The academic leadership in the department acts as a representative of the faculty members in external meetings"; this is due to the academic leadership in the department having the ability to act and good management of matters and its extensive knowledge of their conditions in the department, which generated confidence among the faculty members in the ability of the academic leadership in the department to represent them and claim their rights. Item (6) came in the last rank, which states: "When a faculty member discusses topics of academic work, it is a waste of time according to the academic leadership in the department "; this may be attributed to the high level and distinguished competence enjoyed by the faculty members in carrying out their academic tasks, which established an internal trust among the academic leadership in the department of the ability of the faculty members to present useful proposals, while bearing in mind that the discussion of faculty members on academic work topics is very important, and it will positively reflect on the performance of the department.

3. Incentive field: The arithmetic averages, standard deviations, ranking, and degree of availability were calculated for the items of this field, and Table (7) explains this.

Table 7: Arithmetic means, standard deviations, rankings, and degree of availability in the field of incentives

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
1	Moral motivation in the department enhances my performance	3.57	1.25	1	Average
3	The department in which I work has positive and safe climates	3.53	1.19	2	Average
2	Financial motivation in the department enhances the performance	3.35	1.29	3	Average
7	The incentives provided by	3.27	1.19	4	Average

Number	Item	Arithmetic Mean	Standard Deviation	Ranking	Availability
	the department's management enhance the loyalty of the faculty members to the continuity of work in the department				
5	The department management takes into account the responsibilities related to the workload in relation to promotions	3.23	1.15	5	Average
4	Outstanding achievement in my department is rewarded	3.08	1.24	6	Average
6	The department management encourages faculty members to propose new systems related to incentives	3.02	1.23	7	Average
Grand Total		3.29	1.01	Average	

It is noted in Table (7) that the degree of availability of the interactive environment in the technical colleges in the field of incentives was average, as the arithmetic mean was (3.29), the standard deviation was (1.01), and the arithmetic means ranged between (3.57-3.02). Item (1) came in the first place, which states: "Moral motivation in the department enhances my performance". Item (6) came last, which states: "The department management encourages faculty members to propose new systems related to incentives". This may be due to the weak ability of the academic leadership in assessing the total work and tasks carried out by the faculty member represented by teaching, scientific research, and community service. Moreover, the researchers attribute this to the prevalent belief of the department management in the incentive systems, and that they are sufficient and satisfy the human needs of the faculty members, and that there is no justification for new systems related to raising the level of the available incentives. On the other hand, this may be due to the high expectations of the faculty members regarding their need to assign them exciting work, as the desire of the faculty members to use and develop their capabilities is clear from the items of the field of incentives, and to obtain positive and negative feedback through feedback channels to know the results of the tasks they perform, in addition to the need for faculty members to be more motivated to assume a leadership position among their colleagues at work.

The results related to the answer to the second question, which read: Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the arithmetic means of the responses of the study sample towards the degree of achieving the interactive environment in the technical colleges due to the variables of: leadership, technology, and incentives attributed to the variables of: (gender, college type, academic rank)?

This question has been answered as follows:

Are there statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the arithmetic means of the responses of the study sample towards the degree of achieving the

interactive environment in the technical colleges due to the Likert model due to the variables of: (gender, college type, academic rank)?

A. Gender variable: The arithmetic means and standard deviations were calculated, and the (t-test) was tested according to the variable of gender, and Table (8) shows that.

Table (8): Means, standard deviations, and t-test according to the variable of gender

Field	Gender	Number	Arithmetic Mean	Standard Deviation	T value	Significance Level
Leadership Style	Male	182	3.48	0.57	1.975	**0.049
	Female	96	3.35	0.56		
	Total	278	3.41	0.56		
Technology	Male	182	3.58	0.92	0.892	0.373
	Female	96	3.49	0.91		
	Total	278	3.53	0.91		
Incentives	Male	182	3.36	1.02	2.152	**0.032
	Female	96	3.12	0.98		
	Total	278	3.36	1.00		
Grand Total	Male	182	3.63	0.82	2.559	0.011**
	Female	96	3.43	0.83		
	Total	278	3.53	1.65		

** The difference is statistically significant at the significance level ($\alpha \leq 0.05$).

To determine whether the differences between the averages are statistically significant at the level of significance ($\alpha \leq 0.05$), a t-test was applied, as the results in Table (8) indicate that there are statistically significant differences at the level of significance ($\alpha \leq 0.05$) according to the variable of gender based on the calculated (T) value, which amounted to (2.559), with a level of significance (0.011), where the difference was in favor of males as evidenced by their high arithmetic averages. In the field of leadership, the researchers attribute this to the limited ambition of women and their weak desire to reach leadership positions, unlike males who have a high level of aspirations to assume leadership positions, and this was confirmed by Alghamdi's study (2015), as the value aspect derived from ideology and the norms of eastern society constitutes an obstacle that prevents the female from interacting significantly with her colleagues, especially with the male colleagues, and identifying the economic, social, and psychological pressures and problems that they go through inside and outside the boundaries of work. This was confirmed by the study of Alshwehat (2016). As for incentives, the researchers attribute this to the fact that incentives, especially financial ones, have a high degree of acceptance among males, since males are in the position of providing for their families and loved ones. Thus, motivation appears more in males than in females.

The results also showed that there are no statistically significant differences in the field of technology, and the researchers attribute this to the fact that technology stands in a gender-

neutral manner in terms of: provision, development, keeping up with it, and working to use it in academic tasks.

B. College type variable: The arithmetic means and standard deviations were calculated, and the t-test was calculated according to the variable of college type. Table (9) shows that.

Table (9): Means, standard deviations, and t-test according to the variable of college type

Field	Gender	Number	Arithmetic Mean	Standard Deviation	T value	Significance Level
Leadership Style	Humanitarian	114	3.42	0.57	-0.834	0.405
	Scientific	164	3.47	0.56		
	Total	278	3.44	0.56		
Technology	Humanitarian	114	3.46	0.92	-2,438	**0.015
	Scientific	164	3.69	0.91		
	Total	278	3.57	0.91		
Incentives	Humanitarian	114	3.29	1.02	0.059	0.953
	Scientific	164	3.29	0.98		
	Total	278	3.29	1.00		
Grand Total	Humanitarian	114	3.53	1.64	-1.284	0.200
	Scientific	164	3.63	1.67		
	Total	278	3.58	1.65		

** The difference is statistically significant at the significance level ($\alpha \leq 0.05$).

To determine whether the differences between the means are statistically significant at the level of significance ($\alpha \leq 0.05$), a t-test was applied, as the results in Table (9) indicate that there are no statistically significant differences at the level of significance ($\alpha \leq 0.05$) according to the variable of college type based on the calculated (T) value, which amounted to (-1.284) with a level of significance of (0.200), as the difference was in favor of intermediate scientific university colleges, as evidenced by their high arithmetic averages. This is attributed to the prevailing leadership style that is characterized by democracy and consultation, which is reflected in the high level of participation of faculty members in intermediate scientific university colleges in decision-making, as well as the continuity of communication between faculty members in the academic department of scientific colleges, since their courses intersect with each other, which imposed a state of moving away from the complexity of communication and interaction with each other on the one hand, and with the management of the department on the other hand, which makes the department's management more aware of the level of difficulties and obstacles that a faculty member in the department is exposed to. Therefore, it focuses on giving attention to the faculty member, providing capabilities and allowing him to participate in seminars and external courses, which contributes to improving his academic and living standards.

C. Academic rank variable: The arithmetic means and standard deviations were calculated according to the variable of academic rank, and Table (10) shows that.

Table 10: Arithmetic means and standard deviations according to the variable of academic rank

Field	Academic Rank	Number	Arithmetic Mean	Standard Deviation
Leadership Style	Professor	23	3.53	0.65
	Associate Professor	38	3.62	0.60
	Assistant Professor	71	3.36	0.51
	Teacher	146	3.38	0.58
	Total	278	3.47	0.58
Technology	Professor	23	3.56	0.88
	Associate Professor	38	3.69	0.92
	Assistant Professor	71	3.49	0.91
	Teacher	146	3.57	0.96
	Total	278	3.75	0.91
Incentives	Professor	23	3.33	1.09
	Associate Professor	38	3.43	1.00
	Assistant Professor	71	3.29	0.98
	Teacher	146	3.05	1.04
	Total	278	3.27	1.02
Grand Total	Professor	23	3.61	1.59
	Associate Professor	38	3.69	1.73
	Assistant Professor	71	3.54	1.61
	Teacher	146	3.45	0.84
	Total	278	3.57	1.44

It is noted from Table (10) that there are apparent differences between the arithmetic means according to the variable of academic rank, as those in the category of (Associate Professor) got the highest arithmetic mean of (3.69), those in the category of (Professor) came in the second rank as the arithmetic mean was (3.61), and those in the category of (teacher) came in the last rank as the arithmetic mean was (3.46). To determine whether the differences between the means were statistically significant at the significance level ($\alpha \leq 0.05$), a One-Way ANOVA was applied, and the results of the ANOVA were as shown in Table (11).

Table (11): One-Way ANOVA to find the significance of differences according to the variable of academic rank

Field	Source of Contrast	Sum of Squares	Degrees of Freedom	Mean of Squares	F Value	Significance Level
Leadership	Between Groups	4.344	3	1.448	4.562	**0.004
	Within Groups	379.819	349	1.088		
	Total	384.163	352			
Technology	Between Groups	2.295	3	0.765	0.906	0.438
	Within Groups	290.198	349	0.831		
	Total	292.493	352			
Incentives	Between Groups	5.069	3	1.690	1.646	0.178
	Within Groups	233.309	349	0.668		
	Total	238.378	352			
Grand Total	Between Groups	3.076	3	0.316	0.633	0.56
	Within Groups	295.151	349	0.311		
	Total		352			

** The difference is statistically significant at the significance level ($\alpha \leq 0.05$).

The results in Table (11) indicate that there are no statistically significant differences at the level ($\alpha \leq 0.05$), according to the variable of academic rank based on the calculated F value, as it amounted to 0.633 with a significance level of (0.56) in all fields except for the field of leadership. In the field of incentives, the researchers attribute this to the interest of faculty members who are in the categories of professor, assistant professor, and teacher in incentives, material gains, and

advisory positions in a way that meets their aspirations and helps them develop their capabilities and capacities, so that they become able to achieve their hopes and professional expectations in promotion and professional advancement. In the field of technology, the researchers attribute this to the conviction of the faculty members in the available technology, and the ability to adapt to the available equipment and tasks that help them in performing their academic duty in a satisfactory manner. As for the field of leadership, the researchers attribute this to the need of the faculty members to be involved in everything related to the teaching process in terms of allowing the field to decide the teaching courses, attend meetings, listen to their opinions and take them into consideration, and give them the opportunity to participate in workshops on behalf of the department in expressing the size of the capabilities and capacities needed by the department and the delegation of powers to them, and enabling them to conclude agreements with external donors regarding the development and modernization of the college in general, and the academic department in particular. The differences came in favor of the category of (Associate Professor) when compared to the category of (Assistant Professor) in the field of leadership, in favor of the category of (Associate Professor) when compared to the category of (Assistant Professor) in the field of technology, and in favor of the category of (Associate Professor) when compared to the category of (Teacher) in the field of incentives. To find out the return of the differences according to the variable of academic rank in the fields, the Scheffe test for differences was used as shown in Table (12).

Table 12: Scheffe test for post-differences attributed to the variable of academic rank

Academic Rank	Arithmetic Mean	Professor	Associate Professor	Assistant Professor	Teacher
		3.61	3.69	3.54	3.45
Professor	3.61	-	0.955	0.954	0.710
Associate Professor	3.69	0.955	-	0.497	0.256*
Assistant Professor	3.54	0.954	0.497	-	0.835
Teacher	3.45	0.710	0.256	0.835	-

The difference is statistically significant at the level ($\alpha \leq 0.05$).

Table (12) shows that the difference came in favor of the category of (Associate Professor) when compared with the category of (Teacher).

The results related to the answer to the third question, which reads: What is the proposed management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives?

The results of the third question produced a proposed management vision to achieve the interactive environment in technical colleges in the light of the variables: leadership, technology, and incentives, which are referred to in Table (13). In this regard, the desired benefit from that vision, which seeks to achieve efficiency and effectiveness in those variables - leadership, technology, and incentives - becomes clear, and includes a kind of balance between conflicting trends. Therefore, the desired benefit from that management vision can be highlighted as follows:

- Completing tasks and works at various management levels with the least possible: time, effort, and financial cost, and with the highest expected return.

- Carrying out tasks and works within a unified method that guarantees the rights of workers - faculty members - and beneficiaries - students - in the college's internal and external environments.
- Implementing control and evaluation in its various stages with regard to the implementation of performance with ease.
- Providing a unified guide for the stages and the detailed steps applied in the academic department, so that it constitutes a guide for all faculty members, as well as the beneficiaries of the students.
- Contributing to eliminate immoral organizational actions effectively, especially the management corruption in the organization, by following the guidance of preventive rules and legal legislation to address cases in which organizational diseases prevail.

Table (13): A proposed management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives.

Number	Action	Relevance	Not Suitable	Comments
Leadership Field				
1	That the QCC (Quality Control Circle) strategy be based on the leadership style used to enhance the participatory dimension and to adopt majority voting as a consistent management approach.	10	-	-
2	That the performance of faculty members be measured according to objective and realistic criteria on the basis of mutual trust based on improving performance.	10	-	-
3	That the powers be delegated to faculty members on the basis of career maturity.	8	2	-
4	That the objectives of the academic department be transformed into procedures that can be evaluated and judged based on them.	10	-	-
5	To work on interacting with the needs of faculty members, and to adopt an open door policy to identify their issues in order to deal positively with them.	9	1	-
Technology Field				
16	To provide appropriate technical means to carry out academic tasks.	10		-
17	To have the opportunity to obtain the necessary information through the creation of technological	9	1	-

	applications at the department level that are concerned with academic tasks.			
18	To adopt a strategy of continuous individual and group organizational learning that is based on interaction with the surrounding environment and all its developments, and work to keep pace with them.	10	-	-
19	That agreements be concluded with computing companies and technological technologies to provide the faculty member with all the technologies he needs to help him accomplish his tasks and manage his life affairs with ease.	8	2	-
20	To allocate means to maintain the devices and technologies available in the department on a regular basis, and to form inspection committees of faculty members to ensure their effectiveness.	9	1	-
Incentive Field				
26	That the department management should reveal the motivational reasons for each faculty member in a more transparent manner to ensure that no conflict arises between the employees.	9	1	
27	That the department management should seek to activate the motivation process, starting with verbal praise and ending with promotion and placement to attend (external or local course or seminar) that will benefit the faculty member morally and financially at the same time.	10	-	-
28	That the department management take into account the responsibilities related to the workload in relation to promotions.	9	1	-
29	That the department management should recognize the needs of the faculty members and deal with them positively.	10	-	-
30	To allow faculty members to	8	2	-



	participate in the profits of education revenues by allocating a specific percentage for each faculty member that allows him to participate in the shares of the educational organization, which generates loyalty among the faculty member towards his organization.			
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The results related to the answer to the fourth question, which reads: What is the degree of suitability of the proposed management vision to achieve the interactive environment in technical colleges due to the variables of: leadership, technology, and incentives from the point of view of experts and specialists?

Where the reliability of the content revealed the suitability of the proposed management vision to achieve the interactive environment in the Jordanian technical colleges due to the variables of: leadership, technology, and incentives. This can be attributed to the effectiveness of the proposed vision and its applicability, as it addresses the prevailing reality with regard to the interactive environment and focuses on its details; this is confirmed by the opinions of experts and specialists, who were (10) experts and specialists, and the degree of its suitability was determined by presenting it to them, as the degrees of suitability refer to the following:

- Suitable: 5 degrees and above.
- Not Suitable: less than 5 degrees.

In view of the estimates of experts and specialists for the degree of suitability of the procedures of the proposed management vision, it is possible for faculty members within the university environment to work in light of this proposed management vision and the possibility of achieving it.

This may be due to the possibility of using the proposed management vision to improve the organizational climate, and to elevate it to the highest degrees of truth, by following the specific sequence of all the procedures contained therein, according to the work priorities that draw the features of the interactive environment in the same organization. Furthermore, it is due to the need of the teaching staff in technical colleges of a democratic consultative leadership style and a large area of the availability of high-level technology, keeping abreast of technical developments in the surrounding environment, as well as the urgent need to take care of their psychological, economic, and social affairs, so that they become active in their academic work, and instill in them the spirit of: competitiveness, creativity, and innovation, and this requires the availability of that proposed management vision.

RECOMMENDATIONS:

Based on the previous results, the researchers recommended the following:

1. That the university administrations give the issue of the interactive environment the utmost importance in terms of studying the conditions of the faculty members working for them, and their economic, social, and psychological problems related to the university work environment on a regular basis.
2. That the university departments work on strengthening the systems of financial and moral motivation, appreciating superior effort, and rewarding outstanding achievement.
3. Conducting conferences, seminars, and periodic meetings between senior management of intermediate university colleges on the one hand, and faculty members on the other hand, to discover their issues and listen to their opinions and suggestions.

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