

# The Impact of Knowledge Management on Competitive Advantage in Commercial Banks "Study Case: A Group of Local Development Bank Agencies

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**Abstract:** This study aimed to know the extent of the impact of knowledge management on the competitive advantage in commercial banks at the level of Algerian agencies of the Local Development Bank in Djelfa, Ain Oussara and Laghouat. To achieve the objective of the study, a questionnaire was administered to a sample consisting of 35 individuals among the employees of the Local Development Bank BDL. The statistical analysis software SPSS V21 was also used to address the research hypotheses, and the study concluded that there is a positive impact of knowledge management on achieving competitive advantage in banks.

**Keywords:** Knowledge management, competitive advantage, commercial banks.

**Classification Jel:** M1;12;13.

## I. Introduction:

At present, the world is witnessing in a new phase surrounded by many endless developments and changes, in a period in which technological change is proceeding at a high pace and the so-called digital economy or knowledge age has emerged, as the characteristics of this age differ from previous ones, as it imposes a new environment on institutions in general and banks in particular, as it urges them to increase their competitiveness through strict knowledge management so as to gain a competitive advantage that qualifies them to ensure the continuity of their activity and growth and then achieve precedence over their competitors.

Knowledge management is a strategic element that provides a fundamental opportunity for banks to achieve continuous profitability over their competitors. Accordingly, the subject of knowledge management has become of interest to many institutions and banks as a basic fact that determines their success by gaining a competitive advantage with the aim of improving their position in the markets or maintaining it to face the pressures of current and potential competitors.

**Research Problem:** In this study, the researcher attempts to answer the following main question: "To what extent does knowledge management affect competitiveness in commercial banks?" The following sub-questions branch out from this:

- ✓ How does technological knowledge affect competitive advantage in commercial banks?
- ✓ How does organizational knowledge affect competitive advantage in commercial banks?
- ✓ How does social knowledge affect competitive advantage in commercial banks?
- ✓ How does economic knowledge affect competitive advantage in commercial banks?

**Importance of the Research:** This research derives its importance from the novelty of the subject of knowledge management. It also derives its importance from the fact that it highlights the necessity for banks to abandon classical models of management and adopt knowledge management as the latest model of ideal management that ensures continuity and success in the markets and achieves a sustainable competitive advantage.

**Research Objectives:** The aim of the research is summarized as follows:

- ✓ To recognize the concept of knowledge management as a modern concept;
- ✓ Shedding light on the concept of competitive advantage;

- ✓ Identifying the relationship between knowledge management and competitive advantage in commercial banks.

**Research Hypotheses:** To achieve the research objective, the following hypotheses were developed:

**Main hypothesis:**

There is no statistically significant effect of knowledge management on competitive advantage in commercial banks.

**Sub-hypotheses:**

- ✓ There is no statistically significant effect of technological knowledge on competitive advantage in commercial banks;
- ✓ There is no statistically significant effect of organizational knowledge on competitive advantage in commercial banks;
- ✓ There is no statistically significant effect of social knowledge on competitive advantage in commercial banks;
- ✓ There is no statistically significant effect of economic knowledge on competitive advantage in commercial banks.

**Academic Limits:**

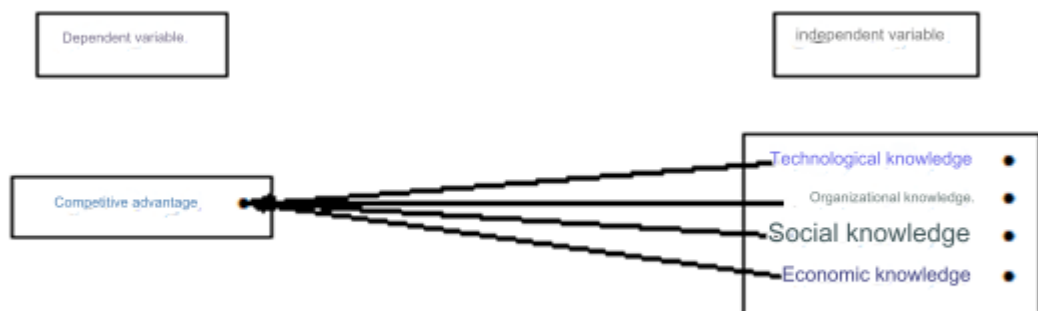
**Spatial Boundaries:** This study was conducted at the Local Development Bank agencies in three Algerian provinces, namely Djelfa, Ain Oussara and Laghouat.

**Time Limits:** This study was conducted from August.2018 to October 2018.

**Study Model:**

It is a hypothetical concept that shows the potential relationship between the variables under study, where the dependent variable represents the competitive advantage, while the independent variable represents knowledge management in a number of dimensions (technological knowledge, organizational knowledge, social knowledge, and economic knowledge).

Figure No. (1): Shows the study model



Source: Prepared by the researcher

**Research Methodology:**

The researcher implements a descriptive analytical approach, by tracking and investigating the research material, analyzing it and extracting results, in addition to content analysis approach by studying some references and sources related to knowledge management, and reviewing some studies to identify the reality and concept of competitive advantage in banks.

The study was divided into the following parts:

- ❖ **The first axis: the concept of knowledge management, its importance and dimensions;**
- ❖ **The second axis: the concept of competitive advantage, its sources and characteristics;**

❖ **The third axis: field study.**

**II. Methodology:**

**II.1. The concept of knowledge management**

Providing a specific concept for knowledge management is extremely difficult, as the definition of knowledge management varies according to its approaches, as well as according to the specializations of writers and researchers in the field of this concept. This difference is also due to the breadth of the field of the concept and the swift changes that are occurring in it. Below is an attempt to summarize some definitions of knowledge management.

**:1-1-II Definition of Knowledge Management**

Knowledge management is defined as “the process of maximizing the efficiency of the use of intellectual capital in business activity. It requires linking the best minds of individuals through collective participation and collective thinking.”<sup>1</sup> It is also defined as “the set of activities and processes that help organizations generate, select, disseminate and use knowledge, and work to process important information and expertise that the organization possesses and that are considered necessary for various administrative activities, such as decision-making, problem-solving, learning and strategic planning.”<sup>2</sup> It is also known as “the management of critical knowledge that depends on the knowledge base, which aims to add value to businesses, and is done through regular processes of diagnosing, acquiring, generating, storing, developing, distributing and applying knowledge in the organization.”<sup>3</sup> It is also defined as “the management that is concerned with identifying the information and knowledge necessary for the organization and obtaining it from its various sources and preserving, storing, developing and increasing it.”<sup>4</sup>

From the above, one can conclude that knowledge management is considered the most important resource for the organization because it is the organized process for effective use and creation of knowledge. We can give a comprehensive concept of knowledge management: “Knowledge management is the optimal exploitation of the organization’s expertise, information, capabilities and skills and directing them to achieve certain goals.”

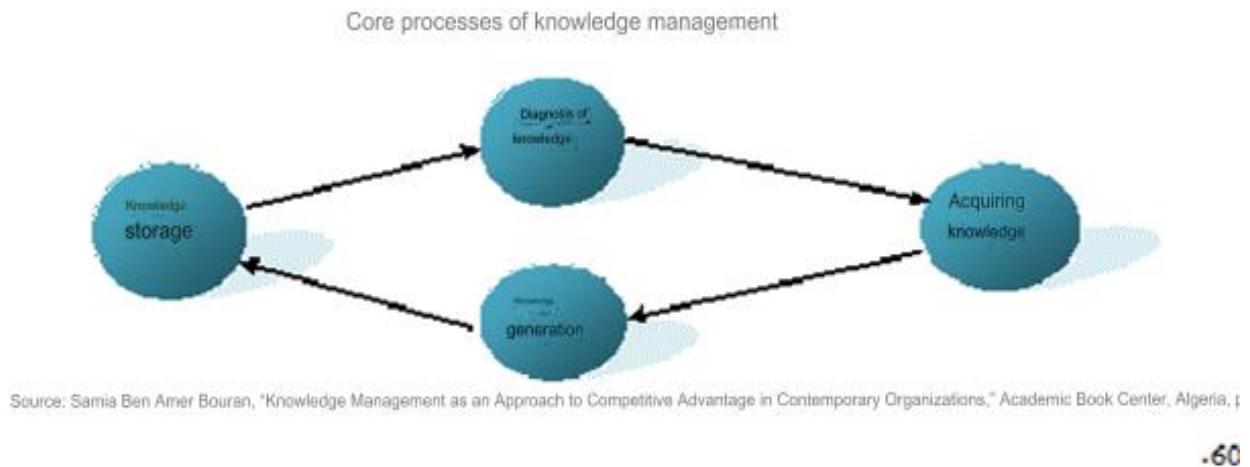
**II-2-1: The Importance of Knowledge Management**

Knowledge management is one of the modern topics in business administration, as it works to create knowledge accumulation in light of the spread of information and communication systems, which facilitates the spread and exchange of knowledge. The importance of knowledge management lies in the following:<sup>5</sup>

- ✓ Knowledge management is the process of identifying, developing, sharing, applying and evaluating required knowledge;
- ✓ Knowledge management is a huge opportunity for any organization because it reduces costs and increases revenues;
- ✓ Knowledge management enhances an organization's ability to maintain and improve organizational performance based on expertise and knowledge;
- ✓ Knowledge management provides opportunities for organizations to gain a lasting competitive advantage by contributing to the adoption of more innovations represented in the introduction of new goods and services;

**II-1-3: Knowledge Management Processes**

Knowledge management processes differ from one institution to another and from one researcher’s point of view to another. For the purpose of this study, we will focus on four processes as they are the most comprehensive. The following figure shows these processes:



The processes carried out in knowledge management are as follows:<sup>6</sup>:

- **Knowledge Diagnosis:** Organizations diagnose knowledge because the structural structure of the knowledge system in the organization requires it, and then they search for it and determine where it is located in the system, employees, or procedures. Therefore, the organization must determine the amount of available knowledge and compare it with the amount and quality of the required knowledge assets in order to determine the effort that the organization needs to continue in the process of investing in new knowledge.
- **Gaining Knowledge:** After the cognitive diagnosis process comes knowledge acquisition process, which is represented by the mechanisms followed in creating, retaining, distributing and using knowledge.
- **Knowledge Generation:** This is done through the participation of support teams and working groups, to generate new knowledge capital on new issues and practices that contribute to defining problems and finding new solutions to them in an ongoing innovative manner.
- **Knowledge Storage and Retention:** Knowledge storage and retention refers to organizational memory which contains knowledge in various forms including written documents, information stored in databases and electronic data.

#### II-1-4: Dimensions of Knowledge Management

Knowledge management has three basic dimensions:<sup>7</sup>:

- **Technological Dimension:** This dimension works to address knowledge management problems in a technological manner, so the organization seeks to excel by possessing the technological dimension of knowledge. Examples of this dimension include (search engines, software collective entity products, intellectual capital management databases, and distinguished technology);
- **Organizational Dimension:** This dimension is concerned with identifying the methods, procedures, facilities, aids and processes necessary to manage knowledge effectively in order to gain meaningful economic value. It also expresses how knowledge is obtained, controlled, managed, stored, disseminated, enhanced and reused.
- **Social Dimension:** This dimension is based on sharing knowledge among individuals, building groups of knowledge creators, establishing a society based on knowledge creators, sharing and participating in personal experiences, building effective networks of relationships among individuals, and establishing a supportive organizational culture.

There are those who divide knowledge management into four dimensions, which are as follows:<sup>8</sup>:

- **Strategic Economic Dimension:** This dimension focuses on the competitive environment imposed on the organization by the globalization of competitions, which means the organization's search for standards for permanent development and greater integration of human capital;

- **Organizational Dimension:** This dimension is represented by the organization's values, structures, management method, and economic standards;
- **Social cultural Dimension:** This dimension relates to all the behaviors of individuals and groups within the organization and everything related to their professional habits and cultures as well as their ability to create intelligent interactive relationships for their competencies;
- **Technological Dimension:** It is related to the set of technical and technological knowledge, including software and tools, which are considered supportive of the embodiment of knowledge management.

## II-2: The concept of competitive advantage:

The concept of competitive advantage is a real revolution in the world of business management, and the importance of this concept increases with the increasing intensity of competition and global trade conflict, which requires institutions in general and banks in particular to distinguish themselves and gain new ground in the market.

### II-2-1: Definition of competitive advantage

There are many different opinions about the definition of competitive advantage, including:

M. Porter defines competitive advantage as “arising from the value that the organization has been able to create for its customers, which can take the form of lower prices relative to competitors’ prices with equal benefits, or by providing individual benefits in the product that consciously compensate for the price increase.”<sup>9</sup> It is defined as “everything that is specific to the organization and not to others, and that gives it added value to customers in a way that increases or differs from what competitors offer in the market, as the organization can provide a group of benefits greater than competitors or provide the same benefits at a lower price.”<sup>10</sup> It has also been defined as “the ability of an organization to withstand competition on a relatively continuous basis, or more simply, the ability to compete over a period of time.”<sup>11</sup>, and explains (Heizer and Render) that competitive advantage means “finding a unique advantage that makes the organization superior to competitors, i.e. competitive advantage makes the organization unique and distinct from other competitors.”

As he pointed out (Liu) that competitive advantage is “an advantage of the enterprise in the product-market perspective that brings more than an advanced competitive position in the market.”<sup>12</sup> And he knew it (Igor Ansoff) as “characteristics of distinctive opportunities within a field defined by a product-market dichotomy that is heading for growth. It aims to identify the special qualities of a marketable product that give the organization a strong competitive position.”<sup>13</sup>

As this definition was provided by (Igor Ansoff) includes a basic idea that most studies that dealt with the subject of competitive advantage focused on, which is creating and establishing a good competitive position in the market compared to competitors, which leads to achieving distinguished economic performance.

### II-2-2: Sources of competitive advantage:

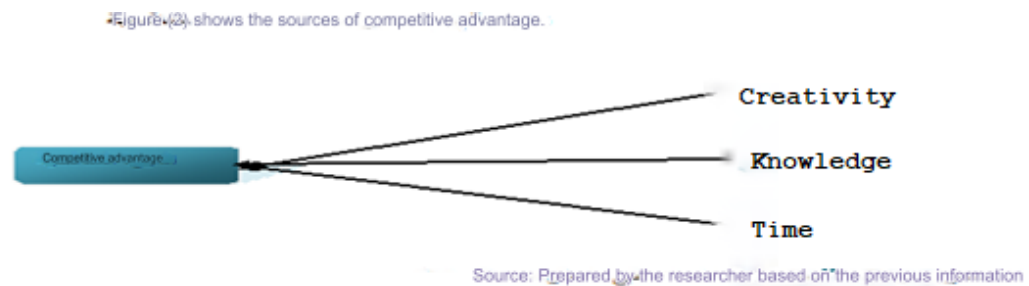
There are several sources of competitive advantage, including the following:<sup>14</sup>:

**II-2-2-1: Creativity:** Institutions' interest in creativity has increased with their increasing decline, which was accompanied by a competitive explosion at the local and international levels, and the focus on it to the point of considering it the minimum competitive priority alongside cost and quality.

Creativity has become a renewable source of competitive advantage. Example: Company (British Airways) which used a fourth class on its flights and called it the "New World Traveler".

**II-2-2-2: Knowledge:** Knowledge has become the most important resource in creating competitive advantage, as successful organizations are those that proactively create new knowledge and embody it through technology, methods, goods and services.

**II-2-2-3: Time:** Time is a more important competitive advantage than ever before, whether in production management or service management, as reaching the customer faster than competitors represents a competitive advantage. The following figure shows us the most important sources of competitive advantage:



## II-2-3: Characteristics of competitive advantage:

Competitive advantage has several characteristics, including the following:<sup>15</sup>:

- The competitive advantage must be renewable according to the external environment on the one hand and the capabilities and resources of the institution on the other hand;
- To be relative compared to competitors, or compared to different time periods, and this characteristic makes understanding the advantages in an absolute framework difficult to achieve;
- To be continuous and sustainable, i.e. to achieve precedence for the institution in the long term and not just in the short term;
- The use of these competitive advantages should be consistent with the goals and results that the organization wants to achieve in the short and long term;
- To be flexible, meaning that it can be easily replaced by other competitive advantages in light of changes in the external environment or the development of the organization's resources and capabilities.

## III: Results and Discussion

### III-1: Field Study Procedures

The researcher described the method and procedures he followed in implementing this study, including a description of the sample community and the method of preparing the study tool, the procedures taken to ensure its validity and reliability, and the statistical treatment by which the data was analyzed and the results were extracted.

The program was used (SPSS) to analyze the data and reach the objectives set within the framework of this study. The significance level of 5% was adopted, which corresponds to a confidence level of 95%, to interpret the results of the tests that were conducted.

Several statistical methods were also used, the most important of which are: the reliability test (ALPHA Cranbach) and descriptive and analytical statistical analysis methods, where some statistical methods related to measures of central tendency, measures of dispersion, percentage, and testing the validity of hypotheses (T-test) were used.

#### III-1-1: Study community and sample:

**III-1-1-1: Study community:** The study community represents the category on which we want to conduct the applied study according to the chosen and appropriate method for this study. As previously mentioned, the research community is the employees of the Local Development Bank.

**III-1-1-2: Study sample:** The aim of selecting the sample is to obtain information from the original research community. It is not easy for the researcher to apply his research to all members of the original community. The sample is the selection of a number of individuals for a specific study that makes them representatives of the study community.<sup>16</sup>Where the study sample was selected and its number was 35 employees to represent the study community.

### III-1-2: Data and information sources:

Data related to the study and its variables were collected using the following methods:

- **Secondary data:** Books, periodicals, the Internet and literary articles related to the study were relied upon to clarify the basic concepts and various dimensions of the study topic;
- **Primary data:** The study relied on the survey method to collect data, by designing a questionnaire directed to the employees of the local development bank under study.
- **Form design:** It was dedicated to measuring the extent of the impact of each dimension of knowledge management on achieving competitive advantage, as these dimensions were represented in technological knowledge, organizational knowledge, social knowledge and economic knowledge.

### III-1-3: Stages of development of the measuring tool:

After identifying the study problem, its questions and hypotheses, the questionnaire paragraphs were developed and formulated to reflect the study variables. The questionnaire in its final form contained the following parts:

#### Introduction:

It included the title of the study, the method of answering the questionnaire questions, and confirmation to the respondents that the study was for scientific research purposes.

#### Part One:

It relates to the demographic characteristics of the sample of local development bank employees, such as gender, age, educational level, job, and professional experience.

#### Part Two:

It consists of twelve paragraphs distributed over two axes represented by the dimensions of knowledge management, as follows:

- **The first dimension:** It relates to measuring technological knowledge, represented in six paragraphs, from:1 to 6;
- **The second dimension:** It relates to measuring organizational knowledge, represented in six paragraphs, from:7 to 12;
- **The third dimension:** It is related to measuring social knowledge, represented in six paragraphs, from:13 to 18;
- **The fourth dimension:** It relates to measuring economic knowledge, represented in six paragraphs, from:19 to 24.

### III -1-4: Testing the questionnaire scale:

Likert scale was used to identify the employee's point of view on each dimension of knowledge management to achieve competitive advantage, the answers were translated as follows:

Totally disagree	Disagree	Neutral	OK	Totally agree
1	2	3	4	5

To determine the degree of trend, three levels were determined: (high, medium, and low) based on the following equation:

$$\text{Class length} = \frac{\text{Upper limit of the alternative} - \text{Lower limit of the alternative}}{\text{Number of levels}} = \frac{4 - 1}{3} = 1$$

Thus, the downward trend is 1 to less than 2.33

The average direction of 2.34 to 3.66

And the rising trend of 3.67 and above

### III-1-4-1: Tests for the measurement tool (questionnaire)

- **Tool validity:**

The researcher verified the validity of the tool in its initial form, by presenting the questionnaire to a group of referees from among the faculty members with academic experience, which makes the tool more accurate and comprehensible to the reader. Some of the questionnaire phrases were reformulated and approved in their final form.

- **Tool stability:**

The stability of a measurement tool means that it gives the same results if the questionnaire is re-applied to the same sample under the same conditions. It is measured in three ways:

#### III-1-4-2: Testing and retesting:

In this method, the questionnaire is applied to a survey sample twice, with a time gap of two weeks between them, and then the correlation coefficient is calculated between the answers of the subjects in both times. If the correlation coefficient is high, this is an indicator of the stability of the questionnaire and thus of the validity and suitability of this questionnaire for the purposes of the study.

#### III-1-4-3: Stability by splitting in half:

The questionnaire paragraphs are divided into two parts, the first part represents the individual questions and the second part represents the paired questions, then the correlation coefficient is calculated ( $r$ ) Between the scores of the individual questions and the scores of the even questions, then correct the correlation coefficient using the Pearson-Brown equation as follows:

$$\text{Reliability Coefficient} = \frac{2r}{1+r}$$

#### III-1-5: Cronbach's alpha reliability coefficient:

Cronbach's alpha reliability coefficient is calculated using the SPSS software, through which we calculate the discrimination coefficient for each question, where the question with a weak or negative discrimination coefficient is deleted.

Internal consistency of questionnaire questions means the strength of the correlation between the scores of each domain and the total scores of the questionnaire questions, from an applied perspective.

It is  $\alpha \geq 0.60$  Reasonable in research related to management and humanities<sup>17</sup>.

In our research, the tool used was tested by using Cronbach's alpha test to measure internal consistency stability, where alpha reached ( $\alpha$  For all questionnaire items 74 percent is greater than the acceptable percentage of 60 percent, which represents an acceptable percentage for analysis purposes, as shown in the following table.

**Table No.02): Test results Cronbach's alpha for study variables**



Cronbach's alpha value	Number of questionnaire paragraphs	Variables
0.803	06	Technological knowledge
0.732	06	Organizational knowledge
0.658	06	Social knowledge
0.779	06	Economic knowledge
0.743	12	Total

Source: Prepared by the researcher based on the SPSS software

### III-2: Conducting the questionnaire distribution:

The questionnaire was distributed to the study sample members. The distribution process was preceded by an interview with the bank manager and his deputy in each of the following agencies: Djelfa, Ain Oussara and Laghouat. The direct and indirect distribution method was used, and the objective of the study was explained.

#### III-2-1: Statistical tools used:

For data processing, the Statistical Package for the Social Sciences (SPSS) program was used.SPSS) using the following statistical concepts:

- **Frequencies, percentages, means, and standard deviations:** To determine the relative importance of the responses of the study sample individuals and the direction of the study axes and dimensions;
- **Cronbach's alpha coefficient:** To ensure internal consistency;
- **Simple regression test:** This is to test the dimensions of the independent variable, each one separately, and its relationship to the dependent variable.

### III-3: Testing and discussing hypotheses

#### III-3-1: Hypothesis Testing

This section includes testing the study hypotheses to determine the extent of the impact of knowledge management on achieving competitive advantage in commercial banks by using the simple linear regression test, as follows:

##### Firstly:

**First null hypothesisH0:** There is no statistically significant effect between technological knowledge and competitive advantage in commercial banks.

**Alternative Sub-Hypothesis 1H1:** There is a statistically significant effect between technological knowledge and competitive advantage in commercial banks.

To test this hypothesis, we use a simple regression analysis test to verify the effect of technological knowledge on competitive advantage in commercial banks, as shown in the table below:

**Table No. (02): Results of the test of the impact of technological knowledge and competitive advantage in commercial banks**

Sig Significance level	T Calculated	B Regression coefficient	R2 coefficient of determinatio n	R Correlation coefficient	Statement
0.000	22,548	12.354	0.736	0.732	The impact of technological knowledge on competitive advantage in commercial banks

Source: Prepared by the researcher based on the SPSS software

The association is statistically significant at the ( $\alpha \leq 0.05$ ) with a 95 percent confidence level.

The table above shows the effect of technological knowledge on competitive advantage in commercial banks, as the results of the statistical analysis showed the existence of a statistically significant effect between technological knowledge and competitive advantage in commercial banks, as the correlation coefficient reached R (0.732) at the significance level ( $\alpha \leq 0.05$ ), and with a coefficient of determination R2 (0.736), meaning that the value of (0.736) of changes in the competitive advantage in commercial banks is the result of the change in technological knowledge, and the value of the degree of influence B reached (12.354), which means that a one-degree increase in the level of technological knowledge leads to achieving a competitive advantage in commercial banks with a value of (12.354). The significance of this effect is confirmed by the calculated T value, which reached (22.548), which is greater than the tabular T and is significant at the significance level ( $\alpha \leq 0.05$ ), which confirms the invalidity of accepting the first null sub-hypothesis. Accordingly, the first null hypothesis is rejected and the first alternative hypothesis is accepted, which states:

**H1** There is a statistically significant effect of technological knowledge on the competitive advantage in commercial banks at the significance level (**0.05**).

**secondly:**

**Second null hypothesis H0:** There is no statistically significant effect between organizational knowledge and competitive advantage in commercial banks.

**Second alternative sub-hypothesis H1:** There is a statistically significant effect between organizational knowledge and competitive advantage in commercial banks.

To test this hypothesis, we use a simple regression analysis test to verify the effect of organizational knowledge on competitive advantage in commercial banks, as shown in the table below:

**Table No. (03): Results of testing the impact of organizational knowledge on competitive advantage in commercial banks.**

Sig Significance level	T Calculated	B Regressi on coefficie nt	R2 coefficient of determinati on	R Correlati on coefficie nt	Statement
0.000	15.326	3.542	0.781	0.762	The impact of organizational knowledge on competitive advantage in commercial banks.

Source: Prepared by the researcher based on the SPSS software

The table above shows the effect of organizational knowledge on competitive advantage in commercial banks, as the results of the statistical analysis showed a statistically significant effect of organizational knowledge on competitive advantage in commercial banks, as the correlation coefficient reached R (0.762) at the significance level ( $\alpha \leq 0.05$ ), and with a coefficient of determination R2 (0.781), meaning that the value of (0.781) of changes in the competitive advantage in commercial banks is the result of the change in organizational knowledge, and the value of the degree of influence B reached (3.542), which means that a one-degree increase in the level of organizational knowledge leads to achieving a competitive advantage in commercial banks with a value of (3.542). The significance of this effect is confirmed by the calculated T value, which reached (15.326), which is greater than the tabular T and is significant at the significance level ( $\alpha \leq 0.05$ ), which confirms the invalidity of accepting the second null sub-hypothesis. Accordingly, the second null hypothesis is rejected and the second alternative hypothesis is accepted, which states:

**H1** There is a statistically significant effect of organizational knowledge on competitive advantage in commercial banks at the significance level (0.05).

### Third:

**Third null hypothesis H0:** There is no statistically significant effect of social knowledge on competitive advantage in commercial banks.

**Alternative Sub-Hypothesis 3H1:** There is a statistically significant effect of social knowledge on competitive advantage in commercial banks.

To test this hypothesis, we use a simple regression analysis test to verify the effect of social knowledge on competitive advantage in commercial banks, as shown in the table below:

**Table No. (04): Results of testing the impact of social knowledge on competitive advantage in commercial banks.**

Sig Significance level	T Calculated	B regression coefficient	R2 coefficient of determinati on	R Correlation coefficient	Statement
0.000	28.124	3.214	0.867	0.753	The impact of social knowledge on competitive advantage in commercial banks.

Source: Prepared by the researcher based on the SPSS software

The above table shows the impact of social knowledge on competitive advantage in commercial banks.

The results of the statistical analysis showed that there is a statistically significant effect between social knowledge and competitive advantage in commercial banks, as the correlation coefficient reached R (0.753) at the significance level ( $\alpha \leq 0.05$ ), and with a coefficient of determination R<sup>2</sup> (0.867), meaning that the value of (0.867) of changes in the competitive advantage in commercial banks is the result of the change in social knowledge, and the value of the degree of influence B reached (3.214), which means that a one-degree increase in the level of social knowledge leads to achieving a competitive advantage in commercial banks with a value of (3.214). The significance of this effect is confirmed by the calculated T value, which reached (28.124), which is greater than the tabular T and is significant at the significance level ( $\alpha \leq 0.05$ ), which confirms the invalidity of accepting the third null sub-hypothesis. Accordingly, the third null hypothesis is rejected and the third alternative hypothesis is accepted, which states:

**H1** There is a statistically significant effect of social knowledge on competitive advantage in commercial banks at the significance level (0.05).

#### Fourth:

**Fourth null hypothesis H0:** There is no statistically significant effect of economic knowledge on competitive advantage in commercial banks.

**Alternative Sub-Hypothesis 4H0:** There is a statistically significant effect of economic knowledge on competitive advantage in commercial banks.

To test this hypothesis, we use a simple regression analysis test to verify the effect of economic knowledge on competitive advantage in commercial banks, as shown in the table below:

**Table No. (04): Results of the test of the impact of economic knowledge on competitive advantage in commercial banks.**

Sig Significance level	T Calculated	B regression coefficient	R <sup>2</sup> coefficient of determination	R Correlation coefficient	Statement
0.000	15.326	1.895	0.524	0.623	The impact of economic knowledge on competitive advantage in commercial banks.

Source: Prepared by the researcher based on the SPSS software

The table above shows the effect of economic knowledge on competitive advantage in commercial banks. The results of the statistical analysis showed a statistically significant effect between economic knowledge and competitive advantage in commercial banks, as the correlation coefficient reached R (0.623) at the significance level ( $\alpha \leq 0.05$ ), and with a coefficient of determination R<sup>2</sup> (0.524), meaning that the value of (0.524) of changes in customer satisfaction in commercial banks is the result of the change in the ethics of systems and organizational structures. The value of the degree of influence B reached (1.895), which means that a one-degree increase in the level of economic knowledge leads to achieving a competitive advantage in commercial banks with a value of (1.895). The significance of this effect is confirmed by the calculated T value, which reached (15.326), which is greater than the tabular T and is significant at the significance level ( $\alpha \leq 0.05$ ), which confirms the invalidity of accepting the fourth null sub-hypothesis. Accordingly, the fourth null hypothesis is rejected and the fourth alternative hypothesis is accepted, which states:

**H1** There is a statistically significant effect of economic knowledge on the competitive advantage in commercial banks at the significance level (0.05).

**Fifth:**

**Main null hypothesisH0:** There is no statistically significant effect of knowledge management on competitive advantage in commercial banks at the significance level (0.05).

**Main sub-hypothesisH1:** There is a statistically significant effect of knowledge management on competitive advantage in commercial banks at the significance level (0.05).

To test this hypothesis, we use a simple regression analysis test to verify the effect of knowledge management on competitive advantage in commercial banks at the significance level (0.05), as shown in the table below:

**Table No. (05): Results of testing the impact of knowledge management on competitive advantage in commercial banks.**

Sig Significance level	T Calculated	B regression coefficient	R2 coefficient of determination	R Correlation coefficient	Statement
0.000	10.254	2.125	0.689	0.755	The impact of knowledge management on competitive advantage in commercial banks

Source: Prepared by the researcher based on the SPSS software

The table above shows the impact of knowledge management on competitive advantage in commercial banks, as the results of the statistical analysis showed a statistically significant impact of knowledge management on competitive advantage in commercial banks, as the correlation coefficient reached R (0.755) at the significance level ( $\alpha \leq 0.05$ ), and with a coefficient of determination R2 (0.689), meaning that the value of (0.689) of changes in the competitive advantage in commercial banks is the result of the change in knowledge management, and the value of the impact degree B reached (2.125), which means that a one-degree increase in the level of knowledge management leads to achieving a competitive advantage in commercial banks with a value of (2.125). The significance of this effect is confirmed by the calculated T value, which reached (10.254), which is greater than the tabular T and is significant at the significance level ( $\alpha \leq 0.05$ ), which confirms the invalidity of accepting the main null hypothesis. Accordingly, the main null hypothesis is rejected and the main alternative hypothesis is accepted, which states:

**H1**There is a statistically significant effect of knowledge management on competitive advantage in commercial banks. At the significance level (0.05).

**III-4: Discussion of the results:**

Through the hypotheses, we reached the following results:

- ❖ The test of the first sub-hypothesis showed the existence of a relationship between technological knowledge and competitive advantage in commercial banks, as the correlation coefficient reached (0.732) This means that there is a positive relationship between the two variables, which reflects the awareness of commercial banks of the necessity of technological knowledge in order to adopt knowledge management in order to enhance their competitive advantage, which indicates that technological knowledge affects the achievement of competitive advantage in commercial banks.
- ❖ The test of the second sub-hypothesis showed the existence of a relationship between organizational knowledge and competitive advantage in commercial banks, as the correlation coefficient reached (0.762) This means that there is a high positive relationship between the two variables, which shows that organizational knowledge affects the achievement of competitive advantage.

- ❖ The test of the third sub-hypothesis showed that there is a relationship between social knowledge and competitive advantage in commercial banks, as the correlation coefficient reached (0.753) This means that there is a positive relationship between the two variables, which justifies that social knowledge has a positive impact on achieving competitive advantage in commercial banks, which would enhance knowledge management within commercial banks;
- ❖ The test of the fourth sub-hypothesis showed that there is a relationship between economic knowledge and competitive advantage in commercial banks, as the correlation coefficient reached (0.623) This means that there is a positive relationship between the two variables at a moderate level, which justifies that social knowledge has a positive impact on achieving competitive advantage in banks, but it is a relative achievement.
- ❖ The main hypothesis test showed that there is a relationship between knowledge management and competitive advantage in commercial banks, where the correlation coefficient reached (0.755) This means that there is a positive relationship between the two variables, indicating that knowledge management has a positive impact on achieving competitive advantage in commercial banks.

### III-5: Recommendations:

- ❖ Obligating commercial banks to develop knowledge management in their environment in a renewed manner, to improve the performance and effectiveness of employees;
- ❖ The necessity for commercial banks to develop advanced information programmes, to gain advanced procedures and elements that distinguish them from their competitors;
- ❖ Working to increase awareness of the pillars of knowledge represented by communication and information technology in addition to employees with the aim of achieving competitive advantage;
- ❖ Focus on the essential elements of knowledge management, because the leadership strategy only comes with knowledge components and intellectual assets that differ from competitors;
- ❖ Obligating commercial banks to deal with knowledge management with greater attention to keep pace with developments, especially in the digital age, which is characterised by knowledge as its basic essence towards achieving competitive advantage and enjoying remaining in the lead;
- ❖ The need for commercial banks to consider all resources for knowledge management that contribute to achieving competitive advantage;
- ❖ The necessity of commercial banks focusing on knowledge management processes, including generating, storing, distributing and applying knowledge, in order to achieve competitive advantage.

### III-5: References:

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