# The Impact of Business process re-engineering on Organizational Performance: A Study on Pharma International Company in Jordan.

## Musab Sameer Mahmoud Alrawajihalbgoom, Dr. Mohammad Salameh Zaid Almahirah mohammad.almahirah@iu.edu.com

#### Abstract

The study aimed to identify the impact of Business process re-engineering on organizational performance in Pharma International Company in Jordan. The study adopted the descriptive analytical method. A random sample of (82) employees working in Pharma International Company in Jordan was selected. A questionnaire was used as an instrument for collecting data in this study. The study concluded with a set of results where the arithmetic means for the dimensions of the study were as follows: rebuilding the organizational structure dimension (3.401); commitment and support for senior management dimension (3.402); employee empowerment dimension (3.592) and organizational culture dimension (3.559). Thus, there is a statistically significant effect at a significant level ( $\alpha \le 0.05$ ) of Business process re-engineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on organizational performance.

**Keywords:** Business process re-engineering, organizational performance, Pharma International Company in Jordan.

### Introduction

Modern and pioneering companies seek to bring about fundamental changes and update the structure of their operations and information to support the decision-making process and keep pace with the changes that occur in their surrounding environment and increase their ability to compete and survive, in addition to modernizing the structure of operations by making the right decisions and keeping pace with changes in order to enhance a competitive advantage.

It is worth noting that the success and superiority of business organizations coincides with the ability of these organizations to adapt and interact with the development of process' engineering and their connection to organizational performance (Uckel, 2019). Al-Bashir (2017) pointed out that Business process re-engineering is not an end in itself, but it is a means and a natural phenomenon that characterizes all contemporary organizations that are characterized by movement and instability with the opportunities that can be seized and the challenges imposed on them.

Business process re-engineering is perhaps the most important pillar for companies that are trying to achieve through its link to organizational performance, and Pharma International Company in Jordan is not isolated from the global trend towards achieving competitiveness and improving production processes (Almahirah, 2020). In this context, Abubakar (2016) pointed out that the best companies are the ones that are best able to adapt to changes and are more worthy of achieving success and excellence. On the other hand, the concept of Business process re-engineering is considered the entrance to development, as it focuses on the processes that are manifested in flexibility, speed, design and radical change in order to improve productivity in the organizational structures of companies. (Lahbib, 2016). Accordingly, Business process reengineering focuses on the complete change in order to improve productivity, quantitatively and qualitatively, in order to satisfy customers, in addition to increasing its administrative efficiency and effectiveness, by making a fundamental change in its organizational structure from its roots, which makes it the most appropriate criteria suitable for development approaches (Burnan, 2017).

should be noted that organizational It performance is a basic concept of modern management, as the employment of plans and strategies in companies results in outstanding organizational performance, in addition to outputs that enhance the competitiveness of companies (Haif, 2019). On the other hand, Pharma International Company in Jordan is considered like other economic sectors that are trying to raise the competitive advantage and improve organizational performance in order to achieve total quality by employing Business process re-engineering (Al-Shishini, 2017). These companies are also considered one of the main sectors in the Jordanian national economy, and the economic sector receives great support from the Jordanian government, which has taken a number of measures to push this sector forward towards achieving improved performance and competition with the local and global market (Almahirah, 2020).

Proceeding from the foregoing, research into the impact of Business process re-engineering on organizational performance by conducting a study on Pharma International Company in Jordan is justified, in accordance with international standards adopted by international companies, and the progress and development of technological changes in the quality of products; to achieve competitive capabilities. In addition, this study aspires to make the outputs of Pharma International Company in Jordan of high quality, able to prove its presence in the local and global market. Based on that, and in order to achieve high performance, the role of Business process re-engineering in improving organizational performance and organizational orientation must be taken into consideration, as the main idea of this study crystallized for the researcher as a

result of the rapid, continuous and successive changes in the regulatory environment, to address contemporary issues that have a fundamental and distinct role in organizations to face future challenges.

## Statement of the Problem

Organizations and companies of all kinds are facing a wave of challenges and rapid changes sweeping the world today. The emergence of global markets and technological progress have all prompted organizations and companies to develop new management methods and patterns that enable them to face challenges and achieve survival and continuity. The Business process reengineering method is considered one of the most important of these methods imposed by contemporary administrative thought, which contributes to achieving increased productivity and effective organizational performance for companies. This was indicated by Rahman's study (2017), which showed the importance of the role of Business process re-engineering in achieving organizational excellence, and in the same context, Alwan's study (2019) indicated the impact of Business process re-engineering on job performance. Accordingly, it became known that the main goal of companies and business organizations is to focus on increasing performance and productivity in order to reach a high competitive advantage, and improve organizational performance.

Since Pharma International Company in Jordan was required to develop its structure in accordance with the scientific developments taking place in the world in order to keep pace with all new developments related to Business re-engineering. process in addition to organizational performance; this will only happen through the development of its systems and programs, according to developments related to this aspect. Hence, the research problem was raised, as the researcher conducted a number of interviews personally with some workers at Pharma International Company in Jordan, and asked them some questions b about the level of attention the company gives to the level of Business process re-engineering practices. Hence, the foregoing invited the researchers to study the impact of the Business process reengineering on organizational performance by diagnosing and understanding the context of the reality of Pharma International Company in Jordan by analyzing, interpreting and providing answers to the following main research question:

What is the impact of Business process reengineering on organizational performance from the point of view of administrators in Pharma International Company in Jordan?

### **Study Questions**

- 1. What is the level of Business process reengineering application through rebuilding the organizational structure of the employees of Pharma International Company in Jordan?
- 2. What is the level of Business process reengineering application through the commitment and support of senior management among the employees of Pharma International Company in Jordan?
- 3. What is the level of Business process reengineering application through empowering the workers of Pharma International Company in Jordan?
- 4. What is the level of Business process reengineering application through organizational culture among the employees of Pharma International Company in Jordan?

## Hypothesis of the Study

There is no statistically significant effect at a significant level ( $_{\alpha \le 0.05}$ ) of Business process reengineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on the organizational performance in Pharma International Company in Jordan.

### **Purpose of the Study**

- 1. Identifying the level of Business process re-engineering application through rebuilding the organizational structure of the employees of Pharma International Company in Jordan.
- 2. Identifying the level of Business process re-engineering application through the

commitment and support of senior management among the employees of Pharma International Company in Jordan.

- 3. Identifying the level of Business process re-engineering application through empowering the workers of Pharma International Company in Jordan.
- 4. Identifying the level of Business process re-engineering application through organizational culture among the employees of Pharma International Company in Jordan?
- Identifying if there were a statistically 5. significant effect at a significant level Business  $(_{\alpha \le 0.05})$ of process reengineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on the organizational performance in Pharma International Company in Jordan.

## Significance of the Study

The importance of the study stems from shedding light on the concept of both Business process reengineering and organizational performance, which are considered among the modern and important topics in modern management, in addition to revealing the ways that contribute to improving organizational performance in the field of helping the organization to achieve its goals in organizational performance. It is hoped also that the study will contribute to shedding light on Business process re-engineering practices to enhance organizational performance in light of a rapidly changing environment in Pharma International Company in Jordan. The study will also contribute to clarifying the uses of Business process re-engineering to enhance its characteristics, concept, dimensions and components among the employees of Pharma International Company in Jordan.

## Delimitations

The study was applied on the employees of Pharma International Company in Jordan, in 2022. The objective of the study was limited to knowing the impact of Business process reengineering on organizational performance from the point of view of the administrators in the company.

## **Definition of Terms**

**Business process re-engineering:** is the initial and basic thinking and design of work systems and business management engineering in a fundamental way in order to achieve extremely fundamental improvements in performance standards (Al-Omari, 2020). It was also defined by Al-Qaisi (2018) as the radical redesign of business processes to achieve dramatic improvements in critical aspects like quality, output, cost, service, and speed. Business process reengineering (BPR) aims at cutting down enterprise costs and process redundancies on a very huge scale.

## **Rebuilding the Organizational Structure:**

The organizational structure is an expression of the existence of an innate tendency of people towards forming hierarchical organizations; and this in turn makes organizations form themselves according to their multiple needs. This process is characterized by continuity and development over time (Kulthum, 2018).

Al-Kahlout (2017) indicated that rebuilding the organizational structure may contribute to the success of the most important and challenging career in Pharma International Company in Jordan through briefing offices technical assistants and consultants on a temporary or permanent basis.

# A Brief of Pharma International Company

Pharma International Company was established in the Hashemite Kingdom of Jordan in 1994, and it includes 625 employees who hold several titles in their jobs, whether as an administrative body or as an employee. The company has a joint capital by several shareholders, and the company succeeded in proving itself in the local market and then expanded the scope of its business towards the global market. It is worth noting that the company has developed medicines in line with the technological development that the world is racing with today, and it is among the top ten major players in the generic pharmaceutical industry in the Middle East and North Africa, in addition to its deep experience and expertise in manufacturing and marketing. The company's vision is evident through its ambition to look into the future, and to open branches in all parts of the Arab world, in an effort to develop mechanisms for manufacturing medicines, taking into account global health systems and total quality management (ISO).

# The future plans of Pharma International Company:

- 1. Continuing to focus on increasing the efficiency and effectiveness of all operational activities, and working to reduce costs while maintaining quality and taking into account public health and safety systems.
- 2. Continuing the company's support for preparations and new types of drugs while maintaining a competitive advantage through the Department of Research and Development.
- 3. Continuing to expand the base of products registered with the competent health authorities in all target markets, whether local or international, while keeping pace with adaptation to all standards developed in this field, which leads to increased marketing and increased profitability of the company.
- 4. Continuing to work on opening new markets and expanding and spreading in the current and international markets.
- 5. Continuing to summarize new items and developing existing ones, taking into account the general safety of all.
- 6. Continuing to maintain highly qualified employees of the company and raise the efficiency of its cadres.
- Continuing to develop the capabilities of the company's employees with modern technological development.

# Study Methodology and Procedures

# Methodology of the Study

The current study relies on the descriptive analytical approach through the use of deductive methods in research and hypothesis testing for conclusion. The statistical package for the social sciences (SPSS) was used to analyze the study data.

### Sample of the Study

A random sample of (82) employees working in the upper, middle and lower management of Pharma International Company in Jordan was selected. The researcher distributed (82) questionnaires to the study sample members, and the number of retrieved questionnaires was 78, with a percentage of (95.12%) of the number of questionnaires distributed. After examining the retrieved questionnaires, it was found that there are (2) invalid questionnaires and incomplete data. Thus, the number of questionnaires valid for analysis became total of (76) questionnaires, with a percentage of (92.68%) of the number of distributed questionnaires.

### The Instrument of the Study

In order to achieve the objectives of the study and answer its questions and test its hypotheses, the researcher developed the study instrument (the questionnaire), which includes a number of items to be answered by employees working in Pharma International Company in Jordan, and the questionnaire depended of the five-point Likert scale. Thus, the study instrument consisted of a questionnaire consisting of 23 items distributed over 4 dimensions centered on Business process reengineering.

# The Normal Distribution of the Study Variables

The Kolmogorov Smirnov test was conducted, in order to verify the availability of a normal distribution in the data, which in the absence of it could negatively affect the results of testing the hypotheses of the study, as shown in Table (1).

Variables	Kolmogorov – Smirnov	.Sig*	Result
Business process reengineering.	3.893	0.052	Follows A Normal Distribution
Rebuilding the organizational structure	3.991	0.064	Follows A Normal Distribution
Commitment and support of senior management	3.997	0.071	Follows A Normal Distribution
Empowering workers	3.881	0.056	Follows A Normal Distribution
organizational culture	3.903	0.083	Follows A Normal Distribution

 Table (1) The Normal Distribution of the Study Variables

It is clear from the results of Table (1) and at the level of significance (0.05), it is noted that all study variables are distributed normally, as the values of the normal distribution for all study variables were greater than (0.05), which is the level adopted in the statistical treatment of this study.

## Validity and Reliability of the Study Instrument

### Validity

The researcher extracted the validity of the tool by presenting it (10) arbitrators of the faculty members. The arbitrators were asked to ensure the clarity of the items and the degree of relevance of the item to the dimension to be measured and to the scale in general. In light of the comments and suggestions presented, the questionnaire was modified to become more accurate and reflective of the reality of work in Pharma International Company in Jordan.

## Reliability

The internal consistency test Cronbach's alpha was used, the researcher applied the instrument of his study to the members of a pilot sample consisting of (33) individuals from outside the study sample. Table (2) shows the results.

Variables	Alpha Value
Business process reengineering.	0.930
Rebuilding the organizational structure	0.747
Commitment and support of senior management	0.713
Empowering workers	0.871
organizational culture	0.898

## Table (2) Cronbach Alpha

# The Results of the Statistical Analysis of the Study and Hypothesis Testing

**The First Question:** What is the level of Business process re-engineering application through rebuilding the organizational structure of

the employees of Pharma International Company in Jordan?

To answer the question, the researcher used the arithmetic means and standard deviations, as shown in Table (3)

No.	Rebuilding the organizational structure	Mean	Standard Deviations	The Item's Importance	Reality
1	The company is working on shifting from hierarchical organizational structures to more flexible organizational structures.	3.421	.8360	2	High
2	The organizational structure supports the possibility of Business process re-engineering and development in the company.	3.394	.8650	5	Medium
3	The organizational structure is characterized by the speed of administrative communications between all the different administrative levels of the company.	3.473	.7380	1	High
4	The organizational structure supports the grouping of some sub-functions into one job.	3.407	.9110	3	High
5	The organizational structure supports the rapid distribution of powers and tasks.	3.403	1.096	4	Medium
6	The company's organizational structures include clear programs and bases for incentives	3.131	1.049	6	Medium

Table (3) Rebuilding the organizational structure

and promotions to encourage creativity and excellence.			
Total	3.401	0.702	High

The arithmetic means for rebuilding the organizational structure in Pharms International Company in Jordan ranged between (3.473) and (3.131) with a total mean of (3.401) on the five-point Likert scale, which indicates the high reality of rebuilding the organizational structure.

**The Second Question:** What is the level of Business process re-engineering application

through the commitment and support of senior management among the employees of Pharma International Company in Jordan?

To answer the question, the researcher used the arithmetic means and standard deviations, as shown in Table (4).

No	Commitment and support of senior management	Mean	Standard Deviation S	The Item's Importance	Reality
7	There is an awareness among the senior management about the importance of Business process re-engineering the administrative processes and seeks to try to implement it	3.223	1.053	5	Mediu m
8	Senior management is working to make the most of the tremendous development in information and communication technology.	3.197	1.033	6	Mediu m
9	Senior management seeks to attract human resources with high cognitive capabilities.	3.404	.8930	3	High
10	Senior management uses external experts to help implement the Business process re- engineering of administrative processes.	3.592	.8820	1	High
11	The decentralization senior management supports decisions and delegates authority to employees.	3.433	.9370	2	High
12	Senior management adopts creative ideas and puts them into practice.	3.223	1.040	4	Mediu m
	Total	023.4	0.644	High	•

Table (4) Commitment and support of senior management

The arithmetic means for the commitment and support of the senior management in Pharma International Company in Jordan ranged between (3.592) and (3.197) with a total mean of (3.402) on the five-point Likert scale, which indicates the high reality of commitment and support of senior management.

**The Third Question:** What is the level of Business process re-engineering application through empowering the workers of Pharma International Company in Jordan?

To answer the question, the researcher used the arithmetic means and standard deviations, as shown in Table (5).

No.	Empowering workers	Mean	Standard Deviations	The Item's Importance	Reality
13	Employees are empowered by identifying their training needs on a regular basis.	3.394	1.033	5	Medium
14	Giving workers the freedom to follow the method they wish	3.710	.8130	1	High
15	The company's management enables employees to increase the budget allocated for training and development.	3.644	.8270	3	High
16	There is encouragement from the company's management to enable workers to build self- managed work differences.	3.671	.8700	2	High
17	The company has the necessary tools to empower workers and do their jobs appropriately.	3.539	.9000	4	High
	Total	3.592	0.660	High	

The arithmetic means for empowering the workers of Pharma International Company in Jordan ranged between (3.710) and (3.394) with a total mean of (3.592) on the five-point Likert scale, which shows the real high interest in empowering workers.

through organizational culture among the employees of Pharma International Company in Jordan?

To answer the question, the researcher used the arithmetic means and standard deviations, as shown in Table (6).

**The Fourth Question:** What is the level of Business process re-engineering application

	Table	(6)	Organizational	culture	
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No.	Organizational culture	Mean	Standard Deviations	The Item's Importance	Reality
18	There is compatibility between the organizational values of the company and the values of its employees.	3,684	.8510	1	High
19	The organization's employees have a great challenge to develop and implement new ideas and complete work in the appropriate organizational units.	3.434	.8690	5	High
20	The company has an organizational culture that supports change towards business development in the company's environment.	3.671	.7000	2	High
21	The prevailing norms among employees help to create the environment for the transition from traditional to more advanced methods of work.	3.421	.9270	6	High

22	There are common convictions among the company's employees of the importance of everyone's participation in any changes that may occur in the future.	3.486	.8400	4	High
23	The company seeks to build values that encourage creativity and innovation at work.	3.657	.9020	3	High
	Total	3.559	0.636	High	

The arithmetic means of organizational culture in Pharma International Company in Jordan ranged between (3.684) and (3.421) with a total mean of (3.559) on the five-point Likert scale, which indicates the high reality of organizational culture.

# Analyzing the Suitability of the Data to Test the Main Hypothesis

To ensure the integrity of the data to perform the regression analysis test for the study hypotheses,

the researcher used (Variance Inflation Factor (VIF), Tolerance and Skewness ) in order to verify that there is no high correlation between the dimensions of Business process reengineering, taking into account that the values of the variance inflation factor do not exceed the value (10), and that the value of (Tolerance) is greater than (0.05), and that the value of Skewness modulus is less than  $(1\pm)$ . The following table illustrates this:

No.	independent variables	VIF	Tolerance	Skewness
1	Rebuilding the organizational structure	1.824	.5480	-0.756
2	Commitment and support of senior management	2.070	.4830	-0.654
3	Empowering workers	2.333	.4290	-0.807
4	organizational culture	2.862	.3490	-0.947

Table (7) VIF, Tolerance and Skewness test results

The results in the previous table showed that there is no high correlation between the dimensions of Business process re-engineering, and based on the foregoing and after making sure that there is no linear overlap between the dimensions of Business process re-engineering, and that the data of the study variables are subject to a normal distribution.

## **Test the Main Hypothesis**

H01 :Ther is no statistically significant effect at a significant level ( $\alpha \le 0.05$ ) of Business process reengineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on the organizational performance in Pharma International Company in Jordan.

Multiple regression analysis was used to test this hypothesis to verify the impact of Business process re-engineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on organizational performance in Pharma International Company in Jordan, as shown in the table (8).

dependent variable	Model Summary			ANOVA			Coefficients				
			Adjuste d R <sup>2</sup>	F	DF S		Sig	В		Т	Sig
	L 0.774 0.500 0.576 20			Multiple regression leftover 3 Total	-	4		Organizational Structure	0,263	2,594	0,012
organizatio nal		0 599	0 576		71	0.00	Higher Management	0,347	3,210	0,002	
performanc e		0,000	0,570		Total	75	0	Empowering workers	-0,205	- 1,787	0,048
		Total				organizational culture	0,436	3,430	0,001		

 Table (8) Multiple Regression Test Results
 Particular

The results presented in Table (8) showed that the value of the correlation R between Business process re-engineering and organizational performance was (0.774). The value of the coefficient of determination was 2R (0.599), which reflects that (59%) of the change in organizational performance results from the change in Business process re-engineering in its dimensions. The value of the adjusted coefficient of determination 2R of (0.576) showed the level of interest in Business process re-engineering in its dimensions after eliminating the standard errors that occurred as a result of organizational performance. This confirms that the first main hypothesis is not accepted, and accordingly the null hypothesis is rejected, and the alternative hypothesis is accepted, which states: There is a statistically significant effect at a significant level  $(\alpha \le 0.05)$  of Business process re-engineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on the organizational performance in Pharma International Company in Jordan.

## Results

1. It was found that rebuilding the organizational structure in Pharma International Company in Jordan from

the point of view of the study sample was high with a total mean of (3.401), and this is an indication that the administrators of Pharma International Company in Jordan are aware of the importance and role of rebuilding the organizational structure in Business process re-engineering. This result is also due to the fact that the organizational structure supports the possibility of Business process reengineering and development in the company, in addition to the organizational structure characterized by the speed of administrative communication and organization among all the different levels of management in the company.

2. It was found that the commitment and support of the senior management of Pharma International Company in Jordan, from the point of view of the study sample, was high with a total mean of (3.402), and this is an indication that the company's administrators have a positive attitude and realize the importance of Business process reengineering. The administration is also working on attracting human resources with cognitive capabilities, and hiring external experts to help implement process re-engineering.

- 3. It was found that the empowerment of the workers of Pharma International Company in Jordan from the point of view of the study sample is high with a total mean of (3.592), and this is an indication that the administrators of the Company are satisfied with being able to identify training needs periodically and giving them the freedom to choose the method that suits their abilities, in addition to the fact that the company seeks to build self-managed work teams, with allocating a budget for training and development in the field of Business process re-engineering.
- 4. It was found that the organizational culture in Pharma International Company in Jordan from the point of view of the study sample was high with a total mean of (3.559), and this is an indication that the administrators of the company importance believe in the of compatibility between organizational values within the company, in terms of applying new ideas and the completion of work in organizational units in the appropriate way, and their belief is based on creating the appropriate institutional climate to move from traditional methods to the most advanced methods in the structure of the company's management.
- 6. to reach excellence in performance

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5. There is a statistically significant effect at a significant level ( $\alpha \le 0.05$ ) of Business process re-engineering with its dimensions (rebuilding the organizational structure, commitment and support of senior management, empowering workers, and organizational culture) on organizational performance.

### Recommendations

- 1. It is important for Pharma International Company in Jordan to keep pace with changes of the mechanisms of Business process re-engineering, in order to continuously improve the quality of performance, and encourage creativity, flexibility and speed in organizational performance.
- 2. There is a benefit in spreading the culture of change for the employees of Pharma International Company in Jordan, as it is one of the main components of restructuring.
- 3. Developing and implementing modern management ideas, in order to achieve outstanding organizational performance
- 4. Enhancing the concepts of Business process re-engineering and activating the reengineering process by achieving high quality performance and continuous improvement of the competitive position.
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