



Review Article

The Impact of Total Quality Management on Human Resources Strategies

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| Abstract | Manuscript Information |
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| <p>The research explores the impact of Total Quality Management (TQM) on Human Resource (HR) strategies in one of the universities in Iraq, highlighting deficiencies in the implementation of HR strategies that affect achieving comprehensive quality. The study emphasizes the importance of academic excellence and improving the working environment, revealing a positive correlation between customer satisfaction and HR strategies. Recommendations are provided to enhance customer satisfaction within educational institutions, along with encouragement for further research to understand the multifaceted impact on this relationship. The research underscores the significance of utilizing results for analyzing and evaluating current performance and directing improvements, with a focus on their role in developing higher education policies.</p> | <ul style="list-style-type: none"> ▪ ISSN No: 2583-7397 ▪ Received: 13-11-2023 ▪ Accepted: 19-12-2023 ▪ Published: 29-12-2023 ▪ IJCRM:2(6);2023:126-141 ▪ ©2023, All rights reserved ▪ Plagiarism Checked: Yes ▪ Peer Review Process: Yes <hr/> <p>How to Cite this Manuscript</p> <p>Maher Ali Ahmed. The Impact of Total Quality Management on Human Resources Strategies. International Journal of Contemporary Research in Multidisciplinary. 2023; 2(6):126-141.</p> |

Keyword: Total Quality Management (TQM)-Human Resources (HR) strategies.-customers satisfaction

Introduction

Modern organizations, in the face of a competitive environment, are accelerating their efforts to gain competitive advantage over others operating in the same industry. This is achieved by adding value to the customer and achieving excellence through the utilization of various capabilities and resources 27 Maximizing the involvement of the human resources function in performance requires careful consideration of its methods and practices, embracing modern approaches that have proven effective in enhancing the performance of organizations in many countries that apply these contemporary methods.^[1] Strategy is a long-term plan that involves balancing internal strengths and weaknesses with external opportunities and threats to maintain a

competitive advantage. It is the approach used by an organization, such as a university, to achieve its goals.^[2]

Top of Form

Higher education, like other state institutions, faces significant challenges in the era of globalization, especially in the management of its human resources. Therefore, this institution needs a clear strategic plan for its human resources that aligns with the requirements of achieving quality and continuous improvement. This is essential to serve both general and specific goals, such as increasing productivity, reducing costs, satisfying the public, and more. This is the goal pursued by Total Quality Management (TQM).^[3]

The application of Total quality management is considered a fundamental solution too many problems faced by universities worldwide. These problems include the low level of graduates, financial issues, academic performance evaluation, university infrastructure crisis, building and construction packages, and the problem of scientific research. It also addresses the issue of the large numbers in faculties without actual need in the job markets. [4]

Study Problem

The problem in the study is that higher education institutions suffer from shortcomings in implementing human resource strategies, negatively affecting the overall quality application. The human resource management in these institutions relies on traditional strategies or imitates them at the level of efficiency and effectiveness of these resources. This raises the following questions. [5]

1. Does Total Quality Management play an effective role in improving the implementation of human resource strategies at the College of Management and Economics at Fallujah University?
2. Is there a statistical relationship between human resource strategies (such as recruitment, compensation, incentives, training, career planning, and performance appraisal) and achieving overall quality in the college's performance?
3. What are the main challenges facing human resource management at the College of Management and Economics at Fallujah University in enhancing the implementation of total quality management?

The Importance of the Study

1. Enhancing Educational Quality

Understanding the relationship between human resource strategies and comprehensive quality can contribute to improving the quality of the educational process and enhancing the students' experience.

2. Improving Institutional Performance

Understanding the potential impact of total quality management on human resources strategies can contribute to improving the college's performance and achieving its goals.

3. Enhancing the College's Reputation

Integrating human resource management and comprehensive quality can contribute to building a positive reputation for the College of Management and Economics at Fallujah University.

4. Improving the Work Environment

Understanding the challenges facing human resource management in improving comprehensive quality implementation can lead to improving the work environment for faculty and staff.

5. Achieving Academic Excellence

Focusing on achieving comprehensive quality through human resource management can be a key factor in achieving academic excellence, attracting outstanding students and faculty. [6]

Concepts of Total Quality Management in Universities

A. System

Defined as a set of interrelated plans, policies, processes, methods, people and necessary devices to achieve the goals of the university. [7]

B. Educational Process

Encompasses policies, curricula, stages, and self-needs used to achieve distinctive scientific and research processes within and outside the university.

C. University Structure

Includes the rental construction and organization of the university that serves its goals and functions.

D. Methods

Comprise a set of systematic, cognitive, and technological methods related to the necessary knowledge.

Dimensions of Total Quality Management

A. University Mission

A written document presented by the student during the application process to join an academic program at a university. It is an essential part of the application, allowing the student to express himself or herself and clarify their goals and motivations for pursuing higher education. [8]

B. Continuous Improvement

A concept referring to the continuous effort to improve processes and performance in any organization or its system. It involves continuous efforts to assess and analyze current processes and results, taking measures to improve them. Key aspects include analyzing processes, identifying gaps, developing solutions, implementing changes, monitoring and evaluating performance, and repeating the process continuously. [9]

C. Customer Satisfaction

Customer satisfaction is determined by the customer's expectations. If the customer receives an experience that meets or exceeds their expectations, they may be satisfied. Quality of the product or service plays a crucial role in achieving customer satisfaction if it meets or exceeds service standards. Customer experience encompasses all touchpoints between the customer and the company, from the purchase process to customer support. Customer satisfaction relies on the understanding of the customers' needs, addressing problems, and improving their experience. [10]

Handling Problems

Refers to how the institution deals with problems, their form, and their role in determining the extent of customer satisfaction. The institution's response and problem solving can improve the customer experience and increase satisfaction. [11]

Importance of Total Quality Management in Universities

The application of total quality management (TQM) in higher education crucial due to its success in some schools in Britain

and America. Higher education needs constant updating, development, and renewal to address the diverse and impactful challenges in the surrounding environment. Issues related to qualification and the ongoing effects of globalization have prompted the need for multiple and varied mechanisms for this transformation. To achieve this shift, universities must focus on changing organizational structures, modifying policies and methods, and emphasizing output quality control and organizational development. The importance of implementing TQM lies in its role as an efficient performance improvement strategy, ensuring greater effectiveness.

1. Support of Top Management

The primary responsibility for quality lies with top management, which must provide resources for educating and training employees. It involves monitoring improvements in light of specific strategic guidelines. ^[12]

2. Employee Training

Training is a means to provide individuals with knowledge and skills to develop their current and future capabilities. Proper training is essential to apply TQM correctly, emphasizing employee interaction with beneficiaries, statistical analysis, performance measurement methods, and new skills contributing to performance improvement. ^[13]

3. Customer-Centric Approach

A customer-centric approach means that customer desires and changing needs drive all economic and administrative activities within the organization. Effective communication channels between the organization and its work and evaluating their feedback on the quality of goods and services are crucial. ^[14]

4. Employee Involvement

The TQM approach underscores the importance of employee participation in achieving targeted quality. It helps in developing work goals, increasing production, reducing costs, and fostering loyalty and commitment to the organization.

5. Team Building

All efforts in human resource management and delivering excellent services related to excellence and innovation can only be achieved through teamwork. Building temporary and permanent work teams in the organization is crucial. ^[15]

6. Respect and Appreciation for Employees

Involves mutual communication and respect among employees, regardless of their job levels. Objectively assessing employee performance and reinforcing the principle of rewarding excellence and innovation are essential.

Resource Strategies

1. Introduction

Human resource management serves as a key partner in the management process, going beyond the mere design of its activities based on daily strategic requirements. The contemporary role of human resource management focuses on

transforming the workforce within the organization into a competitive advantage. This implies the necessity for active participation in formulating and implementing the organization's strategies and competitive strategies. The integration between human resource strategy and the overall strategy of the organization contributes to improving goals, reinforcing competitive advantages, and achieving organizational success. This integration plays a role in resource allocation, setting priorities for activities and programs, and working towards coherence between parts of the human resource system and other functional systems, such as response and financing. This contributes to generating ideas, fostering innovation, achieving continuous learning, and ultimately improving quality in a comprehensive sense. ^[16] There are criteria that can be relied upon to distinguish between traditional and strategic roles in resource management. These criteria include the degree of correlation between these roles and the strategies of organizations, contributing to achieving the strategic goals of the organization that can be practiced in human resource management to effectively utilize these resources. The correct formation of human resources represents a real starting point towards outstanding performance and achieving targeted results. ^[17]

2. The Concept of Human Resource Strategies

Human resource strategies refer to the methods and plans adopted by institutions to manage and develop human workforce Resources Achieve organizational goals. These strategies are diverse and influenced by various factors such as industry, organizational structure, and strategic objectives. Here are some important aspects to understand about human resource strategies. ^[18]

Human Resource Strategies

1. Recruitment and Staffing

- **Effective Recruitment**

Ensures attracting qualified and outstanding personnel to meet the organization's needs. ^[19]

- **Thoughtful Selection**

Involves strategies Ensure you select people who fit in with and contribute to the organizational culture achieving its goals.

2. Employee Development

- **Training and Development Programs**

Identify employee development needs and provide programs to enhance their skills and competencies.

- **Performance Appraisal**

Includes assessing employees' performance and guiding them towards achieving organizational goals.

3. Performance Management

- **Goal Setting**

Establish specific and measurable goals for employees.

- **Monitoring and Follow-up**

Regularly monitor employee performance and guide them towards achieving specific goals.

4. Labor Relations Management

• Enhancing Communication

Build effective communication between the management and employees.

• Conflict Resolution

Effectively handle conflicts to maintain a healthy work environment.

5. Employee Motivation and Encouragement:

• Rewards and Incentive System

Offer rewards and incentives to motivate employees.

• Promoting a Positive Work Culture

Build a work environment that encourages collaboration and innovation.

6. Human Resource Graduates Planning

• Analysis of Future Needs

Identify the organization’s future staffing needs.

7. Developing Strategies to Meet Needs

Develop plans to meet the organization's future workforce needs. [19]

Dimensions of Human Resource Strategies

• Selection Strategy

Management activity focused on selecting individuals for specific positions after comparing their qualifications and characteristics with job requirements. [21]

• Training Strategy

Providing individuals with specific skills and knowledge, contributing to achieving goals, or correcting errors in their work functions.

• Performance Appraisal Strategy

The process of evaluating employees' performance, identifying how they perform their jobs, and developing a performance improvement plan. [20]

2. Importance of Human Resource Strategies

There is an increasing need for strategic management of human resources in organizations due to the growing awareness of the importance of human resources as the core assets of organizations. Organizations require human skills and capabilities that provide them with the ability to face and adapt to changes. Human resource competencies should be considered as strategic assets that require careful management, forming an integral part of organizational strategies. [22] This chapter discusses the methodology of conducting the field study, measuring the reliability and validity of the study's instruments, analyzing the stages of testing the study hypotheses, presenting the results, and clarifying the contribution of the test results to achieving Research objectives. Researchers rely on primary data collected through survey questionnaires from the research sample to assess the scientific application of research concepts.

Descriptive Statistics for Study Variables

Descriptive statistics of study variables aim to characterize these variables in terms of central tendency Mean, relative mean and distribution (standard deviation, coefficient of variation). This is done to make sure relative importance of these variables and rank them according to this importance from the perspective of the research sample. The following are the results of variable.

Description

Descriptive Statistics after Reducing Waste

The following table illustrates the descriptive statistics for the university's message:

Table 1: Descriptive Statistics for the University's Message

| Statements | Relative Weight (%) | | Approval Rating | | Ranking | |
|--|---------------------|-------|-----------------|------|---------|---|
| | | | | | | |
| 1. The university administration aspires to always be at the forefront | 3.63 | 1.062 | 29.24 | 72.6 | Agree | 1 |
| 2. Adopting quality as a motto for the university | 3.57 | 1.264 | 35.39 | 71.4 | Agree | 2 |
| 3. The university administration is keen to formulate a clear and specific message for the university based on distinction | 3.44 | 1.216 | 35.34 | 68.8 | Agree | 4 |
| 4. The university's message is the goal that everyone strives to achieve quality and excellence in work | 3.46 | 1.177 | 33.96 | 69.3 | Agree | 3 |
| 5. The university administration seeks to be an integral part of the community | 3.27 | 1.186 | 36.22 | 65.5 | Neutral | 5 |
| Average for the university's message | 3.48 | 0.820 | 23.55 | 69.6 | Agree | - |

Note: The ranking is based on the approval rating

This descriptive analysis provides insights into the central tendency, variability, and relative importance of the study variables, particularly concerning the university's message.

The following table illustrates the descriptive statistics for continuous improvement in the environmental orientation:

Descriptive statistics Environmental orientation

The following table shows descriptive statistics for continuous improvement:

Table 2: Illustrate the descriptive statistics of continuous improvement

| Statements | Mean | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Approval Rating | Ranking |
|---|------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. The university keeps up with the latest trends in its field of operation | 3.61 | 1.171 | 32.36 | 72.4 | Agree | 1 |
| 2. The university periodically identifies functions to understand the necessities for necessary improvement and development | 3.57 | 1.144 | 32.02 | 71.4 | Agree | 2 |
| 3. The university consistently updates its employment standards to align with its business requirements | 3.54 | 1.057 | 29.81 | 71.0 | Agree | 3 |
| 4. The university documents its approved improvement procedures | 3.39 | 1.203 | 35.44 | 67.9 | Agree | 4 |
| 5. The university has an effective research and development department | 3.16 | 1.369 | 43.25 | 63.3 | Neutral | 5 |
| 6. (Overall Mean) Continuous Improvement | 3.42 | 0.802 | 23.41 | 68.6 | Agree | - |
| 7. The university administration seeks to be an integral part of the community | 3.27 | 1.186 | 36.22 | 65.5 | Neutral | 5 |
| Average for the university's message | 3.48 | 0.820 | 23.55 | 69.6 | Agree | - |

Source: Outputs from SPSS Programme

The table above indicates that the overall mean for continuous improvement is 3.42, with a weighted percentage of 68.6%. The means for individual statements range from 3.16 to 3.61, with weighted percentages ranging from 63.6% to 72.4%.

These percentages indicate the agreement of the study sample with continuous improvement and the overall dimension as shown in the table above. The below table shows descriptive statistics for breastfeeding car customers:

Table 3: Illustrate the original statistics for customer satisfaction

| Statements | Mean | Standard Deviation | Coefficient of Variation (%) | Weighted Percentage (%) | Agreement Level | Ranking |
|---|------|--------------------|------------------------------|-------------------------|-----------------|---------|
| 1. The university's management aspires to always be at the forefront | 3.63 | 1.062 | 29.24 | 72.6 | Agree | 1 |
| 2. Adopting quality as the university's motto | 3.57 | 1.264 | 35.39 | 71.4 | Agree | 2 |
| 3. The university's management is keen on formulating a clear and distinctive mission for the university | 3.44 | 1.216 | 35.34 | 68.8 | Agree | 4 |
| 4. The university's mission is a goal that everyone strives to achieve through quality and excellence in work | 3.46 | 1.177 | 33.96 | 69.3 | Agree | 3 |
| 5. The university's management strives to be an integral part of the community | 3.27 | 1.186 | 36.22 | 65.5 | Neutral | 5 |
| (Overall Mean) University's Mission | 3.48 | 0.820 | 23.55 | 69.6 | Agree | - |

Source: Outputs from SPSS Programme

The table above indicates that the overall mean for the university's mission is 3.48, with a weighted percentage of 69.6%. The means for individual statements range from 3.27 to 3.63, with weighted percentages ranging from 65.5% to 72.6%.

Descriptive statistics on the choice strategy dimension

The table below shows descriptive statistics choice strategy dimension:

Table 4: Illustrate the dimension of the selection strategy

| Phrase | Average | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Agreement Level | Ranking |
|---|---------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. The university administration aspires to always be at the forefront. | 3.63 | 1.062 | 29.24 | 72.6 | Agree | 1 |
| 2. Adopting quality as the university's slogan. | 3.57 | 1.264 | 35.39 | 71.4 | Agree | 2 |
| 3. The university administration is keen on formulating a clear and distinctive mission for the university. | 3.44 | 1.216 | 35.34 | 68.8 | Agree | 4 |
| 4. The university's mission is a goal that everyone strives to achieve quality and excellence in work. | 3.46 | 1.177 | 33.96 | 69.3 | Agree | 3 |
| 5. The university administration seeks to be an integral part of the community. | 3.27 | 1.186 | 36.22 | 65.5 | Neutral | 5 |
| (Overall Average) University Mission | 3.48 | 0.820 | 23.55 | 69.6 | Agree | - |

Source: Outputs from the SPSS Programme

From the previous table, it is evident that the overall average of the university's mission is 3.48, with a relative weight of 69.5%. The averages of the phrases ranged from 3.27 to 3.63, with relative weights varying from 65.5% to 72.6%. These percentages indicate the agreement of the study sample with

the university's mission and the overall dimension, as shown in the table above.

Descriptive statistics environmental orientation

The following table shows descriptive statistics for continuous improvement:

Table 5: Illustrate the descriptive statistics of continuous improvement

| Phrase | Average | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Agreement Level | Ranking |
|--|---------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. The university works to keep up with the latest developments in its field. | 3.61 | 1.171 | 32.36 | 72.4 | Agree | 1 |
| 2. The university regularly defines its functions to identify necessary improvements and necessary developments. | 3.57 | 1.144 | 32.02 | 71.4 | Agree | 2 |
| 3. The university continuously updates its employment standards to align with its business requirements. | 3.54 | 1.057 | 29.81 | 71.0 | Agree | 3 |
| 4. The university documents its approved improvement procedures. | 3.39 | 1.203 | 35.44 | 67.9 | Agree | 4 |
| 5. The university has an effective research and development department. | 3.16 | 1.369 | 43.25 | 63.3 | Neutral | 5 |
| (Overall Average) Continuous Improvement | 3.42 | 0.802 | 23.41 | 68.6 | Agree | - |

Source: Outputs from the SPSS Programme

From the previous table, it is evident that the overall average of continuous improvement is 3.43, with a relative weight of 68.6%. The averages of the phrases ranged from 3.16 to 3.61, with relative weights varying from 63.6% to 72.4%. These

percentages indicate the agreement of the study sample with continuous. The improved overall dimensions are shown in the table above. The table below shows descriptive statistics for the customer satisfaction dimension:

Table 6: Illustrate the descriptive statistics of the customer satisfaction dimension

| Phrase | Average | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Agreement Level | Ranking |
|---|---------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. Focus on the student as the central axis in the educational process at the university. | 3.34 | 1.125 | 33.62 | 66.9 | Agree | 4 |
| 2. Aligning curricula with the requirements of the era to meet the needs of students and society. | 3.46 | 1.227 | 35.41 | 69.3 | Agree | 3 |
| 3. Conducting survey studies to identify the needs and desires of clients. | 3.64 | 1.179 | 32.35 | 72.9 | Agree | 1 |
| 4. Monitoring client issues and effectively dealing with them. | 3.52 | 1.124 | 31.91 | 70.5 | Agree | 2 |
| 5. The university's commitment to the quality requirements requested by clients. | 3.46 | 1.124 | 32.45 | 69.3 | Agree | 3 |

From the previous table, it is evident the overall mean value of the customer satisfaction dimension is 3.52, with a relative weight of 70.4%. average of phrases ranged from 3.34 to 3.64, with relative weights varying from 66.9% to 72.9%. These percentages indicate the agreement of the study sample with the

customer satisfaction dimension and the overall dimension, as shown in the table above.

Descriptive statistics of the choice strategy dimension

The table below shows descriptive statistics choice strategy dimension.

Table 7: Illustrate the dimension of the selection strategy

| Phrase | Average | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Agreement Level | Ranking |
|---|---------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. Faculty members are selected based on pre-determined needs by department councils. | 3.50 | 1.237 | 35.34 | 70.0 | Agree | 2 |
| 2. Priority is given to academic qualifications in the selection process. | 3.45 | 1.293 | 37.46 | 69.0 | Agree | 3 |
| 3. Interviews and personal characteristics are given priority in the selection process. | 3.76 | 1.257 | 33.43 | 75.2 | Agree | 1 |
| 4. Vacant positions at the university are announced through various media outlets. | 3.41 | 1.310 | 38.34 | 68.3 | Agree | 4 |
| 5. Technology is adopted in correspondence and methods of selecting faculty members. | 3.29 | 1.190 | 36.09 | 66.0 | Agree | 5 |
| (Overall Average) Selection Strategy Dimension | 3.45 | 0.772 | 22.38 | 69.0 | Agree | - |

From the previous table, it is evident the overall mean value of the selection strategy dimension is 3.45, and the relative weight is 69.0%. The mean values of phrases range from 3.29 to 3.76, and the relative weights range from 66.0% to 75.2%. These percentages indicate the agreement of the parties study sample

with the selection strategy dimension and the overall dimension, as shown in the table above.

Descriptive statistics on the training strategy dimension

The table displays key statistical information pertaining to the training strategy dimension.

Table 8: Illustrate the descriptive statistics of the training strategy dimension

| Phrase | Average | Standard Deviation | Coefficient of Variation (%) | Relative Weight (%) | Agreement Level | Ranking |
|--|---------|--------------------|------------------------------|---------------------|-----------------|---------|
| 1. I realize that I am qualified enough to perform my job duties. | 3.50 | 1.146 | 32.74 | 70.0 | Agree | 2 |
| 2. I am aware of the university's policy aimed at developing the academic staff. | 3.44 | 1.112 | 32.33 | 68.8 | Agree | 3 |
| 3. The university identifies the training needs for faculty members and their assistants through the implementation of training courses. | 3.50 | 1.207 | 34.50 | 70.0 | Agree | 2 |
| 4. The training process is programmed and subject to continuous evaluation. | 3.52 | 1.256 | 35.65 | 70.5 | Agree | 1 |
| 5. Seminars and lectures are held periodically to reinforce the concept of quality. | 3.31 | 1.172 | 35.40 | 66.2 | Agree | 4 |
| Overall Average) Training Strategy Dimension | 3.35 | 0.900 | 26.85 | 67.0 | Agree | - |

Source: SPSS program output

It is evident from the previous table for the general Danish strategic planning for training (3.35) with a relative weight of (67.0%), The mean value of the expression is between (3.31 and 3.52) and the relative weight is (66.2%-70.5%), and these percentages indicate control in the study on artificial intelligence for training and aesthetic . Dimensions as in the table previously .

Descriptive statistics on the training strategy dimension

The table provides descriptive statistics for the dimension of performance appraisal strategies.

Table 9: Illustrate the descriptive statistics of the performance evaluation strategies dimension

| Statement | Mean | Standard Deviation | % Difference Coefficient | Relative Weight % | Approval Degree | Ranking |
|--|------|--------------------|--------------------------|-------------------|-----------------|---------|
| 1. There is an objective evaluation of the performance of faculty members and their assistants in the university | 3.38 | 1.161 | 34.33 | 67.6 | Agree | 4 |
| 2. The current performance evaluation system does not differentiate between competent and incompetent academics | 3.17 | 1.132 | 35.61 | 63.6 | Agree | 5 |
| 3. The current performance evaluation system encourages initiative and innovation | 3.45 | 1.206 | 34.95 | 69.0 | Agree | 2 |
| 4. The current performance evaluation system has not achieved its goals | 3.44 | 1.293 | 37.57 | 68.8 | Agree | 3 |
| 5. There is objective fairness on the part of the heads in the evaluation process | 3.53 | 1.021 | 28.85 | 70.8 | Agree | 1 |
| (Overall Average) Dimension of Performance Evaluation Strategies | 3.48 | 0.730 | 20.95 | 69.7 | Agree | - |

The provided table indicates the mean value for the overall average. "Performance Evaluation Strategy" dimension is 3.48, and the relative weight is 69.7% average statements ranged from 3.17 to 3.53 with relative weights between 63.6% and 70.8%. These percentages indicate the study sample's approval of the Performance Evaluation Strategies dimension and the overall dimension as shown in the table above. (Source: SPSS program outputs)"

Main Hypothesis

No statistical significance relationship between the application of Total Quality Management (TQM) and Human Resource (HR) strategies in the Iraqi higher education sector.

Sub-Hypotheses:

1. There is no statistically significant relationship between the

University’s mission and HR strategies in the Iraqi higher education sector.

2. There is no statistically significant correlation between continuous improvement and HR strategies in the higher education sector of Iraq. There is no statistically significant correlation between customer satisfaction and HR strategies in the higher education sector of Iraq.

Testing the primary hypothesis

There is no statistically significant correlation between the implementation of Total Quality. Management (TQM) and Human Resource (HR) strategies in the Iraqi higher education sector. To examine this hypothesis, a Simple Regression analysis was performed between cost reduction and improved competitiveness. The results are presented in Table (10).

Table 10: to illustrate the findings of the Simple Regression analysis between the application of Total Quality Management (TQM) and Human Resource (HR) strategies in the Iraqi higher education sector.

| Variable | M (Human Resource Strategies) |
|----------------------|--|
| Independent Variable | X (Total Quality Management Application) |

ANOVA Results

| Calculated F-value | Significance Level |
|--------------------|--------------------|
| 102.472 | 0.000 |

Regression Analysis Results

| R square (R ²) | R (Correlation Coefficient) | Calculated T-value | Significance Level |
|----------------------------|-----------------------------|--------------------|--------------------|
| 0.555 | 0.745 | 2.274 | 0.000 |

Regression Equation: $Y = -0.804 + 0.642M = 0.804X + 0.642$

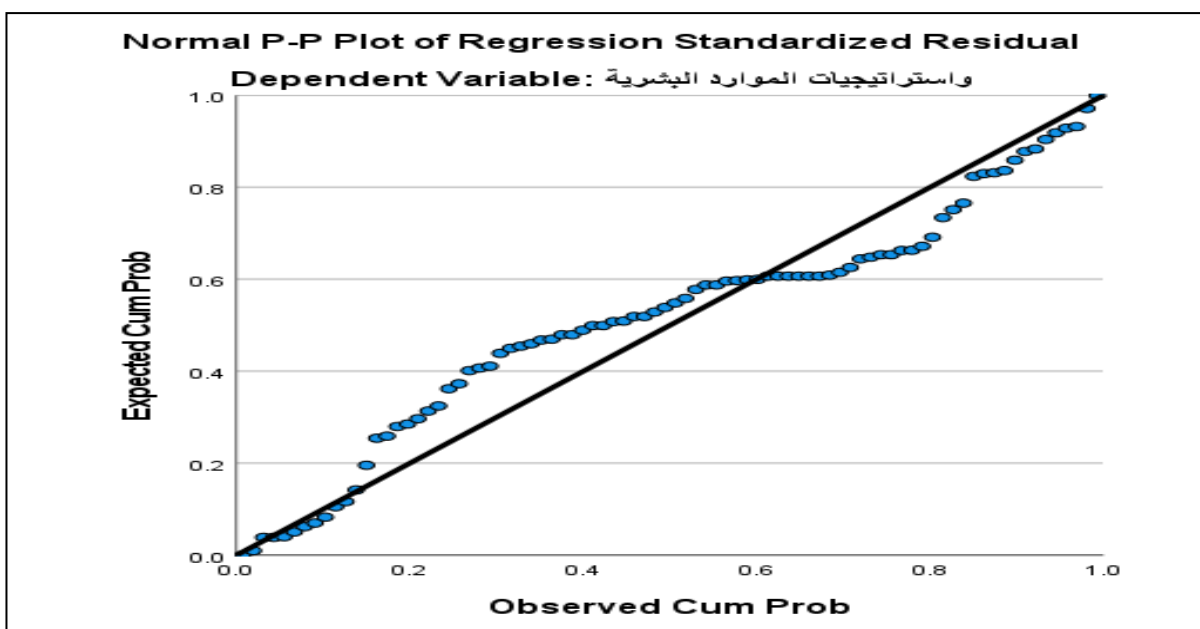
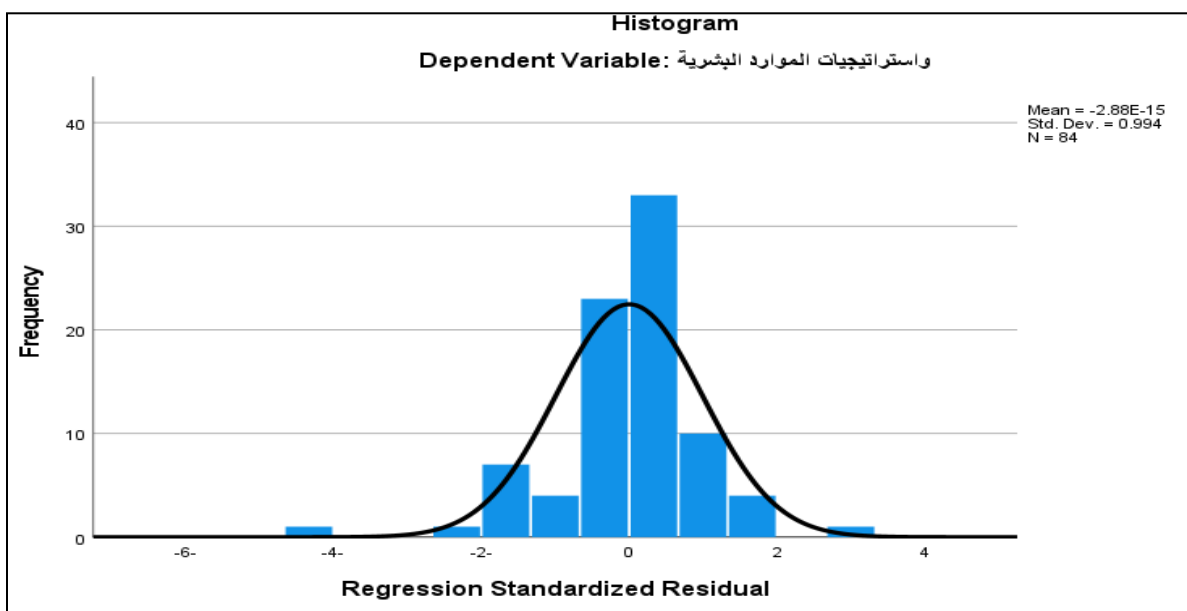
| Variable | Coefficient | Standard Error | t-value | Significance Level |
|--|-------------|----------------|---------|--------------------|
| Constant | 0.642 | - | - | - |
| Total Quality Management Application (X) | 0.804 | 0.073 | 10.123 | 0.000 (p < 0.01) |

Interpretation

1. The regression results indicate a statistically significant positive relationship between the independent variable, Total Quality Management Application (X), and the dependent variable, Human Resource Strategies (M). The correlation coefficient (R) is 0.830, and the significance level is 0.000, indicating that the relationship is significant at the 0.01 level. This implies that the application of Total Quality Management leads to an improvement in Human Resource Strategies.
2. The significance of the overall model was confirmed by the F test. The calculated F value was 102.472, which was statistically significant at the 1% level ($p < 0.01$).

This confirms the overall significance of the model.

3. The significance of the independent variable (Total Quality Management Application) was confirmed by the T-test, with a calculated t-value of 10.123 and a significance level of 0.000 ($p < 0.01$). The coefficient (B) of 0.804 indicates that for every one-unit increase in Total Quality Management Application, there is a 0.804 increase in Human Resource Strategies.
4. The model's interpretive capability, represented by R square, is 55.5%, meaning that 55.5% of the variations in the dependent variable (Human Resource Strategies) can be explained by the independent variable (Total Quality Management Application).



We conclude from this that we accept the alternative hypothesis, which states that "there is a statistically significant relationship between the implementation of Total Quality Management and Human Resource Strategies in the Iraqi higher education sector."

Hypothesis 1

There is no statistically significant correlation within the university's context." mission and Human Resource Strategies in the Iraqi higher education sector.

Testing Hypothesis 1

To test the first hypothesis, which posits that there is no statistically significant relationship between the university's mission and Human Resource Strategies in the Iraqi higher education sector, a Simple Regression analysis was carried out, and the findings are showcased in Table 11.

Table 11: to illustrate the findings of the Simple Regression analysis between the university's mission and Human Resource Strategies in the Iraqi higher education sector

| ent Variable: M (Human Resource Strategies), Independent Variable: X (University Message) | | | | | | |
|---|--------------------|----------|-------|-------------------|--------------------|--------------------|
| Calculated F-value | Significance Level | R square | R | Coefficient Value | Calculated T-value | Significance Level |
| 54.401 | 0.000 | 0.399 | 0.632 | $\alpha=1.719$ | 7.077 | 0.000 |
| | | | | $\beta=0.487$ | 7.376 | 0.000 |

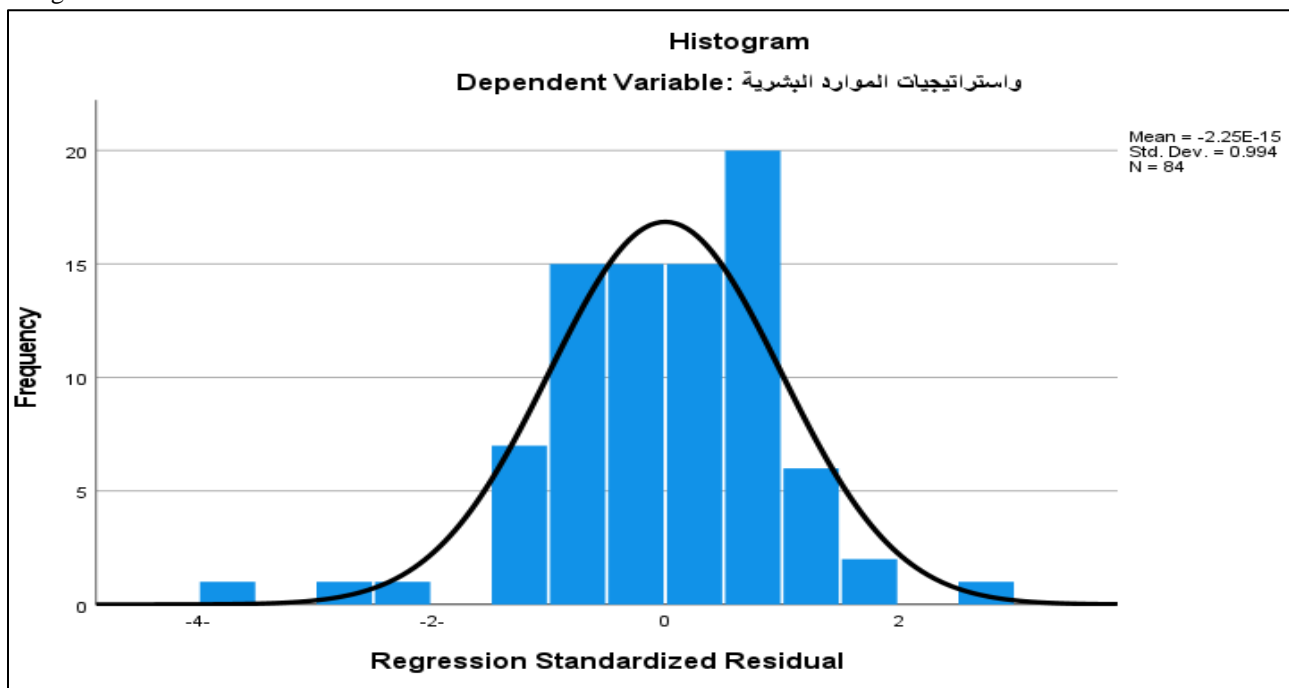
Interpretation

The interpretation of the table's contents, including coefficients, standard errors, t-values, and significance levels, will provide insights into whether there is a statistically significant relationship between the university's mission and Human Resource Strategies in the Iraqi higher education sector.

Results Summary (Translation)

- The regression findings reveal a statistically significant positive association between variable X and the (rest of the sentence). university's mission, and the variable M, Human Resource Strategies, with an R-value of 0.632 at a significance level of 0.000, indicating significance at the 0.01 level. This implies that the university's mission contributes to the improvement of Human Resource Strategies.

- The overall model's significance was affirmed through the F test, with a computed F value of 54.401, indicating statistical significance at the 1% level ($p < 0.01$). This confirms the overall significance of the model.
- The significance of the independent variable (University's Mission) was confirmed by the T-test, with a calculated t-value of 7.376 and a significance level of 0.000 ($p < 0.01$). The coefficient (B) of 0.399 indicates that for every one-unit increase in the university's mission, there is a 0.399 increase in Human Resource Strategies.
- The model's interpretive capability, represented by R square, is 39.9%, meaning that 39.9% of the variations in the dependent variable (Human Resource Strategies) can be explained by the independent variable (University's Mission).





We conclude from this by accepting the alternative assumption and stating, “There is no statistically significant relationship between the university’s mission and human resources strategies in the Iraqi higher education sector.”

Hypothesis 2

There is no statistically significant relationship between Continuous Improvement and Human Resource Strategies in the Iraqi higher education sector.

Testing Hypothesis 2

To test the second hypothesis, which suggests that there is no statistically significant relationship between Continuous Improvement and Human Resource Strategies in the Iraqi higher education sector, a Simple Regression analysis was performed, and the outcomes are displayed in Table 12.

Table 12: Illustrate the findings of the Simple Regression analysis between Continuous Improvement and Human Resource Strategies in the Iraqi higher education sector

| Dependent variable: M human resource strategies, Independent variable: X Continuous improvement | | | | | | |
|---|--------------------|-----------------|-------|----------|-------------|--------------|
| Moral level | Calculated T value | Parameter value | R | R square | Moral level | F Calculated |
| 0.000 | 5.330 | 1.737 | 0.510 | 0.260 | 0.000 | 28.844 |
| 0.000 | 5.371 | 0.490 | | | | |

Source: From the output of the SPSS program

This can be clearly seen from the table:

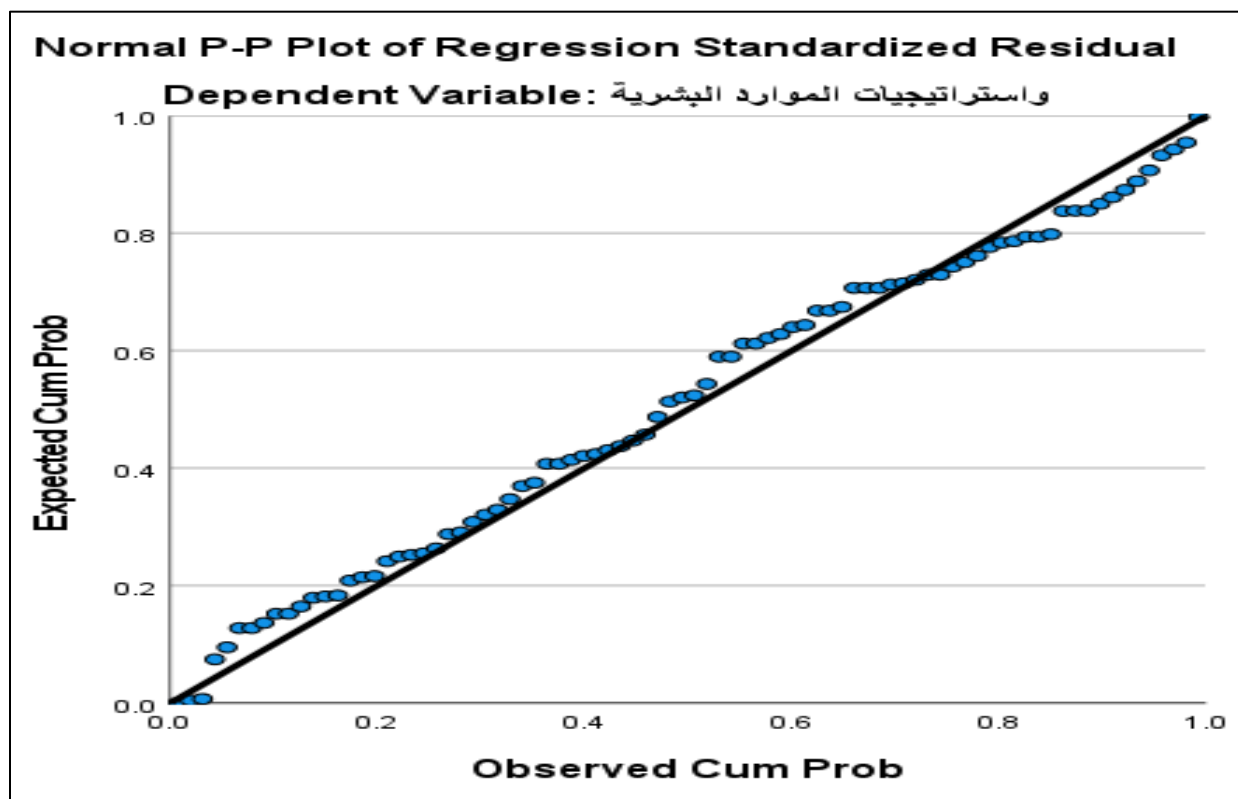
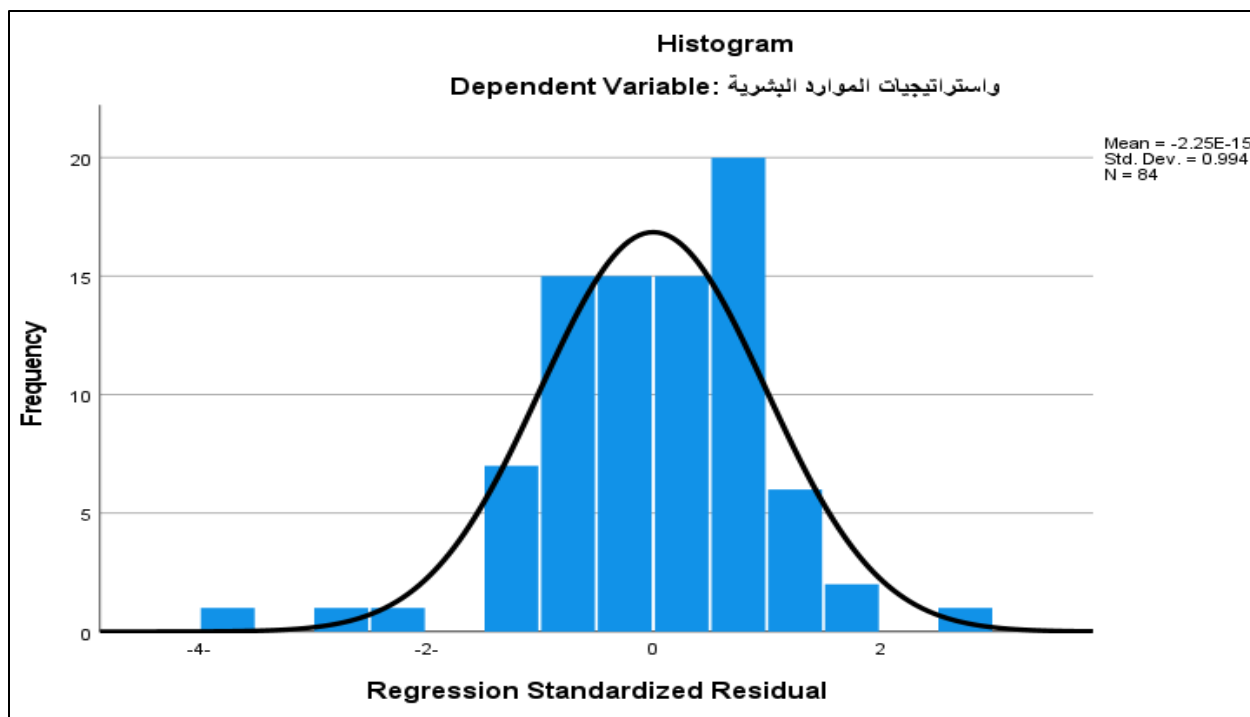
The results of the regression indicated a significant and positive relationship between the variable Leads to improving human resources strategies.

Testing the significance of the model

The model's significance as a whole was proven according to the F test, at a significance level of 1%, as the F value reached 28.844. The significance level is less than 0.01, and its significance is confirmed when the significance level is 0.01.

Test the significance of the independent variable

The significance of independence can be seen from the T test, where the T value reaches 5.371 and the significance level is 0.000, confirming the significance of the correlation when the significance level is 0.01. It can also be seen from the value of B out, which indicates the intensity or degree of the effect, i.e. H. Every time continuous improvement increases by 1 degree, HR strategy increases by 0.260 degrees. The R-squared value signifies that the model possesses an explanatory power of 0.206, indicating that 20.6% of the variance in the dependent variable is accounted for by the independent variables.



Based on our findings, we accept the alternative hypothesis, asserting a statistically significant relationship between customer satisfaction and human resources strategies in the higher education sector of Iraq.

The third Hypothesis

There is no statistically significant relationship between customer satisfaction and human resources strategies in the Iraqi higher education sector.

Testing the initial hypothesis

There is no statistically significant correlation between customer satisfaction and human resources strategies. Strategies in the

Iraqi higher education sector. To test this hypothesis, a correlation analysis and simple linear regression were conducted, and the results were as follows:

Table 13: Illustrate the results of simple regression between customer satisfaction and human resources Strategies in the Iraqi higher education sector

| Dependent variable: M human resource strategies, Independent variable: X customer satisfaction | | | | | | |
|--|--------------------|-----------------|-------|----------|-------------|--------------|
| Moral level | Calculated T value | Parameter value | R | R square | Moral level | F Calculated |
| 0.000 | 3.942 | 1.060 | 0.708 | 0.502 | 0.000 | 82.555 |
| 0.000 | 9.086 | 0.964 | | | | |

Source: From the output of the SPSS program

This can be clearly seen from the table

The regression results demonstrated a positive and significant association between the variable (rest of the sentence). Leads to improving human resources strategies.

Testing the significance of the model

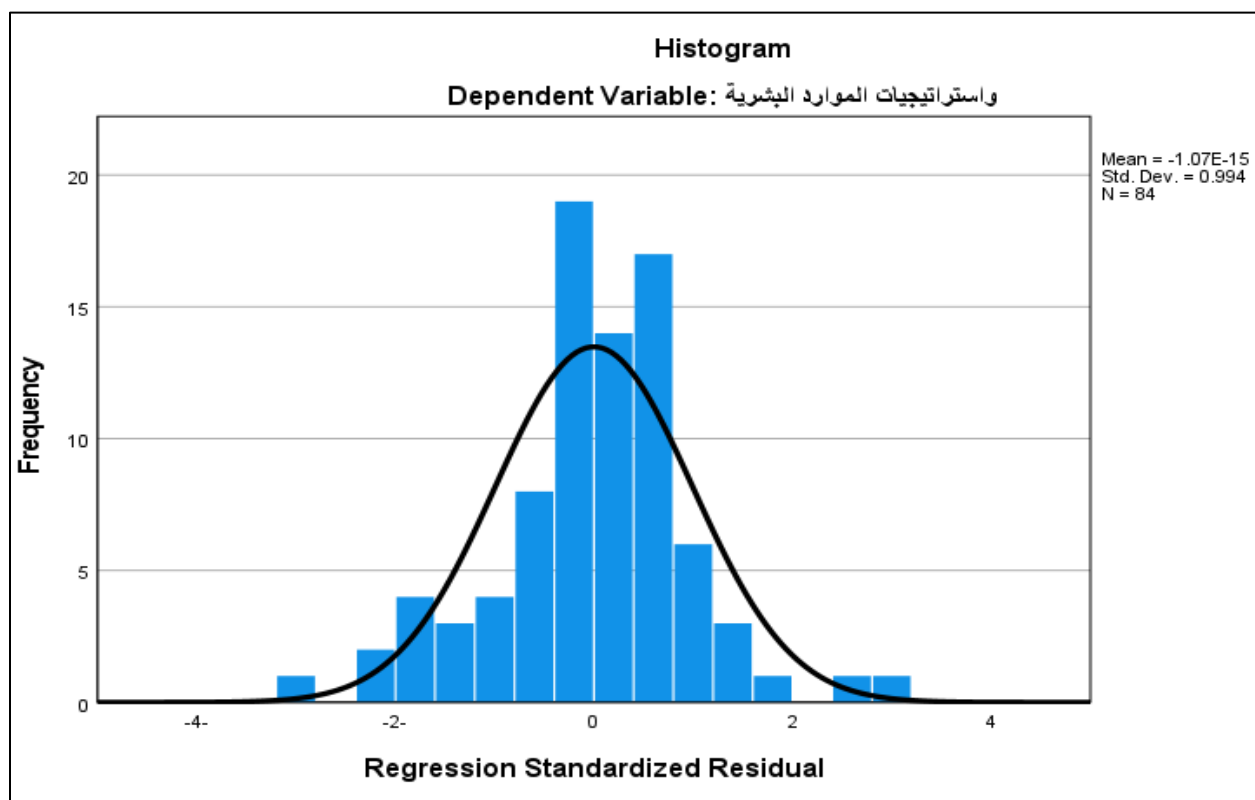
The F test with a significance level of 1% was used to prove the overall significance of the model. The F value reached 82.555 and the significance level was less than 0.01, confirming its significance at the significance level of 0.01.

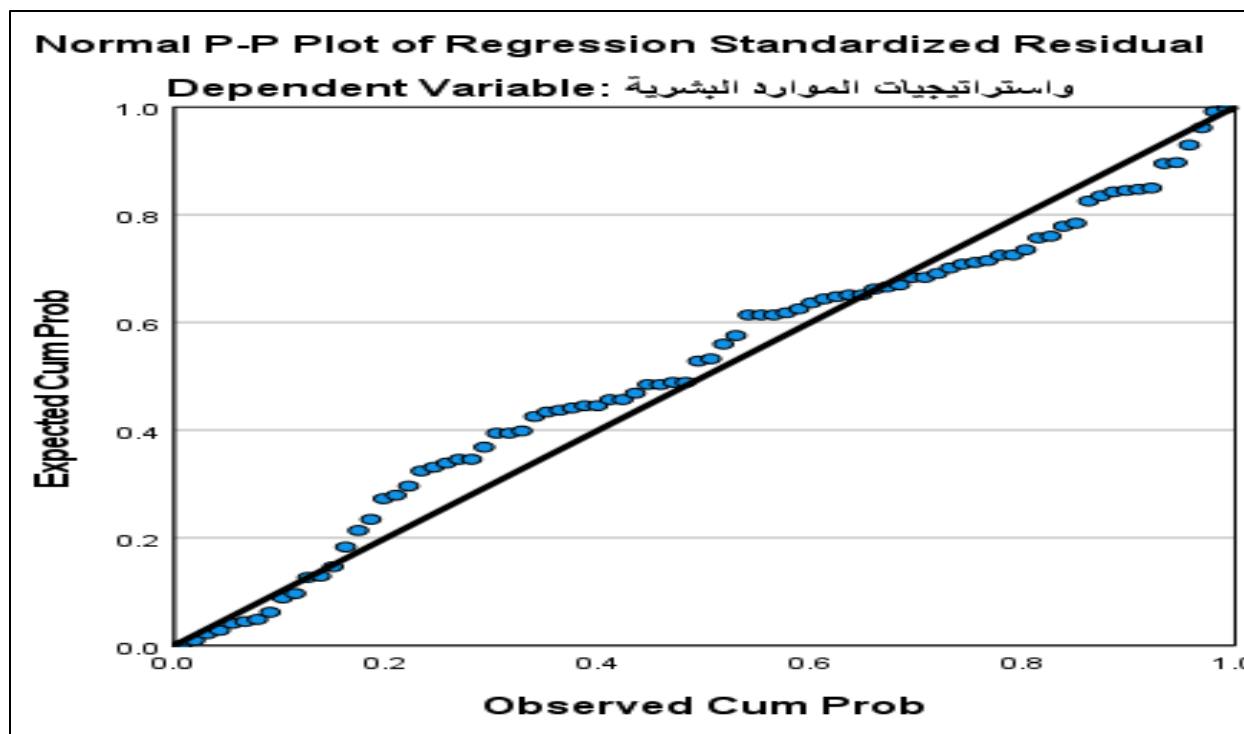
Test the significance of the independent variable

The significance of independence can be seen from the T test, where the T value reaches 9.086 and the significance level is 0.000, If the significance level is 0.01, the significance of the correlation is confirmed. This can also be seen from the value of B Out, which indicates the intensity or degree of influence, that is, H. When customer satisfaction increases by 1 degree, human resource strategies increase by 0.502 degrees.

Explanatory power of the model

The R-squared value shows that the explanatory power of the model is 0.502. This means that 52.2% of the variation occurring in the dependent variable is explained by independent variables.





Finally, we accept the alternative hypothesis: “We find a statistically significant relationship between customer satisfaction and human resource strategies in the higher education sector in Iraq. This table provides multilevel linear regression analysis to predict the impact of total quality

management (TQM) dimensions (University Message, Continuous Improvement, and Customer Satisfaction) on Human Resource Management (HRM) strategies. The variables include Regression Coefficient (B), t-value, p-value, and R-squared (R²).

| Variable | Regression Coefficient (B) | t-value | p-value | R ² |
|------------------------|----------------------------|---------|---------|----------------|
| Constant | 0.575 | 2.058 | 0.04** | 41.840 |
| University Message | 0.263 | 3.707 | 0.001** | - |
| Continuous Improvement | 0.063 | 0.722 | 0.472 | - |
| Customer Satisfaction | 0.501 | 6.200 | 0.001** | - |

**Significant at the 0.01 level. *Significant at the 0.05 level.

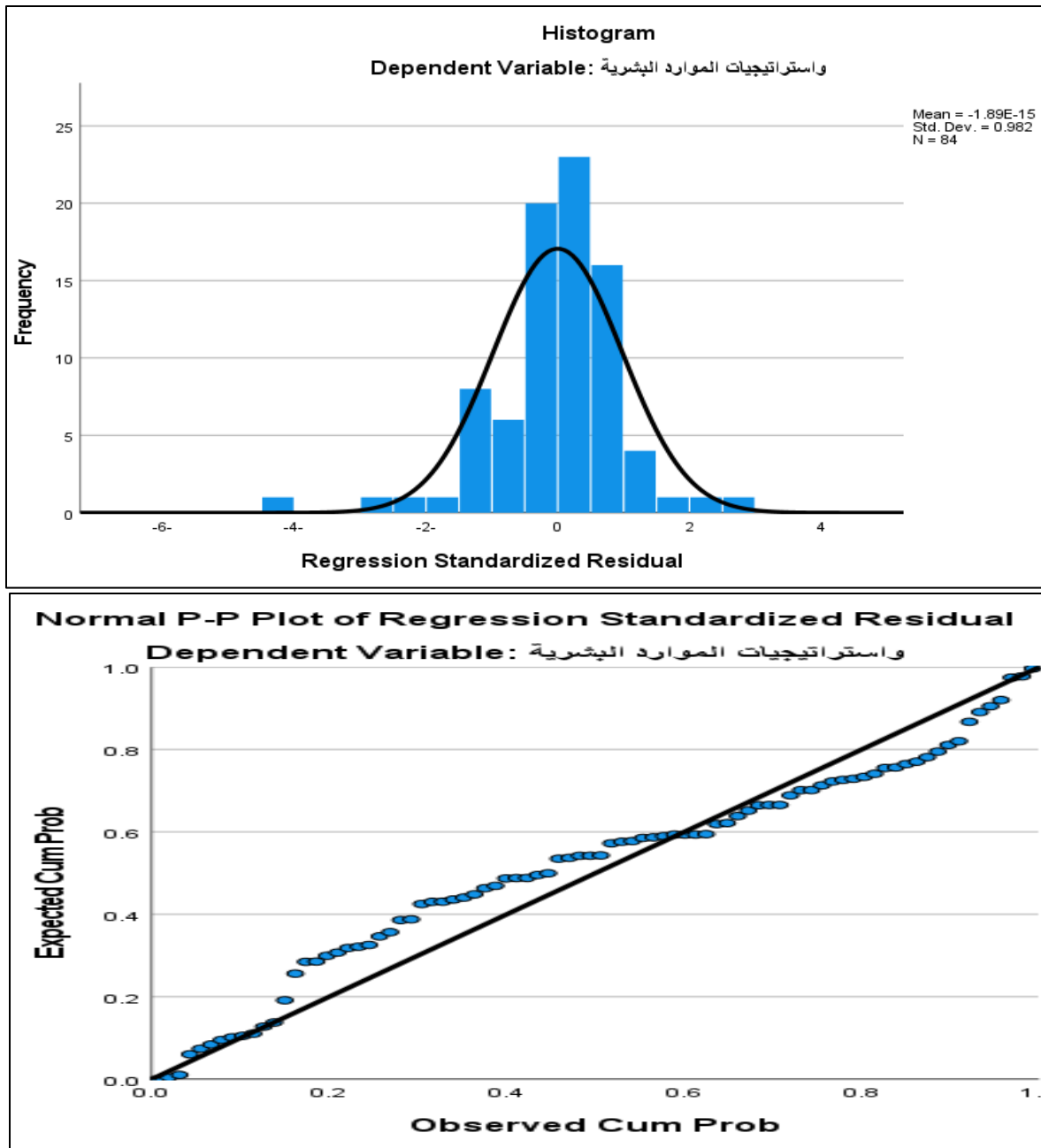
Key Findings

1. The R-squared value (61.1%) indicates that Total Quality Management variables explain a substantial portion of the variance in HRM strategies. The remaining percentage is attributed to random error or potential exclusion of other independent variables.

2. The significance test (t-test) reveals that University Message and Customer Satisfaction have a significant impact on HRM strategies (p-values < 0.01), with t-values of 3.707 and 6.200, respectively.

3. The F-test indicates the overall model's significance (F-test value of 41.840, p-value < 0.01), affirming the quality of the regression model in influencing HRM strategies.

In conclusion, the results suggest that University Message and Customer Satisfaction significantly influence HRM strategies within the framework of Total Quality Management. The regression model is statistically significant and provides valuable insights into the relationship between TQM dimensions and HRM strategies.



Results

1. A strong and positive relationship between customer satisfaction and human resource strategies is evident at 52.2%.
2. The coefficient of determination (R-square) indicates the model's strength in explaining variations in human resource strategies.
3. Statistical analysis confirms the significance of the relationship between customer satisfaction and human resource strategies at a 0.01 significance level.
4. Findings highlight that customer satisfaction has a fundamental impact on shaping and enhancing human resource strategies.

5. The predictive coefficient (B) for customer satisfaction demonstrates its influential role in human resource strategy development.

Recommendations

1. Develop strategies that enhance customer satisfaction within educational institutions.
2. Further research should incorporate additional variables to comprehensively understand the multifaceted impact on the relationship.
3. Encourage educational institutions to adopt strategies based on improving customer satisfaction.

4. Utilize research findings as a tool for analyzing and evaluating the current performance of institutions and guiding improvements.
5. Present the results to contribute to policy development guidelines in the higher education sector.

Reference

1. Abbas J. Impact of total quality management on corporate green performance through the mediating role of corporate social responsibility. *Journal of Cleaner Production*. 2020 Jan 1;242:118458.
2. Mousa SK, Othman M. The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of cleaner production*. 2020 Jan 10;243:118595.
3. Pham NT, Thanh TV, Tučková Z, Thuy VT. The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*. 2020 Jul 1;88:102392.
4. Chams N, García-Blandón J. On the importance of sustainable human resource management for the adoption of sustainable development goals. *Resources, Conservation and Recycling*. 2019 Feb 1;141:109-22.
5. Amrutha VN, Geetha SN. A systematic review on green human resource management: Implications for social sustainability. *Journal of Cleaner production*. 2020 Feb 20;247:119131.
6. Noe RA, Hollenbeck JR, Gerhart B, Wright PM. *Fundamentals of human resource management*. McGraw-Hill; 2020.
7. Mizuno S. *Management for quality improvement: the 7 new QC tools*. CRC Press; 2020 Aug 18.
8. Montgomery DC. *Introduction to Statistical Quality Control* 8th ed. Wiley; 2019.
9. Gharbi, M. H. The extent of the application of total quality management and its impact on increasing sales survey of the views of a sample of employees in the company Al - kronja for soft drinks, Ltd. *Journal of kirkuk University For Administrative and Economic Sciences*. 2021;11(1):27-51.
10. Rayis AO, Balal SB. The Mediating Role of Knowledge Capabilities in the relationship between Quality Management Orientation and Logistic Performance A Study on a Sample of Sudanese Industrial Companies in Khartoum State. *University of Kirkuk Journal For Administrative and Economic Science*. 2023;13(1).
11. Haseeb M, Hussain HI, Kot S, Androniceanu A, Jermsttiparsert K. Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance. *Sustainability*. 2019 Jul 11;11(14):3811.
12. Abbas J. Impact of total quality management on corporate sustainability through the mediating effect of knowledge management. *Journal of Cleaner Production*. 2020 Jan 20;244:118806.
13. Marelli S, Castelnuovo A, Somma A, Castronovo V, Mombelli S, Bottoni D, Leitner C, Fossati A, Ferini-Strambi L. Impact of COVID-19 lockdown on sleep quality in university students and administration staff. *Journal of neurology*. 2021 Jan;268:8-15.
14. Shafiq M, Lasrado F, Hafeez K. The effect of TQM on organisational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management & Business Excellence*. 2019 Jan 2;30(1-2):31-52.
15. Abad-Segura E, González-Zamar MD, Infante-Moro JC, Ruipérez García G. Sustainable management of digital transformation in higher education: Global research trends. *Sustainability*. 2020 Mar 9;12(5):2107.
16. Holbeche L. *Aligning human resources and business strategy*. Routledge; 2022 Apr 26.
17. Ahmed MA, GHANIM SS. THE ROLE OF STRATEGIES IN DEVELOPING AND IMPROVING EDUCATIONAL PERFORMANCE IN UNIVERSITIES. *World Economics and Finance Bulletin*. 2022 Sep 6;14:51-6. Retrieved from <https://www.scholarexpress.net>
18. Aust I, Matthews B, Muller-Camen M. Common Good HRM: A paradigm shift in Sustainable HRM?. *Human Resource Management Review*. 2020 Sep 1;30(3):100705.
19. Mousa Abed Al-Jubory M. Core information technology capabilities and their role in building smart organizations: An exploratory study of the opinions of a sample of administrative leaderships at Hawija Technical Institute. *Journal of kirkuk University For Administrative and Economic Sciences*. 2021 Nov 1;11(1):1-26.
20. Fuertes, G., Alfaro, M., Vargas, M., Gutierrez, S., Ternero, R., & Sabattin, J. (2020). Conceptual framework for the strategic management: a literature review—descriptive. *Journal of Engineering*, 2020, 1-21.
21. Belcourt M, Singh P, Snell S, Morris S. *Managing Human Resources* 10CE. Cengage Canada; 2022 Jul 29.
22. Greer CR. *Strategic human resource management*. Pearson Custom Publishing; 2021 Feb 16.

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