

Re-engineering of Administrative Operations in Improving Total Quality Management - A Case Study of the General Company for Electrical and Electronic Industries - Baghdad / Al-Waziriyah¹

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ABSTRACT

One of the most important problems that the government public services sector suffers from is weak procedures and outdated administrative processes, as well as bureaucracy that may hinder or prevent any action or decision-making, which obliges employees to work routinely away from any attempt to innovate new methods of work. Therefore, the study aims to prepare a theoretical framework and make a modest contribution with regard to the research variables, especially since it includes two types of variables, the first: related to re-engineering of administrative processes, and the second: related to total quality management. In implementation, it represents the reality of the work of public institutions in general and in the General Company for Electrical and Electronic Industries - Al-Waziriyah - Baghdad in particular, and this is what necessitates the company in the course of the study to search for solutions that will improve this reality by re-engineering its business operations to reach the best levels of performance of products and services. The current study was applied in the General Company for Electrical and Electronic Industries - Baghdad / Al-Waziriyah with (340) questionnaires, and for the purpose of analyzing the data, the statistical program (SPSS) was used, and a number of statistical tools were used, represented by the arithmetic mean, median, and standard deviation. Reaching a number of conclusions, the most important of which is that there is a high degree of senior management support in the company, which may affect the company's performance to accomplish its tasks and goals as required, so the researcher recommends the need to continue working on stimulating creativity and innovation within the company through the establishment of a team specialized in innovation management. Works on analyzing new ideas and applying them widely in the company. In addition, the company can improve the work environment to encourage employees to think outside the box and unleash their creative potential.

Keywords: *Process re-engineering; engineering; total quality management; continuous improvement; process management.*

INTRODUCTION

Business Process Reengineering (BPR) is a methodology that aims to comprehensively redesign and improve an organization's operations. Process re-engineering is implemented by rethinking traditional ways of working and redesigning them in a more efficient and effective way. This approach includes reconsidering the organizational structure, defining strategic goals, analyzing, documenting and evaluating existing processes, and developing a new model for the target process. Process re-engineering aims to achieve a radical improvement in the performance of

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operations by removing unnecessary or redundant processes, simplifying procedures, improving information technology, organizing work, and empowering employees.

On the other hand, the word quality (Quality) refers to the Latin word "Qualities", which is derived from the Greek word "ποιον" (one of the "classes" of Aristotle) and attributed to the philosopher Cicero, which means the nature of something, and the degree of its goodness, and it does not mean the best, Or the best, but it is a relative concept that differs in its view according to the benefit of it, whether it is (the customer, the community, the organization, the designer...etc.). Behavior, values, beliefs, administrative concepts, administrative leadership style, work systems and procedures, performance and everything in it with the aim of developing and improving all components of the organization with the aim of reaching the highest quality of its outputs of goods and services at the lowest cost and thus achieving the highest levels of satisfaction for customers, by satisfying their needs and desires according to what they expect in line with the strategy You realize that customer satisfaction and the goal of the organization are one, as the survival, success and continuity of the organization depends on this satisfaction through the performance of the right work without mistakes at first sight, based on many principles, including the consolidation of coordinated cooperative teamwork, stimulation of energies and capabilities and investing them in the best way, and continuous improvement, and it must achieve Benefits for all (organisation, employees, community).

THE FIRST TOPIC: RESEARCH METHODOLOGY

First: Research Problem

One of the most important problems that the government service public sectors suffer from is weak procedures and outdated administrative processes, as well as bureaucracy that may hinder or prevent any action or decision-making, which obliges employees to work routinely away from any attempt to innovate new methods of work. Therefore, practices that help to rethink and redesign the way in which work is done should be identified to better support the organization's mission and reduce costs, as organizations re-engineer two main areas of their work, the first side using modern technology to enhance data dissemination and decision-making processes, then the second side they use Organizational functions to form functional teams, from here re-engineering begins with a high-level assessment of the organization's mission, its strategic goals, and the needs of citizens, and here basic questions are asked, such as "Does our mission need to be redefined? Are our strategic goals compatible with our mission? Who are the citizens?"

The study questions can be clarified based on the study problem through the following:

1. To what extent is it possible to implement re-engineering of administrative operations and total quality management in the General Company for Electrical and Electronic Industries - Baghdad?
2. Is there a statistically significant correlation between the re-engineering of administrative processes and the total quality management in the General Company for Electrical and Electronic Industries - Baghdad?
3. To what extent does the re-engineering of administrative processes affect the total quality management in the General Company for Electrical and Electronic Industries - Baghdad?

Second: Importance Of Research

1. The importance of the topic emerges from the fact that the routine administrative procedures, administrative bureaucracy, and monotony in implementation represent the reality of the work of public institutions in general and in the General Company for Electrical and Electronic Industries - Baghdad in particular, and this is what necessitates the company in the course of the study to search for solutions that will improve this reality from By re-engineering its business operations to reach the best levels of performance of the products and services it provides.
2. Spreading the application of concepts and principles of re-engineering of administrative processes and linking their use to strengthening efforts to implement total quality management in Iraqi organizations.

Third : Study objectives

The study seeks to achieve a set of objectives that would assist the research sample in increasing its efficiency and effectiveness. These objectives are as follows:

1. Preparing a theoretical framework and making a modest contribution regarding research variables, especially since it includes two types of variables, the first: related to re-engineering of administrative processes, and the second: related to total quality management.
2. Determining the level of availability of the application requirements for re-engineering administrative operations in the General Company for Electrical and Electronic Industries - Baghdad.
3. Determine the nature of the relationship between the re-engineering of administrative processes and total quality management.
4. Examining the impact of the application of administrative process re-engineering in promoting the adoption of the principles of total quality management.

Fourth: the hypotheses of the study

The first main hypothesis: There is a significant correlation between the dimensions of administrative process re-engineering (reengineering) and total quality management, and the following sub-hypotheses emerge from the first main hypothesis:

1. The first sub-hypothesis: There is a significant correlation in the dimension of senior management support and the principles of total quality management.
2. The second sub-hypothesis: There is a significant correlation between the technology dimension and the principles of total quality management.
3. The third sub-hypothesis: There is a significant correlation between the dimension of employee empowerment and the principles of total quality management.
4. The fourth sub-hypothesis: There is a significant correlation between organizational culture and the principles of total quality management.

The second main hypothesis: There is a significant impact relationship between the dimensions of re-engineering of administrative processes (reengineering) and the principles of total quality management. From this hypothesis, four sub-hypotheses branched out, namely:

1. The first sub-hypothesis: There is a significant effect relationship in the dimension of senior management support and the principles of total quality management.
2. The second sub-hypothesis: There is a significant impact relationship between the technology dimension and the principles of total quality management.
3. The third sub-hypothesis: There is a significant impact relationship between the dimension of employee empowerment and the principles of total quality management.
4. The fourth sub-hypothesis: There is a significant impact relationship between organizational culture and the principles of total quality management.

Fifth: Hypothetical Scheme Of The Research

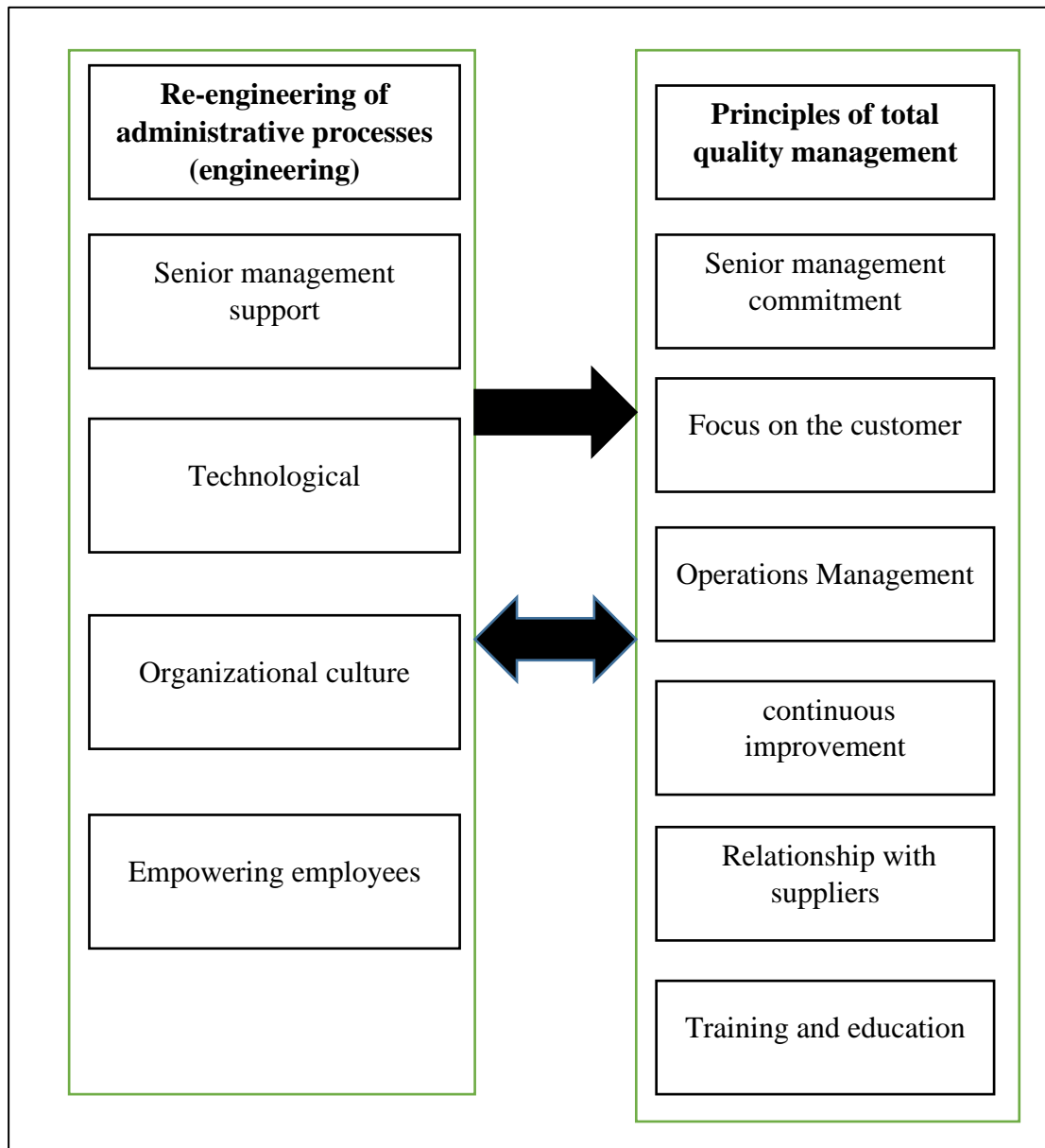


Figure (1) the hypothetical scheme of the research

Sixth: tool for obtaining information

The main tool for obtaining information was the questionnaire, and it is considered the main tool in collecting data for research, as the researcher designed a questionnaire that included (44) items that reflected the research variables, and (10) forms that were not valid for statistical analysis were retrieved out of (350) forms, which included measurement Research variables based on scales obtained from recent foreign and Arab references, and the researcher was keen to use these scales in the same way that they were presented, in terms of their content, then the five-point Likert scale was used to measure its paragraphs, and table (1) shows the five-point Likert scale for the resolution of the questionnaire:

Table 1: Five-point Likert scale

1	2	3	4	5
I don't quite agree	I do not agree	neutral	I agree	Totally agree

The structure of the research questionnaire in its final form also included a paragraph of personal and functional information for managers and employees of the research sample, which pertains to (age group, educational qualification, service period in years) for the purpose of describing the sample, and it also included paragraphs to measure the main variables (re-engineering of administrative processes, total quality management) for the research. Table (2) shows the parts of the questionnaire and its variables.

Table (2) shows the distribution of the questionnaire and its preparation for the study variables

dimension scale	No of paragraphs	dimensions	variants	No
(Al-Kahlout, 2017) and (Al-Buhairi, 2015).	5	Senior management support	Process re-engineering (engineering)	1
	5	information technology		
	5	Empowering employees		
	5	Organizational culture		
(Vinni:2007)	5	Senior management commitment	Total Quality Management	2
	5	Focus on the customer		
	5	Operations Management		
	5	continuous improvement		
	4	Relationship with suppliers		

A number of statistical tools were used, as follows:

1. Arithmetic mean: It is one of the measures of central tendency to determine the level of respondents' answers to the research variables.
2. Standard Deviation: To measure the level of dispersion of the respondents' answers from their arithmetic mean.
3. The level of importance of the main and sub-dimensions and paragraphs, depending on the value of the coefficient of difference for the answers of the research sample.
4. The coefficient of difference to arrange the importance of the main and sub-dimensions of the research (measurement of relative dispersion.)
5. The reliability and validity coefficients of the questionnaire, which includes the alpha-Cronbach scale.
6. Correlation coefficients (Pearson), to determine the extent of a significant relationship between two or more variables, and to determine the strength and direction of this relationship.
7. Multiple regression: a set of methods that can be used to find out the relationship between a continuous dependent variable and a number of independent variables that are usually continuous.

THE SECOND TOPIC: THEORETICAL FRAMEWORK

Section one : process re-engineering (engineering)

The concept of process re-engineering (engineering)

When discussing the difference between process re-engineering and continuous improvement, Davenport sums it up by noting that organizations today should strive not for micro levels, but for multiplier levels of improvement—tenfold rather than ten percent—(Slack, et al., 2010: 551), so table (3) defines the most important definitions mentioned by some writers and researchers about process reengineering.

Table (3) Definition of Business Process Reengineering (Reengineering)

No	Source	Definition
1	Nyström, 2016: 12	Consider the processes from the beginning and then determine the best ways for the organization to rebuild the processes involved in order to improve their performance
2	Nadeem, M., & Ahmed, 2016: 1	An approach that focuses on those goals, objectives, and targets that are not only understandable, but also easily achievable to reduce cost, improve customer satisfaction, loyalty, and organizational performance.
3	Abdo, A. H., & Khattab, 2020: 97	Starting over, reviewing basic work systems and procedures, and re-correcting them in a new and different way
4	Kattadiyil, 2020: 1	Redesigning existing business strategies and aspects for various reasons- which process usually entails various financial challenges and adjustments that the organization faces on its assets and liabilities
5	Galli, et al., 2021: 2	An approach that relies on radical upgrades leading to a complete revamp of the process when it is found to be completely unsuitable for the intended purpose

Source: Prepared by the researcher based on the sources mentioned therein.

Through the foregoing, the researcher believes that the re-engineering of administrative processes is a radical re-design of the administrative processes to achieve significant improvements in key aspects such as quality, production, cost, service and speed in order to reduce costs and reduce manpower on a large scale.

Second: the importance of re-engineering administrative processes (engineering)

Process re-engineering has proven its value when used in the environment of organizations as follows: (Chang et al., 2019: 1714), (Tripathi & Gupta, 2020: 3)

1. Risk Management: Although the process re-engineering method does not claim to be a risk management methodology, some aspects of risk have been successfully addressed through its application, as economic risk management is a problem related to methodologies affected by accounting, while personal risks were also dealt with in cases Process redesign.
2. Improving the understanding of the environment: As process reengineering contributes to improving the understanding of the organizational environment in the organization and its continuous change, it has sought the importance of providing support for the contractual view of the process, as the idea of managing the process is complemented by concepts such as the owner of the treatment, by focusing on the obligations of the owners of the various operations Towards others, a better understanding of all the different roles within an organization can be achieved.
3. Improvement: Process reengineering contributes to providing continuous improvement techniques. Because technology is constantly advancing, and the business environment is constantly changing, the processes and systems that support them need ways to facilitate and direct parallel improvement, and this in turn enables organizations to focus on the customer and adapt to customer requirements. changing.
4. Adapting to customer needs: In a business environment where customer needs are the driving force, process reengineering offers organizations the opportunity to adapt dynamically to customer requirements. customers.
5. Better process control: It is mainly achieved by dividing the process into much smaller processes in which control is decentralized, in simple terms more people who care about a small part of a large process provides more complete control over the process as a whole.

Third: Objectives of re-engineering administrative operations (engineering)

When applying process re-engineering to any organization, the efforts of the implementation team focus on the following goals: (Fetais, et al., 2022: 4) (Kumar & Mathew, 2020: 736)

1. Focusing on customers: Customer service-oriented operations that aim to eliminate customer complaints. The customer in the service sector and organizations in particular is the main source of revenue.
2. Speed: Significant pressure on the time taken to complete a task for core processes, eg if the process before process re-engineering had an average cycle time of 5 hours, the average cycle time should be reduced to half an hour after re-engineering is performed.
3. Compression: Cutting the main tasks related to cost and capital at all stages of the value chain, and organizing the operations carried out by the organization leads to the development of transparency throughout the operational level to reduce the cost.
4. Flexibility: Adapt to changing circumstances, competing processes and structures. By getting closer to customers, organizations can develop awareness mechanisms to quickly identify weaknesses and adapt to new requirements in industry sectors.
5. Quality: obsession with the unique product and value for customers, and the level of quality is always controlled and monitored through processes, and does not depend mainly on the person who provides the product to the customer.
6. Innovation: Leading through imaginative change that provides a competitive advantage to the organization.
7. Productivity: Greatly improve effectiveness and efficiency.

Section Two: Total Quality Management

First: the concept of total quality management

Total quality management is one of the most pioneering intellectual and philosophical concepts that has attracted widespread attention from researchers, managers and scientists who are particularly interested in developing and improving the production or service performance of various organizations (2: 2013 Azher et al.), in a manner consistent with the specified and agreed specifications. With the wishes of the customer, in order to achieve and retain customer satisfaction by providing goods and services that exceed their expectations (Alzoubi et al., 2019: 168)

Accordingly, the visions of many writers and researchers have varied towards the specific concept of total quality management, and in order to give a definition to the concept of total quality management, some of the opinions of writers and researchers in this regard should be reviewed. (Bajaj et al., 2018: 129) separated the term total quality management into (management, quality, comprehensive) and defined these terms as follows:

1. Management: It means developing and maintaining the possibility of continuous improvement of quality in the organization.
2. Quality: which is meeting the requirements of the beneficiary.
3. Comprehensive: It involves applying the principle of striving for quality to any aspect of the business, from identifying the needs of the beneficiary to assessing whether the beneficiary is satisfied with the product offered to him.

Second: the benefits of total quality management

The existence of a culture of total quality management contributes to the success of the organization's work and gives it an international advantage, as well as the ability to compete locally to produce high-quality goods to meet the needs of customers (Zakuan, 2012: 23). (Knowles, 2011: 28) goes to the fact that TQM at the present time is a very important engine for the growth and success of organizations in the local and international markets. The application of TQM helps to increase the market share of the organization and then improve its competitiveness. This is because customers demand the best quality, low prices, rapid response, and improving product quality for the organization is essential to achieving business, and the good application of total quality management leads to increased customer satisfaction, by providing conforming products, requirements and specifications, and then applying them effectively. It leads to an increase in the satisfaction of the workforce by enabling them to perform the work well, which leads to a reduction in absenteeism rates and an increase in flexibility in difficult times, and there are indications that the application of total quality management helps to improve the environmental impact by reducing waste, which enables the organization to Reducing the negative impact of the organization on the environment, and this will help in creating a positive image of the organization and reduce associated costs.

Third: the objectives of total quality management

The main objective of applying the total quality management program in the organization is to increase product quality while reducing costs and reducing wasted time and effort to improve the products provided to customers and gain their satisfaction (Abbas, 2020: 2), and (Nguyen & Nagase, 2019: 2) indicate that the objectives of quality management The comprehensive includes the following:

Achieving customer satisfaction and meeting his current and future desires, increasing the organization's competitiveness, increasing the organization's flexibility in facing changes, as well as ensuring continuous improvement for all activities, sectors and levels of the organization, increasing the organization's growth rate, and improving the organization's economics.

(Honarpour et al., 2017: 3) defines the objectives of total quality management as follows: adopting the needs and desires of customers in the production of products and choosing suppliers who depend on quality, along with continuous improvement and increasing customer satisfaction.

As for (Evans & Dean, 2003: 45), they identified the objectives of total quality management as follows:

1. Obtaining customer satisfaction and satisfaction by providing the best products.
2. Reducing the inventory, as the level of inventory should be within the needs of the organization so that the organization does not bear the additional costs as a result of spoilage.
3. High flexibility in facing market requirements.
4. Respect the time when delivering the product.
5. Taking care of the workers and minimizing the work tasks entrusted to them, i.e. not burdening the worker with responsibilities that exceed his capacity.

THE THIRD TOPIC: PRACTICAL SIDE**First: Finding the correlation matrix between the research variables and their dimensions****Table 4: Matrix of correlation of research variables and dimensions**

Training and learning	Relationship with suppliers	continuous improvement	Process management	Focus on the customer	Senior management commitment	dimensions
0.414** (0.000)	0.395** (0.000)	0.480** (0.000)	0.484** (0.000)	0.502** (0.000)	0.626** (0.000)	Senior management support
0.557** (0.000)	0.403** (0.000)	0.541** (0.000)	0.543** (0.000)	0.590** (0.000)	0.571** (0.000)	information technology
0.525** (0.000)	0.373** (0.000)	0.588** (0.000)	0.590** (0.000)	0.655** (0.000)	0.693** (0.000)	Empowering employees
0.598** (0.000)	0.524** (0.000)	0.644** (0.000)	0.656** (0.000)	0.710** (0.000)	0.837** (0.000)	Organizational culture

It is clear from the results of Table (4) the following:

The results indicate that there are mutually positive correlations between the independent variable "process re-engineering" and its dimensions (top management support, information technology, employee empowerment, organizational culture), and the dependent variable "total quality management" and its dimensions (top management commitment, customer focus, management process, continuous improvement, supplier relationship, training and learning). The strength of the relationships ranges between weak and strong, and all relationships have a probability value (0.000), which enhances the acceptance of all hypotheses of the association between the independent and dependent variables and their combined dimensions.

Based on these results, it can be concluded that the application of process re-engineering and its related elements contributes to strengthening the total quality management in the company, and thus achieving improvements in the commitment of senior management, focus on the customer, process management, continuous improvement, the relationship with suppliers, and training and learning.

Second: Testing influence relationships and verifying research hypotheses

The researcher aims to test the validity of the main influence hypotheses identified in the research methodology and determine the extent of their acceptance or rejection based on the results of testing each hypothesis and its sub-hypotheses. The researcher examined the effect of the independent variable model "Process Reengineering" with its combined dimensions on the dependent variable "Total Quality Management" in a comprehensive manner. The coefficient of determination and effect were analyzed and accepted based on the values calculated as follows: probability value (Sig < 0.05), value (T > 1.645), value (F > 2.706) and degree of freedom (339). Based on these values, the multiple linear regression equation was determined. Please provide more information about the selected polylinear equation in order to provide more accurate assistance.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + u$$

Examine the impact of process re-engineering in total quality management

The main hypothesis of the research was determined: There is a statistically significant effect of the dimensions of process reengineering combined (senior management support, information technology, employee empowerment, organizational culture) in total quality management.), especially since table (16) showed the existence of direct relationships between variables and dimensions, so the researcher went towards verifying the main hypothesis as follows:

Verification of the main hypothesis: The re-engineering of operations with its combined dimensions has a significant effect on total quality management:

It is clear from the results of Table (5) that the value of (F) calculated for the model is (292.681) with a probability value of (0.000), which is higher than its tabulated value (2.706) with a probability value of (0.05), and with a degree of freedom (339), indicating the morality and strength of the model that the researcher attributes To the symbiosis of the combined dimensions of process re-engineering and total quality management to form a statistically acceptable model, in addition to the existence of an identification coefficient (0.635) with a probability value (0.000), and a corrected identification coefficient (0.632), as the combined dimensions of process reengineering (support for senior management, information technology) Enabling workers, organizational culture) to interpret (63.2%) of the changes that occur in total quality management, while the remaining (36.8%) is attributed to other variables that were not included in the tested model.

As it was found that there was a positive effect to raise the value of information technology in total quality management with an amount of (0.176) with a probability value of (0.000), and with a calculated (T) value of (4.026) that exceeds its tabular value (1.645) and with a degree of freedom (339), and it also showed a positive effect The organizational culture in total quality management has an amount of (0.562), with a probability value of (0.000), and a calculated (T) value of (14.761). The results also showed that there is no effect to support senior management and empower workers in total quality management, which indicates the investment of the model by (50%).) from its foundations in the company, and from all the results presented, the main hypothesis is accepted (the re-engineering of operations with its combined dimensions has a significant effect on total quality management), and according to the following equation:

Sustained Total Quality Management (Y) = (1.062) + 0.176 * (information technology) + 0.562 * (organizational culture)

Table (5) The impact of process re-engineering with its combined dimensions on total quality management (n = 340)

Total Quality Management						the independent variable	
F	T	Sig	A R ²	R ²	β		α
292.681 (0.000)	4.026	0.000	0.632	0.635	0.176	1.062 (0.000)	information technology
	14.761	0.000			0.562		Organizational culture

Source: SPSS V.24 program output.

THE FOURTH TOPIC: CONCLUSIONS AND RECOMMENDATIONS

First: conclusions

1. It became clear from the results that there is a high degree of support from the senior management in the company, which may affect the performance of the company to accomplish its tasks and objectives as required.
2. There is a fairly acceptable level in the researched company in terms of its support by creating new processes far from routine and traditional administrative procedures. The company is also trying to develop its administrative staff through training courses.
3. The results indicate the desire of the researched company to seek the assistance of external experts to assist in the application of re-engineering of administrative operations as well as
4. The researched company owns many modern devices, but they are not with high specifications and the level of ambition
5. The researched company allocates part of the budget to develop the performance of employees, in addition to the establishment of the company's management programs for the development of employees to rebuild administrative operations.
6. The researched company makes efforts to support and encourage its employees to work initiatives, and it also works to create an appropriate climate for the transition from traditional methods of work to modern methods.
7. The researched company transforms and translates the policies followed into clear rules and work mechanisms to chart the path and plans that the employees follow.
8. Most of the respondents agree that the company's management has a strong commitment to applying the principles of total quality management, and the senior management also provides material and moral support to implement the principles of total quality management.
9. The administration uses statistical methods and tools to monitor the performance of various activities and operations with a high average, which reflects the administration's tendency towards using realistic measures to measure and evaluate performance.
10. The company believes that customer satisfaction is its real profit, as the company's management is keen to make its customers happy by improving the customer's added value.

Second: Recommendations

1. The need to pay attention to this dimension and place it at the forefront of these dimensions in order to develop the correct and useful mechanisms for creating institutional innovation through improving the support of senior management in it and referred to in the research scheme
2. The need to continue working on stimulating creativity and innovation within the company by establishing a team specialized in innovation management that works on analyzing new ideas and applying them on a large scale in the

company. In addition, the company can improve the work environment to encourage employees to think outside the box and unleash their creative potential.

3. The need for senior management to be more aware of the importance of re-engineering administrative processes and seek to implement it.
4. The researched company should focus on the use of information technology that can reduce administrative and financial oversight, as well as keeping pace with technological developments in the surrounding environment.
5. The need for the company's employees to benefit from specialized training programs and to improve management and supervision processes. The company must also provide various trainings for employees, such as leadership and management training, communication and communication training, technical and soft skills training, and others.
6. The need to enhance the culture of innovation and creativity in the company, by encouraging and motivating employees to present their new ideas and proposals, and providing the necessary support to transform these ideas into new projects and operations.
7. The researched company should work to simplify and clarify the rules and mechanisms used, and provide the necessary training for workers to understand these rules and work according to them, as well as provide the necessary tools to facilitate the process of drawing and planning, such as specialized computer programs that support the process of designing tracks and plans in an effective and orderly manner.
8. The respondents indicate the need to improve the quality of the company's products, since the quality of the product provided by the company is part of the company's vision and mission in order to achieve competitive advantage, through purchasing modern machines and training cadres capable of working on those machines.
9. The need to further enhance the concept of customer focus within the company by organizing specialized training courses for employees on the importance of this concept and how to achieve it effectively in all aspects of work. It is also possible to launch motivational and encouraging initiatives and campaigns to motivate workers to work in a more integrated manner with this concept and its application on the ground.
10. The researched company should enhance the principle of quality improvement by focusing more on quality control and improving it periodically and regularly by using available scientific and technological methods and tools, such as data analysis, simulation techniques, statistical analysis, statistical quality control, etc., and it is also possible to enhance the quality culture within the company through training courses Specializing and motivating employees to participate in continuous improvement processes and developing products and services to better meet customer needs.

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REFERENCE

1. Abbas, J. (2020). Impact of total quality management on corporate green performance through the mediating role of corporate social responsibility. *Journal of Cleaner Production*, 118458. doi:10.1016/j.jclepro.2019.118458
2. Abdo, A. H., & Khattab, H. A. (2020). The Impact of Re-engineering Process in Human Resources Development Applied to Travel Companies in Egypt. *Journal of Association of Arab Universities for Tourism and Hospitality*, 18(1), 95-106.
3. Amir Honarpour, Ahmad Jusoh & Khalil Md Nor (2017): Total quality management, knowledge management, and innovation: an empirical study in R&D units, *Total Quality Management & Business Excellence*, DOI: 10.1080/14783363.2016.1238760
4. Azher, Zain., Naz, Anila., & Asiya Gul, Maryam Nawaz, "The role of TQM and BPR in executing quality improvement: a comparative study", 2013.
5. Chang, S. E., Chen, Y. C., & Wu, T. C. (2019). Exploring blockchain technology in international trade: Business process re-engineering for letter of credit. *Industrial Management & Data Systems*, 119(8), 1712-1733. doi:10.1108/IMDS-12-2018-0568.

6. Evans, James., & Dean, James., "Total Quality management: organization and strategy", 3th ed, Thomson South – Western, 2003.
7. Fetais, A.; Abdella, G.M.; Al-Khalifa, K.N.; Hamouda, A.M. Business Process Re-Engineering: A Literature Review-Based Analysis of Implementation Measures. *Information* 2022, 13, 185. <https://doi.org/10.3390/info13040185>
8. Galli, G., Patrone, C., Battilani, C., & Revetria, R. (2021). Simulation and Business Process Management Notation in Support of Business Process Re-engineering. In *Transactions on Engineering Technologies* (pp. 47-58). Springer, Singapore.
9. Kattadiyil, B. J. (2020). Business Re-Engineering and Restructuring Under IBC. *Editorial Board*, 9(6).
10. Knowles, G., "Quality Management", London Business School, 2011.
11. kumar, m. s., & mathew, b. (2020). a study on strategic issues and challenges of business process re-engineering in cooperative banks and its impact on clients. *international journal of research and analytical reviews (ijrar)*. [ijrar2001107](https://doi.org/10.3390/ijrar2001107).
12. Majdi M Alzoubi, KS Hayati, AM Rosliza, AA Ahmad & ZM Al-Hamdan (2019) Total quality management in the health-care context: integrating the literature and directing future research, *Risk Management and Healthcare Policy*, , 167-177, DOI: 10.2147/ RMHP.S197038
13. Nadeem, M., & Ahmed, R. (2016). Impact of Business Process Re-engineering on the Performance of Banks in Pakistan. *Business and Economics Journal*, 7(1), 1-3.
14. Nguyen, T. L. H., & Nagase, K. (2019). The influence of total quality management on customer satisfaction. *International Journal of Healthcare Management*, 1–9. doi:10.1080/20479700.2019.1647378
15. Nyström, M. (2016). Process: A Case Study of Development and Re-engineering of an Absence and Leave Management Process.
16. Shweta Bajaj, Ruchi Garg, Monika Sethi, (2018) "Total quality management: a critical literature review using Pareto analysis", *International Journal of Productivity and Performance Management*, Vol. 67 Issue: 1, pp.128-154, <https://doi.org/10.1108/IJPPM-07-2016-0146>
17. Slack , nigel., Chambers, stuart., & Johnston, Robert , "operation management" , 6th, prentice-hall, london, 2010.
18. Tripathi, S., & Gupta, M. (2020). A framework for procurement process re-engineering in Industry 4.0. *Business Process Management Journal*, ahead-of-print(ahead-of-print). doi:10.1108/bpmj-07-2020-0321
19. Zakuan , N., Muniandy, SH., Saman, M.Z.M., Ariff ,M. S. M., Sulaiman ,S.,& Jalil ,R.A., "Critical Success Factors of Total Quality Management Implementation In Higher Education Institution : A Review", *International Journal of Academic Research in Business and Social Sciences*, 2012.