

## The Role of Knowledge in Supporting Structural Change

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Received: 12/03/2025

Accepted: 22/05/2025

Published: 28/06/2025

### Abstract:

This study aimed to identify the role of knowledge, in its three dimensions: knowledge diagnosis, knowledge storage, and knowledge sharing, in supporting the change process in the structural domain. A descriptive approach was used to test the study's hypotheses. Data was collected through the distribution of a questionnaire specifically designed for this hypothesis and processed using SPSS<sub>25</sub>. The study concluded that knowledge management has a positive impact on supporting the change process in the structural domain. It also demonstrated that the knowledge management processes that influence the change process in the structural domain are knowledge diagnosis, knowledge storage, and knowledge sharing within the organization. The study also recommended encouraging knowledge sharing among individuals, establishing digital systems for knowledge storage, and integrating knowledge management into strategic planning.

### Keywords:

Knowledge, Knowledge management, Knowledge diagnosis, Change, Structural change.

### Introduction:

In light of the radical transformations our contemporary world is witnessing at the economic, technological, and organizational levels, knowledge management has become one of the strategic pillars upon which organizations rely to ensure their continuity and enhance their competitiveness. Knowledge is no longer merely a supporting resource; it has become a fundamental intellectual capital that guides decisions and supports organizational change in all its dimensions and areas, particularly in the structural realm.

Knowledge management plays a pivotal role in reshaping organizational structures by facilitating the flow of information, sharing experiences, and stimulating creativity within organizations. By utilizing its tools and mechanisms, it enables organizations to dismantle traditional management patterns and build structures that are more flexible and responsive to environmental changes. It also contributes to improving the performance of administrative functions such as planning, organizing, directing, and controlling by enabling decision-makers to access relevant explicit and tacit knowledge.

Thus, exploring the relationship between knowledge management and structural change opens up important research avenues, particularly within management sciences, aimed at improving organizational performance and enhancing effectiveness and efficiency. Hence, the importance of studying this topic to understand how knowledge management contributes to driving change towards more adaptable and innovative organizational models in the context of a rapidly evolving business environment.

### **Problem Statement:**

In the face of the accelerating challenges facing contemporary organizations, traditional organizational structures are no longer able to efficiently respond to the demands of change and development. With the growing importance of knowledge management as a strategic tool, the question arises as to its ability to bring about a real transformation in the organizational structure, achieving a balance between organizational stability and management flexibility.

Hence, the study poses the following main problem: Does knowledge management play a role in supporting structural change?

This fundamental question involves several sub-questions, including:

Does knowledge diagnosis play a significant role in supporting structural change?

Does knowledge storage play a significant role in supporting structural change?

Does knowledge sharing play a significant role in supporting structural change?

### **Hypotheses:**

**Main hypothesis:** Knowledge management plays a role in supporting structural change.

#### **Sub-hypotheses:**

Knowledge characterization plays a significant role in supporting structural change.

Knowledge storage plays a significant role in supporting structural change.

Knowledge sharing has a significant role in supporting structural change.

**Study Objectives:** This study aims to:

- ❖ Analyze the theoretical concepts associated with knowledge management and structural change in the context of business administration.
- ❖ Explore the role of knowledge management in supporting organizational change processes in terms of structure and organization.
- ❖ Identify the relationship between knowledge management processes and systems and performance effectiveness among organizational members.
- ❖ Propose practical approaches for employing knowledge management as an effective tool in redesigning organizational structures.

### **Significance of the Study:**

The importance of this study stems from the growing interest in knowledge management concepts as a strategic tool for activating change within organizations, particularly in an environment characterized by continuous change and increasing complexity. In this context, the study gains particular importance through its contribution to enriching the scientific literature related to knowledge management and organizational change, by highlighting the links between knowledge management practices and structural transformations within organizations. It also enhances the theoretical understanding of the interaction of management systems with the dynamics of institutional change.

Amid the growing trend toward digital transformation and the adoption of innovation as a strategic option, linking knowledge management with structural change enables organizations to address competitive challenges and develop their internal structures in line with external variables.

### **Study Methodology:**

This study relied on the descriptive approach, which we consider appropriate for its subject matter. The descriptive approach was used in some aspects of the study related to presenting

concepts related to variables, and the analytical approach was used to comment on what was described. A questionnaire was used to collect, analyze, and process data using SPSS<sub>25</sub>.

**Study Plan:** This study will cover the following topics:

- ❖ Axis One: The conceptual framework of knowledge management.
- ❖ Axis Two: The theoretical framework of structural change.
- ❖ Axis Three: A field study at the Higher School of Teachers in Bechar.

## **1.The conceptual framework of knowledge management.**

### **1.1. The concept of knowledge**

❖ A set of activities for processing data, managing information flows, developing databases, and documenting business activities within an organization (Malhotra, 2000).

❖ These are the procedures in the organization that include the process of collecting, forming, and publishing in the form of technical, economic, and social information, with informing the employees of it, so that every individual in the organization can be informed of its conditions, so that he can take appropriate positions and take precautions for the future (A.R.François, 1988).

Knowledge is the data, information, guidelines and ideas that a society possesses in a specific semantic and historical context, and directs human behaviour, individually or institutionally, in the areas of human activity in the production of goods and services (Al-Ziyadat, 2008).

❖ It is a combination of experiences, values, and information that forms the basis for evaluating, analyzing, and integrating experiences and information, generated and created by scientists (Tait, 2010).

❖ Knowledge is the important and final outcome of the use and investment of information by decision makers and other users, who transform information into knowledge and productive action that serves them and their communities (Abdul Sattar Al-Ali, 2006).

❖ This information is recorded in documents, records, files, information stores, and various actions, policies, methods, strategies, and applications, to accomplish the organization's tasks and functions (Prusokl, 1998).

### **1.2. The importance of knowledge**

Knowledge also gains its essential importance through its connection to the concept of competitive advantage, something all organizations seek today and which they can only achieve by properly utilizing their internal resources, of which knowledge is a key component. The importance of knowledge can be highlighted in specific points, as follows (Salah, 2005):

❖ Knowledge has contributed to the flexibility of organizations by encouraging them to adopt more flexible forms of coordination, cognitive design, and structure.

❖ Knowledge has stimulated the creativity and continuous innovation of organizational members and research teams.

❖ Knowledge has transformed organizations into knowledge communities to adapt to the rapidly changing business environment and confront its increasing complexity.

❖ Knowledge itself has been utilized as a final product through selling it, using it to modify a specific product, or creating new ones.

❖ Knowledge has become the foundation for creating and sustaining competitive advantage.

❖ Human knowledge is the primary source of value.

❖ It strengthens organizations' ability to cope with unstable and complex environmental changes and motivates them to renew themselves (Ahmed, 2012).

### 1.3. Types of knowledge

Knowledge may be private and monopolized by its owner, or it may be left for public use. Accordingly, knowledge is divided into two types (Nonaka, 1995):

**1.3.1. Tacit knowledge:** This refers to everything monopolized and stored within an individual or organization. It is not easily transferable to others, nor is its transfer free of charge.

**1.3.2. Explicit knowledge:** This refers to what is present or recorded in books, publications, archives, and the like. This type is characterized by its ease of transfer or transferability to others.

### 1.4. Knowledge economy

The knowledge economy is an economy based on the production and management of knowledge within the framework of specific economic determinants. It differs from the knowledge-based economy, which uses knowledge technologies such as knowledge engineering and knowledge management. In the knowledge economy, knowledge is a product, while in the knowledge-based economy, it is a tool.

is an economy that shifts the center of gravity from raw materials and capital equipment to information, knowledge, education, training, and scientific research centers (Mahmoud, 2019).

### 1.5. Knowledge management processes

Are all systematic and organized processes for achieving the optimal use and production of knowledge, starting with its generation and developing effective methods for its renewal. Knowledge generation leads to its renewal, then its addition and integration with other knowledge, which develops human resource expertise, and then its sharing and application with individuals within the organization. We will explain below:

#### 1.5.1. Knowledge Diagnosis:

Identifying the knowledge gap in an organization requires a thorough understanding and objective comparison between the organization's current knowledge assets and the knowledge assets required by the organization (Al-Ziyadat A. M., 2008).

#### 1.5.2. Knowledge Storage:

The retention of knowledge after sharing it among individuals and recording it in the organizational memory for the purpose of continuity, achieving goals, and developing services (al-Kubaisi, 2013).

#### 1.5.3. Knowledge Sharing:

This implies sharing knowledge within the organization while ensuring that it reaches those seeking it in a timely manner and is distributed without any obstacles. This is achieved through education and training aimed at solving problems (Razzaq., 2015).

#### 1.5.4. Knowledge Application:

Transforming knowledge into operational processes and leveraging it for decision-making. This implies using acquired information and knowledge in practical situations to make decisions, solve problems, and improve performance. It serves as a bridge between theory and practice, transforming abstract knowledge into concrete actions (al-Hawsh, 2016).

## **2.The theoretical framework of structural change.**

### **2.1. The concept of change:**

- ❖ It includes every transition from one state to another in space and time, i.e., the shift from the current state to the target equilibrium point (Al-Sayed, 2000).
- ❖ It is a natural result of the change that occurs in organizations, and the ability to adapt and balance with the changes that occur in the organization's environment (Poulot, , 1997).
- ❖ A thoughtful, long-term process aimed at adapting to the internal environment of change, thereby continuing to achieve organizational development and excellence. It also includes changes in strategy, organizational structure, technology, performance, work procedures, and more (Idris, 2003).
- ❖ Organizational change is the result of modifying organizational behavior for the purpose of organizational development and growth. This implies a tangible change in individual behavior patterns in line with the requirements of the organizational environment (Wind, 1999).

### **2.2. Change in the structural field:**

- ❖ In an environment characterized by uncertainty, turmoil, rapid change, and the constant need to adapt to new and unforeseen variables, many researchers believe that organizational structures are temporal. Teams, which require a degree of coordination and cooperation in an uncertain environment, must be regularly updated to ensure their continuity and continued operation (AwadAllah, 1995).
- ❖ Structural change is a process aimed at bringing about change by modifying an organization's organizational structure. This includes altering the clear institutional framework of the organization's components, including its departments and branches, modifying and defining all its levels, updating the communication mechanisms through which they interact, and revamping the activities they undertake. It is a change at the activity level, encompassing powers and tasks (Al-Kubaisi, 1998).
- ❖ Structural change includes any change in any dimension or component of the organizational structure: delegation, scope of management, work design, and specialization (Al-Sharif, 2000).
- ❖ Structural change involves restructuring an organization to align with its objectives and evolve with its surrounding environment. It also seeks to correct flaws and errors in various organizational activities and relationships, while uncovering any existing shortcomings with the goal of achieving a better organization (El-Masry, 1997).
- ❖ Through the process of structural change, jobs are reorganized, responsibilities are assigned, communication methods are redesigned, and channels of authority and responsibility are renewed. This is in addition to the creation and elimination of organizational units, which necessitates changes in other organizational elements, including personnel, policies, capabilities, systems, and procedures (Al-Salami, 1983).

### **2.3. Factors of Change in Organizational Structure**

- ❖ There are several factors that require a change in the organizational structure, including (Fattah, 2013):
- ❖ A design error in the basic organizational structure that became apparent after its adoption, such as an unjustified increase in the number of management levels, an expansion of the scope of supervision, a failure to adhere to the principle of specialization, or an inappropriate geographic distribution.

- ❖ Reorganization is intended to prevent undesirable managerial behaviors, such as abuse of authority, administrators' unsuitability for their jobs, and dereliction of duty.
- ❖ Changing the standards and principles adopted by the organization, such as discovering new work methods and introducing modern equipment, requires a radical change in the organizational structure.
- ❖ A change in the organization's strategy and objectives.
- ❖ Changing economic conditions for the organization, such as periods of recovery or decline, or changing legal obligations, require a review of the organizational structure to address them (Al-Amian, 2004).

### **3.A field study at the Higher School of Teachers in Bechar.**

#### **3.1. The study population is the Higher Teachers' School in Bechar.**

Study population and sample: The study population consists of employees of the Higher Teachers' School in Bechar. This is due to the school's high academic activity, its reliance on a more dynamic environment, particularly in the field of modern technology, and its interaction with students from all disciplines. It also possesses the data and information necessary for our study

#### **3.2. Study Model:**

The study aims to test the impact of independent variables, specifically knowledge management processes, on the dependent variable, which is change in the structural domain.

#### **3.3. Descriptive statistics of the study sample's responses**

A- The values of the arithmetic means and standard deviations of the sample members' answers to the independent variable of knowledge management and its dimensions.

**Table 01:** Arithmetic means and standard deviations for the knowledge diagnosis dimension in the organization

Phrases	Arithmetic mean	Standard deviation	Level according to averages
The organization clearly identifies the knowledge gap.	1.24	0.741	weak
The organization seeks to monitor its knowledge capabilities.	4.29	0.871	strong
The organization maintains a staff directory to identify its expertise.	4.29	0.579	strong
The organization clearly identifies the areas of interest of its knowledgeable employees.	4.21	0.592	strong
The organization seeks to accurately locate knowledgeable individuals.	4.24	0.654	strong
Knowledge Diagnosis	3.6529	0..3386	Average

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

The table above, as well as the statistical results, indicates that the arithmetic means (means) for all items related to the knowledge diagnosis dimension were within good (strong) levels, with the exception of one item whose results were weak, ranging between 1.24 and 4.29. This disparity indicates that most statements related to knowledge diagnosis were available and

supported within the organization, as evidenced by the overall mean for all items, which reached 3.6529. This value reflects a positive degree of perception among sample members regarding the level of knowledge diagnosis.

As for the standard deviation, which measures the extent of dispersion of responses around the mean, it ranged between 0.579 and 0.871, all of which are positive and moderate values, indicating relative agreement among sample members' opinions and the absence of significant variation in their assessment of the items. This conclusion is also confirmed by the overall standard deviation, which reached 0.338660, indicating that the overall variance in responses is relatively low, reflecting the stability of sample members' assessment of knowledge diagnosis practices within the organization.

**Table 02:** Arithmetic means and standard deviations of the knowledge storage dimension in the organization

Phrases	Arithmetic mean	Standard deviation	Level according to averages
The organization seeks to selectively preserve knowledge.	4.15	0.3590	strong
The organization has an incentive system to encourage knowledge transfer.	3.82	.6260	strong
The transfer of knowledge and expertise is organized upwards in the organization's career ladder.	4.32	.5890	strong
The organization has advanced storage and processing facilities.	3.47	.7880	Average
The organization seeks to continually update its database.	4.09	.8660	strong
Knowledge Storage	3.9706	.375400	strong

the organization

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

It is noted from the table above that the arithmetic means of all paragraphs were strong except for one paragraph that was average, as its value ranged between (3.47 - 4.32). This suggests the availability of phrases related to the dimension of knowledge storage in the organization, and this is indicated by the general mean of all paragraphs of the knowledge storage dimension, which reached a value of (3.9706), while we see that the standard deviation of all paragraphs ranged between (0.3590 - 0.8660), which are all positive values. This suggests the agreement of the individuals of the studied sample regarding their answers related to the paragraphs of the independent variable in the dimension of knowledge storage in the organization, and this is indicated by the total standard deviation, which reached (0.3754).

**Table 03:** Arithmetic means and standard deviations for the knowledge sharing dimension in the organization

Phrases	Arithmetic mean	Standard deviation	Level according to averages
The organization holds regular conferences	4.26	0.6180	strong

and seminars to update its members' knowledge.			
The organization is committed to enabling individuals to easily access knowledge.	4.00	.8160	strong
The organization encourages all methods of transferring and sharing tacit knowledge.	4.50	.8260	strong
The organization uses formal and informal networks to disseminate knowledge.	4.41	.8570	strong
The organization ensures that all its members have access to knowledge in a timely and appropriate manner.	4.51	.8220	strong
Knowledge Sharing	4.2941	.441550	strong

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

It is noted from the table above that the arithmetic averages of all paragraphs were strong, as their value ranged between (4.00 - 4.50), and this indicates the availability of statements related to the knowledge sharing dimension, and this is what is shown by the general average of all paragraphs of comprehensive diversification, as it reached a value of (4.2941), while we see that the standard deviation of all paragraphs ranged between (0.6180 - 0.8570), which are all positive values, and this indicates the agreement of the individuals of the studied sample regarding their answers related to the paragraphs of the independent variable in the knowledge sharing dimension, and this is shown by the total standard deviation, which reached (0.44150).  
B- Arithmetic means and standard deviations of sample members' responses to the dependent variable "scope of structural change in the organization.

C-

**Table 04:** Arithmetic means and standard deviations for the dependent variable "scope of structural change."

Phrases	Arithmetic mean	Standard deviation	Level according to averages
The organization is working to change its reward and performance appraisal system.	4.18	0.3270	strong
Revamping communication lines and workflows helps the organization excel.	3.94	0.6000	strong
The organization is able to change its organizational structure.	4.21	0.4100	strong
The organization is developing sub-departmental structures and job distribution.	4.03	0.5210	strong
The organization is contributing to the development of work methods.	4.38	0.5510	strong
The organization conducts ongoing performance evaluations.	4.09	0.6210	strong
Developing an organization's control system helps it excel.	3.99	0.8210	strong
The organization distributes jobs appropriately.	4.03	0.6270	strong
The organization contributes to developing	3.88	0.9770	strong



interpersonal relationships.			
The organization contributes to developing research methods and structural change.	3.94	0.9520	strong
The scope of structural change	4.0392	0.3607	strong

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

It is noted from the previous table that the arithmetic means for all paragraphs were strong, with the exception of one paragraph, whose value ranged between (3.88) and (4.38). This suggests the availability of statements related to the dependent variable, "scope of structural change." This is evident from the overall mean for all paragraphs of the "scope of structural change" variable, which amounted to (4.0392). Meanwhile, we find that the standard deviation for all paragraphs ranged between (0.3270) and (0.9770), all of which were positive values. This suggests the agreement of the sample members in the study regarding their answers related to the paragraphs of the dependent variable, "scope of structural change." This is evident from the overall standard deviation, which amounted to (0.3607).

### 3.4. Hypothesis testing and discussion of study results

Using multiple regression analysis, the field study hypotheses, which are the main hypothesis and sub-hypotheses, will be tested.

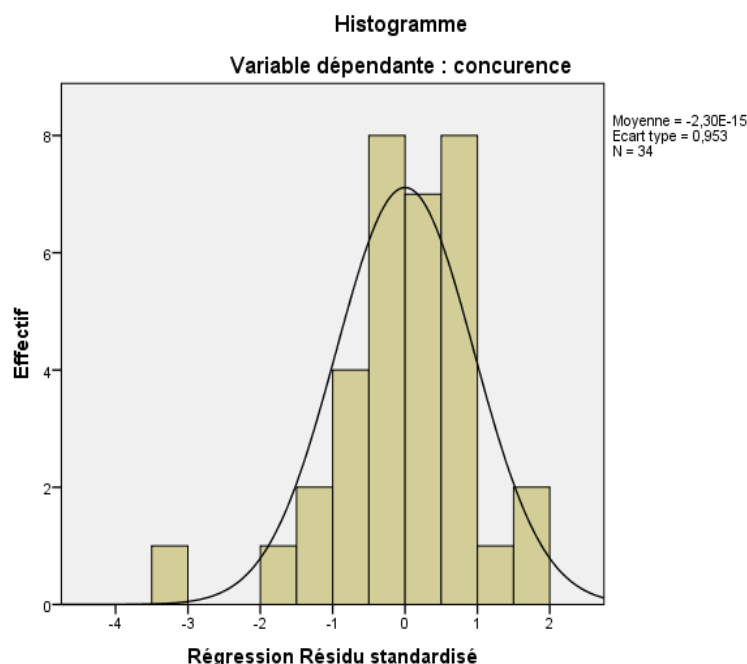
#### 3.4.1 Multiple regression analysis conditions:

To use regression analysis, certain conditions must be met, which can be summarized as follows:

Based on the theory of central tendency, which states that if the sample size is greater than 30 and its mean is  $\mu$  and variance is  $\delta$ , the sample distribution of the mean approximates the normal distribution.

**A- Normal distribution of errors:** From Figure 01, it can be seen that there is a normal distribution of errors around their arithmetic mean, and thus the condition of normal distribution is met.

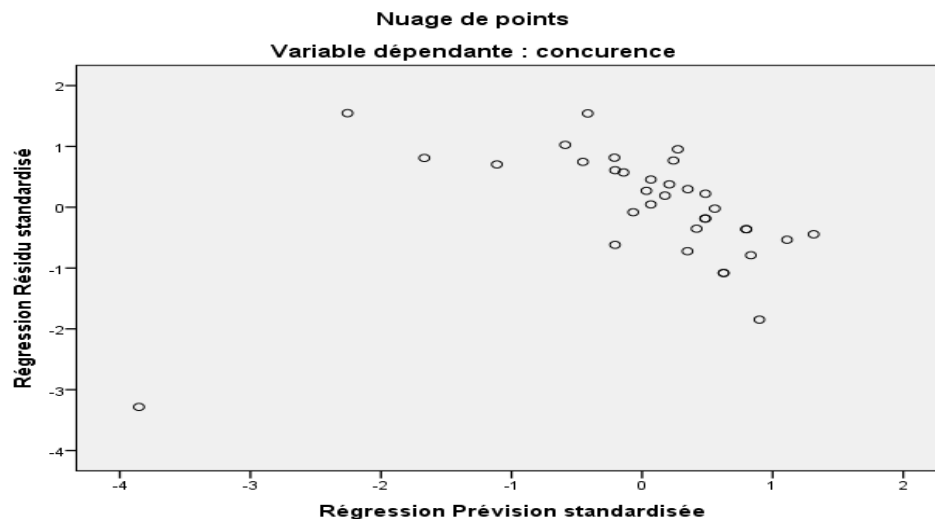
**Figure 01:** Frequency histogram of error distribution



**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

**B- Non-linear interference of errors:** From the following figure, it can be noted that the propagation of errors does not follow a specific pattern, which proves the non-linear interference of errors.

**Figure 02:** Error propagation



**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

**C- Independence of Independent Variables:**

**Table 05:** Correlation Matrix between the Dimensions of the Independent Variable of Knowledge Management

Correlations				
Knowledge Sharing	Knowledge Storage	Knowledge Diagnosis		
0.166 0.174 34	.3370 0.026 34	1  34	Pearson correlation Sig. (unilateral) N	Knowledge Diagnosis
0.502 0.001 34	1  34	0.337 0.26 34	Pearson correlation Sig. (unilateral) N	Knowledge Storage
1  34	0.502 0.001 34	0.166 0.174 34	Pearson correlation Sig. (unilateral) N	Knowledge Sharing

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

From the correlation coefficient matrix table, it is clear that there is not a very strong correlation between the independent variables, and therefore we can ignore the problem of multicollinearity at the model level.

**Table 06:** Multicollinearity results for the dimensions of the independent variable knowledge management

Collinearity statistics			Dimensions
Tolerance	Variance Inflation Factors	Inflation	
.8870	1.128		Knowledge Diagnosis

.6820	1.466	Knowledge Storage
.7480	1.336	Knowledge Sharing

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

The multicollinearity test for the residuals between the dimensions of the knowledge variable was used to ensure the absence of this problem. This is done by relying on the variance inflation factors (VIF) test and the tolerance variance test for each of the independent variables. The independent variables of the model must be independent of each other, and to ensure this purpose, this test was applied. Note that the variance inflation factors should not exceed a value of 5, and the tolerance variance test value should be greater than 0.05. By calculating the coefficients for all independent variables, the table shows that the variance inflation factor values ranged between 1.128 and 1.466. These values are considered appropriate and indicate the absence of multicollinearity between the dimensions of the knowledge variable. It is also noted that the tolerance variance values greater than 0.05 ranged between 0.6820 and 0.8870, which helps in concluding that there is no multicollinearity problem between the dimensions of the independent variable of knowledge management.

After ensuring that the conditions for applying regression analysis are met, the study hypotheses can be tested as follows:

### 3.4.2. Multiple linear regression test analysis:

#### A- Main Hypothesis:

Null Hypothesis ( $H_0$ ): There is no statistically significant effect of the knowledge management variable in its three dimensions (knowledge storage, knowledge sharing, and knowledge diagnosis) on the structural change variable in the study institution, "Higher School of Teachers in Bechar," at the significance level ( $\alpha \leq 5\%$ ).

**Table 07:** Multilinear correlation results for the dimensions of the knowledge management variable

Model	Correlation coefficient	Coefficient of determination	Adjusted coefficient of determination	Standard error of estimate
1	0,505 <sup>a</sup>	0.2550	0.1800	0.326240

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

**Table 08:** Analysis of variance for study variables ANOVA<sup>a</sup>

Model	Sum of Squares	ddl	Mean Square	D	Sig. Significance Level
Regression	1.093	3	.3640	3.422	0,030 <sup>b</sup>
Residuals	3.193	30	.1060		
Total	4.285	33			
A. Dependent variable: Structural change domain					
B. Independent variable: (Constant) Knowledge storage, knowledge sharing, and knowledge characterization					

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

We note from the table above, as shown by the results extracted from the SPSS program, that the statistical significance level (Sig.) for the overall model reached 0.030, a value lower than the significance level adopted in this study (0.05), indicating that the statistical model as a whole is significant. Accordingly, the null hypothesis ( $H_0$ )—which states that there is no significant effect of the knowledge management variable in its three dimensions (knowledge

identification, knowledge storage, and knowledge sharing) on the structural change variable—is rejected. The alternative hypothesis ( $H_1$ )—which states that there is a statistically significant effect of these dimensions on the field of structural change in the institution under study, the Higher School of Teachers in Bechar—is accepted at a significance level of ( $\alpha \leq 0.05$ ).

The analysis results also revealed that the bivariate correlation coefficient ( $R$ ) between the knowledge management variables and the field of structural change reached 0.505, representing a medium-strength correlation, indicating a positive and moderate correlation between the two variables.

As for the adjusted  $R^2$ , it reached 0.180, which means that 18% of the change in the field of structural change is attributed to the knowledge management variable in its three dimensions, while the remaining percentage (82%) is due to other factors that were not included in the analytical model adopted in this study, such as organizational culture, leadership, or external factors surrounding the institutional environment.

**B- Sub-Hypothesis Testing:** Using multiple regression analysis, the following sub-hypotheses can always be tested:

$H_{0.1}$ : There is no statistically significant effect of the knowledge diagnosis dimension on supporting structural change at the study institution, the Higher Teachers' School of Bechar, at the significance level ( $\alpha \leq 5\%$ ).

$H_{0.2}$ : There is no statistically significant effect of the knowledge storage dimension on supporting structural change at the study institution, the Higher Teachers' School of Bechar, at the significance level ( $\alpha \leq 5\%$ ).

$H_{0.3}$ : There is no statistically significant effect of the knowledge sharing dimension on supporting structural change at the study institution, the Higher Teachers' School of Bechar, at the significance level ( $\alpha \leq 5\%$ ).

**Table No 09: Transactions Table**

Model	Non-standard transactions		Standard transactions	t	Sig. Significance Level
	A	Standard error	Beta		
Fixed	1,997	0,799	0,029	2,498	0,018
Knowledge Diagnosis	0,031	0,178	0,394	0,173	0,049
Knowledge Storage	0,378	0,183	0,186	2,065	0,048
Knowledge Sharing	0,152	0,149		1,023	0,043

**Source:** Prepared by the researchers based on SPSS<sub>25</sub> outputs.

### 3.4.3. Constant Significance Test:

The table shows that the significance level (sig) is 0.018, which is smaller than the significance level of 0.05, meaning that the constant is statistically significant at the model level.

#### **3.4.4. Testing the first sub-hypothesis:**

The data in the statistical table above indicate that the significance level (Sig.) for the knowledge diagnosis dimension was 0.049, which is lower than the minimum used in studies (0.05). This implies that the tested statistical hypothesis is statistically significant at the level accepted in scientific research (5%).

Based on this result, we reject the null hypothesis ( $H_{0.1}$ ), which states that there is no statistically significant effect of the knowledge diagnosis dimension in supporting structural change within the institution under study. However, we accept the alternative hypothesis ( $H_{1.1}$ ), which confirms the existence of a statistically significant and influential effect of the knowledge diagnosis dimension in supporting structural change within the Higher Teachers School in Bechar.

This result can be interpreted as indicating that the knowledge diagnosis process within an organization—which includes identifying, analyzing, and evaluating knowledge sources—effectively contributes to informed organizational decision-making. It also enables managers to understand the knowledge strengths and weaknesses within the organizational structure, facilitating the implementation of informed and effective structural changes.

This result also reflects organizational awareness of the importance of knowledge management, specifically its identification as a tool that supports institutional transformation and enhances the flexibility of the organizational structure and its ability to adapt to internal and external variables.

#### **3.4.5. Testing the second sub-hypothesis:**

The results of the statistical table above indicate that the significance level (Sig.) for the knowledge storage dimension was 0.048, which is less than the critical value adopted in the study (0.05).

Thus, this result is statistically significant at a 5% significance level, leading to the rejection of the null hypothesis ( $H_{0.2}$ ), which states that there is no statistically significant effect of the knowledge storage dimension on structural change.

Conversely, we accept the alternative hypothesis ( $H_{1.2}$ ), which states that knowledge storage has a statistically significant effect on the scope of structural change at the Ecole Normale Supérieure de Bechar.

This suggests that retaining, organizing, and documenting knowledge within an organization clearly contributes to supporting decisions related to organizational restructuring, as employees can refer to a reliable knowledge repository that can be built upon in change processes. This supports management effectiveness and reduces duplication and knowledge loss during organizational transformations.

#### **3.4.6. Testing the third sub-hypothesis:**

Regarding the third sub-hypothesis, the results showed that the Sig. value for the knowledge sharing dimension was 0.043, which is also less than 0.05, indicating statistical significance at the same confidence level.

Therefore, the null hypothesis ( $H_{0.3}$ ) is rejected, and the alternative hypothesis ( $H_{1.3}$ ) is accepted, which states that the knowledge sharing dimension has a significant effect on structural change.

This suggests that knowledge sharing and circulation among employees and departments plays an important role in supporting structural change. Shared knowledge contributes to creating a collective understanding of the required changes and enhances individual participation in the reorganization process, reducing resistance to change and increasing its effectiveness.

Through the results, the following regression equation was derived, representing the overall model:

$$Y = 0.378X + 1.798$$

**Where:** Y represents the degree of change in the structural domain (the dependent variable).

X represents the sum of the knowledge management dimensions (knowledge identification, storage, and sharing).

The constant: (1.798) indicates the presence of an initial level of structural change even in the absence of knowledge management variables,

while the regression coefficient (0.378) represents the expected amount of change in the structural change domain with a one-unit increase in the combined knowledge management dimensions, holding other factors constant.

This model demonstrates that the higher the levels of knowledge management within an organization, the greater its ability to bring about effective structural change, reinforcing the importance of investing in knowledge capital as a key input for developing organizational structures.

## Conclusion

In light of the analytical and statistical results of the study, it was found that knowledge management—with its three dimensions: knowledge identification, storage, and sharing—had a statistically significant impact in supporting structural change within the study institution, represented by the Higher School of Teachers in Bechar. The results indicated that each of these dimensions contributed to varying degrees in supporting structural change, with significance levels for all sub-hypotheses being less than 0.05, confirming the acceptance of the alternative hypotheses and the rejection of the null hypotheses.

The regression equation revealed a positive direct relationship between knowledge management dimensions and structural change, as each increase in knowledge management activation leads to a significant improvement in organizational capacity for change. The correlation coefficient ( $R = 0.505$ ) indicates a fairly strong correlation, while the adjusted coefficient of determination ( $R^2 = 0.180$ ) indicated that approximately 18% of structural change is attributable to knowledge management practices, opening the door to exploring other complementary factors that may influence this type of change. These findings indicate that educational institutions, like other organizations, urgently need to transform knowledge into a tangible strategic resource by accurately identifying it, storing it in an organized manner, and sharing it efficiently among individuals. By providing a stimulating knowledge environment, organizational structures become more flexible, responsive, and adaptable to changes, transforming from bureaucracy to collective action based on knowledge exchange.

Based on the above, the study recommends the following:

- ❖ Promote a knowledge management culture within educational institutions through periodic workshops and training courses.
- ❖ Establish digital knowledge storage systems that ensure the preservation and accessibility of institutional expertise.
- ❖ Encourage knowledge exchange among individuals through work teams, collaborative projects, and material and moral incentives.
- ❖ Integrate knowledge management into the institution's strategic planning to ensure organizational structures align with future development requirements.

## References

1. A.R.François. (1988). Manuel de l'organisation de l'entreprise, les éditions d'organisation. *L'organisation de l'entreprise, les éditions d'organisation*, 02 (02), pp. 98-107.
2. Abdul Sattar Al-Ali, A. I.-O. (2006). *Introduction to Knowledge Management*. Amman, Jordan, Jordan: Dar Al-Masirah.
3. Ahmed, A. (2012). The Concept of Information and Knowledge Management. *Damascus University Journal*, 28 (01), pp. 485-498.
4. Al-Amian, M. S. (2004). *Organizational Behavior in Business Organizations*. Amman. Jordanie: Dar Wael for Publishing and Distribution.
5. al-Hawsh, A. B. (2016). *Knowledge management strategies*. Cairo-Egypt: Nile Arabic Group.
6. Al-Kubaisi, A. (1998). *Government Administrative Organization between Tradition and Modernity - Organizational Development*. Doha, Qatar: Dar Al Sharq Press.
7. al-Kubaisi, S. a.-D. (2013). *Knowledge Management*. League of Arab States, Arab Administrative Development Organization.
8. Al-Salami, A. (1983). *Human Behavior Management*. Cairo, Egypt: Dar Gharib for Printing, Publishing, and Distribution.
9. Al-Sayed, O. F. (2000). *Forces of Change Management in the Twenty-First Century*. Egypt: Dar Al-Wafa for Printing and Publishing.
10. Al-Sharif, A. (2000). *Contemporary Management*. Egypt: Dar Al-Jamiah.
11. Al-Ziyadat, A. M. (2008). *Contemporary Trends in Knowledge Management*. Amman, Jordan: Safaa Publishing and Distribution House.
12. Al-Ziyadat, M. A. (2008). *Contemporary Trends in Knowledge Management* (éd. First Edition). Amman, Jordan: Safa Publishing and Distribution House.
13. AwadAllah, A. G. (1995). *Organizational Behavior - Concepts, Theories and Applications*. Kingdom of Saudi Arabia: Dar Al-Nawabigh for Publishing and Distribution.
14. El-Masry, A. M. (1997). Organizational Change. (U. o. Associations, Ed.) *Journal of Administrative Affairs*, 29 (04), 11.
15. Fattah, A. A. (2013). The Impact of Organizational Change on Human Resources Performance: A Case Study of Sonelgaz Company - Laghouat Unit -. 28. Algiers, Algiers: PhD Thesis. University of Algiers3.
16. Idris, T. A. (2003). *The Modern Introduction to Public Administration*. Alexandria, Egypt: Dar Al-Jamiah.
17. Mahmoud, K. A. (2019). *Knowledge Economy and Financial Crisis Management within the Framework of Economic Institutions*. Egypt: Dar Al Fikr Al Jami'i.
18. Malhotra, Y. (2000, Sep-July).". Knowledge Assets in The Global Economy" Assessment of National Intellectual Capital. *Journal of Global Information Management*, pp. 80-90.

19. Nonaka, E. a. (1995). *companies create the dynamics of innovation*. Oxford: Oxford University Press.
20. Poulot, J. P. (, 1997). *Strategor General Policy Strategy- Structure- Decision*. Paris: DUNOD,.
21. Prusokl, D. t. (1998). *working knowledge*. Harvard: Harvard business school.
22. Razzaq., N. A. (2015). *Knowledge Management in the Framework of Business Intelligence Systems*. Amman, Jordan: Dar Al-Yazouri for Publishing and Distribution.
23. Salah, E.-D. E.-K. (2005). *Knowledge Management*. Cairo, Egypt: Arab Organization for Administrative Development.
24. Tait, K. M. (2010). *Knowledge Management: Challenges. Technologies. and Solutions*. Amman, Jordan: Dar Al-Hamed for Publishing and Distribution.
25. Tayti, K. M. (2010). *Knowledge Management: Challenges, Technologies, and Solutions*. Amman, Jordan: Dar Al-Hamed for Publishing and Distribution.
26. Wind, J. a. (1999). *Driving Change - How The Best Companies Are Preparing For The 21 ST Century*. London: kogah page.