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Business Process Re-Engineering and Its Effective Impact on Job Performance in South Refineries Company

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ABSTRACT

The aim of the research is to know the effect that the business process re-engineering had on the performance of employees of the south refineries company – Iraq. With the addition of some observations that contribute to leaving a good impact for the purpose of seeking to develop the concept of engineering for workers. As the results were relied upon to conduct analyzes through SPSS statistical analysis program on the 350 employees in the company. The results indicated a set of concepts and indications, the most important of which are the application of the engineering concept was present in the company at a rate of 60% and the existence of a direct relationship between the dimensions of business process re-engineering and the level of job performance. The purpose of the research See the relationship between HR aspects, such as teamwork, management competency, organizational structure, IT and efficient communication for achieve beneficial outcomes by reducing costs, time and increasing productivity for determining the level of business process re-engineering in the south refineries company, southern Iraq. From the viewpoint of its employee such as knowing the level of guest performance for people working in the south refineries company, identify the strength of the relationship between the company's employees and the engineering management, and determining the level of business process re-engineering in the south refineries company.

KEYWORDS: Business process re-engineering, Job performance, South refineries company.

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INTRODUCTION

Engineering is known as the most prominent technology that has reached the world of management through some clear results on the performance of the leading companies. The improvement in the performance of their work has been observed and the situation improved through the application of the engineering method. This is what made other companies accelerate the application of this mechanism and adopt it in a clear manner in most Growth-seeking companies. Re-engineering is considered a successful and approved method for the purpose of making the work of most civil institutions and companies a success through a radical change in the way they perform their business and it is easy to talk and difficult to do in applying engineering technology to departments and companies envisions how to apply it in the presence of daily variables (Nkomo & Carl Marnewick, 2021). Therefore, engineering is considered a wealth in administrative sciences and the latest trend in the world of management and business. Basic thinking and radical redesign of administrative processes to achieve fundamental improvements in critical performance measurement criteria such as cost, quality, speed, and service that all companies or institutions seek to achieve some of them in order to complete work (Aked et al., 2008).

The nineties of the last century received the emergence of new theories in managerial thought appropriate to the technical and marketing changes, and among these theories was the theory of engineering and this terminology was relied on in the Arabic language by combining the two words engineering and management. Among the most prominent pioneers of this theory are Michael Hammer and James Shamley, the first to touch upon this theory (CIPD, 2007). Business organizations seek to bring about the necessary changes to adapt to the recent developments imposed by the challenges of globalization, and the successive revolutions in information and communication technology, which makes it imperative for every business organization that wants to survive, or wants to increase its competitiveness, work and rethink all its activities. These challenges lead organizations to adopt new management concepts to adapt to these variables (Godard, 2014).

Public sector institutions are witnessing challenges and threats that have arisen from the changes that have changed the shape of the world and created a new global order that relies mainly on science and accelerated technological development and is based on highly advanced and superior techniques, which leaves no room for hesitation to start comprehensive programs to develop and

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modernize systems, policies and practices related to the management and development of human resources (Zhiqiang et al., 2021). So as to ensure that civil service institutions are able to overcome their problems and address weaknesses.

Due to the rapid spread of the concept of process re-engineering in public and private sector organizations, the method of applying the method of re-engineering processes to the processes had a clear impact on achieving varying results for the desired goals (Hammer & Champy, 1993). As the experiences of many governmental and private organizations have shown that they suffer from difficulties when applying this method to return to the naturalness of the differences that distinguish the public sector from the private sector when applying these concepts (Hutton, 1996). And that the success of its application depends on the availability of many decisive factors.

The definitions differed from one face to another with regards to engineering. French defines Business process re-engineering as "the process of selecting, using, developing and compensating the human resources working in the organization. Sikula defined it as" the use of manpower inside the establishment or by the establishment. This includes the operations of manpower planning in the facility, selection and appointment, performance evaluation, Training and development, compensation and salaries, industrial relations, provision of social and health services. (For workers) and (Dessler) defined it as "the set of practices and policies required to implement the various activities related to human aspects that the management needs to perform its functions to the fullest (Bowen & Ostroff, 2004).

METHODOLOGY

Data was collected through recent literature and survey for various dimensions based on opinion of 350 employee, the study was based on the existence of a questionnaire to south refineries company and the aim of the research was knowledge effective business process re-engineering impact on job performance. In view of the increasing importance occupied by the business sector in Iraq, south refineries company was chosen, and it was chosen as a field for research because of its importance for the advancement of the reality of providing services to the various governorates of Iraq. The methodology of the study and its results are considered a major part through which the practical aspect is accomplished.

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RESEARCH SAMPLE

A questionnaire was prepared on "the reality of applying business process re-engineering engineering and its relationship to developing performance career at south refineries company and the study questionnaire consists of two main parts:

The first section: It is a statement of the personal data of the respondent (sex, age, job title, years of service and educational qualification).

The second section: It consists of the fields of study, and it consists of 36 paragraphs, divided into two areas:

The first area: engineering and it consists of 28 paragraphs, divided:

A- The human dimension, and it consists of 11 a paragraph.

B- The organizational dimension, and it consists of 8 paragraphs.

C- The technological dimension and it consists of 9 paragraphs.

The second area: Job performance, and it consists of 8 a paragraph

RESEARCH HYPOTHESES

Main hypothesis: -

There is no statistically significant relationship between business process re-engineering and job performance at the level of significance ($a \leq 0.05$) in the south refineries company.

Alternative hypothesis: -

1. There is no statistically significant relationship between the human dimension and job performance at the significance level ($a \leq 0.05$) in the southern refineries company.
2. There is no statistically significant relationship between technological dimension and job performance at the significance level ($a \leq 0.05$) in the southern refineries company.
3. There is no statistically significant relationship between organizational dimension and job performance at the significance level ($a \leq 0.05$) in the southern refineries company.

The importance of business process re-engineering

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There are a number of justifications that pushed the world, with its various institutions, to devote human resources in particular, with great interest, and perhaps the most prominent of these justifications.

1. The large size of institutions led to greater government intervention in the direction of commercial activity. Various institutions generate a strong relationship between the organization's management and the workers.
2. The understanding of official's at all administrative levels and increasing productivity depends on improving the use of human resources.
3. The presence of a human aspect that helped increase the focus between workers and management.
4. The existence of new legislations that helped to improve human resources.
5. Being one of the most important sources that achieve growth in the economic sector.
6. The development of means of production resulting from technological developments, which generated a change in the quality and method of production.
7. The remarkable development in the intervention of government institutions in the process of managing human resources, through the issuance of new legislation.
8. Human resources are described as one of the means of development.

Business process re-engineering goals

The exact goals of business process re-engineering differ from one organization to another in the stage of developing the organization, for example, a competent person views human resources as an element that deals with the administrative part of people management, such as preparing work contracts and keeping personnel files (Kaufman, 2015).

On the other hand, the head of human resources is an integral and vital part of the work planning process, and all of this aims to achieve the various objectives of the project, and through that it is possible to conclude many goals that the human resources department aspires for make it (Xie & Cooke, 2019). The goals of human resources varied according to their style, and they were divided into several goals.

Employment goals: - These are the goals that are based on managing human resources with its own advisory functions that relate to individuals in order to ensure a continuous increase in human

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forces and to obtain the maximum benefit from human efforts and manpower and provide the opportunity to enable them to take experience and skill [8].

- Humanitarian goals: They are the goals that are concerned with individuals who work where the resource management aspires to saturate their aspirations and wishes because they are the most important part of the production process and among these goals
- Presenting a working methodology and policies for the purpose of using human energy and protecting it from danger.
- Providing them with stimulating work conditions that allow them to increase their income.
- Giving workers the opportunity to advance in their field of work by congratulating them.
- Social goals: - These are the goals that seek to achieve the aspirations of society through the operation of individuals according to their capabilities and from these goals.
- Increasing living standards by relying on giving balance between human energies.
- Helping to provide the appropriate guest to persons.
- Providing protection while preserving the quality and strength of work.
- Organizational goals: - They are the goals that are based on managing the human resources in the guest in a relationship with other departments and providing advice to them.

The basic principles of Business process re-engineering

The one who adheres to the principle of re-engineering must adhere to the following principles: (Aliwa, 2002) 95: Functional integration, where activities must be consciously reviewed by management and can be directed. Incorporate more than one job.

1. Reducing the number of organizational levels, fewer departments, and fewer jobs, less supervision.
2. Reaching a compromise between centralization and decentralization in decision-making.
3. Transforming managers into teachers and trainers, it is imperative to possess high skills to deal with others, to provide resources and answer inquiries.
4. Moving the organization from the hierarchy to the horizontal, where the hierarchy recedes with the presence of work teams, as the organization works through work teams that can face problems with immediate decisions without slowing down and you have broad decision-making powers. The benefits of applying Re-engineering depends on multiple stages, which are described as follows

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1- The understanding stage this stage denotes the necessity of changing and developing understanding.
2- The planning stage, which is the stage that is based on having a plan to properly manage the work methodology and for its objectives to be measurable.
3- The programming phase, which is the phase that is based on programming the business through developing assessments by focusing the efforts made by the project team by defining a new start.
4- Transfer, which is the stage that takes place within the framework of an experimental environment, as it refers to the transfer that uses the financial transfer to restore operations.
5- Implementation, which is the stage that, after completing all special studies, drink and there is a successful undertaking in re-engineering processes.
6- Evaluation, which is the stage in which all the efforts exerted for the purpose of evaluating the goals that are planned are evaluated.

Dimension of Business process re-engineering

Three dimensions were relied upon to assess the engineering phase of the south refineries company located in Basra governorate, Iraq, namely.

The organizational dimension - the technological dimension - the human dimension, as each promise includes a specific concept in order to achieve the desired goal and it has been described as follows (Achor et al., 2018).

1- The theoretical dimension: the performance contains principles, implications and intellectual connotations, whether implicit or direct, as performance is a time choice for the organization's strategy.
2- The experimental dimension: its importance is evidenced by the use of studies and research to test important strategies and the resulting processes.
3- The administrative dimension: its importance is clearly evident in the application of procedures and methods to evaluate the results of organizations performance.

RESULTS AND DISCUSSION

Presenting the reality of business process re-engineering according to the answers.

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Table 1: *Mean Value*

Mean Value					
Very weak	Weak	Average	Good	Very good	Degrees of the scale
1-1.9	2-2.9	3	3.1-4	4.1-5	Mean value

1- The organizational dimension

A group of questions was relied upon for the purpose of knowing the organizational dimension to engineering as shown in Table 2, where the mean ± Sd value of the organizational dimension was 4.1618 ± 0.6726.

Table 2: *Shown the Organizational Dimension*

N	Paragraph	MEAN±SD
1	The continuous development of the organizational structure helps the company to carry out its business	4.1862±0.68836
2	The company operates according to a clear organizational structure	4.3181±0.62445
3	There is a direct relationship between the organizational structure and the strategic changes in the company	3.9026±0.83509
4	The organizational structure helps in developing the positive performance	4.1948±0.60825
5	The company undertakes fundamental changes in the organizational structure in order to achieve the required goals	4.3037±0.62470
6	The organizational structure is consistent with the general objective of the company	4.1347±0.41754
7	Flexibility of the organizational structure in dealing with difficulties (crises), if exist	4.0287±0.90292
8	The company operates according to approved classifications for administrative jobs	4.2579±0.67974
9	Sum	4.1618±0.6726

2- The human dimension:

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It is clear from Table (3) below that the human dimension was 4.2870 ± 0.8103 and a decrease in some values is observed, especially in the aspect Clarification of the future vision by management for the change side to the employees.

Table 3: *Shown the Human Dimension*

NO	Paragraph	MEAN±SD
1	The management policy in the company helps the top management to reach wise decisions	4.7364±0 .72268
2	There is a plan in place to develop my guest performance	4.9226±0 .26755
3	The company contains efficient management elements that meet the development process required for change	4.8367±0 .61516
4	The company distributes the job tasks according to specialization and competence	4.8367±0 .58646
5	Top management attract the human competencies required for change	3.3840± 1.13278
6	Staff have a clear vision of the objectives of the re-engineering process	4.4928±0 .57544
7	Having a clear management policy	4.1805± 1.13668
8	Flexibility of work during the hydration process	4.0946± 1.09843
9	Clarification of the future vision by management for the change side to the employees	2.9255± 1.31750
10	The company is interested in developing the technical competencies to achieve the desired goal	4.1490±0 .84120
11	The existence of a re-evaluation process to what has been completed	4.5989±0 .62016
12	sum	4.2870±0.8103

3-Technological dimension

Through Table (4), the MEAN ±SD technological dimension came with a ratio of (4.1744 ± 0.8260), which indicates the agreement of most of the sample members, and paragraph (1) came at the highest values and this indicates the company's interest in the work being dependent on the use of advanced technology to make the necessary change With technology in the design of its administrative and technical processes, paragraph (9) ranked the lowest in my arithmetic, which may indicate a weakness of Re-evaluation through the use of information technology.

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Table 4: *Technological Dimension*

N	Paragraph	MEAN±SD
1	The company's work is based on the use of advanced technology in order to bring about the necessary change	3.7278±1.32736
2	Information is transferred between company employees in a fast and regular manner	4.0860±1.05512
3	The company uses the computer network in its internal or external dealings	4.2378±0 .76800
4	Indulgence technology reduces time and effort	4.4785±0 .60905
5	Technology helps management make decisions efficiently	4.3066±0 .83424
6	The available technological capabilities are highly efficient	4.1318±0 .71103
7	Keeping pace with the development in technology (technological development)	4.1347±0 .74021
8	Employing information technology in the company to redesign administrative processes	4.0487± 0.86132
9	Re-evaluation through use of information technology	4.4183±0 .52774
10	Sum	4.1744±0.8260

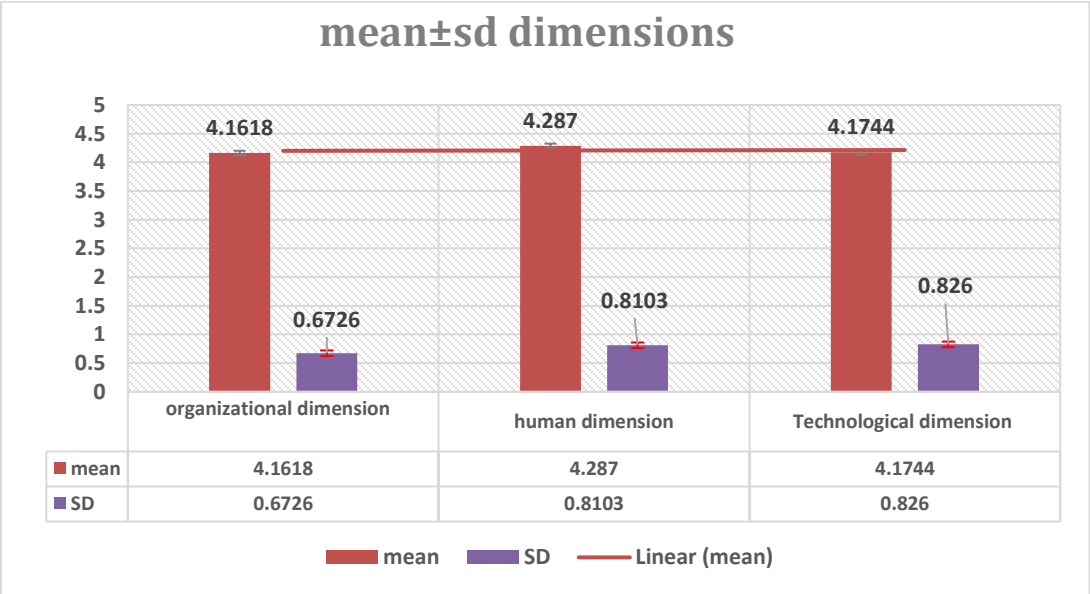

Figure 1: shown Mean ±SD dimensions of Human source re- engineering

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Table 5: *Explain the Effect of Business Process Re-Engineering on Job Performance*

N	Paragraph	Mean ±SD
1	There is a periodic evaluation of the employee's performance	3.8673± 0.88093
2	Follow-up evaluation and performance development in the company	4.1735±0.73254
3	The existence of measures of performance efficiency within the company's plans	4.3265±0.68527
4	The employee has a level of satisfaction with the company's performance	4.0306±0.52669
5	The employee has the skill and ability to solve daily problems	3.9490± 1.00895
6	The performance appraisal motivates the employee	4.0408 ±.96237
7	The right to object to the employee	4.4082 ±0 .671
8	Perform job duties according to competency standards	4.1224±0.81564

Hypothesis Testing: -

If (Sig) is greater than the level of significance (a≤0.05), then it cannot be rejected null hypothesis mean there is no statistically significant relationship between two variables if either (Sig) less than or equal to the level of significance (a≤0.05) then it is rejected null hypothesis and acceptance of the alternative hypothesis that there is a statistically significant relationship between two variables of the study as shown in the Table 6.

Table 6: *Hypothesis Testing*

	Hypothesis	Pearson Correlation Coefficient	Sig
Main hypothesis	There is no statistically significant relationship between Business process re-engineering and job performance at the level of significance (a≤0.05) in the South Refineries Company	0.675	0.00
Alternative hypothesis	There is no statistically significant relationship between the human dimension and job performance at the significance level (a≤0.05) in the Southern Refineries Company.	0.648	0.00

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	There is no statistically significant relationship between technological dimension and job performance at the significance level (a≤0.05) in the Southern Refineries Company.	0.681	0.00
	There is no statistically significant relationship between organizational dimension and job performance at the significance level (a≤0.05) in the Southern Refineries Company.	0.622	0.00

This hypothesis clarifies the existence of a direct relationship between business process re-engineering and the job performance of the employees whenever business process re-engineering in the south refineries company are applied. The greater the level of job performance It also indicates the positive relationship between the dimension Human and job performance of employees, provided that if the company wanted to increase the level functional performance should be concerned with the human dimension As for the organizational dimension it was pearson correlation coefficient (0.721) and sig (0.00) it is less than significance level (a≤0.05) that's lead to exist direct relationship between organizational dimension and job performance.

The pearson correlation coefficient for the technological dimension was 0.622 and sig (0.00), which is less than the significance level (a≤0.05) and this indicates the existence of a statistically significant relationship between the technological dimension and job performance. Workers to increase their level of job performance, and this indicates that south refineries company uses technological means, devices, tools, networks, and systems to integrate, coordinate and use them optimally, which affects the increase in the level of job performance of employees.

The research reached a set of goals it can be described as follows:

Organizational objectives: that the human resources department perform its function in a coherent manner with the rest of the other departments and provide advice and guidance in relation to personnel affairs (Marcinekova & Sujova, 2015). Functional goals: which are the human resources department carrying out advisory and executive functions and related to individuals in it, including (Sujova et al., 2016).

A. Ensuring the continuity of the flow of human power to the institution through polarization.
B. Ensure the maximum benefit from human efforts through its training and development Provide the opportunity to enable them to obtain knowledge, experience and skill.

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1. **Social goals**: - It is the achievement of society's goals of employing individuals according to Their capabilities, in line with the laws and legislations related to workers and their protection from dangers, and that raising living standards by providing a balance between the available opportunities and the human energies of society by putting the right man in the right place (Kiselakova et al., 2018).

CONCLUSION

Business process re-engineering has an important role in developing the job performance of the employees after it has been found that business process re-engineering has a moral relationship and effect on job performance It also has engineering represented by its dimensions at a somewhat moderate rate and needs greater attention by the higher management in how to apply these dimensions in a scientific and practical way and performance is available It is represented by its average dimensions and needs more attention by adopting some strategies to raise the employees' job performance (Aldrich & Cliff, 2003).

The goal of this paper see the association between HR aspects, for example team work, management competency, organizational structure, IT and efficient communication for attain beneficial outcomes by reducing costs, time and raising productivity for determining the level of business process re-engineering in the south refineries company, southern Iraq. From the viewpoint of its employee for example knowing the level of guest performance for people working in the south refineries company, identify the strength of the association between the company’s employees and the engineering management, and determining the level of business process re-engineering in the south refineries company.

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