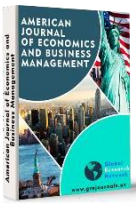

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The Role of Human Resources Re-Engineering in Enhancing the University Service Quality- Analytical and Exploratory Study

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Abstract:
This research aims to explore the role of human resources re-engineering as an independent variable in enhancing the quality of university service, in order to keep pace with the requirements of the fourth revolution in education and raise the scientific level that civilized societies seek. This research comes in light of the large gap between the intellectual proposal and the practical reality in Iraqi universities, which calls for the need to adopt innovative strategies to restructure human resources in line with technological transformations and modern requirements. Data was collected through a questionnaire distributed to 30 administrative leaders at the College of Engineering at Al Qasim Green University. The data was processed and hypotheses were tested using a number of statistical methods. The results showed a correlation and statistical effect between human resources reengineering in its dimensions and the quality of university service. The strongest positive correlation was between the organizational dimension and service quality, while the weakest correlation was between the technological dimension and service quality, which was also positive.

The value of the research lies in its focus on the human element and studying the surrounding conditions and means of improving them. It provides practical solutions to problems in the field of human re-engineering, in addition to providing indicators that help managers adopt a human re-engineering approach to achieve change and quality in university service.

Keywords: Re-engineering human resources, Quality of university service.

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1. Introduction

The new education system known as Education 4.0 is a global movement that aims to transform traditional learning methods into a modern model that uses digital technologies to enhance personalized learning. Industry and education are closely linked, as history shows that the development of industry from the first to the fourth revolution parallels the development of education up to the fourth revolution in education, giving rise to the term "Education 4.0". This term expresses education's response to industrial developments, as Education 4.0 aims to keep pace with the Industrial Revolution 4.0, which integrates humans with technology to open new horizons. Education 4.0 is a future trend that scholars are focusing on to develop the education system. The challenge in implementing Education 4.0 is to improve the quality of human resources, keep pace with environmental changes, and enhance technological capabilities [1].

The Education 4.0 model can be described as being based on two main trends: the first focuses on comprehensive innovations and changes in education and teaching methods, while the second deals with the integration of technologies introduced by Industry 4.0 into education [2]. In this context, human resources re-engineering comes as a crucial tool for improving university services. By focusing on developing human skills and competencies in line with the requirements of Education 4.0, educational institutions can enhance the quality of their academic and administrative services. The challenges in implementing Education 4.0 lie in improving the quality of human resources, keeping pace with environmental changes, and enhancing technological capabilities. By restructuring human resources to be more aligned with these needs, tangible progress can be made in improving university service, enhancing the learning experience and better preparing graduates for the contemporary labor market.

Human resources engineering plays a major role in the success and quality of contemporary organizations, because of its focus on one of the most important elements of production, which is the human element. Therefore, human resources management must move from its traditional role to a strategic role, because the traditional role is no longer sufficient under contemporary dynamic conditions. Recently, interest in the quality of educational service has increased for main reasons, including scientific and technological progress, increased competition between educational institutions, and current educational expansion. The higher education environment is considered a fertile environment in which creative minds and intellectual energies emerge. From this standpoint, the idea of our current research emerged, which is represented in the main question of the research problem: "The extent of the interest of the administrative leaders in the College of Engineering at Al Qassim Green University in re-engineering human resources and its role in enhancing the quality of university service," which can help educational institutions in strengthening their efforts to achieve Quality of university service.

This research is divided into several main parts to cover all aspects of the study. The first part deals with the literature review, the second part focuses on the research methodology, and explains how to use the questionnaire as a data collection tool, in addition to the procedures followed in analyzing the data. The third part includes the research hypotheses, which are formulated based on the literature review and identified challenges in the field. In the fourth part, we review the findings from the data analysis and discuss them in light of the established hypotheses. Finally, Part Five presents conclusions and recommendations, where we summarize the most important findings and highlight practical recommendations that can contribute to improving the quality of university services through re-engineering human resources.

2. literature review

2.1. Human Resources Re-engineering

Human resource engineering is one of the important topics that play a significant role in improving the work environment to achieve greater convenience for workers. It is found in the literature that there is a multiplicity of terms and definitions that writers and other researchers addressed in expressing this field of knowledge. While many of them agreed that the term human engineering was not the only term that was used, other terms were used synonymously to express this concept, such as human factors, human factors engineering, human resource engineering, and psychology engineering [3]. Noe et al [4] viewed human engineering as the science that examines the common features between individuals' psychological traits and the physical work environment, and the goal of this approach is to reduce the psychological pressure on the worker by structuring the work environment in a way that facilitates the work of the human body.

According to [5] the re-engineering of human resources is one of the most important contemporary trends in modern management thought, which has received the attention

of many researchers and those who are interested in the field of business and management. This is due to its great and important role in helping organizations to invest their available resources, including human resources, which is the main driver of all continuous improvement programs that have a great impact on the success of the administrative process of the organization and the rearrangement of business. This is achieved through a radical change in the organization and how it performs its various activities for improving performance at all administrative levels and other processes that push the organization towards a distinguished performance level and achieve the best utilization and high efficiency of its available resources to raise and improve its competitive capabilities. Re-engineering human resources also helps the organization to get out of the routine, narrow view of work, lack of comprehensiveness, quick solutions to work issues and other old management systems and methods. A recent study by [6] supports this point of view. For this research, HR re-engineering can be procedurally defined as a contemporary management tool that involves a process of radical change and redesign of processes, procedures and activities to make them simpler, easier, high-value and in line with technological advances. This, in turn, leads to significant improvements in the important and contemporary performance measures of cost, speed and quality of service.

Reengineering human resources has gained great significance, especially in the latest period **[7]** believe that the reasons for this importance are due to its being one of the modern administrative and engineering methods that help organizations to keep pace with the technological progress and meet the constantly changing desires and aspirations of customers as a result. This importance is also due to the close link between it and the human resource, which is the most important resource in the organization, [8] sees that re-engineering human resources helps to make the best use of the human, material and technological resources available to the organization in order to achieve competitive advantage and meet quality requirements, [9] believe that re-engineering human resources contributes to the inclusion of new technologies and methods of work in the field of activity of the organization, which helps to achieve high quality in the provision of the product or service, [10] argued that re-engineering human resources helps to empower individuals working in the authority and gives them full freedom of action and initiative in improving their work with a degree of independence while taking responsibility for the results of that initiative to build the rules of work, creativity, and innovation, [5] argues that re-engineering human resources enhances the organization's ability to achieve its vision, strategic mission, and goals, also [11] believes that re-engineering human resources assists the organization in reaching or achieving optimal performance through which it can reduce waste, as well as the existing void and errors resulting from random actions, and thus it draws a path for the organization on how to improve and design the work.

The views of researchers varied in defining the dimensions of human resource re-engineering. Each of them has a point of view in defining these dimensions. Still, most researchers and specialists have agreed on what [5] stated about the dimensions of human resource re-engineering. On the other hand, the researchers believed that these dimensions fit and harmonize with the nature of the current study and these dimensions are (the human dimension, the technological dimension, and the organizational dimension). Therefore, in this study, the researchers will rely on these dimensions to measure human resource re-engineering, as blow:

The Human Dimension: Undoubtedly, the human resources in the organization constitute the basic and essential element to bring about any change process in the organization. Customers and individuals working in the organization are considered the main targets to complete the re-engineering. Therefore, the organization must focus on the good preparation of the responsible individuals in charge of the re-engineering process in

order to bring about a radical change in concepts and ideas. It is also important for the organization to work on building an organizational culture for human resources, such as total quality, adapting to re-engineering, shifting to self-directed work teams, and developing the commitment of human resources to customer service [12], this view is also backed up by [6], [13].

The Technological Dimension: First of all, we can say that technology is the backbone that contemporary organizations rely on in the re-engineering of human resources. Technology is an invaluable resource in the development of the organization's business and it is very important to invest in its design and acquisition as a strategy for the organization. Stacey & Mowles [14] defined technology as the methods of using tools, i.e. techniques, skills and competencies used by the organization's human resources to carry out work more effectively and efficiently. Mathis & Jackson [15] argued that the adoption of modern technology by the human resources department and its implementation is highly beneficial, including reducing costs and improving the level of quality of provided services. Perhaps the most important thing we see from the use of technology in the workplace due to its re-engineering is the complete automation of its processes after re-engineering them and thus the transformation to electronic human resources management. Blinov & Rudakova [16] added that technology provides workers in human resource management with analytical information, statistics, and metrics that contribute to the analysis of the strategic direction of the organization and implementing it more efficiently.

The Organizational Dimension: It is firstly important to identify regulation as the structure of the current reports, policies and procedures of the organization [17]. However, [18] defined it as the division of tasks to members of the organization and assigning responsibility for their performance. Undoubtedly, in the changing business environment, the organization needs a new model of organizational effectiveness that is more flexible or continuously adaptable. Samson et al. [19] argued that re-engineering leads to a shift from a strong vertical structure to stronger horizontal coordination because it focuses on horizontal rather than vertical workflows.

[8] clarified this point of view, as this dimension is concerned with the elements and instructions that are concerned with changing the regulatory structure of the organization, the structure of departments and sub-departments, and the distribution of positions and responsibilities. It is also concerned with the communication channels that link the work of people and groups in the organization to each other, the degree of formality, centralization, and relationships between individuals working in the organization, as well as incentive and compensation systems and performance evaluation.

2.2. University Quality Service

Universities are the active base in the education environment and its objectives because they are considered service organizations that are concerned with the production and marketing of a package of educational, research, and training services. Thus, they represent the main entrance to all human activities in society, whether economic, political, industrial, service, material or spiritual [20]. Chen, [21] defined service quality as a set of overall qualities and characteristics that should be available in the educational service so that this service can qualify the customer and provide him with knowledge, skills, and experiences during the years of study. In this way, he will be able to achieve his goals and society's developmental goals. In the same context, [22] defined university service quality as a set of efforts provided by the university to provide distinctive services aimed at achieving distinct outputs of the educational process to develop students in all aspects and create a good climate for the educational environment to achieve sustainable development**.** University service quality can be defined procedurally for the purposes of

this study as a modern administrative philosophy that includes the continuous improvement of the administrative and educational process through review, analysis, and research with the aim of improving the outputs of the university educational process to suit the external environment that is constantly evolving and meeting the needs and desires of the beneficiary parties and achieving their satisfaction.

The attention to the quality of university service increased in the last half of the twentieth century, especially during the 1980s, as achieving quality in educational institutions became one of the necessary indicators and standards. This is due to the technological and scientific explosion associated with economic changes, scientific expansion, new social pressures on higher education institutions, and increased motivation for academic education [23]. Hasan and Hosen [24] believes that the quality of university services is necessary to achieve student satisfaction and loyalty, which enhances the reputation of educational institutions and their position in society. It contributes to raising performance levels and keeping pace with competitive changes, and is an effective tool for development in less developed countries. Other researchers like [25] and [26] believed that the importance of the quality of university service is represented by some of the following important aspects:

1. Achieving student satisfaction: The quality of university services contributes to increasing student satisfaction and improving their educational experience.

2. Improving the reputation of institutions: High quality of services enhances the reputation of educational institutions and attracts more students and resources.

3. Meeting students' needs: The quality of education depends on meeting students' needs and conforming services to educational standards.

4. Providing an integrated educational experience: Providing a comprehensive educational experience that enhances the effectiveness of educational institutions.

5. Adapting to technological shifts: Understanding student expectations and providing services that align with them enhances institutions' ability to adapt to technological shifts and changing needs.

6. Competitive advantage: The quality of educational services is an important competitive advantage that must be part of the institution's leadership strategy.

7. Inclusiveness of stakeholders: Quality includes all stakeholders such as sponsors, employers and society.

8. Impact on future quality of life: The quality of services greatly affects the future quality of life of students.

9. Competent employees: The necessity of having competent employees capable of adapting to changes to ensure the quality of educational services.

The perspectives of authors and researchers varied in defining the dimensions of the quality of the university service, as each has a point of view in defining these dimensions. However, it can be said that most researchers and specialists agreed with [26] and [27] about the dimensions of university service quality. On the other hand, the researchers believe these dimensions fit and harmonize with the nature of the current study. These dimensions are (reliability, tangibility, responsiveness, empathy, and security). Therefore, the current researchers will rely on these dimensions to measure the quality of the university service.

Tangibility: It means all the services provided by the college, including physical equipment, building decorations, staff offices and classrooms [28]. On the other hand, [29] believed that this dimension is related to those things that the beneficiaries of the service can touch in terms of devices and equipment and how to use them, physical facilities and

easy access to them, as well as the work environment and its attractiveness.

Reliability: It means the ability of the organization to perform the expected service reliably and accurately [30]. Nkiruka & Olanrewaju [28] explained this dimension as the ability of service providers to fulfill their obligations, such as promises to students on time, solving the issues they face, providing all required scientific disciplines, and keeping accurate, organized, and error-free records.

Response: It means the timely reaction to the needs of customers [31]. It is further explained by [32] as reflecting the actions of individuals working to assist customers and provide them with quick services, such as quick appointments, immediate response to the needs of students, and responding to their questions, inquiries or complaints.

Sympathy: It refers to an attempt to understand the customer's perspective through individualized attention [33]. Nkiruka & Olanrewaju [28] believed that this dimension includes care and good treatment, the extent to which attention is paid to one student over another, and the degree to which service staff are aware of the needs of their students.

Security: It is the knowledge and ability of working individuals to instil confidence in customers and thus make them feel confident and safe [29]. Nkiruka & Olanrewaju [28] further clarified this dimension as it includes providing a secure and risk-free environment for students, preserving their personal information and no one has the right to access it. They added that it also includes ensuring that the number of students is not accepted above the capacity of the educational facility, which negatively reflects on the health and psychological aspects of students.

3. Research Methodology

The College of Engineering is one of the colleges of Al Qasim Green University. The college includes two scientific departments (Civil Engineering and Water Resources Engineering) and more than 7 administrative departments. The choice of this college was driven by its strong focus on education and its serious pursuit of innovation and creativity in providing distinguished university services, and this trend is considered... An important goal in the context of education in Iraq. This trend holds great importance in the context of the current study. according to [34] the study data were collected through purposive sampling to obtain accurate and relevant results by targeting those with experience and knowledge related to the subject of the study. Data for the current study were collected from department heads, division directors, and unit officials in the College of Engineering. The study included a total of 40 participants, and among the distributed questionnaires, we received a total of 30 usable responses for further study. Data were collected through the development of a questionnaire, which included a comprehensive review of relevant literature. The questionnaire was constructed using a five-point Likert scale and includes two distinct sections. The first section focused on providing an overview of respondents' basic information. The second stage was devoted to exploring the study variables.

3.1. Research Model

Based on what was proposed in the theoretical aspect, the model (Figure 1) was formed from two variables, the first of which is: human resource reengineering in its dimensions (human dimension, technological dimension, organizational dimension) as an independent variable, and the quality of university service in its dimensions (tangibility, reliability, responsiveness, safety, Empathy) as a dependent variable. A model was developed to describe the role of human resources re-engineering in achieving quality university service.

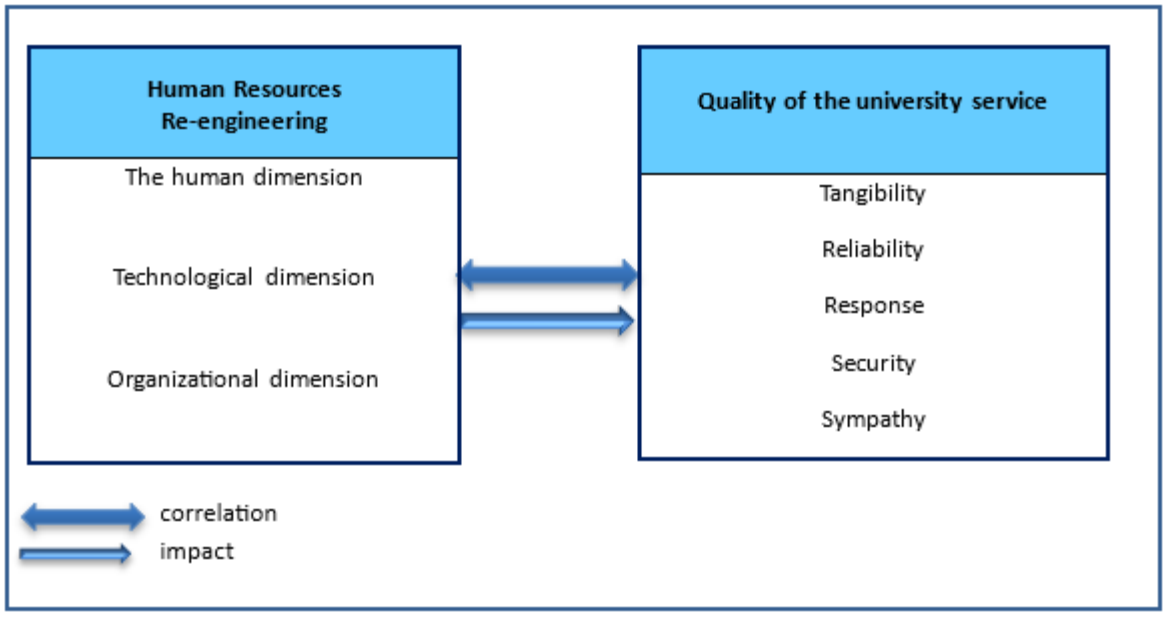

Figure (1) Research Model

3.2. Research Hypotheses

According to the study model, the following hypotheses were adopted:

The first main hypothesis: (There is a significant correlation between human resource reengineering and university service quality). It has three sub-hypotheses, as shown below:

1. There is a significant correlation between the human dimension and the quality of university service in its all dimensions.

2. There is a significant correlation between the technological dimension and the quality of university service in its all dimensions.

3. There is a significant correlation between the organizational dimension and the quality of university service in its all dimensions.

The second main hypothesis: (There is a significant impact of human resource re-engineering on the university service quality). It also has three sub-hypotheses, as shown below:

1. There is a significant impact of the human dimension on the quality of university service in its all dimensions.

2. There is a significant impact of the technological dimension on the quality of university service in its all dimensions.

3. There is a significant impact of the organizational dimension on the quality of university service in its all dimensions.

3.3. The Reliability and Validity of the Research Measurement Tool

The stability of the scale means that it is stable and does not contradict itself. Thus, it will yield the same results if it is reapplied to the same sample (Sekrana, 2003:203). Cronbach's Alpha stands out as a widely acknowledged metric for assessing the reliability of a questionnaire. (Sekrana, 2003:311) notes that a test score below 0.60 suggests the questionnaire's scale is likely to be unreliable. In contrast, the stability of the scale is considered acceptable if it exceeds (0.70). It is considered good if it is equal to (0.80) or more.

Validity refers to the ability of a scale to measure the intended variable. Simply put, it checks if the scale is actually assessing the subject of interest, rather than something unintended (Sekrana, 2003:206). While validity comes in various forms, the researchers opted for content validity for this study. Content validity is a subjective assessment hinging on how well the researcher can identify variables related to the research topic, which in turn relies heavily on their comprehensive understanding of the topic gathered through extensive research (Cooper & Schindler, 2014:257). The researchers also used face validity by presenting the questionnaire to a group of arbitrators in the field of specialisation. Table (1) shows the stability coefficients for the variables studied in the research.

Table (1) Cronbach's Alpha Test Results for the Research Variables

Variables and dimensions	Cronbach's Alpha	Cronbach's Alpha For scale
Human Resource Reengineering	.0824	0.863
The Human Dimension	0.711	
Technological Dimension	0.732	
Organizational Dimension	.0762	
Quality of University Service	.0751	
Reliability	0.763	
Response	0.773	
Tangibility	.0740	
Security	0.776	
Sympathy	0.736	

Table (1) indicates that the reliability and stability coefficients for the various aspects of the research variables fall within statistically acceptable ranges. This suggests that the measurement instrument used for the research elements is highly consistent, thereby allowing researchers to depend on the forthcoming results for informed decision-making.

4. Results

4.1. Normal Distribution Test

The data gathering tool was validated by the research team through a stability test. In this study, the testing of hypotheses depends on parametric statistical methods. These methods presume that the analyzed data should follow a normal distribution. Utilizing parametric techniques on data that does not have a normal distribution can lead to unreliable outcomes (Field, 2009:132).

Experts in statistics have suggested that the normal distribution of data is unnecessary when a relatively large sample size is used in relation to the total population being studied (Field, 2009:329). However, to verify the reliability of their findings, the researchers administered a critical normality test, the Kolmogorov-Smirnov test, to the data collected via surveys. A test significance (sig.) value of 0.05 or higher indicates that the data assumes a normal distribution at that level. With this confirmation, researchers can employ parametric statistical analysis methods with confidence in their results' precision. If the data are not normally distributed, the researchers will use non-parametric analysis tools. Table (2) shows the results of the Kolmogorov-Smirnov test for the research variables with their dimensions.

Table (2) Results of Testing the Normal Distribution of Data for the Research Variables Studied

Human Resources Re-engineering			Quality of University Service		
Dimensions	Test (KS)	Sig.	Dimensions	Test (KS)	Sig.
The Human Dimension	.058	.147	Reliability	.114	.078
Technological Dimension	.053	.103	Response	.101	.056
Organizational Dimension	.059	.117	tangibility	.113	.062
Total	.196	.092	Security	.124	.057
			Sympathy	.111	.059
			Total	.081	.199

It is clear from Table (2) that the data on the research variables related to human resources re-engineering and university service quality, whether at the sub- or total level, follow a normal distribution. This is demonstrated by the significance of the test exceeding (0.05), which makes these data suitable for using scientific analysis tools.

4.2. Testing the Hypotheses of Correlation and Impact between the Research Variables

Its aims is to examine the correlation and impact among the variables under study. This examination will include an assessment of the interrelationships at the level of secondary hypotheses derived from the primary hypotheses, along with a broader evaluation utilizing both the Pearson simple correlation coefficient and linear regression analyses to determine their significance and strength.

First: Testing the first main hypothesis related to the correlation between human resource reengineering and university service quality

(There is a significant correlation between human resource reengineering and university service quality)

It has three sub-hypotheses, as shown below:

1- There is a significant correlation between the human dimension and the quality of university service in its all dimensions.

2- There is a significant correlation between the technological dimension and the quality of university service in its all dimensions.

3- There is a significant correlation between the organizational dimension and the quality of university service in its all dimensions.

Table 2 presents a grid displaying the Pearson correlation coefficients and their relationship with the respective variables and dimensions. Table (3) displays the number of observations (30) and specifies the nature of the test as two-tailed. In the matrix, 'Sig.' denotes the significance of the correlation coefficients. A single asterisk (*) attached to a coefficient value signifies a significant correlation at the 5% level, while a double asterisk (**) indicates significance at the 1% level. The interpretation of the magnitude of these coefficients is based on Cohen's benchmarks (1977:79-81), as follows:

✓ A low correlation is indicated by a correlation coefficient between 0.10 and 0.29.

✓ A moderate correlation is identified when the correlation coefficient is between 0.30 and 0.49.

✓ The correlation is strong: If the value of the correlation coefficient ranges from (0.5 to 1).

Table 3: Testing the First Main Hypothesis (Correlation Hypothesis)

		The Human Dimension	Technological Dimension	Organizational Dimension	Human Resources Re-engineering
Quality of University Service	Pearson Correlation	**0.540	**0.538	**0.607	**0.634
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed)

Table 3 displays the matrix of correlations used to examine both the primary hypothesis and its related sub-hypotheses. The findings indicate significant positive correlations. This is evidenced by values exceeding 0.50, with a significance level of 1% between university service quality and the variable of human resource reengineering. The values of the correlation coefficient between human resource reengineering and university service quality reach a value of (0.634) at the (1%) significance level and are considered a strong relationship according to Cohen's rule.

In terms of dimensions, the most significant association was between the organizational dimension and the quality of university service. This particular correlation has a coefficient of 0.607, which signifies a robust and direct association at a 1% level of significance, aligning with Cohen's standards. In comparison, the weakest correlation was between the technological dimension and the quality of university service, recording a correlation coefficient of 0.538. Yet, this is still regarded as a strong correlational relationship when evaluated against Cohen's criteria.

The findings presented in Table (3) support the acknowledgment of the primary hypothesis and its associated sub-hypotheses, which claim that a meaningful relationship exists between human resource reengineering and university service quality.

4.3. Testing the Second Main Hypothesis Related to the Impact Relationship between Human Resource Reengineering and University Service Quality

(There is a significant impact of human resource re-engineering on university service quality).

It has three sub-hypotheses, as shown below:

1- There is a significant impact of the human dimension on the quality of university service in its all dimensions.

2- There is a significant impact of the technological dimension on the quality of university service in its all dimensions.

3- There is a significant impact of the organizational dimension on the quality of university service in its all dimensions.

Table (4) Estimating the Simple Linear Regression Relationship between Human Resource Re-engineering and University Service Quality

Dependent variable / Independent variable	Quality of University Service					
	β	R^2	T	Sig.	F	Sig.
Human Resources Re-engineering	0.64	0.41	9.30	0.000	18.21	0.000
The Human Dimension	0.53	0.30	7.23	0.000	13.82	0.000
Technological Dimension	0.54	0.29	7.11	0.000	17.13	0.000
Organizational Dimension	0.61	0.37	6.64	0.000	14.73	0.000

The results of Table (4) show that the regression coefficient of the human resources reengineering variable on the quality of university service is (0.64). This means that if human resources re-engineering changes by one unit, the quality of university service will increase by (64%). This effect is considered large, as the calculated (t) value of (9.30) indicates high statistical significance at the level of (0.000), which confirms the importance and strength of the effect.

It is also noted that human resources re-engineering explains 41% of the changes in the quality of university service, which means that 59% of the changes are attributable to other variables not included in the current research model. The estimated model reflects strong statistical significance, as the calculated value of (f) is (18.21), which is significant at the (0.000) level, which indicates the importance of the model in general in explaining changes in the quality of university service.

Based on the previous results, the second main hypothesis is accepted, which states that there is a significant impact of human resources re-engineering on the quality of university service. This acceptance is based on statistical evidence indicating that changes in human resources management contribute significantly to improving the quality of university service.

With reference to Table (4), and to verify the validity of the sub-hypotheses emerging from the second main hypothesis, the following can be clarified:

First sub-hypothesis: There is a significant impact of the human dimension on the quality of the university service in all its dimensions. Table (4) shows the following:

A. The coefficient of regression reached a value of 0.53, indicating a 53% increase in university service quality for every unit increase in the dimension. This significant relationship is underscored by the t-value of 7.23, which is statistically significant at the 0.000 level.

B.The results show that the coefficient of determination (R^2) was 0.30, indicating that the dimension explains 30% of the variance in the quality of services provided by the university. While the remaining 70% is due to other variables that were not included in this model.

C. The analysis revealed that the computed F-value, which stands at 13.82, holds significance at the 0.000 level. This indicates that the model we have formulated is substantially significant in its entirety.

Based on the analysis of the results of Table (4), the researchers can conclude that the alternative hypothesis, which states that there is a significant effect of the human dimension on the quality of university service in all its dimensions, is acceptable. This conclusion comes as a result of the strong statistical significance that confirms that the human dimension significantly affects the quality of university service in its various aspects.

Second sub-hypothesis: There is a significant impact of the technological dimension on the university service quality in all its dimensions. Table 4 shows that:

A. The coefficient of regression reached a value of (0.54), indicating a 54% increase in university service quality for every unit increase in the dimension. This significant relationship is underscored by the t-value of 7.11, which is statistically significant at the 0.000 level.

B.The coefficient of determination (R2) was found to be (0.29), which means that the dimension accounts for (29%) of the variation in the quality of services provided by the university. The other 71% is attributed to variables not considered in this model.

C. The analysis also revealed that the computed F-value, which stands at 17.13, holds significance at the 0.000 level. This indicates that the model we have formulated is substantially significant in its entirety.

Therefore, the researchers conclude from analyzing the results of Table (4) that the alternative hypothesis, which states *(there is a significant impact of the technological dimension on the quality of the university service in its all dimensions),* is accepted.

Third sub-hypothesis: There is a significant impact of the organizational dimension on the university service quality in its all dimensions. Table 4 shows that:

A. The coefficient of regression reached a value of (0.61), indicating a 61% increase in university service quality for every unit increase in the dimension. This significant relationship is underscored by the t-value of 8.64, which is statistically significant at the 0.000 level.

B. The coefficient of determination (R2) was found to be (0.37), which means that the dimension accounts for (37%) of the variation in the quality of services provided by the university. The other 63% is attributed to variables not considered in this model.

C. The analysis again revealed that the computed F-value, which stands at 14.73, holds significance at the 0.000 level. This indicates that the model we have formulated is substantially significant in its entirety.

Consequently, after examining the data in table (4), the researchers conclude that the alternative hypothesis, which states *(there is a significant impact of the organizational dimension on the university service quality in its all dimensions)*, is accepted.

Conclusions

Focusing on re-engineering human resources is a basic requirement in the contemporary environment, especially for organizations that seek to invest their human resources strategically to achieve success. This interest enhances creativity and contributes to improving quality, which contributes to achieving outstanding performance and competitive superiority in the market. The results of the statistical analysis showed that there are significant correlations between the research variables and their dimensions, which indicates the existence of an integrated correlational relationship between re-engineering human resources and the university service quality. At the dimensional level, the results showed that the strongest correlation between the organizational dimension and the quality of university service, and this indicates that the organization the research sample is interested in constantly re-engineering the organizational structure. While the weakest correlation was between the technological dimension and the quality of university service, and this indicates a lack of interest in technology and its proper integration into work. This problem is due to several negative factors mentioned by the research sample, including: the lack of availability of the Internet in all college departments and its availability in only some divisions, as well as the absence of adequate training for the administrative leaders of the research sample on various modern programs and systems, also failure to improve the incentives and rewards system contributed to a low level of satisfaction among employees. In general, and through the results of the research, Human resources re-engineering is considered one of the basic means that the studied organization can rely on to improve the quality of university service, especially in light of the current changes. This process aims to develop the human resources structure and update skills to meet the requirements of the changing environment and increase institutional efficiency. In light of the above, this study recommends the following:

- It is necessary for the institution under study to seek to attract highly qualified administrative leaders. This step ensures the presence of leaders capable of directing

and developing work in line with the organization's goals and achieving the best possible results, train them well on various modern programs and systems, support them with advanced methods, and provide the Internet on a continuous and integrated basis in all departments of the college to enable them to continue their work electronically even outside official working hours.

- The investigated college should make the most of its organizational structure, as it is one of the most influential means it has in enhancing the quality of university service to match work developments.
- The college, the research sample, must devote its efforts to the subject of human resources re-engineering, as it has been shown through statistical analysis that it is one of the best means that can be used to enhance the quality of university service in light of the changing technological, economic, and political conditions affecting the labor market.

References :

1. Pangandaman H. K., Ali N. D., Lambayong J. C., Ergas M. G. ″Philippine Higher Education Vis-À-Vis Education 4.0: A Scoping Review″, *International Journal of Advanced Research and Publications*, vol. 3 Issue 3, pp. 65-69, 2019.
2. Gueye M. L, Expósito E. ″University 4.0: The Industry 4.0 Paradigm Applied to Education IX Congreso Nacional de Tecnologías en la Educación″, Puebla (Mexico), France. ffhal-02957371f, 2020.
3. Kalinina S., Davydyuk L., & Horudzy Y. ″Human resources reengineering as a direction of the strategy of anti-crisis development of corporate structures″, *Public Security and Public Order*, *Research Journal*, vol. 24, pp. 92-94, 2020. DOI: 10.13165/PSPO-20-24-07.
4. Noe R., Hollenbeck J., Gerhart B., and Wright P. *″Fundamentals of Human Resource Management″*, (6th) edition, *McGraw Hill Education*, USA, 2016.
5. Issa, Abeer Yaqoub Mohammad & Al Sarayreh ,Aktham ″The Impact of Human Resources Re-engineering in Enhancing Monitoring the oversight of money laundering operations: The modified role of organizational factors in Jordanian banks″, *Journal of Positive School Psychology*,vol.6, no.7,635, 2022.
6. Al-Jarjari, Ahmed Hussein Hassan & Al-Obaidi, Nour Ali Abboud ″The role of strategic orientation in re-engineering human resources an analytical study of the opinions of a sample of administrative leaders at the University of Mosul″, *Al-Muthanna Journal of Economic and Social Sciences*, vol.11, no. 1, pp. 116-117, 2020. DOI:10.52113/6/2021-11/111-126.
7. Djegham, Souad & Khaldi, Mohamed ″Re-engineering human resources and its role in achieving job satisfaction for professors of the Faculty of Economic Commercial and Management Sciences at the University of M'sila″, *Administrative And Financial Sciences Review*,vol. 5, no. 2, pp. 457-458, 2021. DOI:10.37644/1939-005-002-024.
8. Sharma, Devadesh ″Human Resource Reengineering (A Radical Rethinking and Role of New Technology in HR Optimization″, *INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH*,vol. 2, no. 2, pp. 194-195, 2013.
9. Giphin D. & Murphy P. *″Management in Complex World″* New York, USA ,Oxford University, 2018.
10. Shahmandy A., Silong A. D. & Abu Samah S. A. ″Facilitating Global Economy Process through Human Resource Re-engineering and Knowledge Management″. *International Journal of Business and Social Science*, 03, pp. 218-223, 2012.
11. Daft, Richard L. *″Organization Theory and Design″*, Soutr-western Thomson learning, 2001.
12. Menberu A. ″The Ups and Downs of Business Process Reengineering (BPR): A Tale of Taw Officces in Bahie Dar Town, Ethiopia″, *Annual International Interdisciplinary Conference*, AIIC, pp. 24-26, 2013.
13. Milan R., Milan B., Marko C., Jovanovic V., Dalibor B., Bojic2 Z., & Avramovic N. ″Implementation of Business Process Reengineering in Human Resource Management″ *Inzinerine Ekonomika-Engineering Economics*, vol. 25, no. 2, pp. 212-213, 2014. http//:dx.doi/org/10.5755/j01.ee.25.2.4590.

14. Stacey R. & Mowles C. *"Strategic Management and Organisational Dynamics"*, 7th ed., Published by Pearson Education Limited, United kingdom, 2016.

15. Mathis R., and Jackson J. *"Human Resource Management"*, (14th) edition. South Western Cengage Learning. USA, 2014.

16. Blinov A. & Rudakova O. "Re-engineering of Human Resources as the Foundation for the New Economy", *International Conference on Economics Management*, Law and Education, *Atlantis Press*, pp. 211-214, 2015. **DOI:**10.2991/emle-15.2015.49.

17. Jackson S. E., Schuler R. S. & Werner S9 *"Managing human resources"*, 12thed., published by Oxford University Press, New York, United States of America, 2018.

18. Daft R. L. *"Organization theory and design"*, 12th Edition, published By Cengage learning, United States of America, 2016.

19. Samson D.,Donnet T. & Daft R. L. *"Fundamentals of Management"*, 6th ed., Published by Cengage, Australia, 2018.

20. Panda S., Pandey S.C., Bennett A., Tian X. "University brand image as competitive advantage: a two country study", *International Journal of Educational Management*, vol. 33, no. 2, pp. 234-251, 2019. DOI:10.1108/IJEM-12-2017-0374.

21. Chen H. J. "Linking role definition rigidity to elementary school teachers'e-service for in-service teacher development" *Computers in Human Behavior*, Vol. 107, 2019. https://doi.org/10.1016/j.chb.2019.04.014.

22. Santos G., Marques C.S., Justino E., Mendes L. "Understanding social responsibility's influence on service quality and student satisfaction in higher education", *Journal of Cleaner Production*, vol. 256, 2010. DOI:10.1016/j.jclepro.2020.120597.

23. Hammoud, Khudair Kadm. *"total quality management"*, Almcera house for publishing distribution and printing Amman, Jordan, 2000.

24. Hasan M., Hosen M. Z. "The Quality of University Service: Its Impact on Students' Satisfaction and Loyalty in Bangladesh State University", *International Journal of Asian Education*, Vol. 01, No. 3, 2020. https://doi.org/10.46966/ijae.v1i3.46.

25. Ramovš M. & Milfelner B. "The Importance of Educational Service Quality for Customer Satisfaction and Organizational Reputation", *Naše Gospodarstvo/Our Economy*, vol. 69, no. 2, pp. 29-40, 2023. DOI: 10.2478/ngoe-2023-0009.

26. Torabi M. & Bélanger C.H. "Influence of Online Reviews on Student Satisfaction Seen through a Service Quality Model" *Journal of Theoretical and Applied Electronic Commerce Research*, vol. *16*, no. 7, pp. 3063-3077, 2021. https://doi.org/10.3390/jtaer16070167.

27. Cronin J. J. & Taylor S. A. "Measuring Service Quality: A Reexamination and Extension", *Journal of Marketing*, vol. 56, no. 3, pp. 55-68, 1992. DOI:10.2307/1252296.

28. Nkiruka E.R. & Olanrewaju A.K. "Dimensions of Service Quality Encountered By Students on Sustainability of Higher Education in Nigeria" *Developing Country Studies*, vol. 4, no. 6, pp. 149-150, 2014.

29. Barua D. & Uddin S. "Service Quality Dimensions of Higher Education Institutions and Students' Satisfaction: Bangladesh Perspective", *International Journal of Social Science Studies,* vol. 9, no. 2, pp. 14-16, 2021. DOI:10.11114/ijsss.v9i2.5126.

30. Abili K., Thani F. N. & Afarinandehbin M. "Measuring university service quality by means of SERVQUAL method", *Asian Journal on Quality*, vol. 13, no. 3, pp. 3-4, 2012. DOI:10.1108/15982681211287766.

31. Ceylan C. & Ozcelik A. B. "A Circular Approach to SERVQUAL and HOLSAT: An Implementation Suggestion", *Journal of Hotel Business Management*, vol. 5, no. 1, pp. 2-3, 2016. DOI:10.4172/2169-0286.1000125.

32. Palese B. & Usai A. "The relative importance of service quality dimensions in E-commerce experiences" *International Journal of Information Management*, Vol. 40, pp. 132-140, 2018. https://doi.org/10.1016/j.ijinfomgt.2018.02.001.

33. Michael, K. I. D. E. S. T. "Assessment of SERVICE quality and Customer Satisfaction: The Case of Three Selected

Private Elementary Schools In Addis Ababa" (Doctoral dissertation, St. Mary's University), pp. 17-19, 2017.

34. Nyimbili Fridayand Nyimbili Leah. "Types of Purposive Sampling Techniques with Their Examples and Application in Qualitative Research Studies", *British Journal of Multidisciplinary and Advanced Studies*: *English Lang., Teaching, Literature, Linguistics & Communication*, vol. 5, no. 1, pp. 90-99, 2024. DOI:https://doi.org/10.37745/bjmas.2022.0419