

## The Impact of Success factors of Knowledge Management on the financial performance of economic institutions

### A sample study of banks in Algeria

Bourekoua abdelmalek<sup>1\*</sup>, Boumediene Youcef<sup>2</sup>

<sup>1</sup>University of Algiers 03 (Algeria), [bourekoua.malek@gmail.com](mailto:bourekoua.malek@gmail.com)

<sup>2</sup>University of Algiers 03 (Algeria), [Bouyoucef9@yahoo.fr](mailto:Bouyoucef9@yahoo.fr)

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#### Abstract:

This research paper aims to know the relationship between knowledge management the success factors and financial performance by looking at the relationship between Success factors of Knowledge management and the two economic indicators, the rate of return on ownership and the rate of return on equity, depending on the data collected at the sample of the study sample from active Commercial banks In the Algerian climate environment.

The study concluded to verify this link that there is an intermediate relationship between knowledge management processes and the rate of return on investment, and there is no significant effect between knowledge management processes and the rate of return on equity. But in general, there is an influence relationship between the variables of management processes Knowledge of financial performance.

**Key words:** Success factors of Knowledge management, financial performance, commercial banks.

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\*Corresponding author.

## **I- Introduction:**

Today, various economic institutions are facing a wave of changes imposed on them to keep pace with what is happening in the world, which made institutions realize that they possess knowledge as a more valuable strategic resource that contributes to their survival and growth by enhancing their performance, and in the face of these transformations that affected all areas, including the banking environment. In the context of future challenges, commercial banks in Algeria hastened to adopt modern management thought represented in knowledge management aimed at improving their performance to achieve continuity and growth.

The knowledge management method has become very important as it offers many advantages that organizations need today, on top of which is individual and collective performance, whether at the level of individuals or the organization as a whole, and this performance is measured according to different methods. Some focus on financial aspects alone. And some of them focused on the non-financial aspects, and the third proposition represented integrating all aspects into each other, and this is what we will try to know in this research paper that was studied at the level of a sample of banks that are active in the Algerian business environment and focused on the relationship between the management of Knowledge and financial performance only.

Therefore, our study came to investigate the answer to the fundamental question that defines the features of the problem of our research, which is represented in the following: Is there a statistically significant effect of knowledge management on the financial performance of the banks under study?

**The study's objective:** This study aims to find the relationship between knowledge management and financial performance by looking at the relationship between knowledge management processes and the two financial indicators (the rate of return on investment and the rate of return on equity). The study also attempts to reveal the impact of knowledge management on performance, which helps to realize the added value of knowledge management and its role in enhancing organizations' performance, enabling managers to properly deal with those decisions related to knowledge management activities.

**Study Hypotheses:** Based on the study problem, a general hypothesis for this study was formulated as follows:

**The main hypothesis:** There is no statistically significant effect of knowledge management on the financial performance of the banks under study.

To prove the general hypothesis, three hypotheses were formulated as follows and financial performance in the banks under study

- The second sub-hypothesis: There is no statistically significant effect of knowledge management on the rate of return on investment
- Third sub-hypothesis test: There is no statistically significant effect of knowledge management on the rate of return on equity.

**Study methodology:** The relationship between knowledge management and financial performance in Algerian banks was evaluated by analyzing the relationship between knowledge management success factors and the return on investment and equity as the financial indicators most used in research that proved the relationship between those concepts.

**Study population and sample:** The study included a sample of public and private banking institutions at the national level in Algeria, which numbered (06) banks, Al Baraka Bank, the Algerian Foreign Bank, the Algerian National Bank, Gulf Bank, Trust Bank, BNP Bank.

**Study variables:** The study included two variables, knowledge management success factors as an independent variable and financial performance as a dependent variable.

**Data collection methods:** In collecting information and data, the researcher relied on secondary sources represented in books and various practical references, and primary data on the applied side was obtained through a questionnaire that was prepared for this purpose.

**Study tool:** Within the framework of fieldwork and to obtain accurate results for the studied sample, a set of appropriate methodological tools were relied on for each stage of the research, represented in the interview and questionnaire, with the use of the statistical methods program to analyze data and reach results, and a questionnaire was prepared, addressed to bank employees 29 phrases divided into six dimensions related to knowledge management success factors in terms of their contribution to financial performance. The questionnaire was built based on the theoretical aspect of the study and on previous studies, and the interview was used to support the form in collecting the necessary data for the subject of the study.

**Statistical methods used:** To study and analyze the results of the two questionnaires, the statistical package for social sciences (SPSS 22) was used, and many statistical analysis methods were used as follows: (arithmetic means, standard deviation, internal stability coefficient Alpha Cronbach, Pearson correlation coefficient, coefficient of determination, use of the simple regression coefficient).

**Validity and stability of the study tool:** Before starting the process of analysis and drawing conclusions, the scale was presented to several arbitrators with experience and specialization in the field of statistics and human resource management to verify the clarity of the statements, the validity of their content, and the consistency of the statements with the axes and dimensions of the study.

To determine the consistency extent and the statement's validity, the Pearson correlation coefficient was calculated between the degree of each statement about the axis to which it belongs and the degree of each axis in the form as a whole, or what is known as the validity of structural consistency.

One of the axes in the total score of the questionnaire is positive and statistically significant at the significance level (0.05) or less, which indicates the consistency and sincerity of the statements and dimensions of the study tool and its validity for analysis.

## **1. The theoretical framework of the study.**

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

Most studies indicate that there is ambiguity about the concept of knowledge management, as there is no consensus about what knowledge management should be, as there is no single and specific definition of knowledge management and no consensus about the special meaning of the term knowledge management, which makes it difficult. It is necessary to put a clear, precise, and specific meaning to it, which has led to the diversity of definitions of knowledge management.

Knowledge management enables individuals, teams, and entire organizations, networks, regions, and nations to collectively and systematically create, share and apply knowledge to achieve their strategic and operational objectives (Klaus, 2018).

Knowledge management contributes to increasing the efficiency and effectiveness of operations on the one hand and changing the quality of competition (innovation) by developing a learning organization (Klaus, 2018).

Knowledge management is the concept under which information is turned into actionable knowledge and made available effortlessly in a usable form to the people who can apply it (Information Week, 2003).

According to the definition of the American Productivity and Quality Center, knowledge management is a type of strategy that provides the right knowledge to the right

people at the right time, and members can share information and transform participation into actions to improve organizational effectiveness(CHIN, 2009).

And what has been stated in the presentation of the previous definitions of knowledge management highlights the diversity of views on the definition of knowledge management and that there is no single, comprehensive, broad, and agreed-upon definition of knowledge management, as there are considerable differences.

### 1. 2 The importance of knowledge management

The importance of knowledge management is highlighted in the goals it seeks to achieve, as its primary objective is to provide knowledge to the organization in a permanent manner and translate it into practical behavior that serves the goals of the organization by achieving high performance by planning and organizing knowledge efforts in a way that leads to achieving the strategic and operational goals of the organization, where sound and sufficient knowledge provides a degree of Creativity and work to provide distinctive competitive capabilities and capabilities, as knowledge management provides a wide range of information technology to reflect all of them on the behavior of individuals in the organization and touch their abilities and potentials, and affect the approved business and technology models that work to achieve harmony between current and future practices and trends and continuous follow-up to ensure From the news of knowledge capabilities and the continuous work to develop and sustain them. The main objectives of knowledge management appear as follows: (Klaus,2018)

- It helps in achieving productive efficiency as it enables the members of the organization to deal with many new special issues, provides them with the necessary ability to make decisions efficiently and effectively, and forms for employees a future vision.
- Knowledge management helps realize the economic organization as it is mainly oriented to the ability of the organization to use tacit and explicit knowledge.
- It enhances the organization's ability to maintain and improve organizational performance based on experience and knowledge, as it is an effective tool for organizations to invest in their intellectual capital by making access to the knowledge generated by them for other people who need it easy and feasible process.
- Knowledge management is an expensive process because knowledge is a source of influence, and to manage it effectively, many other sources must be invested, which requires investing huge funds.

### 1. .3 Knowledge management success factors :

There are many success factors to which the institution applies the method of knowledge management, which we summarize in the following (Maja Vidović,2010)

- Knowledge management infrastructure.
- Knowledge management culture.
- Knowledge management holders.
- Knowledge management leadership.
- Information technology for managing knowledge.
- Measuring Knowledge management.

### 1.4 Knowledge Management Strategy Objectives

Wiersema and Tracey considered that there are three high-level strategic goals for the organization, which are product leadership, customer satisfaction, and operational excellence, and this suggests that there are three basic elements of any competitive business represented in the business itself, its products and customers, all of these components represent the focus of attention to one of the value disciplines. The focus is on the product when pursuing product leadership and focus on customers and their requirements when

pursuing intimacy with customers. The focus is on the organization itself and its delivery processes when pursuing operational excellence, and depending on the organization's focus, and knowledge management strategies are developed, where Organizations strive to achieve product leadership by creating and creating new and innovative products to obtain a significant market share. Product leadership is meant to be the first company to introduce a new product in the market, thus creating marketing capabilities for it, thus achieving leadership in products. Through continuous technological innovations, and from a knowledge point of view, product leadership requires a high strength of renewal within the organization. However, knowledge based on the principles laid down by Nanoka and Takeuchi, early identification of market trends, as well as technological developments, is essential in order to achieve leadership called " Customer inti Macy ", meaning the proximity to the customer or the customer as a partner, means knowing more requirements and preferences of customers than competitors, directing customers individually and building trust in order to learn and grow together, where the " clipping service " is considered " A good example of the strong relationship with this customer, and knowledge is built while maintaining customers and taking into account what benefits the customer through a more focused presentation of information and thus the customer feels better service and is linked directly to the company, and from another point of view the knowledge is organized by the learning process by And with customers, where the process of re-circulating operations is carried out according to customer requests, and from another point of view the relationship with customers also means managing information related to the customer and providing complete solutions under the slogan "one face for the customer".

The third goal is a strategic goal for the company and includes learning quickly using smart processes and away from repeating mistakes while avoiding double work and transferring best practices efficiently. Rapid learning of operations within the organization is imperative for survival and growth, especially in high-priced markets. This defines the rapid decline in prices and short product life cycles.

Through the previous, it is clear that all three objectives can only be achieved if the necessary financial and knowledge resources are available, and strategic objectives must also be supported and achieved by educating stakeholders about the importance of knowledge in achieving the objectives of the company, and the provision and presentation of capital. Intellectually transparent and accurate (Klaus, 2018).

### **1.5 The performance approach and knowledge management**

One of the following three possible methods :(Jennex, 2008)

Measuring general organizational performance depends on identifying specific measures of knowledge management results in terms of organizational performance to enhance product or service quality, productivity, creativity and activity, competitiveness and market share, closeness to the customer, employee satisfaction, communication and knowledge exchange, transparency and knowledge retention.

Measuring the financial performance of an organization typically uses return on equity, return on investment, sales, and profitability.

The combination of general regulatory measures and financial performance.

As for our study, we adopted the goal approach, which focuses primarily on its measurement of the financial dimension. The study took those indicators widely used by most previous studies that proved the relationship between knowledge management and performance. It is also possible to find research that did not confirm this link. Still, most of those studies confirmed that link, so the authors who demonstrated the relationship between knowledge management and performance would be included in the table below.

Table (1): Researches that explored the link between knowledge management and organizational performance

author	Focus of the research	Main result of the research	Link confirmed
Bierly and (chakrabarti (bearly 1996)	Define a set of knowledge management strategies, determine how they change over time, and compare the profit margins of these groups.	The results confirm that organizations in the pharmaceutical industry that It has more knowledge than strategy, especially aggressive strategy, which has higher financial performance.	yes
Wen chong et al (wen,2000)	Identify areas of knowledge management that add value to organizations.	The results confirm that despite the limited number of organizations that have a mechanism to track the return on investment based on knowledge and competencies, and this means that the majority were not able to determine the value of their investment business, and from the benefits gained through knowledge management activities, including providing better services and improving the flow of services Communication, problem solving in a short period of time.	yes
Castillo (castiloo, 2003)	An empirical study to determine the relationship between organisational performance and knowledge management on a sample of organizations	The results show that there is little return from organizational knowledge, in terms of financial indicators and efficiency index, but with that there are organizations that have achieved good indicators, especially financial ones.	yes
Calling 2003	The study focuses on linking the quality of knowledge management to organisational performance.	The results do not confirm the relationship between the quality of knowledge management and organizational performance.	no
Mckoen Et al (2006)	The study focuses on the impact of knowledge management on organizational performance	The results confirm that knowledge management practices are directly related to organizational performance , especially financial performance.	yes
Harlow(2008)	Emphasis was placed on assessing the implicit level of knowledge within organizations and its impact on organisational performance	The results indicate a positive relationship between the tacit knowledge index, innovation and financial results	yes

Source: Source: Prepared by the researcher based on previous studies

To measure organizational performance, we relied on the indicator of the rate of return on total assets and the rate of return onequity, for a period of three successive years (2017,2018,2019) of banking activity based on the study of researchers shown in Table 02

Table (2) :Financial indicators used in the researches of the link between knowledge management and organizational performance

used pointer	author
ROA, ROS	Bierly and chakrabarti
ROS, ROA, ROE,	Castillo
ROE,ROS	Feng et al
TOPIN SQ AND ROA, ROE	Taniverdi
ROA, ROE	McCoen et al

Source: Prepared by the researcher based on previous studies

## 2.The experimental framework for the study

### 2 .1 Analysis of the results:

#### 2.1.1 Analysis of the results of the dimensions of knowledge management

Through Table (03) below, which shows the arithmetic averages and standard deviations for all dimensions of knowledge management, we find that:

Attitudes of the sample members concerning knowledge management there is positive and negative, as the arithmetic mean calculated for knowledge management success factors was positive, that is, more than the hypothetical arithmetic mean of 3.00, which is represented in the Knowledge management infrastructure, Knowledge management culture, Knowledge management holders and Knowledge management leadership, As for the dimensions of information technology for managing knowledge and Measuring knowledge management, their arithmetic mean was less than the hypothetical mean.

But in general, the attitudes of the sample members about the knowledge management variable are positive, as its arithmetic mean is estimated at 3.38, which is greater than the hypothetical mean of 3.00, with a standard deviation of 0.64, and the coefficient of variation does not constitute more than 19.2%, which indicates the great consistency in the answers of the sample members. The study on knowledge management success factors is shown in the table, as in the following table (03).

Table (03): Results of the descriptive analysis of knowledge management success factors

knowledge management success factors	Arithmetic mean	Variation coefficient	standard deviation
Knowledge management infrastructure	3.524	24.2	0.90
Knowledge management culture	3.54	22.3	0.81
Knowledge management holders	3.501	23.3	0.82
Knowledge management leadership	3.48	24.7	0.81
information technology for managing knowledge	2.936	22.4	0.69
Measuring knowledge management	2.89	23.3	0.68
<b>knowledge management</b>	<b>3.387</b>	<b>19.2</b>	<b>0.64</b>

**Source:** Prepared by the researcher according to the results obtained from the questionnaire through statistical packages

#### 2 .1.2 Analysis of the results of the dimensions of performance:

As shown by Tables (04) and (05) below, which show measuring the organizational performance of the banks under study, the indicators used by previous studies were relied on, foremost among which were the rate of return on investment and the rate of return on equity, in addition to It supports the approach in which the study is studied, which is the goal entrance, which depends on the financial indicators. The results of the analysis of these indicators were as follows.

##### ✓ Results of the impact rate of return on investment

Table (04): Results of the descriptive analysis therate of return on investment

Banks	rate of return on investment			Average %ROA	ranking
	2017	2018	2019		
the Algerian Foreign Bank	2.20	2.70	2.75	2.55	3
Al Baraka Bank	2.80	1.81	1.91	2.17	5
BNP Bank	2.80	3.03	2.91	2.91	2
the Algerian National Bank	1.98	2.20	2.15	2.11	6
Trust bank	2.33	2.42	2.22	2.32	4
Gulf bank	3.20	3.11	2.99	3.1	1

Source: Prepared by the researcher based on the financial results of the banking banks under study

Table (04) indicates the rate of return on investment for the banks under study during the three years (2017.2018.2019). We note from the results that 66% of the surveyed banks have a decrease in the rate of return on investment from one year to another and over three years. With matching the performance results with the results of the knowledge management analysis, it was found that those banks in which knowledge management was high compared with the rest of the banks had a high average rate of return on investment for the three years, which suggests that there is a possibility of the impact of knowledge management on the rate of return on investment, which calls for testing the relationship between them and know the degree of influence in the case of the presence of influence.

#### ✓ Results of the impact of the rate of return on equity

The rate of return on equity is one of the most prominent and widely used indicators by previous studies that focused on measuring organizational performance.

Table (05): Results of the descriptive analysis the rate of return on equity

Banks	rate of return on equity			Average ROE%	ranking
	2017	2018	2019		
the Algerian Foreign Bank	10.45	11.45	9.43	10.44	5
Al Baraka Bank	21.43	21.01	17.18	19.87	2
BNP Bank	13.45	14.67	12.78	13.63	4
the Algerian National Bank	13.56	13.87	14.78	14.07	3
Trust bank	8.97	7.65	7.78	8.13	6
Gulf bank	26.78	26.98	27.98	27.24	1

Source: Prepared by the researcher based on the financial results of the banking banks under study

Table (05) indicates the rate of return on equity for the banks under study during the three years (2017, 2018.2019), and we note from the results that there is no stability in the rate of return on equity, there is a decrease in the rate from another year for 50% of investigated banks.

### 3. Testing the hypotheses of the study:

To test the validity of the study's hypotheses, we conducted a test that used the correlation analysis method to find out the nature of the relationship between knowledge management and the dependent variable (financial performance) and the simple regression analysis method to find out the degree of impact of each dimension of knowledge management on the financial performance of the banks under study as follows:



**First sub-hypothesis test:** There is a direct relationship between knowledge management and financial performance in the banks under study.

The results shown in the table below indicate a weak correlation for the dimensions of Knowledge management culture, Knowledge management holders and Knowledge management leadership, information technology for managing knowledge, as well as an average correlation for each of the Knowledge management infrastructure and Measuring knowledge management on the rate of return on investment, while the correlation between the dimensions of knowledge management combined and The average rate of return on investment has reached 0.485.

As such, the results shown in the table below indicate a weak correlation for all dimensions of knowledge management on the rate of return on equity, while the correlation between the dimensions of combined knowledge management and the rate of return on equity was weak and was estimated at 0.231.

**Table No. (06): Results of the Correlation Test between Knowledge Management and Financial Performance**

	Financial Performance			
	rate of return on equity		rate of return on investment	
	Variation coefficient	Significance	Variation coefficient	Significance
Knowledge management infrastructure	0.123	0.451	0.421	0.012
Knowledge management culture	0.121	0.478	0.231	0.21
Knowledge management holders	0.064	0.699	0.198	0.059
Knowledge management leadership	0.055	0.615	0.182	0.234
information technology for managing knowledge	0.21	0.198	0.253	0.182
Measuring knowledge management	0.241	0.252	0.490	0.04
<b>Knowledge management</b>	0.231	0.166	0.485	0.04

Source: Prepared by the researcher according to the results obtained from the questionnaire through statistical packages

\*There is a correlation at the significance level ( $\alpha < 0.05$ )

**Second sub-hypothesis test:** There is no statistically significant effect of knowledge management on the rate of return on investment

**Table (07): Results of simple regression analysis of the dimensions of knowledge management on the rate of return on investment**

Independent variable	The coefficient of determination	F calculated	BETA	T calculated	Statistical significance	effect order
Knowledge management infrastructure	0.147	6.915	0.401	2.710	0.014	2
Knowledge management culture	0.025	1.734	0.209	1.300	0.199	4
Knowledge management holders	0.0031	1.101	0.181	1.045	0.061	6
Knowledge management leadership	0.012	1.366	0.192	1.176	0.249	5
information technology for managing knowledge	0.028	1.998	0.239	1.390	0.168	3
Measuring knowledge management	0.211	10.304	0.482	3.210	0.03	1
<b>Knowledge management</b>	0.209	10.197	0.480	3.193	0.03	

Source: Prepared by the researcher according to the results obtained from the questionnaire through statistical packages

The results of the analysis in the above table highlight the values of the coefficients of the simple regression test for the impact of knowledge management represented by its components, respectively, on the rate of return on investment, which we mention as follows:

- The values of the test coefficients indicate that there is an effect of the knowledge management infrastructure on the rate of return on investment, where the value of ( $R^2$ ) is (0.147), meaning that the independent variable Knowledge management infrastructure was able to explain 14% of the changes in the rate of return on investment, while 85.3 % of the This change is due to other factors, and the value of BETA indicates the amount of change in ROA , which amounted to 40.1 % , which means that whenever the value of the Knowledge management infrastructure decreases by one unit, the change in ROA increases by 40.1 % , and the T value test indicates the significance of the regression at the level of The significance is 0.05 and with a degree of freedom (4,1), where the calculated (T) value is 2,631 and greater than its tabular value, while the value of the test F indicates the significance of the Knowledge management infrastructure effect on ROA, and its calculated value reached 6,912 and then less. From the tabulated F value, at the significance level of 0.05 and the degree of freedom (4,1), Thus, the coefficient of determination and the test of its strength, interpretation, and significance indicates the presence of an effect of the Knowledge management infrastructure on ROA, and it is statistically significant at the significance level of 0.05.
- The test results show that there is no effect at the significance level of 0.05 for the Knowledge management culture on the rate of return on investment, where the value of  $R^2$  reached (0.025), meaning that the stable variable Knowledge management culture was able to explain the amount of 2.5% of the changes in the rate of return on investment, and we find the value of BETA It reached 0.209 and this explains that for each increase in the value of Knowledge management culture by one unit, the change in the rate of return on investment increases by 0.209.
- T-test indicates the insignificance of this regression for each knowledge storage, knowledge sharing, and knowledge application at the significance level of 0.05 and with a degree of freedom (1,4), where the calculated T values ranged between (1.300), (1.040), and (1.176), (1.390). It is thus less than its tabular value, at the same level of significance, and with the same degree of freedom, while the value of test F indicates the lack of strong influence on Knowledge management culture, Knowledge management holders, and Knowledge management leadership, information technology for managing knowledge in the rate of return on investment, as it ranged in F value between (1.734) and (1.104) and (1.366), (1.938), which are thus less than their tabular value, and thus the correlation coefficients and testing their strength and interpretation indicate that there is no effect of Knowledge management culture, Knowledge management holders, Knowledge management leadership, information technology for managing knowledge on the rate of return on investment.
- The values of the test coefficients indicate that there is an effect of Measuring knowledge management on the rate of return on investment, where the value of ( $R^2$ ) is (0.211), that is, the independent variable Measuring knowledge management was able to explain 21.1% of the changes in the rate of return on investment, while 78.9 % of the This change is due to other factors, and the value of BETA indicates the amount of change in ROA , which amounted to 48.2 % , which means that whenever the value of the knowledge gap decreases by one unit, the change in ROA increases by 48.2 % , and the T value test indicates the significance of the regression at the level of The significance is 0.05 and with a degree of freedom (4,1), where the calculated ( T ) value is 3.210, which is greater than its value, while the value of the test F indicates the significant effect of the Measuring knowledge management on ROA , and its calculated value reached 10.340 greater than the tabular F value, when The significance level is

0.05 and the degree of freedom is (4,1), thus being the coefficient of determination and testing its strength, interpretation and significance indicating that there is an effect of Measuring knowledge management on ROA and is statistically significant at the significance level of 0.05.

- The regression coefficients in the above table indicate that there is a statistically significant effect of knowledge management in all its dimensions on the dependent variable (the rate of return on investment), where the effect value was 0.480, at the significance level 0.03 which is less than the It is less than the approved significance level 0.05.

**Third sub-hypothesis test:** There is no statistically significant effect of knowledge management on the rate of return on equity

Table (08): Results of the simple regression analysis of the dimensions of knowledge management on the rate of return on equity

Independent variable	The coefficient of determination	F calculated	BETA	T calculated	Statistical significance	effect order
Knowledge management infrastructure	0.017	0.515	0.101	0.711	0.414	3
Knowledge management culture	0.013	0.434	0.129	0.500	0.491	4
Knowledge management holders	0.0061	0.151	0.083	0.345	0.761	6
Knowledge management leadership	0.006	0.266	0.092	0.476	0.649	5
information technology for managing knowledge	0.058	1.818	0.239	1.340	0.188	2
Measuring knowledge management	0.0651	2.204	0.252	1.410	0.153	1
Knowledge management	0.061	2.197	0.257	1.393	0.163	

Source: Prepared by the researcher according to the results obtained from the questionnaire through statistical packages.

The results of the analysis in the above table highlight the values of the coefficients of the simple regression test for the impact of knowledge management represented by its construction elements, respectively, on the rate of return on equity, which we provide as follows:

- The results of the test show that there is no effect of the Knowledge management infrastructure on the rate of return on equity, and it is not statistically significant at the significance level of 0.05, where the value of the coefficient of determination was 0.017, meaning that the independent variable knowledge gap was able to explain 1.7% of the changes in the rate of return on equity in When 98.3% of this change is attributed to other factors, and the value of BETA refers to the amount of change in the rate of return on equity, its value reached 0.101, which means that the lower the value of the Knowledge management infrastructure by one unit, the change in the rate of return on equity increases With a value of 0.101, the T - test indicates the insignificance of the regression at the significance level of 0.05 and with a degree of freedom of 3, where its calculated value amounted to 0.515, which is less than its tabular value, which amounted to 0.711 at the significance level of 0.05. The effect of the Knowledge management infrastructure on the rate of return on equity, which is statistically significant at the significance level of 0.05.
- Through the regression test for the effect of Knowledge management culture on the rate of return on equity, the results showed that the coefficient of the determination reached a value of 0.013, meaning that its interpretation was very weak, and the morality test did not show an effect of Knowledge management culture on the rate of return on equity.
- By noting the remaining elements of knowledge management success factors from knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation, they have no

significant significance at the significance level of 0.05, meaning that there is no effect on the remaining elements of knowledge management processes on the rate of return on equity.

**Testing the main hypothesis:** There is no statistically significant effect of knowledge management on the financial performance of the Banks Under study.

Table (09): Results of simple régression analysis of the dimensions of knowledge management combined on Financial performance

Independent variable	The coefficient of determination	BETA	T calculated	Statisticalsignificance
knowledge management	0.123	0.34	2.045	0.047

Source: Prepared by the researcher according to the results obtained from the questionnaire through statistical packages

➤ The results of the test show that there is an impact of knowledge management success factors on financial performance indicators in general with a statistical significance at the significance level of 0.05, where the value of the coefficient of determination was 0.123, meaning that the independent variable knowledge management was able to explain 12.3% of the changes in financial performance indicators, that is, that 87.7% of this change is attributed to other factors, and the value of BETA refers to the amount of change in the financial performance indicators. Its value reached 0.34, which means that whenever the value of knowledge management success factors decreases by one unit, the change in financial performance indicators increases by a value of 0.34 and indicates a T-test to the significance of the regression at the significance level of 0.05 and the degree of freedom 4.

After presenting the results reached, they must be discussed by giving them their place in their field and comparing them with previous studies, showing their extent and opposition to previous results.

### Conclusion

Overall, the correlation analysis focused on six knowledge management success factors and two financial indicators; therefore, investigating twelve possible links proved two out of twelve links to be significant, two links to be insignificant although indicative of a definite but small relationship, and five links to be insignificant with a slight, almost negligible relationship. As this research confirmed the important link between two out of six knowledge management success factors and financial indicators: Knowledge management infrastructure, Measuring knowledge management, and financial indicators ROA, it supports the thesis of knowledge management being related to the financial performance of organizations.

The study concluded with several results and recommendations, which we address as follows:

- Our study found that the level of knowledge management in the banking institutions under study was generally a positive trend, as the general arithmetic means of all dimensions of this variable was (3.38).
- It was also found through the field study that the rate of return on investment in the institutions under study varied from one bank to another and from one year to another.
- It was also found through the field study that the rate of return on equity in the institutions under study also varied from one bank to another and from one year to another.
- The field study also proved, by testing the correlation between the dimensions of knowledge management individually and the financial performance of the banking institutions under study, that there is a medium positive correlation between each of the dimensions of knowledge management and the dependent variable (the rate of return on investment), while there is a weak

positive correlation between All dimensions of knowledge management and the dependent variable (the rate of return on equity).

- The field study also demonstrated the existence of a statistically significant effect of the combined knowledge management dimensions on the dependent variable (the rate of return on investment), where the effect value was 0.480, and the significance level was 0.03, which is less than the approved significance level 0.05, while the coefficient of determination was 0.209, That is 20.9 % of the changes in the rate of return on investment are attributed to the independent variable, knowledge management.
- The field study also demonstrated that there is no statistically significant effect of the combined knowledge management dimensions on the dependent variable (the rate of return on equity), where the effect value was 0.257, and the significance level was 0.163, which is greater than the approved significance level 0.05, and here the effect is not significant. While the coefficient of determination was 0.061, meaning that 6.1 % of the changes in the rate of return on equity were attributed to the independent variable knowledge management.
- It is also noted through testing the influence relationship between the dimensions of knowledge management combined and the financial performance of the banking institutions under study that this relationship has a positive effect. Still, it is weak, as the impact factor was 0.34. The level of statistical significance was 0.047, which is significant and statistically significant. The coefficient of determination was estimated at 0.123, That is, the independent variable knowledge management was able to explain 12.3% of the changes that occurred in the financial performance indicators, and 87.7% of this change is attributed to other factors not included in this model.

#### **Recommendations:**

Through the results that we reached in this research paper, we came up with a set of recommendations, which we mention as follows:

- Giving great importance by department officials to develop the level of human resources so that all knowledge management processes can be applied
- Giving importance to the non-financial aspects, especially in the banking sector, which is greatly affected by the investment environment in which it exists, such as legal frameworks, the nature of the economy, the level of awareness of individuals .
- Keeping pace with the developments that occur at the banking industry level in terms of information systems and applications that increase the speed of service performance.
- Adopting modern methods in the continuous assessment of the level of progress in adopting knowledge management.

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