The Impact Of E-Management On The Process Of Business Processes Reengineering In Iraq

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Abstract

The research aims to identify the impact of e-Management on the process of Business Processes Reengineering in Telecom Sector in Iraq and the research has found The Medium level of e-Management and level of process of Business Processes reengineering in Telecom Sector in Iraq and The Positive correlation relationship between e-Management and Business Processes Reengineering in Telecom Sector in Iraq at 0.01 and the more it increased level e-Management by 1% is The level of Business Processes Reengineering in Telecom Sector in Iraq increased by 0.556%

The study has recommended Work to conduct more studies and research related to the application of electronic management and modern technology in all productive and economic sectors in order to reach the best possible use of the available resources, the necessity of providing the appropriate technological infrastructure for the technological work environment, which contributes to maximizing the use of the available technological and informational capabilities, Providing the appropriate work environment for workers in organizations in order to maximize their capabilities, capabilities and levels of performance, Working on the application of all modern methods in the field of administrative and commercial operations, which contribute to increasing the ability of organizations and institutions to achieve the best possible levels of performance and Benefiting from the process of re-engineering business processes in all economic and production sectors for its ability to increase utilization rates of available resources

Keywords: e-Management - process of Business Processes Reengineering - Telecom Sector in Iraq

Introduction

Organizations today are facing a world different from the world we lived in years ago, through the emergence of various challenges that resulted from many variables in a rapidly changing and developing world. Perhaps the phenomenon of globalization and the increase in the intensity of global competition in the market for the production of goods and services and technological developments constitute the core of these challenges faced by management Today, as dealing with these changes requires the organizations' departments to find radical solutions to these various problems by re-designing and innovating their processes (re-engineering) in a manner consistent with the requirements of making a continuous development in quality with a focus on providing effective services to customers and reducing the time and costs involved in completing the work As well as overcoming the problems of repetition and overlap in the completion of work and the problem of lack of integration in information and the problem of

organizational boundaries, which is one of the requirements of decision-making.

The idea of electronic management goes far beyond the concept of mechanization of work departments within the institution, to the concept of integration of data and information between the various and multiple departments and the use of that data and information in directing the institution's work policy and procedures towards achieving its objectives and providing the necessary internal flexibility or response to the successive changes. Thinking of electronic management seemed to be a procedure and a radical solution to the disadvantages of traditional management

Research problem

The research problem stems from the fundamental fact that many organizations have failed to re-engineer their Management   because they spent a lot of time regarding the re-engineering program without seriously paying attention to information and communication technology with a lack of proper awareness of the opportunity that this technology provides for this program, as well as the lack of training of workers on The use of electronic management as one of the important tools in re-engineering processes

From the above we can summary the research problem in this question: what is the impact of e-Management on the process of Business Processes Reengineering in Telecom Sector in Iraq

Research objective

The main objective of the research emerges by trying to present the concept of Management   re-engineering and its various stages, with a focus on the role played by electronic management in enabling re-engineering programs to achieve their goals and diagnosing some of the obstacles that prevent the achievement of this contribution. This highlights the importance of the research by addressing a topic related to the developments of the time in light of modern administrative concepts and experiences and enriching the

scientific library with this, as well as the research attempt to realize the role of adopting electronic management tools on many administrative processes to direct them in the right direction

Research Questions

- What is electronic management?
- What is the process of reengineering administrative processes?
- What is the level of application of electronic management in the institution in question?
- What is the level of application of the administrative process re-engineering process in   the research institution?
- What is the impact of electronic management on the process of re-engineering the administrative processes in the institution in question?

Literature review

Management Process Re-engineering

Bhavsar, K. J., Shah, V., & Gopalan, S. (2019) defines process redesign as the analysis and design of the sequence of work and processes within and between organizations.

Dachyar, M., & Sanjiwo, Z. (2018) defines process re-engineering as the fundamental rethinking and re-design of processes in order to achieve sudden, basic and contemporary improvements and performance measurement such as cost, quality, service and speed.

Tripathi, S., & Gupta, M. (2020) define process re-engineering as 'the actions of an organization necessary to restructure its internal processes to improve product distribution and improve delivery performance to the customer.

Finally, Chang, S. E., Chen, Y. C., & Wu, T. C. (2019) defines it as a study (examination) of the flow of activities and information, which represent the main operations of the organization, with the aim of simplifying, reducing cost, improving quality and achieving flexibility.

In sum, process re-engineering is the study of the flow of activities and information that make up the core operations of the organization, with the aim of reducing the operating cycle time and thus reducing cost and increasing productivity.

- **Characteristics of Re-engineering**

Several characteristics of re-engineering can be identified (Melnyk, L. H., Derykolenko, O. M., Matsenko, O. M., Pasyevin, O. O., & Khymchenko, Y. V., 2019):

1- The integration of several jobs into one job, and this of course reversed the division of labor that prevailed during the first industrial revolution.

2- Decision-making by the employees, as management has become of no importance.

3- The steps of performing the operation are done naturally, and there are no artificial limits.

4- Operations with multiple facets, with diversification according to customer requirements.

5- Re-engineering is carried out for the most sensitive and important sites, where the Reengineer must be chosen so that he is able to achieve a quick return.

6- Reducing testing and control work, so that work that has no added value is avoided.

7- Reducing repair work to the minimum possible, and this is the other way to avoid works that have no added value.

8- Integration of centralization and decentralization in Management   using information technology

- **Principles   of   Management Process Reengineering:**

When deciding to do re-engineering in the organization, there are several principles that must be taken into consideration, including what is specifically related to re-

engineering and is considered one of its literatures, and some of them are traditional ones taken from previous administrative curricula (Kessey, E. K., 2017).

From this point of view, the author presents these principles in general and then re-categorizes them again according to Kessey, E. K. (2017) vision of whether they are modern or not. These principles are:

1- Design through repetition or repetition, taking into account flexibility and providing work teams with modern administrative tools and methods.

2- Starting with value-added operations and then identifying the auxiliary operations as well, because the latter has a positive impact on customer service.

3- Integration of information technology for value-added (intrinsic) and auxiliary operations.

4 - Rethinking the boundaries between the operations of the organization and those of suppliers and customers.

5- Rethinking the benefits of centralization versus the benefits of decentralization.

6- Taking into account the fragmentation of the process inputs and creating a parallel flow to the original process.

7- Re-sequencing the activities that make up the process so that the need to separate the sub-processes can be avoided.

8- Rethinking and resetting or defining the limits of control.

9 - Simplify the common boundaries between operations and information flows.

10- Using the outputs of a particular process as inputs to another process.

11- Treating geographically dispersed resources as if they were central.

12-Organization is about results, not tasks.

13- Allowing simultaneous and interdependent work.

14 - Providing the ability to make decisions for employees.

15 - Establishing informational feedback channels.

16 - Creating a focus on the consumer.

17 - Benchmarking of the process.

18 - Challenge the traditional principles of organization.

This last principle clarifies the importance of information technology in exchange for avoiding some rules or principles of Management, which are no longer rules at all due to the chaos of information technology.

- **Importance and benefits of process re-engineering:**

According to Massaro, A., & Galiano, A. (2020) There are many of these benefits when applying the correct program for process re-engineering, as they are:

1- Exceeding organizational boundaries by communicating with customers through various communication channels, Management networks and computer technology.

2- Increasing the degree of consumer satisfaction with the organization's products or services in a way that exceeds that of competitors' products and services.

3- Reducing the time needed to achieve customers' desires and avoiding errors and complaints, as well as reducing the development and manufacturing cycle time for products and services.

4- Improving the share of knowledge and use in the organization to make it not depend on the experience of some individuals only.

There are also several important trends occurring in the Management environment at the present time related to the process re-engineering program are:

1- Operations re-engineering is the first starting point that the CEO takes into account to achieve the strategic objectives.

2- Competition, profitability, and increasing market share are the issues of greatest concern to the CEO in the process reengineering program.

3- More than two-thirds of process re-engineering efforts fall between two circles: working across functional departments and consensus on the one hand, and understanding markets and customers on the other hand, as this is considered one of the most important processes for process re-engineering engineers.

- **Essential requirements for the application of electronic management:**

Due to Amuna, Y. M. A., Al Shobaki, M. J., Naser, S. S. A., & El Talla, S. A. (2017) There are many requirements necessary to switch to electronic management, as seen by some, as follows:

1- The commitment of senior management to support and adopt the electronic management project.

2- Strategic planning for the transformation process towards the digital world.

3- Develop an integrated plan for comprehensive communications between all parties.

4- Focusing on studying and satisfying customer needs.

5- Paying attention to employees who provide electronic management services.

6- Integrated study of procedures and performance rates.

7- Focusing on the interconnectedness of service systems.

8- Focus on technical capabilities.

- **Electronic management system**

The components of any electronic management system in organizations will be as follows (Abdullah, F. M., Mohammed, A. A., Maatuk, A. M., & Elberkawi, E. K. , 2019) :

* Planning Department:

Objective: Planning the tasks of the institution and a comprehensive evaluation of the performance of the institution, its management and employees, on sound scientific bases, the most important of which is accuracy in implementing the required and completing the predetermined work in a timely manner, which contributes to maximizing the return and monitoring the performance rate of the institution, department or individual, and this is done electronically.

Tasks: Review the organization's plans, whether annual or monthly, for all the organization's entities and even the level of individuals, and identify the organization's main and subsidiary outputs.

* Assignment management:

Objective: Evaluation and electronic follow-up of the performance of the institution by following up on the implementation of assignments.

Tasks: Follow up the performance of work within the institution and examine the position of assignments and tasks that have been assigned to departments or persons, through which the position of assignments directed by the higher management of the institution to any entity within it is identified so that the necessary can be taken in respect of them in a timely manner through response or follow-up, as well as Through which it is possible to direct internal tasks and assignments from heads of sectors or directors of departments to employees.

* Knowledge management:

Objective: Quickly and easily manage the information content and activities of any department within the institution or organization in general.

Tasks: Review all activities, outputs and tasks accomplished by departments within the entities of the institution that were recorded in a previous stage during a specified period of time, where the activities and outputs can be reviewed weekly, monthly, semi-annually or annually, enabling senior management as well as employees to refer to any informational content It was saved on the system at any time, once the name of the administration and the period of time to be searched was specified.

* Customer management:

Objective: Preserving the data of those dealing with the institution, consolidating the relationship with them, and saving time and effort to communicate with the entities that the institution deals with.

Tasks: Documenting data related to external meetings that take place between the organization's employees and external parties, whether individuals or other institutions in the community, as the system provides the opportunity to record detailed data related to each party in a way that helps to refer to it, benefit from it and communicate with it at any time, as well as documenting the views of the beneficiaries and procedures Corrective to develop the relationship with them.

* Document management:

Objective: Documenting the institution's correspondence and ease of preservation and retrieval within a framework of security and confidentiality related to electronic preservation of the institution's documents.

Tasks: Preserving and storing all correspondence exchanged between the institution and the external parties that deal with it, which contributes to creating an electronic archive for each entity within the

institution that allows easy retrieval and display of sent or received correspondence.

* E-Services Department:

Objective: To activate the communication between the employees of the institution electronically, to overcome the spatial and time barriers within the institution, and to find a quick and innovative way for the employees to participate in all events.

Mission:

1. Circle of Dialogue: This is done by raising a general, economic, social, or cultural topic for discussion as one of the mechanisms to remove barriers between employees of the institution.

2. Opinion survey about services within the institution: It is done to measure the opinion about services or important issues.

3. Electronic Agenda: It enables organizing appointments and recording the most important daily events.

4. Standardizing the working models used: by unifying the general form of outputs from reports, studies and internal work models.

5. Announcing the activities of the departments: an overview of the most important activities carried out by the sectors and departments of the institution.

6. Electronic presentations and dissemination of culture within the institution: it is possible to review all electronic presentations that took place in the institution, to ensure the continuity of communication and the sequence of ideas among employees.

Research Methodology

The current study used the descriptive research method, which describes the phenomenon to be studied and the concepts and terms related to this phenomenon. It also used the analytical method, through which statistical methods and methods are used in analyzing the research data that will be obtained through the questionnaire form that was distributed to the research sample to reach Findings and recommendations that achieve the objectives of the research.

Research Hypotheses:

There is a statistically significant impact of e-Management on Business Processes Reengineering Telecom Sector in Iraq

Study population and sample

The study population consists of all employees in the institution in Telecom Sector in Iraq As a result of the difficulty of conducting a comprehensive inventory of all members of the study community, the study used the sampling method in order to collect data related to the study by selecting a simple random sample through the study tool represented in the questionnaire form. The electronic data that will be used in collecting the study data due to the precautionary measures currently applied and the ease of use in collecting the study data by publishing the questionnaire's link on all social media sites. The number of the study sample members reached (205) individuals who answered the questions of the questionnaire.

Study tool

The research used the electronic questionnaire form as a tool for the field study by preparing the questionnaire and its axes and phrases by using the theoretical framework of the study, previous studies related to the subject of the study and the questionnaire included two axes which are () and the number of questionnaire phrases reached () phrases and the five-degree Likert scale was used, which consists Strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1) in answering the study's questions

Data Analysis

The research will use the SPSS25 statistical program to analyze the data using the methods (Alpha coefficient - percentages, mean, standard deviation, and relative

weight - Pearson correlation coefficient Regression coefficient)

The limits of the study

- **Objective limits:** Study the impact of e-Management on the process of Business Processes Reengineering in Iraq
- **Location limits**: Telecom Sector in Iraq

- **Human limits:** employees in institution in Iraq
- **Time limits:** 2021

Field study

Validate the study tool

The first axis: e-Management

Table (1) Validate of e-Management

N. phrases	Correlation coefficient	P-value
1	**0.651	0.00
2	**0.679	0.000
3	0.680**	0.00
4	**0.691	0.000
5	0.563**	0.00
6	0.728**	0.000
7	**0.648	0.00
8	0.648**	0.000
9	**0.622	0.000
10	**0.519	0.000
11	0.736**	0.000
12	0.678**	0.00
13	***0.666	0.000
14	0.830**	0.00
15	**0.627	0.000
16	**0.793	0.00
17	0.467**	0.000
18	**0.523	0.000
19	0.681**	0.000
20	0.815**	0.00

The second axis: process of Business Processes Reengineering

Table (2) Validate of process of Business Processes Reengineering

phrases	Correlation coefficient	P-value
1	0.832**	0.000
2	**0.640	0.000
3	0.803**	0.000
4	**0.641	0.000
5	0.761**	0.000
6	**0.743	0.000
7	0.560**	0.000
8	**0.651	0.000
9	**0.883	0.000
10	0.726**	0.000

All correlation coefficients for all questionnaire phrases were statistically in 0.01 this means the tool has structural validity

The stability of the study tool

Table (3) Stability of the questionnaire

axes	Alpha Cornbach	number of elements
e-Management	0.887	20
process of Business Processes Reengineering	0.940	10
Total questionnaire	0.938	30

Source: Study sample data

It turns out that the value of the Cornbach alpha is high, which indicates that the study tool high degree of stability.

Personal data

Table (4) sample according to Personal data

	Categories	N	%
Gender	**Male**	**164**	**80**
	female	**41**	**20**
Age	**Less than 30 years old**	**49**	23.9
	From 30 to less than 40 years old	**101**	49.3
	From 40 to less than 50 years old	**43**	21.0
	From 50 or more	**12**	5.9
Academic qualification	**Middle Certification**	**17**	8.3
	Bachelor	**118**	57.6
	Master	**56**	27.3
	PhD	**14**	6.8
JOB	**Director**	**28**	13.7
	Deputy Director	**12**	5.9
	Head of the Department	**40**	19.5
	Employee	**125**	61.0
	Less than 5 years	**54**	26.3

work experience	From 5 years to less than 10 years	70	34.1
	From 10 years to less than 15 years	32	15.6
	15 years and over	49	23.9

The dimension of study

The first dimension: e-Management

Table (5) Phrases of e-Management

N.	Phrase	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean	S.D	Relative weight	Degree
1	Electronic forms for employment are available on the websites of the Foundation's website	0	23.9	15.6	34.1	26.3	2.693	1.138	0.539	Medium
2	Data of applicants for vacant positions is stored in a special database in the institution for reference in time of need	6.3	22.9	22.9	33.7	14.1	3.166	1.145	0.633	Medium
3	The institution informs those accepted for jobs of the appointment decision via e-mail or e-mail	11.2	37.6	15.1	31.2	4.9	3.698	0.870	0.740	High
4	Employees can obtain training materials through a link on the company's website, which is an internal network	16.6	49.8	23.4	9.8	0.5	3.824	1.061	0.765	High
5	The employees of the institution are trained on electronic simulation systems that intertwine the real work environment as it exists in the institution	29.8	40.5	17.6	8.3	3.9	4.050	0.851	0.810	High
6	The employees of the organization are trained on software specific	31.2	50.7	11.2	6.3	0.5	3.638	1.202	0.728	Medium

	to each department, department or department in the organization. The training programs are evaluated by the trainees by distributing an electronic questionnaire at the end of the program in order to ensure the credibility of the questionnaire.								
7	Electronic performance evaluation in the organization contributes to the development of training programs to cover performance gaps among employees	28.3	32.7	20.0	12.7	6.3	3.558	1.253	0.712	Medium
8	The employees of the institutions develop electronic performance evaluation models periodically and in proportion to the work tasks	26.3	34.6	17.6	12.2	9.3	3.281	1.311	0.656	Medium
9	The electronic performance evaluation applied in the organization is concerned with storing the results of the performance evaluation in databases that can be consulted continuously	20.0	31.7	17.1	18.5	12.7	3.387	1.085	0.677	Medium
10	The employees of the organization have comprehensive knowledge of the basic elements of electronic management	13.2	39.5	26.8	14.1	6.3	3.543	1.095	0.709	Medium
11	Specialized experts are used to implement advanced	14.6	50.2	13.7	14.6	6.8	3.337	1.440	0.667	Medium

	electronic systems								
12	The institution has a backup system to avoid malfunctions in electronic management	25.9	29.8	11.2	16.1	17.1	3.211	1.183	0.642	Medium
13	The General Authority of Islamic Affairs is keen to conduct continuous training for workers in electronic administration	14.1	32.7	22.4	22.9	7.8	3.528	1.132	0.706	Medium
14	The institution is keen to provide everything that is new and advanced in the field of electronic management	18.5	41.0	24.4	8.3	7.8	3.296	1.123	0.659	Medium
15	The institution has an electronic link between all departments and departments within the institution	13.2	37.1	24.9	18.0	6.8	3.568	1.143	0.714	Medium
16	The company uses advanced electronic systems	23.4	35.1	22.4	14.1	4.9	3.367	1.124	0.673	Medium
17	The employees of the organization have knowledge of the concept of electronic management	12.7	42.4	22.9	13.2	8.8	3.261	1.060	0.652	Medium
18	The criteria of electronic performance evaluation models are based on the actual performance of employees in the organization	10.7	35.1	32.7	14.6	6.8	3.291	1.037	0.658	Medium
19	E-recruitment policies contribute to the organization by selecting the best	11.2	34.1	34.1	14.6	5.9	3.487	1.058	0.697	Medium

	competencies to fill vacancies in them								
20	The employees of the institution are trained using modern means of communication in computers and the Internet. Training is carried out through video clips sent to the trainees through e-mail.	**18.0**	**35.6**	**27.8**	**14.1**	**4.4**	**3.543**	**1.062**	**0.709**	**Medium**

Source: Study sample data

The expressions of e-Management dimension were 3 expressions in the high plane and 17 expressions in the medium plane, and it shows the medium level of e-Management where mean e-Management dimension **.3**436

The second dimension: process of Business Processes Reengineering

Table (6) Phrases of process of Business Processes Reengineering

N.	Phrase	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean	S. D	Relative weight	Degree
1	The organization relies on information technology for assessment and control	**19.5**	**34.1**	**30.7**	**11.2**	**4.4**	**3.513**	**1.197**	**0.703**	**Medium**
2	Information technology helps in obtaining all the data that the organization needs in performing business tasks and operations	**20.0**	**42.0**	**17.1**	**12.2**	**8.8**	**3.281**	**1.260**	**0.656**	**Medium**
3	The level of performance of the tasks and business operations carried out by the organization that meets the expectations and needs of customers	**16.1**	**37.1**	**17.6**	**18.0**	**11.2**	**3.402**	**1.210**	**0.680**	**Medium**
4	The institution is interested in accomplishing all	**17.6**	**38.5**	**21.5**	**12.7**	**9.8**	**3.216**	**1.318**	**0.643**	**Medium**

	tasks and commercial operations in the shortest possible time and at the highest possible speed								
5	The institution is interested in making continuous updates in all tasks and business operations that it undertakes	19.0	28.8	22.0	15.6	14.6	3.111	1.274	0.622	**Medium**
6	The organization aims to reduce the cost of services and commercial operations that it provides to customers	13.7	31.2	21.5	18.5	15.1	2.935	1.303	0.587	**Medium**
7	The organization relies on information technology for assessment and control	12.2	25.4	23.9	19.0	19.5	3.151	1.266	0.630	**Medium**
8	Information technology helps in obtaining all the data that the organization needs in performing business tasks and operations	15.6	28.3	25.9	16.1	14.1	3.045	1.232	0.609	**Medium**
9	The level of performance of the tasks and business operations carried out by the organization that meets the expectations and needs of customers	12.2	27.3	28.3	18.0	14.1	3.106	1.383	0.621	**Medium**
10	The institution is interested in accomplishing all tasks and commercial operations in the shortest possible time and at the highest possible speed	18.5	28.3	18.0	16.1	19.0	3.442	1.281	0.688	**Medium**

Source: Study sample data

The all expressions of process of Business Processes Reengineering dimension were in the medium plane, and it shows the medium level of process of Business Processes Reengineering where mean process of Business Processes Reengineering dimension **.3**220

Test Research Hypotheses:

There is a statistically significant impact of e-Management on Business Processes Reengineering in Telecom Sector in Iraq

In table (7) positive correlation relationship between e-Management and Business Processes Reengineering in Telecom Sector in Iraq at 0.01, this shows the correctness hypothesis and positive impact between e-Management and Business Processes Reengineering in Telecom Sector in Iraq

Table (7) the correlation between e-Management and Business Processes Reengineering in Telecom Sector in Iraq

variable	Level of Business Processes Reengineering
level of e-Management	****0.699**

**significance ($\alpha = 0.01$)

In table (8) the value of (F) significant at 0.01, and There is a statistically significant impact of e-Management on Business Processes Reengineering in Telecom Sector in Iraq and the more it increased level e-Management by 1% is the level of Business Processes Reengineering in Telecom Sector in Iraq increased by 0.556%

Table (8) impact of e-Management on Business Processes Reengineering Telecom Sector in Iraq

B	R^2	T	F	P-VALUE
0.556	0.489	**13.934	194.162**	0.000

**significance ($\alpha = 0.01$)

Conclusion
- The Medium level of e-Management where mean e-Management dimension **.3**436
- The Medium level of process of Business Processes reengineering where mean process of Business Processes Reengineering dimension **.3**220
- The Positive correlation relationship between e-Management and Business Processes Reengineering in Telecom Sector in Iraq at 0.01
- The positive impact e-Management on Business Processes Reengineering in Telecom Sector in Iraq and the more it increased level e-Management by 1% is the level of Business Processes Reengineering in Telecom Sector in Iraq increased by **0.556**%

Recommendations

- Work to conduct more studies and research related to the application of electronic management and modern technology in all productive and economic sectors in order to reach the best possible use of the available resources.
- The necessity of providing the appropriate technological infrastructure for the technological work environment, which contributes to maximizing the use of the available

technological and informational capabilities.

- Providing the appropriate work environment for workers in organizations in order to maximize their capabilities, capabilities and levels of performance.
- Working on the application of all modern methods in the field of administrative and commercial operations, which contribute to increasing the ability of organizations and institutions to achieve the best possible levels of performance
- Benefiting from the process of re-engineering business processes in all economic and production sectors for its ability to increase utilization rates of available resources

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