

THE EFFECT OF INTEGRATION BETWEEN SMART AUDIT AND GRACEFUL ACCOUNTING ON REDUCING THE COST OF PRODUCTS

Mohammed Frayyeh Hassan

Dhi Qar University, College of Administration and

Economy, Accounting Department

Mohammedfr@utq.edu.iq

ABSTRACT	KEYWORDS
<p>This research aims to clarify the effect of integration between smart audit and graceful accounting to reduce the cost of products for industrial facilities and support their competitiveness. By defining the role of both smart auditing and the information resulting from it with the information resulting from graceful accounting and other information systems to provide a clear realistic view of the facility management about the costs of its products and the extent of its association with how its resources are consumed to support its competitiveness by controlling its products in a way that enhances improving its management.</p> <p>The researcher conducted a field study on a sample of Iraqi industrial establishments, using a survey form. Where the results of the field study indicated that achieving integration between smart audit and graceful accounting contributes to reducing the costs of products in industrial installations.</p>	<p>smart audit, graceful accounting, reducing, cost, products.</p>

Introduction

The increase in the need for the information provided by accounting systems was accompanied to meet the needs of internal and external beneficiaries, increasing interest in developing methods used in the audit and documentation process to calculate the cost and control over them, and the need for advanced audit systems that provide strict control over the accounting system used to provide more accurate and appropriate cost data to take various decisions , Which leads to the provisions of cost control, reduce losses, and then provide products at a lower cost to ensure competition, continuity and stay in the market.

With the development of the business environment and the emergence of modern methods of manufacturing and the escalation of criticism directed at the continuation of the facilities by applying traditional methods in the manufacturing process that were valid for application in another environment. Modern methods have emerged in accounting information systems that give information capable of creating internal integration between the functions of the various facilities as well as

external integration that allows the participation of information with customers and suppliers and the rest of the users in all their categories, accompanied by a reduction in duplication of data, improving productivity, reducing cost, and increasing customer satisfaction. This leads to improving the facility's ability to exploit its resources is the best possible exploitation as the integration between smart audit and graceful account. The effectiveness of the supply chain through stock management, work arrangement and completion of the purchase in order to reduce production costs.

Therefore, this study came to clarify the effect of integration between smart audit and graceful accounting to provide accurate and appropriate data to support the performance of industrial facilities to achieve reducing the costs of their products.

2-Research Framework

2-1- Research Problem:

In light of the limited resources, the expansion and openness of the markets and the rapid transformations in the methods and priorities of the establishments and the transformation from the method of payment to the way to withdraw in production. The facilities adopted the concept of orientation in the market, that is, the production of what can be marketed instead of marketing what can be produced, but it is quickly shift from the marketing concept to the concept of the product value, which is the concept in which the facility sees that the value of the product is the source of survival and profitability, and this value depends on the vision. Customers and their evaluation of the product specifications, as these specifications are indicative of the facility's ability to manage the design and manufacturing. In order for the facility to reach this ability, it must adopt and apply tools and methods that work to improve and develop operations and activities and determine their cost precisely. In addition to providing financial and non -financial information and data that are appropriate for planning, supervision and decision -making, among these tools are smart audit and graceful accounting, which is one of the most important developments that contribute to helping the administration in the effective use of resources and by providing an integrated set of reports and data that provide information on how Efficient exploitation of available resources and employing unemployment, which contributes to increasing productivity and reducing cost.

In light of this, the search problem can be formulated through the following questions:

A- Will the implementation of the facility to smart audit tools help in activating graceful accounting to provide realistic and clear information to manage the facility about the costs of its products and the extent of its association with how to consume its resources.

B- Will the establishment of the facility for graceful accounting tools will increase the effectiveness of smart audit to provide realistic and clear information to manage the facility about the costs of its products and the extent of its association with how to consume its resources.

C- Is the integration between smart audit tools and graceful accounting leads to providing realistic and clear information to managing the facility about the costs of its products and the extent of its association with how to consume its resources.

2-2- Research Objectives:

The objectives of the research can be specified as follows:

A - The facility's application of smart audit tools will help activate lean accounting to provide realistic and clear information to the facility's management about the costs of its products and how they relate to how its resources are consumed.

B - The facility's adoption of lean accounting tools will increase the effectiveness of smart auditing to provide realistic and clear information to the facility's management about the costs of its products and how they relate to how its resources are consumed.

C - The integration between smart auditing tools and agile accounting leads to providing realistic and clear information to the management of the facility about the costs of its products and how it relates to how its resources are consumed.

2-3- Research Hypotheses:

In light of the research problem and in order to achieve its objectives, the research hypotheses were formulated as follows:

A- The first hypothesis: The facility's application of smart audit tools activates lean accounting to provide realistic and clear information to the facility's management about the costs of its products and how they relate to how its resources are consumed.

B- The second hypothesis: The facility's adoption of agile accounting tools contributes to the effectiveness of smart auditing to provide realistic and clear information to the facility's management about the costs of its products and how they relate to how its resources are consumed.

C- The third hypothesis: The process of integrating between smart auditing tools and agile accounting leads to providing realistic and clear information to the management of the facility about the costs of its products and how it relates to how its resources are consumed.

2-4- The Importance of Research:

The importance of research is due to the following:

A- Although there are many studies that dealt with smart audit and graceful accounting. However, this research acquires the importance of the absence of studies that have studied the impact of integration between smart audit and graceful accounting on reducing the cost of products, and highlighting the vital and important role that information plays from achieving integration in conducting the work of facilities and making decisions efficiently, effectively and economically.

B- It is expected that the results of this research will provide evidence of the benefits that can be achieved, perhaps it contributes to achieving the aspirations of business facilities in the areas of reducing the costs of products, maximizing the return and exploiting time and effort, which gives a competitive advantage to it and increases its continuity.

2- 5- Research Methodology:

The research methodology is:

A- The deductive product when eating the conceptual framework for the role of smart audit and graceful accounting in providing appropriate information for the facility management, to take rational decisions to reduce the costs of products and to derive the search assumptions.

B- The inductive product in choosing the assumptions by investigating the expected interest in achieving integration between smart audit and graceful accounting to reduce the costs of products in industrial facilities.

2-6- Research Plan:

In the context of an attempt to search to answer the research questions set, and to achieve the research goal, the researcher organized the research plan as follows:

First/previous studies

Second/smart audit

Third/graceful accounting

Fourth/integration between smart audit and graceful accounting as an entrance to reduce cost.

Fifth/Field study, then the results and recommendations of the search are followed.

3- Previous Studies:

A-Study Arsanyos (2012)

The study aimed to take smart applications such as artificial nervous networks in developing the work of the external auditor on the misleading financial statements and the extent to which these networks contribute to the accuracy of the auditor's work and the detection of misleading financial statements. The study found the need to adopt professional organizations that are concerned with the audit process of artificial intelligence methods in checking due to the benefits offered by these methods.

B-Study brave (2015)

The study aimed to explain the role of graceful accounting tools in reducing costs and concluded that the use of graceful accounting tools (value chain, targeted cost, reserve reduction) has an impact in the cost reduction directly and indirectly, and the study recommended the need to adhere to the application of graceful accounting tools.

C-Study Dawoodi (2016)

The study aimed to analyze the steps of applying graceful accounting within the cost method on the basis of activities, because of this method of allocating costs fairly to activities, which is in line with the modern manufacturing environment. The most prominent finding of the existence of a positive impact on the application of graceful accounting tools, as it leads to getting rid of activities that do not add value to the product, which leads to a reduction in the costs of activities.

D-Study Al-Lami (2020)

The study aimed to clarify smart applications on fraudulent practices in supporting auditors and improving their tools in revealing various fraudulent practices that are difficult to discover by using traditional methods in the audit process due to the development of fraud methods practiced by departments and benefit from gaps and flexibility in applying accounting principles and rules. The study found the possibility of using artificial intelligence applications in the audit process to detect fraudulent practices and recommended to use them by the auditor to increase confidence in his professional opinion.

4- Smart Auditing:

For the purpose of reaching an inclusive definition of this term, it is necessary to define the word audit (censorship) and then the smart word (intelligence). Where the audit is defined that it is a neutral independent work that is implemented by professionally and practically qualified persons to ensure the sincerity and integrity of the financial statements prepared by the facility in accordance with the applicable rules and principles in force and give a neutral artistic opinion.

As for smart or (intelligence) of modern smart applications, or the so -called artificial intelligence applications in the audit process, such as artificial nerve networks, expert systems and genetic algorithms.

So smart audit can be defined that it is the practice of audit using artificial intelligence to discover violations or practices that installations may undertake in financial statements (Allami, (2020

4-1- The most important artificial intelligence applications in the field of audit:

The expansion of the use of many technological applications in the world of trade and business and began to spread these applications to include the script of the script such as (the risk of audit, internal control evaluation, planning for the review process (Duke: pp. 93-91: 2013) planning the audit process (Kokivaara. PP.1062: 2000) Determining the ability to continue (Dweik, pp. 98-94, 2013), estimating the risk of fraud and manipulation in the financial statements (Lin & Becker, pp.660-659: 2003) writing the report (Dweik, pp. 99: .(2013

The audit is a means that serves a multiple set of bodies that depend on accounting data in making its decisions or drawing its future policy.

4-2-The most important beneficiaries that depend in their decisions on the results of the audit process:

4-2-1- Project Management: Project management depends on the financial statements that are examined through the audit process, in drawing its vocal and pricing policy and taking a number of decisions related to planning (bishop, pp. 19: (2000

4-2-2- Investors: The main pillar in making strategic decisions by investors is the financial statements that are examined, scrutinized and express an opinion, and those decisions (selling or buying shares, assessing the efficiency of management performance, evaluating the establishment of the facility). (Abu Nassar, pp. 6: (2008

4-2-3- Suppliers and creditors: They are concerned with information related to the facility's credit center and the extent of its ability to fulfill its obligations (winner, pp. 68: .(2020

4-2-4- The government and its relevant departments: This category needs accounting information to verify the extent of the establishment's commitment to laws and legislation and calculate the taxes resulting from it.

4-2-5- Employees and trade unions: This category uses audited information related to the extent of job safety, to enhance negotiations related to the general policy of wages, improve employee conditions and obtain advantages. (Winner, pp. 69: .(2020

5- Graceful Accounting:

It is a new approach to accounting and resulting from enhancing companies 'interest in adopting the philosophy of graceful thinking that is based on a waste -free system and seeks to delete, prevent or reduce losses in operations and activities, and in turn it consists of several systems aimed at making

the maximum benefit from the available resources and capabilities. Initially, the production system was associated, but over time all activities and operations included, including the accounting system. So graceful accounting aims to obtain the correct accounting work and is characterized by quality and careful report and work to continuously improve accounting work. This is to support the graceful facility that seeks to move from traditional accounting methods to a system that stimulates business practices that add value to the facility. (Ammar, pp. 61: .(2015

5-1- Graceful Accounting Principles:

Select (Touch Point Change, Ltd: 2008) Five principles of graceful accounting:

- Value: It is the value generated from the customer's point of view
- The value of the value: it is all steps that accompany the process at all its stages.
- Flow: is the flow of practical value.
- Displacement: It means producing what can be sold, not selling what can be produced.
- Perfect: Seek to achieve maximum satisfaction for the customer continuously attempts to produce what he wants.

5-2- The concepts of agility in accounting processes are evident:

Fitness means excluding and eliminating or reducing waste in activities and operations, and this must be applied to traditional accounting systems by getting rid of all forms of waste and extravagance accompanying the operations and unnecessary procedures in accounting systems, and therefore the graceful accounting system can be applied to financial and service activities, in the form that enables During it providing information, reports and standards quickly and easily, as it does not require complex and wasted operations for time and effort and it serves the modern manufacturing environment in terms of excluding activities and operations that do not add value.

As graceful accounting does not require traditional administrative accounting methods such as (standard cost, cost on activity, deviation report, cost pricing, complex procedural control systems, complex or inappropriate financial reports) and all of this will be replaced by the following:

- Standards of graceful performance:
- Summar and simplify the direct costs of the value current
- Use the points box to make decisions and to prepare reports.
- Providing financial reports in an easy language at an appropriate time.
- Remove procedural control systems.
- Pricing on the basis of the realized value of the customer (Ammar, pp. 67-67: .(2015

6-Integration between smart audit and graceful accounting as an input to reduce cost:

The smart auditing process based on the use of artificial intelligence and the use of the benefits it provides in discovering the practices and violations that occur in the financial statements, leads to increased reliability of the data and information provided by this installations on the one hand, and on the other hand, it drew the administration's attention to the defect points that accompanies the operations in a way that can Management is to classify activities that consume resources that do not add value and direct their attention to activities that add value. In addition to shortening the time and effort made because the process is the list of smart applications that contain many advantages, the most important of which are: (Alamy, P5: (2020

- It depends on mathematical foundations.
- Tradition of the human mind.
- The ability to accept a large number of data.
- Storing knowledge through operations.
- High speed in dealing with data.
- Flexibility to operate.
- Continuity at work. (Al-Otaibi. P13: (2003

The researcher believes that he mainly eliminates the loss in time and effort and helps to build a system to monitor the costs of facilities and subject them to adherence to the rules, standards, policies and procedures and not to exceed them, as well as the information it provides on unemployed energy and thus not to download the product unit at this cost, which leads to a reduction in the cost of the product. As for the graceful accounting that reduces the need for reports and measures of analysis of small values. This means that graceful accounting aims to reduce waste and loss in resources and activities that do not add value to the production process.

In addition to the many positives provided by graceful accounting such as providing larger space for work, increasing productivity and raising and improving the quality of the product, reducing the time for applying for applications, reducing the damaged in the production process, efficient use of available resources, reducing cost.

It is clear that the main goal of graceful accounting is to get rid of losses or waste, which represents the best method for reducing costs (Awad Allah and friend, pp. 111: 2015). It is evident that the integration of smart audit and graceful accounting and through the accurate and reliable information they provide that helps the administration to distinguish between activities that do not add value and disposal, and the activities that add value and attention to them and conduct the process of continuous improvement on them, has a positive impact on reducing the cost of products.

The following form shows the integration framework between smart audit and graceful accounting and its impact on reducing the cost of products

The researcher relied on the survey list as a way to collect the data needed to achieve research goals. Where the investigation form is designed on the basis of the five -year Likert scale in order to determine the answers of the research sample personnel, and the following weights are given to the paragraphs:

Strongly Disagree	not agree	neutral	Agree	Strongly Agree
1	2	3	4	5

7-1- Research Sample:

The research sample was chosen, which will be directed to the investigation form from a group of academics in universities, specialization of accounting, financial managers and accountants in a group of industrial facilities, cost accountants and engineers in those facilities.

Where (90) investigations were distributed (%20academics and another %80), (81) survey lists were received. The number of correct survey lists reached (76) lists, and (5) lists were excluded for their lack of suitability.

7-2- Test the reliability and validity of the survey list:

Statistical package for social sciences was used to perform the statistical analysis package (SPSS) to apply the Cronbachs Alpha test on the survey list to show the homogeneity of the variable items used in the measurement. Where it was found that the reliability coefficient is (0.878) and the content validity is (0.915), which indicates that the internal consistency of the phrases used in the research is strong and highly acceptable.

7-3- Testing the first hypothesis, which states that “the facility’s application of smart audit tools leads to activating lean accounting to provide realistic and clear information to the management of the facility about the costs of its products and how they relate to how its resources are consumed.” Table No. (1) shows the results.

Table No. (1)

No.	ferries	Strongly Agree	Agree	neutral	not agree	Strongly Disagree	average	percentage	Ranking
1	The application of smart audit tools leads to the integration of the jobs performed in the account department	40	16	20			4,26	85,2	3
2	Smart control and audit provides optimal use of the facility's resources, which reduces the cost of production	2	8	25	28	13	2,45	49	10
3	The application of smart audit tools helps to track the resources used from the design stage to the delivery stage	31	20	15	9	1	3,93	78,68	6
4	Smart audit helps to determine productive energies and thus determining unemployed energy and sorting their cost	35	20	10	11		4,04	80,79	5
5	The application of technology in the audit helps to determine the cost accurately	35	24	12	5		4,17	83,4	4

6	The use of smart audit tools leads to the detection of fraud that occurs in the financial statements	55	15	6			4,64	92,8	1
7	The implementation of the facility for smart audit tools reflects a positive image of the facility towards society	28	21	12	12	3	3,78	75,53	7
8	Smart audit enhances confidence in the data and information issued by the facility	50	20	6	0	0	4,58	91,6	2
9	Truth, accuracy, and fairness of data and information contributes to setting standards for financial and non -financial performance	18	15	25	10	8	3,33	66,6	8
10	Non -financial performance measures such as customer satisfaction and delivery on time value information	5	20	8	18	25	2,5	50	9
Total							3,75	%75	

It appears from Table No. (1) that the first three ranks (first, second, third) were obtained by phrases with sequences (6), (8) (1), respectively, with relative importance of (92,8), (91,6), (85,2), respectively, and an average of (4,64), (4,58), (4,26), respectively, while the last three ranks (eighth, ninth, tenth) were the share of phrases with serials (9), (10), (2), respectively, with the importance of a percentage of (66.6), (50), (49), respectively, and an average of (3,33), (2,5), (2,45), respectively, and it becomes clear from Previous analysis that the application of smart audit tools leads to the activation of graceful accounting to provide clear information to the administration and with a relative importance of (75%) and an average of (3.75), and this means proving the first assumption that the application of the facility for smart audit tools leads to the activation of graceful accounting to provide realistic and clear information To manage the facility about the costs of its products and its association with how its resources consume.

7-4- The second hypothesis test, which stipulates "the facility's followers of graceful accounting tools contribute to the effectiveness of smart auditing to provide realistic and clear information to management of the facility about the costs of its products and the extent of its association with how to consume its resources" and Table No. (2) shows the results.

Table No. (2)

No.	ferries	Strongly Agree	Agree	neutral	Not agree	Strongly Disagree	average	percentage	Ranking
1	Treating sagging problems in accounting work and reducing routine at work to improve communication between departments	53	10	8	5	0	4,46	89,21	3
2	Ease of understanding and convenient reports provided by graceful accounting	48	17	8	3	0	4,49	89,8	1
3	Providing information on how to manage production energies	53	10	13	0	0	4,32	86,32	4
4	Enable the process of making rational decisions by reducing	25	33	7	6	5	3,88	77,6	8

	the need for analysis measures for almost indelible values								
5	Reducing waste and loss in resources and activities that do not destroy value	39	22	11	2	2	4,24	84,8	6
6	Achieving customer satisfaction by improving the quality of the product and reducing the time to prepare applications	30	30	12	3	1	4,12	82,4	7
7	Improving work structure, encouraging and motivating employees and reducing costs	26	32	5	8	5	3,87	77,4	9
8	Provide control procedures for the value of the value and reduce the error	40	25	5	3	3	4,26	85,2	5
9	The arrival of the necessary information in time to reduce the cost, effort and time	50	15	9	1	1	4,47	89,4	2
10	Access to the ability to determine the value of the product from the point of view of the work	20	15	23	10	8	3,08	61,6	10
Total							4,12	%82	

It appears from Table No. (2) that the first three ranks (first, second, third) were obtained by phrases with sequences (2), (9), (1), respectively, and with a relative importance of (89,8), (89,4), (89,21), respectively, with an average of (4,67), (4,49), (4,46), respectively, while the last three ranks (eighth, ninth, tenth) were the share of the ranks (4), (7), (10), respectively, with a relative importance of (3,88), (3,87), (3,08), respectively, and an average of (77,6), (77,4), (61,6) Concerns.

Also, the previous analysis indicates the feasibility of following the facility for graceful accounting tools, as it contributes to activating the smart audit to provide realistic and clear information to the facility management about the costs of its products and the extent of its association with how to exploit its resources and with a relative importance of (82%) and an average of (4,12) and this means accepting the imposition Second.

7-5- The third hypothesis test, which stipulates "the integration process between smart audit and graceful accounting tools provides realistic and clear information to the facility management about the costs of its products and the extent of its association with how to consume its resources" and Table No. (3) shows the results.

Table No. (3)

No.	ferries	Strongly Agree	Agree	neutral	Not agree	Strongly Disagree	average	percentage	Ranking
1	Provides basic information on the facility's resources and the costs of these resources helps in making decisions	45	21	10	0	0	4,46	89,21	2
2	Provides important information about the expected costs of implementing activities and operations at the product design stage, which helps the administration to make the appropriate decision	39	15	13	6	3	4,07	81,4	7
3	Classification of activities to a value and non -host host, which helps in the accuracy of the cost allocating	50	17	9	0	0	4,54	90,8	1

4	Efficiency in consuming resources, reducing the delivery time for customers and quality control, which leads to enhancing competitiveness	30	26	11	5	4	3,96	79,2	8
5	Providing non -financial information such as customer satisfaction, job satisfaction, and a positive view of society towards the facility	37	29	9	1	0	4,34	86,8	4
6	Providing information information on unemployed energies and thus excluding their costs from the cost of the product	51	17	8	0	0	3,67	73,4	9
7	Providing operational measures to rationalize production decisions in a competitive environment	41	20	9	2	4	4,21	84,2	5
8	Focus on accurate cash flows that support the decision -making process	29	18	9	13	7	3,64	72,8	10
9	Providing information about the suppliers chain and the excellence of those who are not committed	38	19	7	11	1	4,08	81,6	6
10	Helps continuously improve and try to reduce losses in a way that reduces costs	42	21	12	1	0	4,36	87,2	3

It appears from Table No. (3) that the first three ranks (first, second, third) were obtained by phrases with sequences (3), (1), (10), respectively, and with relative importance of (90,8), (89,21), (87,2), respectively, with an average of (4,54), (4,46), (4,36), respectively. While the last three ranks (eighth, ninth, tenth) were the share of phrases with serials (4), (6), (8), respectively, with a relative importance of (79,2), (73,4), (72,8) Respectively, with an average of (3,96), (3,67), (3,64), respectively. It is also clear that the average group of this group reached (4,13) with a percentage of (83%) while the average of the first and second groups (3,75), (4.12), respectively, and its percentage was (75%), (82%) Straight.

This indicates that the effect of the application of smart audit tools on the activation of graceful accounting on the one hand and the effect of following the tools with accountability on the effectiveness of smart auditing on the other hand, has resulted in the results and less effects compared to the results and effects of integration between them together in order to provide accurate and appropriate information to make rational decisions.

This indicates the acceptance of all three research hypotheses due to the average rise in the three cases, in addition to the increase in the percentage to (75%), (82%) and (83%), respectively.

Conclusions

A- Smart audit is based on the use of advanced technology in the audit process, such as the use of artificial nerve networks that mimic the human mind and be able to absorb and process a huge amount of data, continuity, and extract accurate results and with a brief time aimed at providing information on a high degree of reliability for management and beneficiaries to make decisions Rachida in all fields, including allocating costs fairly, in a way that reduces the cost of the final product.

B- The importance of smart audit is not limited to being a new strategy and must be applied in facilities, but rather a useful tool that reflects the continuous development of the aim of maintaining the accuracy

and sincerity of the data and information based on the decisions, as well as working to create a continuous technological development.

C- The application of graceful accounting in integration with smart audit leads to the determination of unemployed energy, which leads to the accuracy of allocating costs to activities and productive processes through the accurate tracking of its paths, which reduces the cost of the productive unit.

D- The integration between graceful accounting and smart auditing provides important information about the host activities of value and the non-host activities of value and disposal, which leads to the accuracy of making decisions and reducing costs.

E- The results of the field study showed the need to work to create integration between smart audit and graceful accounting tools due to the positives achieved by this integration, the most important of which is a high level of accuracy in the measuring products of products, and achieving high rates of flexibility and speed in dealing with conditions, accuracy and speed in Preparing financial reports, and tightening control procedures for all joints of the facility.

Recommendations

In light of the conclusions reached, while the most important recommendations are:

A- The researcher recommends the necessity of using smart audit tools and applying graceful accounting tools and complementarity between them due to the logical characteristics of this integration represented by the accurate tracking of the cost elements and their paths, which reflects positively on the accuracy of their allocation to activities and operations, as well as the information provided by this integration that helps in Control of excessive unemployed energies and work to guide and employ available resources and distinguish between activities that add value and activities that do not add value.

B- The necessity of drawing, formulating and implementing clear strategies aimed at exploiting unemployed energies and spending resources efficiently, effectively and economically, as long as one of the outputs of integration between smart audit and graceful accounting is to provide information related to energies and resources.

C- Working to apply graceful accounting tools in a broader way in facilities and integration with smart audit because of this integration playing an important role in providing the information necessary to achieve the requirements of controlling the facility's resources, which helps in the optimal use of these resources and reduce the losses from them.

D- Developing awareness among the facility managers of the importance of the practices of graceful accounting tools and smart auditing in cost management and their role in providing appropriate information to take decisions and contribute to the planning and oversight process in order to reduce production costs.

Sources:

A-Arabic:

1. Al-Lami, Fayez Abdul Hussein, "A proposed form for the role of external references in the disclosure and report on profit management practices using artificial neurological networks and his reflection on the decisions of the beneficiaries- Applied Study" PhD thesis, presented to the Faculty of Commerce, Benha University, 2020.
2. Al-Dawawudi, Ui Mahdi Hamid, "Integration between graceful accounting mechanisms and cost

applications on the basis of activities- a case study in the General Company for Southern Cement-Najaf Cement Factory”, Master Thesis in Financial and Accounting Technologies, Introduction to the College of Administrative Technology, Middle Euphrates University Technology, 2016.

3. Al-Duwaik, Musab Muhammad Zuhair and Al-Salem, Muhammad Akram, “The effect of the use of expert systems on developing performance in external audit”, College of Business, Department of Accounting, Oman Arab University, 2013.
4. Abu Nassar, Muhammad Hussein, and Hamidat, Juma Falah, “International Financial Accounting and Reporting Standards (theoretical and practical aspects), Wael Publishing House, Amman, 2008.
5. Burch, Ghassan Falah, "Contemporary Auditing- theoretical aspect", Dar Al-Masirah for Publishing and Distribution, Jordan, 2000.
6. Ammar, d. Safaa Mohamed Ahmed, "The Role of Gregorian Accounting in the continuous improvement of the total performance of the facility", Magazine of Financial and Commercial Research, Faculty of Commerce, University of Port Said, 2015.
7. Awadallah, Linda Alish and the friend, Babiker Ibrahim, "The effect of integration between accounting for resource consumption and the graceful accounting system in reducing costs- a field study on some food industries companies in Sudan", Journal of Economic and Administrative Sciences, Volume 19, No. 1, 2018.
8. Shuja, Mukhallad Fouad, “The Role of Gregorian Accounting in Cost Reducing- Applied Study on Fine Health Paper Company”, Master Thesis in Accounting, Introduction to the College of Business, Middle East University, 2015.

B-Foreign sources:

1. A study (Arsonyos , 2012) entitled (a pilot study of the use of neural networks to develop the role of the auditor in the misleading financial data report).
2. Al-Otaibi , Fawzi , Badr , "the use of tim – series neural networks in predicting indices" master thesis in Applied statistics , Suez canal university , porras phand , Egypt , 2003.
3. Allami , Faez Abduhasan Jasim , "The role of smart Auditing in Detecting frandulent oractices in the financial statements : A suggested Model" International Journal of Innovation , Creativity and change , Vol.13 , Issne 5 , 2020.
4. Kokivaara , E. , "Artificial Neural network models for predicating patterns in Auditing monthly Balances" , Journal for the operation Research society , Vol.51 , No.9 , 2000.
5. Lin, J.W. & Hwang , M.I & Becker , J.D. , "A fuzzy neural network for assessing the Risks of fraudulent financial Reporting" , Managerial Auditing Journal , Vol.18 , No.8 , 2003.
6. Touchpntit change Ltd , "An introduction to lean thinking" , visit www.touchpntitchahnge.co.uk.2005.