

## Develop the Business Intelligence Based on knowledge Management Approach: Case Study of Telecom Operators in Algeria

Ilyes BOUDIAF

Abdelhamid mehri Univesity, Constantine 2; ilyes.boudiaf@univ-constantine2.dz

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### **Abstract:**

We aim through this study mainly to measure the impact of knowledge management on Business intelligence through its factors. We have followed descriptive, inductive and experimental approaches. Where we have developed a model that shows the relationship between the variables and its impact (Knowledge management and Business intelligence). In this study we relied on structural dimensions as Leadership, cultivation; Technology, and process. This study was conducted on a sample of 153 individuals from 33 telecom agencies or commercial spaces in Algeria (8 WTA, 11 OTA, 14 AT), where the main results of this study showed the existence of a (strong - positive) correlation and effectiveness of Knowledge management and the Business intelligence.

**Keywords:** knowledge management Leadership; cultivation; Technology; process; Business intelligence..

**(JEL) Classification :** D41; M31

### **1. Introduction:**

Today, profound economic transformations are taking place, characterized by a rapid passage to immaterial space, as investment in the field of knowledge has become far exceeding its counterpart in the physical field (materials and equipment...), and the resources allocated to investment in the production and dissemination of information and knowledge such as research, development education and training, as well as information and communication technology, are constantly increasing, and from this point of view, the knowledge-based economy has gradually become an imperative for the development of countries. In view of this new form of economic space and its transformations at the micro and macro levels, both economies and organizations cannot remain neutral, but are required not only to the role of processions, but to play the role of contributor to the manufacture of this new space, especially with the organized openness of various agreements (WTO) Partnership agreements, free exchange systems...

#### **1.1. Problematic:**

The field of "knowledge management" as a radical shift in the nature of business in its quest to form educational organizations that achieve knowledge creation, exchange and provision at the appropriate time and place, by increasing the use of information technology and linking individuals together in networks that help them exchange ideas, information and experiences faster and easier. Since the world has kept pace with the prospects of the technology and the subsequent information and communication revolution, business organizations have taken to facing the challenges and risks of globalization and tremendous technological developments, which have threatened their survival and business continuity both locally and globally.

The strength of the radical link between the field of work of organizations, effective control and employment, and the method of successful management of technological techniques, is the secret of its success in light of the rapid change in the market mechanism. Where most decision makers in major organizations are keen to use information technology in their systems, in pursuit of improving work performance and increasing the level of profitability, in addition to creating a competitive advantage that differentiate their organization in the technology application.

Algerian organizations are required to adapt to the developments taking place to overcome the difficulties and face the challenges, and for this purpose our study came to shed light on the subject of knowledge management, and determine how it supports the strategic decision-making process to develop business intelligence in the telecommunication sector.

From forgoing we present the main question of our study as follows:

Do telecom operators in Algeria adopt the Knowledge management model, and to what extent, Can telecom operators improve the Business intelligence by applied the Knowledge management model?

### **1.2. Hypothesis:**

We put the following hypothesis as a guide to answer our question and as a provisional answer waiting to be tested, as follows:

Telecom operators in Algeria adopt the Knowledge management as it represents a crucial factor to developing the Business intelligence for organizations.

### **1.3. The Objective:**

The objective of this study is to:

Knowing the effect of Knowledge management on achieving and developing business intelligence.

### **1.4. Material and Methods:**

We are going to follow three approaches for processing and analysis the data and reaching results, which are the descriptive, inductive and experimental approaches. We have developed a model that shows the relationship between the studied variables (Knowledge management Model and Business intelligence). Dependence on the survey method by collecting and analyzing data by using a set of statistical indicators such as the Cronbach's Alpha test, Kolmogorov Smirnov for one sample test, descriptive statistics (mean, standard deviation,), Pearson correlation coefficient , one sample T test, multiple regression and paired T test for test the hypotheses.

### **1.5. Population and Sample:**

The study population consists of all the agencies and commercial spaces for the telecommunications sector in Algeria, containing more than 320. We conducted our study on a sample of 153 individuals from 33 telecommunications agencies or commercial spaces from the four states of Constantine, Mila, Oum El Bouaghi and Setif.

### **1.6. Study Sources:**

We relied in our study on research papers in particular. As well as the explanations provided by telecom operators in the form of an interview, however, the questionnaire occupied the first place as the main tool for data collection for the Empirical stage. In addition to scientific journals, periodic, conferences and reports.

## **2. Literature Review:**

### **2.1. Knowledge management: Definition and Processes:**

Nowadays, knowledge has been exceedingly recognized the most key competitive resource (Tingwei , Yueting , & Yi Liu., 2018). In this way, knowledge is considered as a critical driving force for achieving the company's performance objectives. This is caused by knowledge facilitates better timely business decision-making processes. (Favoretto & Carvalho, 2021). Although the wide range of research on knowledge management, there appears to be no global definition of the word, just as there is no assent

on what it makes up. According to (Suresh, Olayinka, Chinyio, & Renukappa, 2016), the different definitions of knowledge may be abstracted and categorized into: Classical age definitions of knowledge, as good reason for true belief and of knowledge contemporary definitions, as experiences mixture, information and values Thus, knowledge management means understanding the using of knowledge to successfully deal with applied tasks that involve knowledge-based policies and activities. The literature acknowledges that the transfer of knowledge through interfaces between tacit and explicit knowledge (Reich, Gemino, & Sauer, 2012) is a dominant aspect of knowledge management.

There are several approaches to the notion of knowledge, as it is a complex and conclude term. Indeed, the definition of knowledge is a subject of ongoing debate between philosophers in the epistemology field. One of the widely accepted definitions of knowledge is that: the knowledge is a dynamic human asset for justifying personal beliefs in order to obtain truth. It may then be asserted that knowledge is an intangible resource or invisible, the acquisition of which includes complex cognitive processes of perceiving, learning, communicating, relating and thinking (Epetimehin & Ekundayo, 2011). Knowledge is the notion, skill, vision and experience, that supply a framework for creation, evaluation, utilize and developing information (Soltani & Navimipour, 2016). As a consequence of big data volumes and complication, most organizations are facing challenges in the procedure of analyzing a vast range of pertinent information (Mohammed & ShadiHabis , 2019)

Knowledge Management Process is a dynamic unit of Knowledge-Sharing. In knowledge-based organizations as a university, enhanced specialty in Knowledge Management works such as catalyst for reinforcement exploration and collaboration (Aneela , et al., 2021). Knowledge management processes are defined as procedures related to the creating, acquisition, storing, share, and use of knowledge to improve the performance of employees. (Barley, Treem, & Kuhn, 2018). Furthermore, Knowledge management enablers are aware of all those aspects that ultimately influence the radical growth of Knowledge management operations (Naqshbandi & Jasimuddin, 2018). Several previous studies demonstrated the separate or concurrent positive influence of knowledge management enablers and processes on the KS attitude of teachers of university (Sahibzada, Cai, Latif, & Shafait, 2020).

Evaluation of the current literature on knowledge management processes in business organizations helped to identify significant gaps that need to be filled. Given the knowledge importance in organizations, and in context of the contemporary of high inter-organizational competitiveness, Knowledge management and organizational learning culture are core concepts in both academic and managerial settings (Schmitz, Rebelo, Gracia, & Tomas, 2014). Subsequently, in the case of business organizations, it promotes research cooperation of academics (Tan & Noor, 2013). The use of knowledge is a mixture of technical, operational and social aspects (Pasha & Pasha, 2012) .It is the Implementation of knowledge to organizational processes and operations to produce valuable products and services (Iqbal, Latif, Marimon, & Sahibzada, 2019).

## 2.2. Business Intelligence:

Business intelligence is applications and techniques to collect, access and analyze large amounts of data to organizations to make an effective decisions (Wang & Wang, 2008). Business Intelligence is a easily available tool that ability of collection, storage and processing the information. Therefore, the main role of business intelligence tools in effectively managing information is to help management improve access to accurate information when needed (Farzaneh, Isaai, Arasti, & Mehralian, 2018).

The business intelligence systems may supply strategic management and stakeholders with a whole view of the organization, consequently providing benefits like the capability to make quicker, more accurate and reliable decision. Business intelligence can be defined as a combination of processes, methodologies, computer tools and techniques that manipulate data in information with the cumulative experience of knowledge, and the cumulative knowledge of intelligence so that departments can make decisions on different level.

Business intelligence also is an integrated approach operational process performance, for reach main objectives over timely interaction and gateway to data, and its qualification to give managers with the requested analysis that analysis historical and present data and compares it to previous time periods (Turban, Sharda, Aronson, & King, 2008). Features of business intelligence, if properly implemented, integrated and up-to-date the information, timely information provision, high quality information, improved support for achieves the strategic and organizational goals, and improves organizational performance (Holsapple, Lee-Post, & Pakath, 2014).

Business intelligence use to collecting data from inside and outside the organization, to gather information, to find out remarkable hidden patterns among heterogeneous data from several sources inside and outside the organization, and to convert them into the desired knowledge to make higher-quality and precise decisions (Teoh, Rajendran, & Lim, 2014), The great sophistication of the business environment and the flexible structure of business intelligence make its technical items not limited to a certain number and include items like data warehouses, data analysis tools, user interface and dashboard (Turban E. S., 2011) .

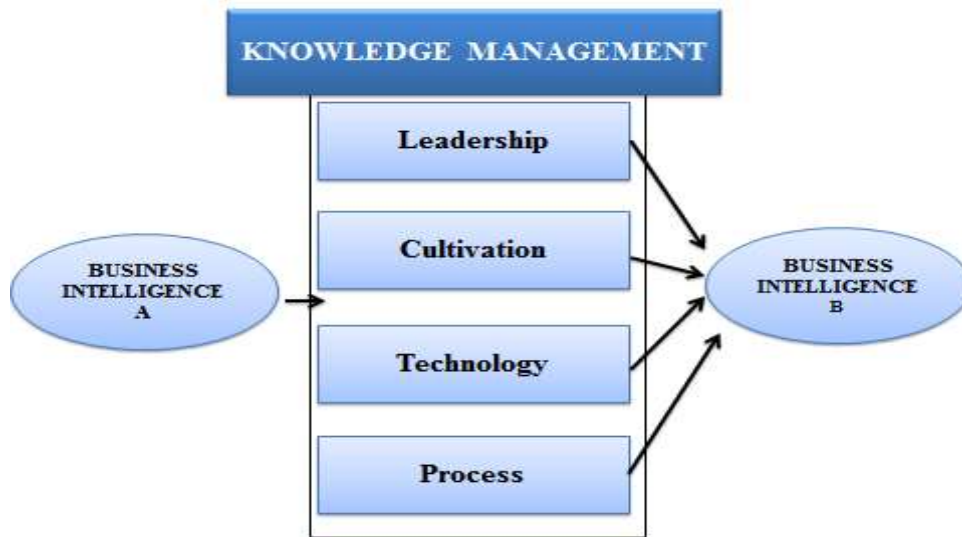
### 3. Methods And Materials:

The approach used in this study is basically a descriptive inductive and experimental approaches. We design an appropriate questionnaire on the basis of a five-point Likert scale. The population of this study includes all telecoms agencies and commercial spaces of Algerian telecom sector. We took a multi-stage random sample and the sample size was calculated according to the specified population size 320 i.e. 10%. We took 153 individual from 33 telecommunications agencies or commercial space. The variables of this study were identified as follows: Independent variable: Knowledge management, dependent variable: Business intelligence We proposed a model that shows the relationship between the study variables as shown in the following figure: In order to test the hypothesis we use one sample T-test, multiple regression t and paired T test.

#### 3.1. The Proposed Model:

The model is represented in the following figure where its shows the variables and the correlation between them. The variables of this study defined as follow: Dependent variable: the Business intelligence, Independent variable: knowledge management (Leadership, process, Technology, cultivation). In order analyze the data we're going to use one sample T test, the multiple regression and paired T test models for test the hypotheses.

Figure (01): The proposed model



Source: By the researcher depending on the study perception.

The figure (01) shows the variable and the effect of Knowledge management through its dimension on Business intelligence. The following steps we'll try during them to describe test the hypothesis and analyze the results and conclusion finally.

**3.2. Reliability:**

The Reliability of the tool is intended to give this tool (questionnaire) the same result if it was redistributed more than once under the same conditions and in different context, or in other words, the Reliability of the tool means Reliability in its results and not to change it significantly if it is redistributed among the sample members several times during certain periods of time, the researcher test the reliability of the questionnaire by using the Cronbach alpha method, as follows:

**3.2.1. Cronbach's Alpha Coefficient:**

The researcher used the Cronbach alpha to measure the reliability of the questionnaire, and the results were as shown in the table below.

**Table(01): Cronbach alpha test for Knowledge management and Business intelligence**

Y	Area		Cronbach's Alpha			
	Dimensions	N of Items	AT N=64	WTA N=51	OTA N=38	Total N=153
X1	Leadership	5	.810	.829	.800	.812
X2	Process	3	.831	.840	.802	.801
X3	Technology	3	.782	.824	.812	.801
X4	Cultivation	4	.801	.831	.813	.801
Y	Business intelligence	5	.842	.829	.811	.819
X	Total Knowledge management	15	.834	.851	.804	.812

Source: By the researcher depending on SPSS.V26 output

It is clear from the results shown in the table 1 that the value of the Cronbach Alpha coefficient is high for each component of the questionnaire. Also, the value of the alpha coefficient for all components of the questionnaire was 0,812 and 0.819 Consecutively for Knowledge management and Business intelligence, which means that the reliability coefficient is high. Thus, the researcher has emphasized of the validity and reliability of the questionnaire, which makes him confident of its validity and reliability to achieve the results, analyze the data and test the hypotheses.

**3.2.2. Guttman Split-Half Coefficient:**

The researcher used the Guttman Split-Half Coefficient to measure the reliability of the questionnaire as a second indicator, and the results were as shown in the table (02):

**Table(02): Guttman Split-Half test for Knowledge management and Business intelligence**

Y	Area		Guttman Split-Half Coefficient			
	Dimensions	N of Items	AT N=64	WTA N=51	OTA N=38	Total N=153
X1	Leadership	5	.800	,811	,801	,812
X2	Process	3	.810	,811	,802	,810
X3	Technology	3	.702	,821	,801	,800
X4	Cultivation	4	.801	,812	,810	,801
Y	Cmpetitive priorities	5	,840	,810	,800	,820
X	Total Knowledge management	15	,807	,841	,810	,802

Source: By the researcher depending on SPSS.V26 output

It is clear from the results of table (02) that the value of Guttman Split-Half is good for all questionnaire parts. Also, the value of the Guttman Split-Half coefficient for all survey parts was 0,802 and 0.820 Consecutively for Knowledge management and Business intelligence, which means that the reliability coefficient is high. Thus, the researcher has confirmed the validity and reliability of the questionnaire, which makes them confident of its validity to analyze the results, answer the questions and test its hypotheses.

**3.3. Structural Validity:**

Structural Validity is one of the tool's validity measures, which measures the extent to which the goals are achieved by the research tool. It shows the extent to which each questionnaire part is related to the overall indicators score.

**Table(03): Structural Validity of the Knowledge management and Business intelligence**

Y	Dimension s	Pearson Correlation				Sig. (2-tailed)			
		AT N=6 4	WT A N=5 1	OTA N=38	Total N=15 3	AT N=6 4	WT A N=5 1	OTA N=38	Tota l N=1 53

X <sub>1</sub>	Leadership	,804 <sup>*</sup>	,801 <sup>*</sup>	,800 <sup>*</sup>	,807 <sup>**</sup>	,000	,000	,000	,000
X <sub>2</sub>	Process	,803 <sup>*</sup>	,808 <sup>*</sup>	,801 <sup>**</sup>	,801 <sup>**</sup>	,000	,000	,000	,000
X <sub>3</sub>	Technology	,804 <sup>*</sup>	,800 <sup>*</sup>	,803 <sup>**</sup>	,804 <sup>**</sup>	,000	,000	,000	,000
X <sub>4</sub>	cultivation	,900 <sup>*</sup>	,800 <sup>*</sup>	,800 <sup>**</sup>	,803 <sup>**</sup>	,000	,000	,000	,000
Y	Business intelligence	1,000	1,000	1,000	1,000	-	-	-	-
X	Total Knowledge management	1,000	1,000	1,000	1,000	-	-	-	-

\*\* . Correlation is significant at the 0.01 level (1-tailed)

Source: By the researcher depending on SPSS.V26 output

The table (03) shows the correlation coefficient between the Knowledge management and Business intelligence and their dimensions. Where it can be seen through the indicators in the table 3 that the correlation coefficients indicated are significant at  $\alpha = 0.01$  levels and this is valid to measure.

After testing the validity and reliability, as well as describing the variables, in this part we try to test the hypotheses through a set of tests to reach the empirical answer to the problematic, after determining the appropriate tests according to the hypotheses as follows:

### 3.4. Parametric Tests Hypotheses:

We tested the hypotheses based on the Parametric Tests because the data are available of Parametric Tests hypotheses, which are:

- The variables nature is quantitative, for that the researcher purpose the evaluation method, not the Ordinal which is qualitative on Likert scale.
- The sample type is random: We relied on a multi-stage random sample that the population is quite homogeneous from managerial point of view. This facilitated the task and shortened the time of work.
- Observations follow the normal distribution, at least at 0.05 error level, and this is what the One-Sample Kolmogorov-Smirnov Test proves, according to the following hypotheses:

## 4. Results And Discussion

### 4.1. Hypothesis 1: Normality Distribution Test

- **H<sub>0</sub>: Observations follow the normal distribution of both components of Knowledge management and Business intelligence.**

We try to test the distribution of both Knowledge management and Business intelligence dimensions if it follows the normal distribution by using the One-Sample Kolmogorov-Smirnov test.

**Table(04): One-Sample Kolmogorov-Smirnov test for Knowledge management and Business intelligence.**

		Leadership	Process	Technology	cultivation	Business intelligence
N		153	153	153	153	153
Normal Parameters <sup>a,b</sup>	Mean	4.2330	4.0012	4.0200	4.2000	4.2012
	Std. Deviation	.50001	.61103	.63012	.60230	.70112
Most Extreme Differences	Absolute	.189	.184	.149	.139	.156
	Positive	.189	.184	.108	.128	.116
	Negative	-.165-	-.149-	-.149-	-.139-	-.156-
Kolmogorov-Smirnov Z		1.195	1.169	.924	.898	.911
Asymp. Sig. (2-tailed)		.190	.220	.405	.501	.304

a. Test distribution is Normal.

b. Calculated from data.

**Source:** By researcher based on the SPSS.V26 outputs

The table (04) shows the results of the One-Sample Kolmogorov-Smirnov test as the level of significance (Sig) for the components of the Knowledge management dimensions and Business intelligence is greater than  $\alpha$  (0.05) for all the dimensions, that meaning the distribution is not significant, this proves the H0, so the Knowledge management dimensions and Business intelligence observations follow the normal distribution.

#### 4.2. Hypothesis 2:

The following is the indicators of Knowledge management and Business intelligence and try to evaluate them with a proposed mean of 3.5 and a confidence level of 95%.

**Hb0: There are no Knowledge management and Business intelligence indications for telecom operators in Algeria.**

**Table(05): One sample T-test for Knowledge management dimensions and Business intelligence**

Code	Knowledge management, Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Leadership	4.954	152	.000	.53000	.2878	.7728
Process	5.953	152	.000	.60152	.3989	.9041
Technology	8.698	152	.000	.92420	.7066	1.1419



Cultivation	3.839	152	.001	.50000	.2341	.7659
Business intelligence	4.695	152	.000	.59001	.3345	.8473
Total Knowledge management	5.650	152	.000	.63930	.4003	.8605

Source: By the researcher depending on SPSS.V26 output

Through the indicators that shown in table 5 express the availability of both Knowledge management and Business intelligence that telecom customers have, we find that all indicators are significant (Sig less than  $\alpha$ ), except to Leadership that the operators were not able to understand the organization needs and activate his abilities and involve them into organization strategies, which indicates that telecom operators have a Knowledge management and Business intelligence that enables them to control the work process, improve the outputs with all the indicators such meet the customer need and wants with efficient manner and develop the product , services and solutions with target customers and maximize the offer values for its partners with proposed mean of 3.5 and a confidence level of 95%.

#### 4.3. Hypothesis 3:

For testing the hypothesis of the relationship between Knowledge management and Business intelligence, we are going to use Pearson correlation coefficient to fit it with the variables nature and conditions.

**Hc0: There is no significant (strong-positive) correlation between Knowledge management and Business intelligence.**

**Table(06): Correlation between Knowledge management and Business intelligence.**

		Leadership	Process	Technology	cultivation
Pearson Correlation	B.I	.901	.901	.940	.900
Sig. (1-tailed)	B.I	.000	.000	.000	.000
N	B.I	153	153	153	153

Source: By the researcher depending on SPSS.V26 output

It is evident from the results of Table 6 that the correlation between the four dimensions of Knowledge management (Leadership, process, Technology, cultivation) and improvement the Business intelligence is significant because the values of (Sig is less than  $\alpha$ ), which indicates the strong-positive significant correlation at the  $\alpha$  level between the dimensions of Knowledge management and improving the Business intelligence.

#### 4.4. Hypothesis 4:

**H<sub>0</sub>: Telecom operators in Algeria cannot improve the Business intelligence by relying on Knowledge management.**

In order to test the above hypothesis we use the multiple regression model, Business intelligence as a dependent variable and Knowledge management dimensions (Leadership, cultivation, Technology, and process) as independent variables as follows:

**Table(07) : Summary of the model Knowledge management and Business intelligence**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.907 <sup>a</sup>	.822	.819	.10654	.822	204.402	4	148	.000

a. Predictors: (Constant), Leadership, cultivation, Technology, and process

b. Dependent Variable: Business intelligence

**Source:** By the researcher depending on SPSS.V26 output

The table 7 shows each of the Pearson correlation coefficient R between the independent variables Knowledge management (Leadership, cultivation, Technology, and process) and the dependent variable Business intelligence, which is a very strong-positive correlation that shows the strong direct relationship between the Knowledge management and Business intelligence, in addition to the high R Square, which indicates the suitability of the model for estimating the direction of the relationship between the variables. Plus the Adjusted R Square resulting from F Change 204.402, and Sig. F Change .000 which shows the quality of the regression trend in estimating the relationship between (Leadership, cultivation, Technology, and process) and Business intelligence.

**Table(08): ANOVA of Knowledge management and Business intelligence**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.905	4	3.001	264.442	.000 <sup>b</sup>
	Residual	.398	148	.011		
	Total	13.303	152			

a. Dependent Variable: Business intelligence

b. Predictors: (Constant), Leadership, cultivation, Technology, and process

**Source:** By the researcher depending on SPSS.V26 output

From the ANOVA table 8, we find that the value of Sig = 000, which is less than the level of significance 0.05, so the regression is significant, and therefore there is a linear relationship between the variables that can be predicted towards improving Business intelligence in terms of the dimensions of Knowledge management (Leadership, cultivation, Technology, and process).

**Table(09) : Coefficients of Knowledge management and Business intelligence.**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.030	.250		.131	.898
	Leadership	.340	.104	.319	1.711	.098
	process	.165	.100	.199	1.800	.088
	Technology	-.237-	.170	-.169-	-1.312-	.286
	cultivation	.709	.120	.669	5.578	.000

a. Dependent Variable: Business intelligence

Source: By researcher based on the outputs of SPSS.V26

From the table 9 the multiple regression model can be written between the dimensions of Knowledge management (Leadership, cultivation, Technology, and process) and Business intelligence as follows:

$$\text{Business intelligence} = .030 + .340 \text{ Leadership} + .165 \text{ process} - .237 \text{ Technology} + .709 \text{ cultivation.}$$

Through the value of sig in the table, we find that the only independent dimensions  $X_4$  which express cultivation is the only significant dimension within the Knowledge management (sig is less than 0.05). While we find that all other variable coefficient, in addition to the constant, are not a significant because sig value greater than 0.05, which indicates that cultivation is the reason for the significance of the variance analysis of regression towards improving Business intelligence. This explains the importance of this factor and their contribution to improving and developing the Business intelligence.

#### 4.5. Hypothesis 5:

**H0: There are no differences in improving the Business intelligence within telecoms operators between before and after implementation of the Knowledge management.**

**Table(10) : Paired samples statistics of Business intelligence**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	BI .b	2,5502	153	,75205	,10054
	BI.a	4,2012	153	,70777	,10111

BI: Business intelligence

Source: By the researcher depending on SPSS.V26 output

The table 10 shows the statistical characteristics to improve the Business intelligence before and after the Knowledge management applications. We notice that this rate was 2,5592 with a standard deviation, 75275 and ,10754 as Std. Error Mean before the observation, and after the observation it became 4,2082 with a standard deviation ,70777 and ,10111 as Std. Error Mean and the difference between the two rates is a large difference from an empirical point of view. The trend towards Knowledge management

applications has had an effective effect in changing the trends of telecoms operators in improving the Business intelligence. Therefore, the results are expected to be significant.

Another indicator of what Knowledge management applications wrought, it is the correlation between the scores before and after the Knowledge management applications. We expect the correlation to be strong if the effective effect of Knowledge management so that the change is clear and regular (in the same direction) for all or most agencies within the sample, and we find the value of this correlation in the same results in the following table.

**Table(11): Paired samples correlations of Business intelligence**

		N	Correlation	Sig.
Pair 1	BI .b & BI.a	153	,896	,000

BI: Business intelligence

Source: By the researcher depending on SPSS.V26 output

From the table 11 we notice that the value of the correlation between the Business intelligence before and after Knowledge management applications is high, .896 and its Sig. is 0,000. The important result in this test is the result of the dependent T test, which appears in the following table.

**Table(12): Paired sample test of Business intelligence**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	BI .b - BI.a	-1,64118	,22247	,03015	-1,70110	1,56106	-41,102	153	,000

Source: By the researcher depending on SPSS.V26 output

We notice from the table 12 the value of the dependent T-test is -41,102 and this value is significant, P = 000 because it is less than 0.05, and this means that the Knowledge management applications have had an impact on the priorities of the telecom operators and change actually from their trends towards improving the Business intelligence.

**5. Conclusion:**

Through the results obtained from the study and analysis of the indicators that make up the dimensions of knowledge management, we note that all indicators are significant at 3.5 as proposed average and 95% as confidence level. This negates the null hypothesis H0, which means to prove the alternative hypothesis H1 which states that there are indicators of the availability of knowledge management in the telecom operators.

The correlation between the four dimensions of knowledge management (leadership, cultivation, technology, process) and business intelligence is significant, since the (Sig) values are less than  $\alpha$ , which indicates the existence of a strong-positive and significant correlation at  $\alpha = 0.05$  level between the knowledge management dimensions and business intelligence, in addition to the significance of regression where the value of Sig = 000, which is less than 0.05 as significance level, which indicates the existence of a linear relationship between the variables that is predictable towards business intelligence in terms of the dimensions of knowledge management (leadership, cultivation, technology, process) .

Knowledge management applications have had an impact on the performance of telecom operators and actually changed their attitudes towards achieving business intelligence through all procedures and processes related to knowledge management.

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