International Journal of Studies in Business Management, Economics and Strategies
Volume 02, Issue 01, January, 2023
ISSN (E): 2949-883X
Scholarsdigest.org

The Possibility of Applying the Six Sigma Technique in The Accounting Units at The University of Samarra / An Analytical Study of The Opinions of A Sample of Accountants And Auditors

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Annotation:
The research aimed to test the possibility of applying the Six Sigma methodology in the accounting units operating at the University of Samarra and to address the opinions of accountants and auditors in the accounting units, and (35) a questionnaire was distributed, and (29) answers were obtained, and the research relied on the descriptive analysis method in analyzing the opinions Workers in accounting units, and reached the possibility of applying the Six Sigma methodology at the University of Samarra to provide the requirements for its application, and recommended the need to raise awareness of the importance of modern administrative methods, especially the Six Sigma methodology that serves the work of organizations, whether private or public, because of the return it achieves on the level of the overall performance of the organization

Keywords :Six Sigma, Application requirements, University of Samarra

The accelerated development of management and technical concepts in the contemporary business environment of industrial and service companies has led to the search for appropriate means, methods, and strategies that help them achieve the goals of achieving customer satisfaction and reducing the number of defective units, reducing the cost of operating operations, providing services and goods with the least effort and the highest quality promptly, and optimizing the use of the resources available to the Organization. (Hasson, 2011:1) The emergence of the Six Sigma methodology was one such method for service organizations to achieve operational excellence, reduce costs and implement quality standards (Yanamandra, R., & Alzoubi, 2022:122), is a three-part conceptual compound that represents a statistical measure of activity performance, a management system to achieve a high level of leadership, and a systematic methodology to improve processes (Al-Rawi, 2011, 3) Universities are institutions that provide services to a broad segment of society and have a direct or indirect impact on society. They, therefore, require these institutions to use modern administrative means that achieve quality and help them to achieve imposed global standards.

Search Problem

Accounting units in universities seek to provide quality and error-free services, leading some of them to adopt modern methods and methodologies such as the hexagonal neutralization methodology (Six Sigma), as this methodology identifies, analyses, and measures problems in organizations' working procedures to reach a level of quality close to perfection as it sets the level of quality at a level (99.99966%) The researcher, therefore, considers that the problem of research is to answer the following questions:

1. Are the requirements for applying the Six Sigma approach available in the accounting units operating at Samarra University?
2. Can the Six Sigma methodology be applied in the accounting units operating at the University of Samarra?

The Importance of Research

The importance of research, in theory, is reflected in the light of the six-party neutrality methodology and its requirements, as it is one of the means of achieving quality in service and production units. In practice, accounting units at Samarra University must take a field to know the applicability of the six-party neutrality approach in their accounting units.

Research Objectives

Search objectives can be summarized in the following points:

1. Describe the theoretical framework of the Six Sigma approach in terms of its concept of significance and stages of application.
2. Measuring the level of hexagonal neutrality in the accounting units operating at Samarra University.

Identification of accounting unit workers from accountants and auditors of the hexagonal neutralization methodology.

Identification and diagnosis of requirements for the application of the Six Sigma methodology in the accounting units in question.

Research Hypotheses

The research is based on two hypotheses:

1. The Six Sigma application requirements are not available in the accounting units operating at Samarra University.
2. The Six Sigma methodology cannot be applied in the accounting units operating at Samarra University.

Research Curriculum

The unit search was based on two basic scientific research curricula, the inductive and analytical approaches to scientific books, scientific journals, university letters, articles, and research from Arab and foreign websites or to root out its concepts and themes and build its theoretical aspect, the analytical curriculum will also be used to explore the answers of individuals working in accounting units at the University of Samarra to comprehensively

identify and analyze all aspects of the problem and identifying ways of addressing it and answering its questions exchanged through the unit's research sample.

Community and Sample Research

The research community consists of accountants and auditors working in accounting units at Samarra University.

Search Form

The research model can be shown in the following format:

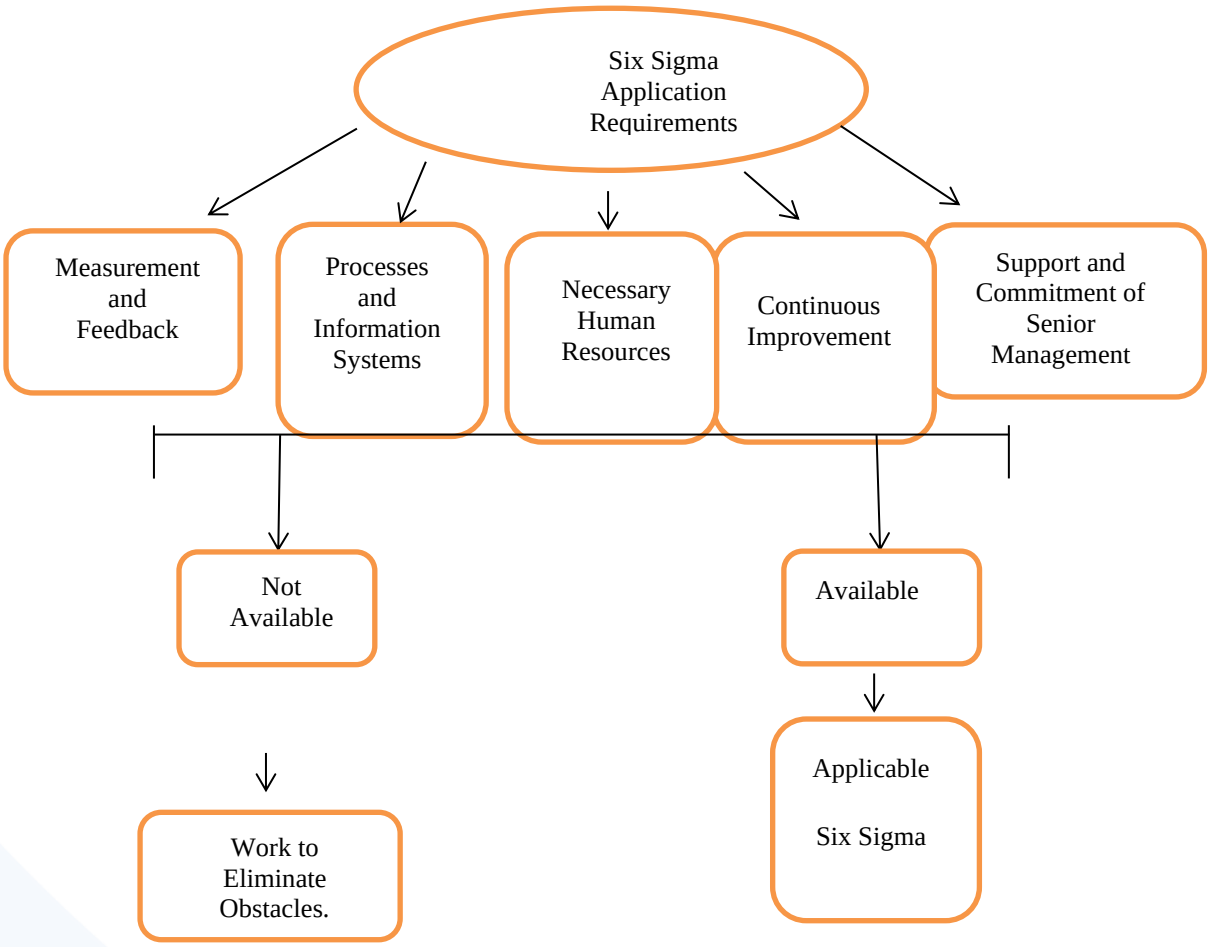

Figure 1: Research Plan

Sources of Information and Methods of Data Collection

Theoretical aspect: The researcher relied on what Arabic and foreign references and literature are available from dissertations, letters, periodicals, seminars, websites and others.

2. Applied aspect: Through a four-axis questionnaire, which is the primary tool used to collect data with the aim of analyzing it and reaching research objectives.

Search Limits

Spatial Limits: The research was limited to accountants and auditors in accounting units at University of Samarra.

Time limits: The time limit for 2021 has been set.

Previous studies

1. **Study (Hasson, 2011),** a master's course entitled "Evaluation of the Accounting Science System for the Adoption of the 6-Sigma Method/Applied Study at the General Company for Pharmaceutical and Medical Supplies/Samarra.

The study aimed at evaluating the accounting information system in the General Pharmaceutical Industry Company and demonstrating the feasibility of applying its six-party neutralization approach The study found that the accounting system adopted by the State Company for Pharmaceutical and Medical Supplies/Samarra is unable to meet the needs of the application of the 6-Sigma method, The company's cost accounting information system also falls short by all standards of providing minimal information that serves application procedures, although it is a significant basis for ensuring the success of this process.

2. **Study (Al-Nadther, 2017),** A master's course entitled "The feasibility of applying the Six Six Sigma curriculum to food manufacturers in the West Bank"

The study aimed at identifying the feasibility of applying the hexa-fluorosis approach in food manufacturing companies, and tried to identify the obstacles to applying this approach. The company addressed nine food manufacturing companies and used two tools to collect the study's data, namely interviews and questionnaires, which included (180) A staff member retrieved (170) an analytical identification and found that the hexa-fluorosis methodology could be applied in food manufacturing companies, recommending that it should be applied because of its importance in enhancing product quality.

3. **Study (Muqabalah, 2021),** entitled "The degree of availability of requirements for the application of six sigma at Taif University from the point of view of faculty members"

The research aimed at identifying the bike availability of the requirements of the application of the six-Sigma curriculum at Taif University by the faculty's point of view. The research examined a sample of 225 members, adopted a questionnaire form in the collection of information consisting of five axes, and concluded that the degree of availability of the requirements of the application of the six-SigMA was medium.

4. **Study (Salman, Abdullah, 2022),** The objective of the research was to diagnose the reality of the six-party neutralization approach in the provision of high-quality products in industrial companies. The research examined the opinion of a sample of management leaders of 100 individuals distributed. On the questionnaire form, the research focused on diagnosing the reality of production and applying some of the forms and models on which this methodology depends, and the researchers concluded that the company can address and reduce the defect through a series of training and application steps.

5. **Study (Salaheldin & Etal, 2009),** Six Sigma practices in the banking sector in Qatar

The study aimed to test the application of six bills in the banking sector in Qatar, by identifying the expected benefits of their application. The study relied on a questionnaire form distributed

to a sample of 150 managers from different administrative levels, and found a compatibility between the different managerial levels and the awareness and perception of the six-sigma approach.

6. **Study (Khalaf, 2020),** a master's course entitled: The Extent of Application of Six Sigma Methodology in Iraqi Pharmaceutical Companies A case study: the General Company for the manufacture of medicines and medical supplies / Samara.

The study aimed to determine the applicability of the six-party neutralization approach in pharmaceutical companies by investigating workers' awareness of the hexagonal neutralization approach, identifying obstacles and working to remove and ensure the availability of application requirements, The data collection study was based on a questionnaire form distributed to the pharmaceutical industry in Samarra and relied on the analytical and descriptive curriculum and found a range of factors to support the application of this methodology.

7. **Study (Yanamandra, R., & Alzoubi, 2022),** entitled: Empirical Investigation of Mediating Role of Six Sigma Approach in Rationalizing the COQ in Service Organizations

The research aimed to verify the role of the Six Sigma methodology in reducing quality costs in UAE service sector companies. The research relied on field survey using a questionnaire form distributed to a sample of 120. The research found an important role for the Six Sigma methodology in reducing quality costs and rationalizing decisions.

Six Sigma Style Concept

The 6-Sigma technique was not born for the moment, as Motorola is one of the first companies to develop the 6-Sigma methodology in a year (1979), when Executive Director Arth Cindery announced during a board meeting that the real problem in the company was the non-development of quality, That announcement had the effect of the beginning of a new age in the company linking the highest quality in production to the lowest cost Quality ".

Although the belief among American companies in that period that achieving quality needed a lot of cost and time, But Motorola achieved the principle of quality with cost reduction, and has already proved that high quality products should be produced at a lower cost, and the label of this method came (6 Sigma) through Bill Simth who worked in the Motorola Communications Department, sought to achieve the ultimate quality of the product, focusing on the extent to which it was capable of reducing the imbalance. (defects) as an important catalyst for the application of this method, as well as the support of the company's senior management, as well as the technical role of the employees, have helped the application process.

Six Sigma has been seen as a strategic methodology that will achieve the ultimate goal of improving quality by reducing defects to a level near zero (Hasson, 2011, 12), known as a strategic initiative to raise profitability, increase market share and work to satisfy the customer through a set of statistical tools that can lead to gains in providing products or services in bulk and high quality Park, 2003:1) and defined as a structured approach to improving products and services by identifying and reducing customer defects to near zero (Al-Najjar, 2007:310)

Six Sigma is also defined as a method and process of improving the company's strategy through the use of a model (DMAIC) is the abbreviation of the five specialized steps in the 6 Sigma methodology and represents the identification of the problem Define, Measure, Analyze, Improve and Control. This method is used to regulate the philosophy of 6 Sigma and is not limited to the functioning of a particular sector.

(Hasson, 2011:12), known as an organizational management concept that is closely linked to the organization's main functions, provides managers with a range of tools that enable them to achieve customer satisfaction by focusing on productive processes and relying on facts to reduce deviation and bring defects to a near-zero level (Abdullah, 2013, 354), Sesma's concept is Greek and means deviation in statistical science.

It is an indicator of normative deviation, variability or dispersion of a group of elements, and it is accompanied by the number (6) precisely because it is the name of the method and style of quality and excellence, since at the level of six sigma we have a level of accuracy that may reach (99.9996%) i.e. at an almost expensive level of defects, it is a philosophy that considers that any processing processes, whether service or productive, consist of influential, important and important inputs and outputs and that such inputs have a direct impact on outputs. Therefore, the outputs cannot be adjusted until the inputs are adjusted (Izzat, 2017:8).

Importance of Six Sigma

Sigma Style 6 offers a range of advantages for companies that use it and can be shown in Palatine (Suleiman and Abdullah, 2022:351):

Reduce the time of the Organization's commodity production cycle.

2- Directing workers towards the performance of work is correct from the first time and adopts this as a general culture of the organization.

3. Achieve customer and employee satisfaction.

Maximize returns by rationalizing resource utilization.

5. Contribute to maximizing profits by updating products and continuously improving them.

6- Reduce the cost of quality failure through continuous improvement and measurement of products and services.

Goals of Six Sigma

Six Sigma's primary goal is to improve operational performance, as the organization attempts to achieve three achievements: (improve customer satisfaction, reduce cost, increase income and then increase profits) Note that achieving customer satisfaction comes first, positively affecting market share and income growth, as a result of income growth and cost decrease to increase profit, and achieving this goal combined with management's commitment to improve and adhere to methodology (DMAIC&DFSS) and other improvement projects developed across the organization. This approach is in line with the orientation of the strategies of modern organizations in terms of giving the customer priority in the goals. Achieving customer satisfaction successively achieves the rest of the organization's objectives in terms of increasing market share, winning new customers, achieving customer loyalty and sales growth.

Based on the foregoing, its objectives can be described as follows (Hasson, 2011:18):

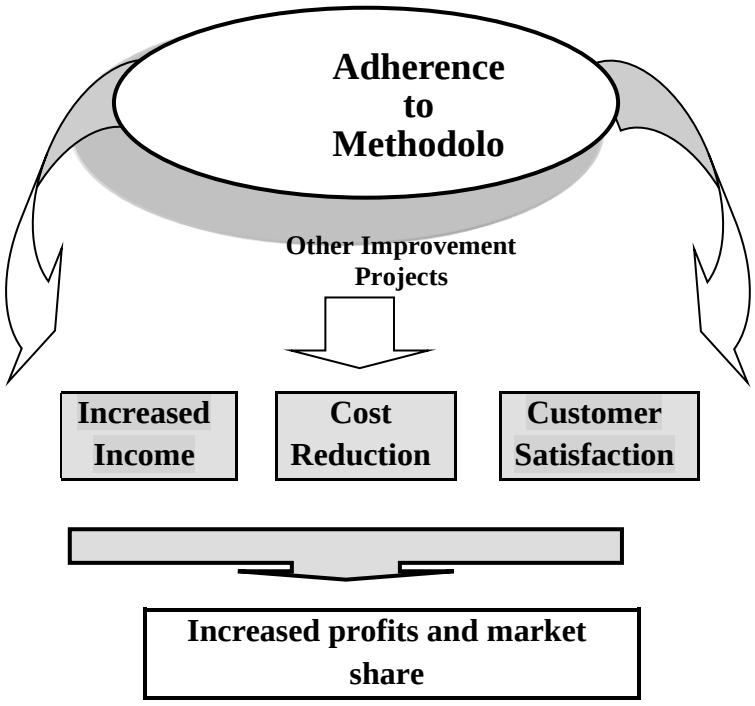

Figure 2: Main Objectives of Six Sigma

Six Sigma Style Application Stages

Six Sigma's application methodology is based on five stages using the DAMIC approach (Ahmed, 2010:101):

1- **Identification of the problem** (Define): In this step, the manager and team leaders describe the problem and its dimension and its impact on the satisfaction of customers, employees and profitability. During this phase, (necessary worker requirements, objectives of the organization, responsibilities and powers of each department, organization resources, operational maps) and important technology used during this stage (fish bone).

2- **Measurement**: During this stage, information is collected, and the size of the problem is assessed. Real figures and data are extracted, i.e., measurement of defects associated with the production process. All activities and tasks that contribute to the transformation of inputs into outputs. Measurement will be based on three parts (inputs, processes, outputs).

3- **Analysis**: At this stage, defects affecting the productive process are identified, sought to understand, and determine their roots in such a way as to leave room for bias and shape through the use of a set of methods such as Barreto maps, repetitive terraces, correlation and regression.

4- **Improvement**: At this stage, activities that help to improve performance and raise the organization's level among its peers are identified through scientific tools to find possible solutions to remove the problem. Improvement is done through a series of steps (process description and division into processes, extent to which measurement tools change, data

collection and analysis, identification of variability components, identification of critical variables, optimization of the process).

5- **Control**: The processes that have been improved are followed up and the six sigma method is maintained. During this phase, a range of tools such as operating rotate maps, pre-control maps are used. The main objective of this phase is to reduce variability by controlling inputs and outputs.

Six Sigma Structure

Shows (Khalaf,2020) how team leaders are central to the hexagonal neutralization technique Team leaders and the team are required to implement the hexagonal neutralization technique, The Six Sigma organizational structure describes as a hierarchy of staff and management roles relying on different levels of experience such as a hero black main belt, black belts, green belts, white or yellow belts and these belts are provided by consulting firms based on the level of efficiency in understanding and application related tools and the number of Six Sigma projects completed as an individual or as part of the team and the total training hours spent, The role of each official is determined at the team or department level as follows (Khalaf,2020: 10):

1- Champion: High-level executives who design and oversee Six Sigma and commit to its success, Six Sigma is used in day-to-day operations and there must be at least one per organization (Some major companies have one for each division organization), it is key to the integration of successful businesses by controlling strategic tools and their condition to make Six Sigma suitable for strategic plans.

2- Master Black Belt: The Six Sigma program is responsible for providing technical leadership, so it must be familiar with the mathematical tools and techniques on which statistical methods depend, guide black belts and provide strategic support in implementation. Methods correctly in unfamiliar situations as well as in common situations.

3.- Black Belt: Described as the front line leader who trained in the application of Six Sigma tools and is responsible for the training of green belts, a full-time role with the ability to communicate effectively at all levels.

4- Green Belt: Previously defined as staff trained in focusing on problem solving and identifying areas of improvement as well as training project team members in collecting and analysing metadata but with low emphasis on advanced statistical methods to be followed by main black or black belts Moreover, 10-15% of their time can be spent on their project.

5-White or Yellow Belt: is an entry level for Six Sigma which will be supported by Black and Green Belts in the implementation of complex projects.

Six Sigma Style Application Requirements

Different experiences of applying six sigma methodology have shown that it needs a set of different requirements and has been defined (Sara, et al., 2017:5) as follows:

1- **Support and Commitment of Senior Management**: in order to be successful, the organization must be managed as well. Management requires a sense and vision to define goals and decisions through coordinated actions consistent with characteristics, values and outlook. The commitment of senior management to apply this methodology and obtain a team capable

of meeting the company's requirements. Thus, the development starts from the highest pyramid to the lowest level.

2- **Continuous Improvement**: The hexagonal neutralization methodology relies heavily on continuous improvement up to a level free of defects. Continuous improvement is a process that encompasses all productive activities along the product or service cost cycle, and thus seeks to improve quality and increase productivity.

3- **Education and Training**: In order to apply the six-party neutralization methodology properly, the team must be taught how to use this methodology, methods and tools, through the organization periodically preparing training courses on the concept of this system how to apply it to avoid failure during application. Education and training are one of the basics of building the intellectual capital of the organization.

4- **Workers' participation**: empowering workers at lower management and executive levels in the decision-making process and making it by making their opinions and making suggestions about a particular problem that may confront them during work, or presenting a new idea.

5- **Customers**: The customer is the focus and driving force of the organization's work Therefore, the Organization seeking to apply the Six-Party Neutralization Methodology must develop a clear and comprehensive purity in order to reach its message of the importance of applying this approach to all of the Organization's employees, Customer satisfaction is the first goal of applying the hexagonal neutralization methodology and then hails from it the rest of the goals as the customer is the focus of the organization's success in the competition market.

Practical Aspect

This research highlights the description and diagnosis of research variables and the validation of their assumptions, as well as the procedures that have been undertaken in the rationing and application of research variables and statistical treatments in which the research and test results of its assumptions have been analyzed.

Research Curriculum

Current research has taken the analytical descriptive approach by identifying the applicability of Six Sigma in Samarra University's computational units, where the analytical descriptive approach tries to evaluate, interpret and compare in order to arrive at generalizations that increase knowledge about the subject.

Community and Sample Research

The study community consists of accountants, people's directors, departments and hosts in the computational units of Samarra University, where the distribution was made (35) The number of spheres not recovered (6). The response rate was 82.8%. After verifying the recovered questionnaires, none were excluded to meet the required requirements. (29) Identification of which represents the same response rate. The distribution of search sample personnel by personal information is as follows:

Distribution of Research Sample Personnel by Scientific Qualification

The results shown in table 1 show that more than half of the research sample has a scientific qualification (BCL) (52%) followed by a master's degree (28%), while the proportion of those holding a diploma (17%) and a preparatory degree (3%). This is evidence that the majority of researchers have scientific qualifications that enable them to understand the questions of aspiration and answer them.

Table 1: Distribution of Sample Personnel by scientific qualification

No	Educational Qualifications	Percentage
1	**Enumeration**	3%
5	**Diploma**	17%
15	**Bachelor's Degree**	28%
8	**Master's Degree**	52%

- **Distribution of Research Sample Personnel by Job Specialization**

The results shown in Table 2 show that 7% of the individuals in the search sample have their job position as Department Manager, while 31% and 21% are Division and Unit Officials, respectively, and 41% are employees.

Table 2: Distribution of sample by functional specialty

No	Job Position	Percentage
2	**Director of Department**	7%
9	**Division Officer**	31%
6	**Unit Officer**	21%
12	**Staff member**	41%

It is clear from the above that there is a variety of job positions in the search sample. This result is suitable due to the functionality of the computational units. This assures the researcher that the answers to the resolution can be relied upon because it is of high accuracy and credibility.

- **Distribution of Research Sample Personnel by Job Experience**

The results shown in table (3) show that the highest percentage of the research sample have 10-6 years' functional experience, followed by 5-1 years' career experience and 31%, while 15-11 year-olds accounted for 14%. Employees with more than 16 years of experience are 3% This reflects the ability to absorb and learn quickly for modern quality programs such as hexagonal diffraction.

Study Tool

In the context of the research problem, hypotheses and vocabulary of the research community, the researcher selected the appropriate tool to collect his data. The researcher developed the study tool by reviewing previous literature, periodicals and studies relevant to the research topic. The researcher designed a special questionnaire on "The applicability of Six Sigma in the accounting units of Samarra University/Analytical study of sample opinions from
This identification consists of two sections:

Section 1: Personal information of the respondent (scientific qualification, career specialization, career experience).

Section 2: expresses the requirements to be met for the application of the hexafluorosis approach (administrative requirements, human requirements, technical requirements, physical requirements) and as in Table (3), which shows the sections and preparation of phrases used to measure study variables.

Table 3: Research Variables

Research Variables	Phrases No
Section 1: Personal Information	3
Section II: Study Requirements:	-
First variable: administrative requirements	5
Variable II: Human requirements	5
Variable III: Technical requirements	5
Variable IV: Material Requirements	5

This section is answered using a five-category quinquennial scale **(strongly disagree, disagree, neutral, agree, strongly agree).**

The tool included 20 questions covering the research aspects of the four requirements:

First Variable: Administrative Requirements

Phrase 1 "Senior management has a constant interest in process development and success measurement."
Phrase 2 "Senior management has a high interest in quality policy."
Phrase 3 "Senior management has a willingness to adopt and use modern methods of quality."
Phrase 4 "senior management is prepared to remove obstacles to the adoption and application of hexa-fluorosis."
Phrase 5 "Senior management accepts and adopts proposals from feedback."

Second Variable: Financial Requirements

Phrase 6 "The computational units have the financial support to design, adopt and develop the hexa-fluorosis methodology."

Phrase 7 "Units of account have financial support to train staff at different levels of hexagonal diffraction."
Phrase 8 "Units of account have the financial support to procure HEF methodology programs."
Phrase 9 "The computing units have the financial support to recruit external trainers to train staff."
Phrase 10 "The accounting units have the financial support to grant financial incentives to the Hexagonal Neutralization Team when they reach the required targets."

Third Variable: Human Requirements

Phrase 11 "The computational units have the human resources trained and qualified to apply quality programs and methodologies."
Phrase 12 "The Department of Computing Units has a willingness to persuade and oblige staff to adopt the hexa-fluorosis methodology."
Phrase 13 "senior management has the capacity to engage experts to assist in the application of hexa-fluorosis."
Phrase 14 "senior management has a willingness to engage staff in training courses in the hexa-fluorosis curriculum."
Phrase 15 "senior management engages staff in continuous improvement and quality activities."

Variable IV: Technical Requirements

Phrase 16 "computational information system enables application of quality and continuous improvement programs and methodologies."
Phrase 17: "The calculation units document their entire operations and can measure errors in these operations."
Phrase 18: "Computing units work continuously by providing information to different departments for control and quality measurement."
Phrase 19 "computational units have an information system that allows for measurement, analysis and evaluation of performance."
Phrase 20 "computational units have modern tools, software and techniques to use for staff training."

Statistical Methods Used in this Study

This section examines whether or not the main requirements for the implementation of the Six Sigma methodology in the University's computational units are available through 20 phrases and measured by a five-point pentagon scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree)
The researcher discharged and analyzed the questionnaire by the Statistical Package for Social Sciences SPSS to identify responses to research variables by finding the quantitative average value and standard deviation of each phrase. The results and analysis of the research axes and hypotheses were as follows:

First variable: administrative requirements

The results of the statistical analysis show in Table No. (4) that the response of the individuals researched about the axis of administrative requirements located within the questions between (S1X.5), was in the direction of the agreement with an average account (3.8) and with a standard deviation (0.82), indicating that the degree to which senior management can support the application of the Six Sigma methodology is high (75%) of the responses of the researchers in the unit sample research, which indicates that the top management of the research organization seeks to apply modern management techniques to enhance quality if the requirements for their application are met.

Table 4: Administrative Requirements Test Results

No.	I don't Agree very Strongly	I don't Agree	Impartial	Agree	Agree Strongly	Arithmetic Mean	Standard Deviation
Q1	0	2	3	18	6	3.97	0.778
Q2	0	1	4	19	5	3.95	0.68
Q3	0	1	4	19	5	3.99	0.68
Q4	1	4	9	11	4	3.44	1.02
Q5	0	5	4	15	5	3.68	0.967
	Overall Average					3.8	0.82

Second Variable: Financial Requirements

Table 5 shows that the results of the statistical indication of the responses of sample individuals to the availability of financial requirements were towards the availability of financial resources, the rate of responses varied within the range (3.5 - 4.01), with the average calculation of the direction of answers within the quinquennial measure of resolution (3.84) or approximately (77%) of the answers and this is a relatively good rating. This explains the agreement of the individuals of the sample on the availability of financial possibilities at the research university if it wants to use modern management techniques to improve quality and develop performance.

Table 5: Second Variable Financial Requirement Test Results

No.	I don't Agree very Strongly	I don't Agree	Impartial	Agree	Agree Strongly	Arithmetic Mean	Standard Deviation
Q6	1	6	9	10	3	3.79	1.11
Q7	1	7	7	9	4	3.89	0.94
Q8	0	15	7	5	2	4.10	1.02
Q9	3	12	7	6	1	3.93	0.68
Q10	2	3	8	15	1	3.51	0.80
	Overall Average					3.84	0.91

Third Variable: Human Requirements

Note from Table 6 that the results of statistical analysis of the responses of sample individuals on the availability of human requirements that constitute the questions between (S15-S19), was high at a general average of 3.84, while the standard deviation was (0.94) Indicating that the degree of availability of human resources for the application of the hexagonal neutralization methodology is high, and these results are consistent with the study (Hamida, 2013) and (Rao & M. L, 2014), while disagreeing with the study of both (Qisas, 2014) and (Al-Ghamdi, 2015).

Table 6: Results of Statistical Analysis of Human Resources Requirements

No.	I don't Agree very Strongly	I don't Agree	Impartial	Agree	Agree Strongly	Arithmetic Mean	Standard Deviation
Q11	2	7	5	13	2	3.97	0.861
Q12	1	4	5	17	2	3.93	0.976
Q13	2	2	7	15	3	3.44	0.817
Q14	0	2	5	20	2	3.68	1.066
Q15	0	2	6	16	5	3.51	1.021
	Overall Average					3.84	0.948

Variable IV: Technical requirements

The results of the statistical analysis show in Table No. (7) that the response of the individuals researched about the axis of the technical requirements falling within the questions between (S16X20), was in the direction of the agreement with an average account (3.86) and with a standard deviation (0.93), indicating that the degree of availability of technical requirements for the application of the Six Sigma methodology is high as it exceeds the ratio (78%) of the responses of researchers in the unit sample research, which shows that the top management of the research organization possesses modern technical requirements that provide good infrastructure for the application of management techniques that enhance quality.

Table 7: Results of statistical analysis of technical requirements

No.	I don't Agree very	I don't Agree	Impartial	Agree	Agree Strongly	Arithmetic Mean	Standard Deviation
Q16	0	3	5	16	5	3.79	0.861
Q17	2	1	0	21	5	3.86	0.976
Q18	1	0	2	18	8	4.10	0.817
Q19	1	3	2	14	9	3.93	1.066
Q20	1	5	4	16	3	3.51	1.021
	Overall Average					3.85	0.928

Conclusions

1- The Six Sigma methodology is one of the modern means to improve quality, by achieving customer satisfaction, reducing costs, and reducing errors to reach a level of quality near perfection, reflecting on the (Maximize) profits well. This requires supporting and assigning senior management and fostering a spirit of collaboration among employees with a view to achieving goals in the shortest time and least cost, drawing on a range of statistical and mathematical tools for analysis with a view to improving work.

2- The possibility of applying the Six Sigma methodology in industrial and service enterprises.

3- The university's computational units found the research sample to operate at the level of (4%) Sigma. This level of error is high, which means that the Six Sigma methodology should be applied to reduce errors.

4- Availability of requirements for the application of the Six Sigma methodology in the accounting units of the University sample research, since the responses of individuals towards approval at a rate of approximately (78%) for all administrative, financial, human, and technical requirements.

Recommendations

1- Emphasize and disseminate a culture of learning with a view to increasing and renewing knowledge among the organization's cadres, to keep abreast of developments in the global environment, through participation in local, regional and global seminars and conferences on the advancement of the work and management of companies.

2- The need to raise awareness of the importance of modern administrative methods, in particular the Six Sigma methodology, which serves the work of both private and public organizations, because of the return on the overall performance of the organization.

3- The need to apply the Six Sigma methodology in the accounting units of the University sample research, with the aim of improving performance and reducing the level of defects to a level near zero and providing services of higher quality and less time.

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