

## Business process re-engineering in Constantine (Algeria) health organizations: Comparative study

إعادة هندسة إجراءات الأعمال للمنظمات الصحية في قسنطينة (الجزائر): دراسة مقارنة

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### Abstract:

The objective of this study is to measure the differences in Business process re-engineering indicators among health organizations in Algeria. We have followed three approaches; the descriptive, inductive and comparative approach, we've tried to answer the major question and carry out the empirical study. For collection the data, we've used a questionnaire of sample of 126 health organizations and some short interviews with managers, as well as some observations. To test the hypothesis, we've used the one-way ANOVA test. Finally, we've found that there are no significant differences between health organizations types in adopting the BPR indicators except the difference between PC and LC in Awareness of BPR concept and Information technologies.

**Keywords:** BPR; health organization; public hospitals; private clinics; Laboratories and centers

**Jel Classification Codes:** I11, J53.

### ملخص:

الهدف من هذه الدراسة هو قياس الفروق في مؤشرات إعادة هندسة إجراءات الأعمال بين المنظمات الصحية في الجزائر، حيث اتبعنا ثلاث مقاربات تمثلت في المنهج الوصفي والاستقرائي والمقارن، كما حاولنا الإجابة على السؤال الرئيسي من خلال إجراء الدراسة التجريبية على عينة من 126 منظمة صحية، ولجمع البيانات استخدمنا الإستبيان كأداة رئيسية وبعض المقابلات القصيرة مع المديرين، بالإضافة إلى بعض الملاحظات الميدانية، ولاختبار الفرضية استخدمنا اختبار تحليل التباين أحادي الاتجاه، وفي الأخير، وجدنا أنه لا توجد فروق ذات دلالة إحصائية بين أنواع المنظمات الصحية في اعتماد مؤشرات إعادة هندسة الأعمال باستثناء الاختلاف بين العيادات الخاصة والمخابر في الأبعاد التالية الوعي بمفهوم إعادة هندسة الأعمال، و تكنولوجيا المعلومات.

**كلمات مفتاحية:** إعادة هندسة إجراءات الأعمال ؛ منظمات صحية؛ مستشفيات عامة؛ عيادات خاصة؛ المخابر والمراكز.  
تصنيف JEL : I11 ، J53.

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## **1. INTRODUCTION:**

The development of human societies has been accompanied by a parallel development in economic activities and in the technological and technical fields. This development has been reflected in all business organizations and their economic growth, both in terms of the nature and quality of production to capital and the number of workers.

Hence, the holistic view of management has imposed challenges on a large scale nowadays, where business organizations, especially in advanced economic systems, have reached an advanced level of power and influence. Therefore, these challenges necessitated a reconsideration of the concept of management and its comprehensive dimensions, using methods and approaches of modern administrative thought such as Strategic management, change management, total quality management...

However, there are some organizations that deal with a complex dynamic environment that is not satisfied with one of these methods only, which focuses on making relatively minor changes. Development may not be what is the main required. Rather, what such organizations need is a radical and fundamental change to their operations, methods and strategies which results in a re-engineering

This is one of the most prominent results of the development of managerial thought. This concept appeared in 1990 when the American writers Hammer and James Champy launched re-engineering as a title for their famous book,

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Organizations re-engineering. Since then, this approach through its methods and strategies has caused a real revolution in the modern management because of the modern ideas it carries and an explicit call for a radical reconsideration of all activities, procedures and strategies upon which many modern organizations and companies operating and depending on.

Through the above, we can ask the following main question:

- Are there Business process re-engineering indicators in Algerian health organizations?

Are there significant differences among Algerian health organizations related to Business process re-engineering indicators from the point of view of the managers and staff?

### **2. Literature review**

#### **2.1.BPR: concept and goals:**

According to Hammer and Champy (1993), organizations re-engineer their business processes based on several situations. These situations are categorized into three groups. Crisis management: The group involves organizations that are facing crisis; they have no choice rather than developing business processes. They re-engineer so that they transfer of the crisis. Anticipatory management: The group involves organizations that expect a crisis is approaching. These organizations re-engineer so that the coming crisis will not affect their business and Market leadership: The group involves organizations that want to continue to be market leaders. The re-engineering projects enable them to achieve their dreams by provided that a better service than the current one. Business Process Reengineering focuses on the result of activities derived from the expectations and requirements of either internal or external customers. Business Process Reengineering aims at realizing dramatic reduction in cost, development in quality and reductions in cycle time (HAMMER & CHAMPY, 1993). The main

principle behind Business Process Reengineering is the notation of starting from the very beginning, where old practices are swept aside in favor of new creative and creative processes(HE, 2005, p. 27).

## **2.2.Critical success factors for BPR implementation**

Successful application of Business Process Reengineering involves defining and deployment of many critical success factors. To date, various researchers have defined various CSFs for successful Business Process Reengineering application. Depend on a comprehensive review of the literature, viewpoints of the academics and interviews with many SME managers, 7 Business Process Reengineering CSFs have been identified. Some supportive studies and a brief explanation of these CSFs are also presented in this section.

### **2.2.1. Collaborative Working Environment**

Collaborative working environment is one of the most widely cited factors in the literature. In organizations, employees work together. Having friendly interactions is a main feature of any dynamic environment. Collaborative climate reduces resistance to change and simplifies Business Process Reengineering application (Hesson, Al-Ameed, & Samaka, 2007, p. 351). Former researches indicate that to be successful, Business Process Reengineering should focus on achieving the empowerment of people and the implementation of appropriate enabling technology (Attaran, 2000, p. 796).

### **2.2.2. Top Management Commitment and Support**

Top management plays the most important role in the organization and defines the strategic orientation of the organization(Al-Mashari, Irani, & Zairi, 2001, p. 741). The degree of top management support in Business Process Reengineering application is very critical. Top management should have adequate knowledge about Business Process Reengineering application and make important decisions in Business Process Reengineering application process. As well top

management should motivate employees and have a friendly interaction with Business Process Reengineering team (Abdolvand, Albadvi, & Ferdowsi, 2008, p. 499). The role of top management in creation of an organization climate that empowers employees is of crucial importance.

### **2.2.3. IT Infrastructure**

To achieve the expected results in Business Process Reengineering application, appropriate Information Technology infrastructure is needed. In most projects, Business Process Reengineering starts from Information Technology department. Information Technology is a natural partner of Business Process Reengineering and plays a critical and central role in Business Process Reengineering projects (Salimifard, Abbaszadeh, & Ghorbanpur, 2010, p. 98). Information Technology not only speeds up the process to be carried out but also integrates processes and reduces errors, subsequently improves productivity (Reijers & Mansar, 2005, p. 287).

### **2.2.4. Training**

Training plays an important role in Business Process Reengineering application. Since Business Process Reengineering changes the organizational processes, employees should have adequate talents to do the new functions. Through a proper training program, employees will have an in-depth comprehending of their new functions (Terziovski, Fitzpatrick, & O'Neill, 2003, p. 38).

### **2.2.5. Less Bureaucratic Structure (Flatter Structure)**

A flexible organizational structure enables Business Process Reengineering to encourage innovativeness and creativity in the organization. Thus having a less bureaucratic and more participative structure is fundamental for successful Business Process Reengineering application. This is parallel with McAdam [51] statement that organizations should affect a more participative structure to avoid

failure of Business Process Reengineering application(Ahmad, Francis, & Zairi, 2007, p. 453).

### **2.2.6. Culture**

Culture has been recognized as a CSF for Business Process Reengineering application in the literature(Dennis, Carte, & Kelly, 2003, p. 34)(Maull, Tranfield, & Maull, 2003, p. 601).Coordination, employees' involvement and friendly interactions are the standard feature of an innovative organizational culture. Effective utilization of employees'ideas enables organizations to achieve their expected results. Furthermore, a strong appropriate culture makes positive changes, avoids stress and reduces resistance to change.

### **2.2.7. Adequate Financial Resources**

Obviously, implementing Business Process Reengineering without adequate financial resources is inconceivable. Budget allocation to Business Process Reengineering is a long-term investment for achieving favorable results. Business Process Reengineering application is a costly process. Thus, organizations should have adequate financial resources for application changes and facing with unpredictable cases (Ahmad, Francis, & Zairi, 2007, p. 453).

## **3. Methods and Materials**

### **3.1.Hypotheses:**

Depending on the goals and the nature of the activity we can define the main and sub-hypotheses of the study are presented as follows:

- **H: there are differences in business process reengineering indicators between health organizations in Algeria.**
  - There are significant differences in awareness of BPR concept indicators among Algerian health organizations.
  - There are significant differences in organization strategy indicators among Algerian health organizations.

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- There are significant differences in training and skills indicators among Algerian health organizations.
- There are significant differences in information technology indicators among Algerian health organizations.
- There are significant differences in readiness for change indicators among Algerian health organizations.
- There are significant differences in restructuring indicators among Algerian health organizations.
- There are significant differences in communication indicators among Algerian health organizations.

### **3.2.Objectives:**

Our purpose through this study is to know the individual features of each organization in the health sector in Algeria, about the indicators of awareness of BPR concept; organization strategy; training and skills; information technology; readiness for change; restructuring; and communication. Through the following sub-objectives

- Define the business process reengineering indicators in the health organizations.
- Detecting the differences in the business process reengineering indicators of health organizations

### **3.3.Population and sample:**

The health sector in Algeria is a dynamic market, thus understanding its structure helps identify the appropriate strategy in order to confront the challenges it faces. Given that the health sector in Algeria is one of the important fields, as it is one of the most significant economic sectors due to its development and growth, especially after reforms, which had a significant impact on competitiveness, quality and prices of services especially in private clinics,

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laboratories and centers. The population of this study is represented by the all the manager's and staff opinion of health organizations in Algeria within their different clinics, laboratories and centers, and the sample represents 126 member from 21 organization

### 3.4.Approaches:

In this research paper we have followed three approaches, which are the descriptive, inductive and comparative approaches. By using one way ANOVA test.

## 4. RESULTS AND DISCUSSION

### 4.1.Reliability:

The Reliability intended to give the 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 distributed to individuals several times during certain periods of time, the researcher test the reliability of this questionnaire with Cronbach alpha, as follows:

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

**Table (1): Results of the Cronbach alpha test**

Code	Field		Cronbach's Alpha			
	Dimensions	N of Items	Public hospitals N=40	Private clinics N=44	Laboratories and centers N=42	N = 126
D <sub>1</sub>	Awareness of BPR concept	5	.851	.902	.888	.879
D <sub>2</sub>	Hospital strategy	3	.849	.913	.889	.887
D <sub>3</sub>	Training and skills	8	.881	.913	.869	.899
D <sub>4</sub>	Information Technology	5	.889	.887	.887	.888
D <sub>5</sub>	Readiness for change	5	.879	.890	.869	.885
D <sub>6</sub>	Restructuring	6	.888	.869	.851	.877
D <sub>7</sub>	Communication	6	.889	.887	.849	.888



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D	BPR	38	.866	.901	.879	.889
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Source: By the researchers based on the outputs of SPSS.V28

It is clear from the results shown in the above table that the value of the Cronbach Alpha coefficient is high for all the dimension of the questionnaire. Also, the value of the alpha coefficient for all dimensions of the questionnaire was .889, which means that the reliability coefficient is high. Thus, the researcher has emphasized on the reliability of the questionnaire, which makes them confident of its reliability to achieve the results, analyze the data and test the hypotheses.

### 4.2.Descriptive statistics

Based on the indicators descriptive in the bellow table, we try to describe and prioritize the dimensions of the business process reengineering in health organizations. The following is a description and ranking of the main dimensions of business process reengineering.

**Table (2): Descriptive statistics of business process reengineering dimensions**

		N	Mean	Std. Deviation	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
D <sub>1</sub>	awareness of BPR concept	126	3,6500	,754810	.319	.409	-2.001-	.798
D <sub>2</sub>	Hospital strategy	126	3,3000	,960180	-.549-	.409	-.729-	.798
D <sub>3</sub>	Training and skills	126	3,3607	1,06229	-.371-	.409	-1.041-	.798
D <sub>4</sub>	Information Technology	126	3,5525	1,08934	-.131-	.409	-.503-	.798
D <sub>5</sub>	Readiness for change	126	3,4750	,971060	.318	.409	-1.041-	.798
D <sub>6</sub>	Restructuring	126	3,3167	,846310	-.549-	.409	-.729-	.798
	communication	126	3,3292	1,09029	-.371-	.409	-1.041-	.798
D	BPR	126	3.4381	.91122	-.412-	.409	-1.091-	.798

Source: By the researchers based on the outputs of SPSS.V28

Through the above table that related to the description of business process reengineering dimensions, we can observe the relative importance of the indicators that make up business process reengineering and their statistical

measures.

### **4.3.Hypothesis testing**

After testing the reliability and validity, as well as describing the indicators, in this part we try to test the hypotheses through one way ANOVA to reach the empirical answer to the problematic as follow:

In this part, we try to diagnose the differences in BPR dimensions among the health organization (PH, PC, LC) through their dimensions, by displaying and analyzing their indicators.

H: There are significant differences in BPR indicators among Algerian health organization.

This main hypothesis is divided into sub-hypotheses according to the dimensions as follows

H<sub>1</sub>: There are significant differences in awareness of BPR concept indicators among Algerian health organization

#### **4.3.1. Awareness of BPR concept**

The following is a presentation of the indicators that make up the awareness of BPR concept and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (3): One-way ANOVA for the Awareness of BPR concept**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,806	2	1,403	3,373	,043
Within Groups	19,134	123	,416		
Total	21,940	125			

Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA test appears, as the test value (F=3.373) is significant (P= .043) at 0.05 error level. This means that the three health organizations are differ in getting the awareness of BPR concept

**Table (4): Multiple comparisons for the Awareness of BPR concept**

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(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,29545	,23145	,625	-,8705	,2796
	LC	,34788	,21596	,342	-,1887	,8845
PC	PH	,29545	,23145	,625	-,2796	,8705
	LC	,64333*	,24979	,040	,0227	1,2640
LC	PH	-,34788	,21596	,342	-,8845	,1887
	PC	-,64333*	,24979	,040	-1,2640	-,0227

Source: By the researchers based on the outputs of SPSS.V28

The tables above shows the binary comparisons between the three health organizations, as the differences between them are not significant, meaning that the three subsamples do not differ significantly in their radical change for awareness of BPR concept at the 95% level. Except for the difference between PC and LC, this has a significant difference in awareness of BPR concept.

H<sub>2</sub>: There are significant differences in health organizations strategy indicators among Algerian health organization

**4.3.2. Health organizations strategy**

The following is a presentation of the indicators that make up the health organizations strategy and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (5): One-way ANOVA for the health organizations strategy**

	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	1,820	2	,910	1,846	,169
<b>Within Groups</b>	22,677	123	,493		
<b>Total</b>	24,496	125			

Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA, as the test value (F=1.846) is not significant (P= .169) at 0.05 error level. This means that the three

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health organizations do not differ in their strategies.

**Table (6): Multiple comparisons for the health organizations strategy**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,25152	,25197	,970	-,8776	,3746
	LC	,26848	,23510	,778	-,3157	,8526
PC	PH	,25152	,25197	,970	-,3746	,8776
	LC	,52000	,27193	,186	-,1557	1,1957
LC	PH	-,26848	,23510	,778	-,8526	,3157
	PC	-,52000	,27193	,186	-1,1957	,1557

Source: By the researchers based on the outputs of SPSS.V28

The table above shows the binary comparisons between the three health organizations, as the differences between them is not significant, meaning that the three subsamples do not differ significantly in deal with their strategies in terms of setting goals, application and follow-up at the 95% level.

H<sub>3</sub>: There are significant differences in training and skills indicators among Algerian health organization

**4.3.3. Training and skills**

The following is a presentation of the indicators that make up the Training and skills and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (7): One-way ANOVA for the training and skills**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,698	2	,849	1,786	,179
Within Groups	21,872	123	,475		
Total	23,571	125			

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Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA, as the test value ( $F=1,786$ ) is not significant ( $P=,179$ ) at 0.05 error level. This means that the three health organizations do not differ in their training and skills

**. Table (8): Multiple comparisons for the training and skills**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,30758	,24746	,661	-,9224	,3073
	LC	,19576	,23089	1,000	-,3779	,7695
PC	PH	,30758	,24746	,661	-,3073	,9224
	LC	,50333	,26706	,197	-,1602	1,1669
LC	PH	-,19576	,23089	1,000	-,7695	,3779
	PC	-,50333	,26706	,197	-1,1669	,1602

Source: By the researchers based on the outputs of SPSS.V28

The table above shows the binary comparisons between the three health organizations, as the differences between them is not significant, meaning that the three subsamples do not differ significantly in deal with their training and skills to raise the efficiency of human resources at the 95% level.

H<sub>4</sub>: There are significant differences in information technologies indicators among Algerian health organization

### 4.3.4. Information technologies

The following is a presentation of the indicators that make up the information technologies and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (9): One-way ANOVA for the information technologies**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,806	2	1,403	3,373	,043
Within Groups	19,134	123	,416		

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Total	21,940	125			
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Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA test appears, as the test value (F=3.373) is significant (P= .043) at 0.05 error level. This means that the three health organizations are differ in getting the information technologies

**Table (10): Multiple comparisons for the information technologies**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,29545	,23145	,625	-,8705	,2796
	LC	,34788	,21596	,342	-,1887	,8845
PC	PH	,29545	,23145	,625	-,2796	,8705
	LC	,64333*	,24979	,040	,0227	1,2640
LC	PH	-,34788	,21596	,342	-,8845	,1887
	PC	-,64333*	,24979	,040	-1,2640	-,0227

Source: By the researchers based on the outputs of SPSS.V28

The tables above shows the binary comparisons between the three health organizations, as the differences between them are not significant, meaning that the three sub-samples do not differ significantly in their radical change for information technologies at the 95% level. Except for the difference between PC and LC, this has a significant difference in information technologies.

H<sub>5</sub>: There are significant differences in readiness for change indicators among Algerian health organization

**4.3.5. Readiness for change**

The following is a presentation of the indicators that make up the readiness for change and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (11): One-way ANOVA for the readiness for change**

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	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,163	2	,582	1,015	,370
Within Groups	26,362	123	,573		
Total	27,525	125			

Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA, as the test value (F=1,015) is not significant (P=, 370) at 0.05 error level. This means that the three health organizations do not differ in their readiness for change

**Table (12): Multiple comparisons for the readiness for change**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,30455	,27167	,804	-,9796	,3705
	LC	,09879	,25349	1,000	-,5310	,7286
PC	PH	,30455	,27167	,804	-,3705	,9796
	LC	,40333	,29319	,527	-,3252	1,1318
LC	PH	-,09879	,25349	1,000	-,7286	,5310
	PC	-,40333	,29319	,527	-1,1318	,3252

Source: By the researchers based on the outputs of SPSS.V28

The table above shows the binary comparisons between the three health organizations, as the differences between them is not significant, meaning that the three subsamples do not differ significantly in deal with their readiness for change to meet challenges and adapt better to the environment at the 95% level.

H<sub>6</sub>: There are significant differences in restructuring indicators among Algerian health organization

**4.3.6. Restructuring**

The following is a presentation of the indicators that make up the restructuring and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (13) : One-way ANOVA for the restructuring**

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	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,698	2	,849	1,786	,179
Within Groups	21,872	123	,475		
Total	23,571	125			

Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA, as the test value (F=1,786) is not significant (P=, 179) at 0.05 error level. This means that the three health organizations do not differ in their restructuring

**Table (14): Multiple comparisons for the restructuring**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,30758	,24746	,661	-,9224	,3073
	LC	,19576	,23089	1,000	-,3779	,7695
PC	PH	,30758	,24746	,661	-,3073	,9224
	LC	,50333	,26706	,197	-,1602	1,1669
LC	PH	-,19576	,23089	1,000	-,7695	,3779
	PC	-,50333	,26706	,197	-1,1669	,1602

Source: By the researchers based on the outputs of SPSS.V28

The table above shows the binary comparisons between the three health organizations, as the differences between them is not significant, meaning that the three subsamples do not differ significantly in deal with their restructuring in terms of concept and applications at the 95% level.

H7: There are significant differences in Communication indicators among Algerian health organization

**4.3.7. Communication**

The following is a presentation of the indicators that make up the Communication and attempt to diagnose differences in their radical change among the health organization (PH, PC, LC) with an estimated confidence level of 95%.

**Table (15): One-way ANOVA for the Communication**



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	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,820	2	,910	1,846	,169
Within Groups	22,677	123	,493		
Total	24,496	125			

Source: By the researchers based on the outputs of SPSS.V28

In the table above, the result of the one-way ANOVA, as the test value (F=1,846) is not significant (P= .169) at 0.05 error level. This means that the three health organizations do not differ in their communication

**Table (16): Multiple comparisons for the Communication**

(I) TH	(J) TH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PH	PC	-,25152	,25197	,970	-,8776	,3746
	LC	,26848	,23510	,778	-,3157	,8526
PC	PH	,25152	,25197	,970	-,3746	,8776
	LC	,52000	,27193	,186	-,1557	1,1957
LC	PH	-,26848	,23510	,778	-,8526	,3157
	PC	-,52000	,27193	,186	-1,1957	,1557

Source: By the researchers based on the outputs of SPSS.V28

The table above shows the binary comparisons between the three health organizations, as the differences between them is not significant, meaning that the three subsamples do not differ significantly in deal with their communication methods and tools at the 95% level.

**5. Conclusion**

The largest hospitals in the Constantine are governmental organization that suffer from a deterioration in their administrative apparatus, which is reflected in the services in terms of quality, speed and cost, which prompted us to search for a study of the availability of requirements and determine the reality of this project on the ground to see the extent to which it can be embodied, following the models

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The successful model companies that adopted this management method and demonstrated its effectiveness in improving services and making them different services with quality, speed and lowest possible cost.

Through the theoretical and empirical studies, I reached the answer to the main question: the indicators of business process re-engineering in some hospitals in Constantine. Accordingly, I concluded that the requirements for business process re-engineering are available in government hospitals in Constantine, which means that we can apply this method with the availability of conscious leaders of the concept and the cooperation of the rest of the workers to bring about this change.

Through the previous literature, framework presentation and the statistical results analysis, the most important results of this study can be summarized in the following points:

- Top management must merge integrated sub-tasks into one process to get rid of red tape.
- The hospital should set strategic goals that are flexible and objective in order to match the real capabilities of the hospital.
- Human resources development by setting a plan and programs to train and develop the capabilities and skills of employees to rebuild administrative processes.
- Encouraging teamwork among employees to find innovative solutions to daily work problems.
- The hospital should keep pace with technological developments in the surrounding environment.
- The hospital's top management should create a new administrative unit for administrative development and work to direct workers towards the required change.

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- Work to modify the organizational structure to suit the strategic goals.
- Providing the means of communication available to all to deliver the information with the required accuracy and speed.
- Using modern communication technology in the process of communication between the various different administrative levels.

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