

The impact of using electronic audit programs on auditing during the Corona crisis

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Abstract

Today the world is witnessing a remarkable development in the role that technology plays in all areas of economic and social life. Information systems are also considered one of the basic factors in progress, development, that help private and public companies to perform their activities effectively, fast, and accurately. They are also considered one of the competitive advantages of companies in achieving their goals, so the audit process witnessed an increasing response to keep pace with developments in information technology because the volume of information that must be processed and stored is big.

The Coronavirus crisis has affected companies significantly, some companies have expanded in their electronic operations and e-commerce enabled them to increase their sales via the Internet by benefiting from the advantage of electronic transactions, which required provision software for control and audit for financial for ensuring the preservation, protection of company's assets, these software help auditors to do audits, and auditing companies can audit without visiting company's site.

Last 2 years all countries around the world witnessed one of the worst crises affected economies, which is the Coronavirus crisis. This crisis needs rapid development of information technology by using computers through developed administrative and accounting systems for companies, which led to a fundamental change in the methodology of work through and change in methods of control necessitated a shift to electronic audit programs compared with the traditional, as information technology supports supervisory role by relying on innovative means such as electronic auditing, which enables audit companies to provide best control services and achieve company goals, that will be reflected in the reliability of financial statements.

Keywords: *auditing, electronic audit, accounting information system, corporate governance.*

Introduction

The world today is witnessing a remarkable development in the role that technology plays in all areas of economic and social life. Information systems are also considered one of the basic factors in progress, development, that help private and public companies to perform their activities effectively, fast, and accurately. They are also considered one of the competitive advantages of companies in achieving their goals. So audit process witnessed an increasing response to keep pace with developments in information technology because the volume of information that must be processed and stored is bigger.

The concept of the audit was narrowly aimed at protecting cash as it is the most traded asset for the company. Therefore, companies set procedures and controls were put in place to monitor cash, it was called "internal control" to protect the company's funds and assets from theft or loss but the role of audit change to improve accuracy and reliability of accounting data, development of productive efficiency, ensuring implementation of administrative policies, and organizational plans developed by management.

Last year all countries around the world witnessed one of the worst crises affected on economies, which is the Coronavirus crisis. This crisis needs rapid development of information technology using electronic computers through developed administrative and accounting systems in companies, which led to a fundamental change in the methodology of work through and change in methods of audit necessitated a shift to electronic audit programs compared with the traditional operation, as information technology supports supervisory role by relying on innovative means such as electronic auditing, which enables audit companies to provide best control services. So audit systems needed to adapt to technological

information systems to achieve company goals, which will be reflected in the reliability of financial statements.

The Coronavirus crisis has affected companies significantly, some companies have expanded in their electronic operations and e-commerce enabled them to increase their sales via the Internet by benefiting from the advantage of electronic transactions, which required provision of software for control and audit for financial and logistical operations to ensure the preservation, protection of company's assets, these software help audit companies and auditors of remote audits without visiting company's site.

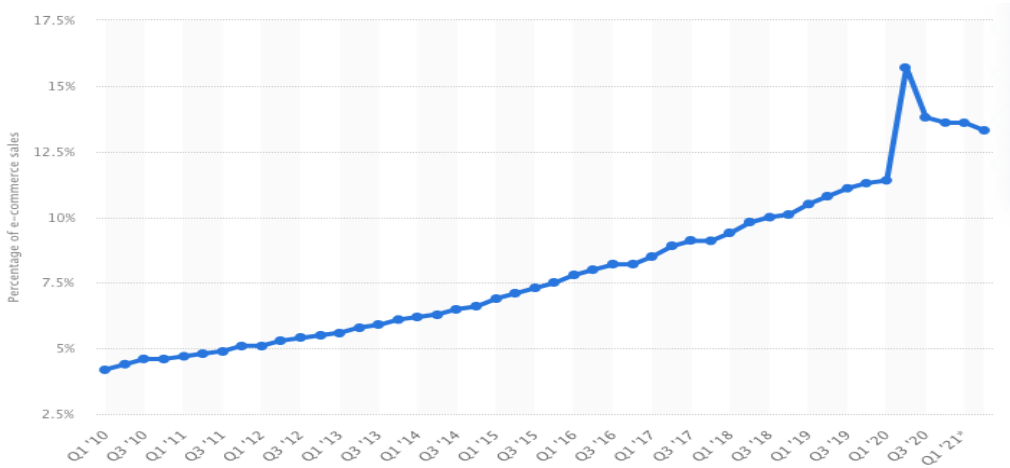


Fig. 1. Shows the percentage of increase in electronic commerce during the period Quarter 1/2010- Quarter 1/2021.

Source: <https://www.smartinsights.com/digital-marketing-strategy/online-retail-sales-growth/>

Figure 1.a. Share of e-commerce in total retail sales, United Kingdom and United States (2018-2020)

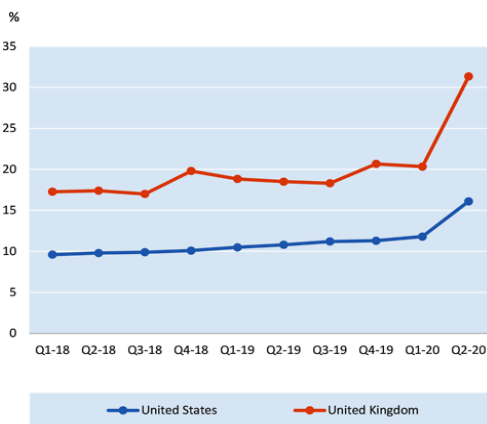


Figure 1.b. Retail turnover, year-on-year change, EU-27 (July 2019-20)

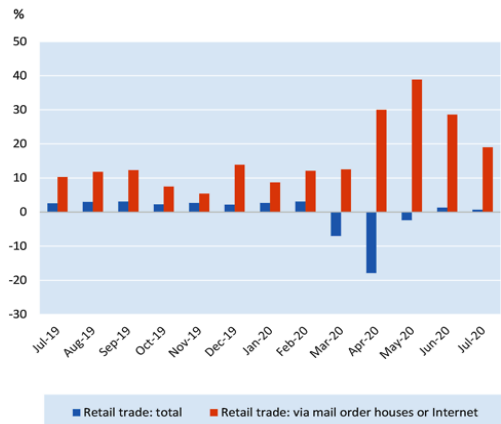


Fig. 2. A comparison between electronic and traditional commerce in the USA and Britain for the period Quarter 1/2018-Quarter 2/2020.

Source: OECD's elaboration based on data from the US Census Bureau, the Office for National Statistics in the United Kingdom, and Euro state.

The use of information technology has become one of the urgent needs and one of the basics for the success of the Audit in performing its tasks with the required speed, accuracy. Where auditor processes data electronically, this requires the auditor to be good in the use of available electronic programs and processing systems, which provides a great profit in time and effort, this digital transformation has an impact on the audit sector to ensure effective auditing, the success of their companies. However, audit companies in many countries face difficulties in implementation; most important is the high cost of audit tasks, limited human, financial resources, and their inefficiency in some cases, which negatively affected quality, the efficiency of the audit function, to reach the desired goal.

The emergence of electronic auditing has led to the need for auditors to keep pace with continuous technological changes, and move from manual operation to electronic operation so that the audit profession achieves its objectives and expresses its opinion on financial statements fairly to achieve goals for all parties.

Professional organizations have more attention to the professional performance of audit function, due to the importance of services performed by this function, it became necessary to develop the performance of auditors for verification, improve the quality of auditing after financial scandals that occurred as a result of fraud in financial reports, the Financial reports must be issued up under laws, controls, regulations, and ethical principles to ensure its integrity and transparency, preserve rights of concerned parties and achieve accountability and control, these controls are called corporate governance, as the audit is one of the basic pillars of corporate governance, the auditors must raise the quality of audit activities to achieve good corporate governance.

Study Problem:

We ask through this study the following question: How do electronic audits contribute to improving the quality of auditing? How does the quality of audit contribute to maximizing the value of parties benefiting from corporate governance?

To achieve the objectives of the study, we discuss the following:

Defining electronic auditing, the quality of auditing the extent of the importance of using electronic auditing in improving the quality of internal auditing.

How does the quality of practicing the audit profession maximize the value of the parties benefiting from corporate governance?

Study Approach:

To answer the last questions, a descriptive approach was used to identify the concepts of audit quality, electronic auditing, corporate governance, the importance of using electronic auditing in improving the quality of auditing, highlighting the role of improving audit quality in maximizing value for all parties benefiting from companies final reports.

Where an audit is affected by electronic audit because of challenges and difficulties it faces, including the absence of documentary, the difficulty of tracking

processes, and absence of qualified staff, which necessitated adaptation, development of audit to keep pace with this development using electronic auditing, with attention to monitoring security, the safety of information, inputs and output of data, as the impact of electronic auditing.

The audit system will affect the outputs of the audit process and reliability of financial statements, thus it will affect the economic, accounting, financial decisions, and confidence of users of these financial statements used by external parties.

Research importance

We find the importance of using electronic audits in audit processes will improve the quality of its outputs, but how electronic audits work to solve problems and challenges that occur and affect the quality of audit, its inputs, and outputs, with knowledge of obstacles that companies face when using or applying electronic auditing.

The importance of this research stems from the importance of information technology, especially electronic auditing, its impact on increasing the quality of auditing for companies. The research will also contribute to knowing the extent of adaptation to electronic auditing, the extent of trust in outputs, and knowledge of the efficiency of the auditors when dealing with electronic auditing, its impact on increasing quality, and reflection of internal auditing to improve overall quality especially under the Coronavirus crisis.

Previous studies

1. Khaddash and Siam study, (2003) "The extent to which auditors accept the use of information technology in auditing. A field study on major auditing offices in Jordan". It indicated that there must be a physical investment in information technology, human qualification, and a need for a legal reference to encourage this use. The study found that auditors in Jordan have a great conviction of the importance of using information technology in auditing and the necessity of moving from a manual system to electronic auditing.

2. Al-Shanti Study (2011) "The Role of Information Technology in Evolution of Auditing Profession: An Empirical Study". This study aimed to demonstrate the importance of using information technology in the audit process and changes resulting from the use of information technology in the audit process, the extent of using electronic auditing in Jordan. The study highlighted the importance of information technology in the profession of auditing, the need to keep abreast of recent developments, especially in areas of auditing accounts, internal control systems, and training those in charge of those working on them, with an emphasis on holding training courses.

3. Al-Aroud study et al. (2011) "The effect of auditor's application of information technology methods on completion of the electronic audit process in Jordan". The study aimed to identify the impact of the auditor's application of information technology on the completion of the electronic audit process in Jordan.

The results of this study are that level of auditors' use of information technology methods, the completion of the electronic audit process is moderate, as there is an impact of the application of information technology on the completion of the electronic audit process.

4. Moorthy et al. study 2011 "The impact of information technology on internal auditing". The study aimed to identify the impact of information technology on the internal audit process in companies, as it was concluded that accounting information system is a major source of information in the organization as the administration relies on it to provide the necessary information on time, so all institutions seek to develop and update this system continuously with great development that it is witnessing. This requires the internal auditor to study, understand well the environment in which data is processed to facilitate understanding of the accounting system and internal control system to use modern methods, procedures to help him to achieve goals in a better way.

5. Khasawnah study (2013) "The role of digital auditing in achieving competitive advantages in auditing companies in Jordan". The study examined the role of digital auditing in achieving dimensions of competitive advantage in audit offices and obstacles that limit the use of electronic auditing to achieve competitive advantages in Auditing companies in Jordan, the study concluded that the use of digital auditing contributes to achieving competitive advantages such as reduction in cost, quality, flexibility, and market share, but there are obstacles of limit use of electronic auditing, including the cost of specialized software for auditing, its inadequacy for all business establishments, in addition, to need for scientific qualification and practical for auditors.

6. Othman and Jamil study, (2015) "The extent of the possibility of using artificial intelligence techniques in controlling the quality of internal auditing in Jordanian public joint-stock companies". There is an impact of using artificial intelligence techniques in controlling the quality of internal auditing, emphasizing the possibility of using it in public joint-stock companies, and developing technological devices and equipment to develop internal auditing processes.

First: Study Concepts:

A- Audit:

1. Definition of Auditing: is "A systematic process of objectively obtained and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users". (American Accounting Association), the objective of the ordinary examination of financial statements by the independent auditor is the expression of an opinion on the fairness with which they represent the financial position, results of operations, and changes in financial position in conformity with generally accepted accounting principles. (American Institute of Certified Public Accounting 1972).

A. Consulting activity: providing advisory services, as "a means to effectively contribute to the institution's continuity in conducting its business while adding value, and improving the institution's operations".

B. **Assurance services:** It is a concept that “provides other new services related to new areas of assurance related to risk management and governance processes the audit function is carried out according to an organized, sequential systematic process based on scientific, technical foundations through the issuance of professional standards”.

2. **Electronic auditing:** It is defined as “the process of examining, evaluating automated information operating systems, related non-automated processes, the interaction between them, with aim of providing reasonable assurance of internal control meet requirements of information technology”. (Richard, 2008). Therefore, the objective of auditing in light of the electronic operation of data should be focused on verifying the existence of appropriate electronic accounting information systems that provide information to prepare the right lists, and reports with high efficiency.

3. **Electronic accounting information system:** “It is a computing system with a networked environment of personal computers linked or converging with servers or host computers, which are built on basis of processing systems and distributed databases in Most of the time”.(Yassin, 2000).

The theoretical framework for audit quality:

There has been an increase in interest of professional organizations at the international level to verify the quality of internal audits, due to many financial failures, hardships that affected major companies, and collapses of financial markets in some countries.

1. The concept of the quality of the audit profession:

The quality of the auditing profession is defined as “the performance of audit services with high efficiency, effectiveness by standards, provisions of the profession with independence in disclosing, reporting errors, and discovered fraud to meet expectations needs of all parties benefiting from audit services” (Rahmani, 2014),

2.The importance of quality of audit profession:

The importance of audit quality lies in the fact that it is a requirement of all users of financial statements for the following reasons: (Morshed, 2013)

A. The auditor aims to implement the audit process with the highest possible quality to add the highest degree of credibility to his report.

B. The company seeks to ensure that its financial statements are reliable, which requires carrying out an internal audit process of the highest quality.

C. Professional organizations consider that implementation of the audit process at the highest level of quality is in the interest of all users of the financial statements.

The effect of using electronic operating systems for accounting data on audit methods.

The use of electronic data processing has revealed the existence of several methods of auditing through three different entrances to the auditing process and can be discussed in the following (Hamdouna, 2008)

First: Computer auditing: It is done based on the auditor’s interest, auditing for inputs, and outputs only, assuming that operating control systems are effective. It is the simplest approach to electronic auditing, it does not require high costs, not require high computer expertise and skills, but it is not effective in light of

increasing reliance of establishments on the use of computerized systems, the complexity of methods of operating, processing data, the variety of fraud methods, and the inability of this entry to control them.

The methods used according to this approach are:

1. Auditing of inputs: When auditing inputs auditor examines operations from beginning to end by obtaining original documents for these operations to manually process them from beginning to end, in sense of comparing manual and automatic operations to ensure correct operation.

2. Output auditing: When auditing outputs auditor compares outputs obtained through electronic processing with results of some operations whose original documents were manually processed, meaning reviewing results in light of electronic and manual operation.

Second: Auditing through computer: This method is based on tracking steps of auditing through the electronic computer in the stage of its internal operations to electronically operate data in addition to auditing each of the input and output processes of electronic accounting information systems if the input data are correct, this method is used in two fields:

1. **Scope of verification of operational aspects:** to ensure compliance with monitoring means, the validity of programs that are used in the treatment process in same authorized programs that no unauthorized modifications have occurred.

2. **Scope of verification of operating results:** This means ensuring the correctness and accuracy of results generated from operating data by using the computer to perform basic tests.

There are many methods according to approach to auditing about computers available to the auditor, but the two most important methods are:

A. **Method of electronically testing data:** This method aims to test the safety of institution's programs, determine its capabilities to differentiate between correct operations, dummy operations, and discover errors, as internal auditor performs a limited number of fictitious operations that are similar to actual organization's operations and then runs them through institution's programs and computers.

B. **Parallel simulation method:** According to this method, the auditor selects some processes or data that have been selected for testing from the reality of actual data then runs them with a special program for the auditor dedicated to simulating the organization's operation of actual data, then compares its results with the results of the client, and this method requires the auditor to have procedure has sufficient, and necessary experience with this type of program.

Third: Computer-based auditing: It means that computers and programs are used as a tool of auditing. This method aims to verify the accuracy of data processing operations, control methods necessary for these operations. The auditor can also use the computer to help him perform some steps of audit task, as he uses some auxiliary programs, some require skill, and experience in the computer field. They are programs that aim to help the auditor in their work, and they are divided into:

1. **Special audit programs:** which serve in carrying out some audit tasks by the client's system, are prepared with the help of experts in this field.

2. **General audit programs:** which are not specific to a specific application or client. They are generally intended to assist auditors may be used in many applications, and for many clients.

Stages of electronic audit of accounts:

The electronic audit process can proceed in several stages, namely (Gabbayn, 2012)

A. **Organizational audit stage:** It is the first stage of the audit system, it depends on the inventory of the elements of this system, including equipment, documents, documents, personnel, procedures, instructions, jobs, and reports.

B. **The applied audit stage:** It is the stage of auditing steps of developing an accounting information system, to ensure that system has achieved its objectives and requirements in all its technical, economic, operational, and legal aspects,

C. **The detailed audit stage:** It is the stage of auditing the accounting software that handles transaction data in the accounting information system, by ensuring integrity, the accuracy of inputs, and ensuring that their processing is subject to effective and independent control.

Benefits of using modern electronic audit programs

Modern software provides great facilities for the internal audit department to enable it to improve its performance, quality of its outputs. Among the most important of these benefits:

1. Collect data from entity subject to audit independently and without any prejudice to its data or programs.
2. Analyze extracted data in line with the preset objectives of the audit process.
3. The speed of data collection and processing, which improves the cost-effectiveness of audit work by reducing the duration of audit tasks.
4. The ability to deal with a large volume of data at the same time and dynamically.
5. The possibility of detecting exceptional cases in data.
6. Helping to uncover weaknesses and defects in internal control systems.
7. Saving the expenses of the internal audit department, especially transportation expenses, in the case of companies that have branches that are geographically far apart.
8. Economics in human resources.
9. Recording of all stages of the audit process from planning to writing the report, which represents documented evidence to protect the auditor and the possibility of programming those stages to be re-executed automatically in future tasks.

The most important electronic audit programs:

There are two types of electronic programs that auditors use in their work, they can be divided into:

A. General audit programs that include:

1. **Microsoft Excel (MS Excel):** It is considered one of the most important electronic programs used by auditors due to its ease of use, available on all computers, and it provides many functions to its users, the most important of which are:

- It enables the user to perform a personal analysis of the data: especially for complex data and summarizes it according to the user's options.
- Arranging data and organizing numeric or textual data into spreadsheets or workbooks help auditors in making better decisions.
- Re-formatting and arranging data: according to the auditor's need, with the ability to complete remaining data automatically without the need to change the format

2. **Microsoft Access (MS Access):** It is one of the important electronic programs used by auditors due to its ease of use and this program offers many functions to its users, including:

- Quick start-up when using database templates: such as creating a custom application or an idea from a set of new application templates that are distinguished by their designs.
- Data integration between Access and business suite applications: It provides different ways to integrate data from applications, and data sources used to run your company.
- Data storage capability in SQL Server to enhance long-term reliability, robust security, scalability, and manageability.

B. Special audit programs: These are some internationally acclaimed electronic programs in the field of auditing, risk management, which help in improving the efficiency and effectiveness of auditing. It is one of the computer technologies that assist in audit work (ready-made electronic programs) Computer-assisted audit techniques (CAATs) or computer-assisted audit tools and techniques (CAATTs).

First: "Team Mate" program:

It is considered one of the programs of audit departments in the world where the "Team Mate" system has revolutionized the field of auditing, development of audit departments of all sizes in reducing the time of documentation, review in addition to providing value-added services. This program uses by more than 85 thousand auditors from more than two thousand organizations around the world. It provides an integrated electronic system for audit departments, removes barriers related to classic documentary work, and focuses on electronic files to increase the efficiency of leadership in all aspects of audit workflow from beginning to end, so "Team Mate" is considered one of the most important electronic systems that affect all stages of audit process through the system It consists of five specialized, and integrated programs, namely:

A. **Team Risk:** It is an advanced risk assessment system that enables audit departments to develop an audit plan to assess risks.

B. **Programming auditing Team Schedule:** It enables users to program the available tasks and methods in a way that enables the distribution of employees and follow-up tasks within an annual program. Among the most important tasks are the following:

1. Allocating available resources for auditing and distributing those.
2. Creating a schedule for projects according to criteria defined by the auditor.
3. Searching for resources which are defining audit tasks by selecting team members according to the needs of the required audit task.

C. Follow up on timing and expenditures Team (TEC): It helps the auditor to determine time and expenses for audit tasks. And follow-up of the task's progress by the audit, associated costs, and a summary is made to determine the percentage of progress and expenses of the task.

D. Team Electronic Working Papers (EWP) Audit Documentation System: Assists the auditor in structuring coherent databases, creating necessary data, increasing efficiency of documentation, auditing process, determining programs, differences, notes, approvals, and history of changes in databases registered electronically for future reference.

E. Follow-up on audit process and differences Team Central: It is a strong coherent database to follow up an audit process, differences through Internet, it collects all data of recorded tasks, results that have been reached, follow up on the implementation of recommendations submitted by the concerned departments, and higher management. (<http://www.teammatesolutions.com>)

Second: IDEA program for auditing and data analysis:

It is considered an important leading program in the field of dealing with financial data issued by CASEWARE and provides great facilities in dealing with, analyzing, and processing databases accurately and quickly and increases the efficiency and quality of internal audits:

- A. Facilitate the process of importing data from any database,
- B. Facilitate the process of converting data to Data Export after processing it in any format (.PDF,.XLS, and.TXT)
- C. The possibility of implementing several common audit functions.
- D. The audit stages are recorded and deal with data easily, and this helps to use it in subsequent audit assignments.
- E. Provides facilities such as IDEA add-ons, IDEA Script, Forums, Webinar, and Support Portal portals. Source (<https://www.casewareanalytics.com/products/idea-data-analysis>.)

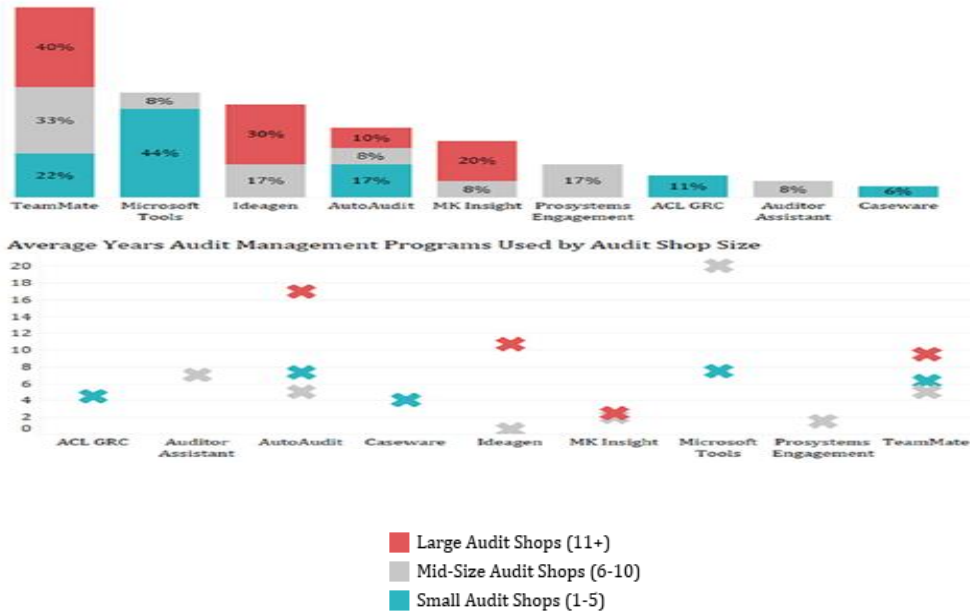
Third: Audit Command Language (ACL):

It is one of the programs, the most widespread in the world in the field of dealing with financial data through ACL company, this program provides great facilities in dealing with databases, their analysis, and processing with the required accuracy, speed, enabling an increase in efficiency, quality of work of Audit, among the most important functions of the program are the following:

- 1. Aging data according to its history.
- 2. Detect duplication in numbers, duplication identification,
- 3. Export data from the program to other programs.
- 4. Extract data of exceptional nature in Extraction files.
- 5. Discovering gaps in the digital sequence of data, Gap Identification.
- 6. Combining and merging data from two separate files into one file, Joining & Relation.
- 7. Classification of data on specific layers based on a factor commensurate with the purposes of Stratification.
- 8. Sampling.
- 9. Classifying and sorting data according to any field within the file Sorting.

- 10. Summarizing and grouping data according to summarization control purposes.
- 11. Collect the data values in the Total file fields. (<https://www.acl.com>)

Percentage of Total Audit Shops (by Size) Using Specific Audit Management Programs



Average Years Audit Management Programs Used by Audit Shop Size



Percent of Total Audit Shops (by Size) Recommending Specific Audit Management Programs

Shop Size	Audit Management Program	Yes	Yes, but only for budget reasons	No	Undecided
		Large Audit Shops (11+)	AutoAudit	100%	
Large Audit Shops (11+)	Ideagen	67%		33%	
	MK Insight		50%	50%	
	TeamMate	75%		25%	
	Mid-Size Audit Shops (6-10)	Auditor Assistant	100%		
Mid-Size Audit Shops (6-10)	AutoAudit		100%		
	CCH Prosystems Engagement	50%		50%	
	Ideagen	100%			
	Microsoft Tools		100%		
	MK Insight	100%			
Small Audit Shops (1-5)	TeamMate	100%			
	ACL GRC	50%			50%
	AutoAudit	67%		33%	
	Caseware	100%			
	Microsoft Tools	38%	25%	25%	13%
Small Audit Shops (1-5)	TeamMate	75%			25%

	Management Recommendation Tracking	Data Analysis	Staff Time Reporting	Work Paper Review Notification
ACL GRC	Y, N (100%)	Y, N (100%)	Y, N (100%)	Y, Y (100%)
Auditor Assistant	Y, Y (100%)	N	Y, Y (100%)	Y, Y (100%)
AutoAudit	Y, Y (100%)	Y, N (100%)	Y, Y (80%) Y, N (20%)	Y, Y (80%) Y, N (20%)
Caseware	N	IDEA (separate product from manufacturer) – Y, Y (100%)	N	Y, Y (100%)
Ideagen	Y, Y (100%)	N (40%) – Older versions; Y, Y (20%) Y, N (40%)	Y, Y (80%) Y, N (20%)	Y, Y (80%) Y, N (20%)
Microsoft Tools	N	Excel – Y, Y (44%) Y, N (56%)	N	N
MK Insight	Y, Y (100%)	Y, Y (33%) Y, N (67%)	Y, Y (100%)	Y, Y (67%) Y, N (33%)
Prosystems Engagement	N	N	N	N
TeamMate	Y, Y (75%) Y, N (25%)	N (50%) – Older versions; TeamMate Analytics (separate product from manufacturer) – Y, Y (8%) Y, N (42%)	Y, Y (83%) Y, N (17%)	N (50%) – Older versions; Y, Y (33%) Y, N (17%)

Y, Y= Yes, the program has this function and it is utilized
Y, N= Yes, the program has this function, but it is not utilized

N= No, the program does not have this function

Source: <https://acua.org/College-and-University-Auditor-Journal/Fall-2018/Connect-Further-Audit-Management-Software-Programs>

The role of electronic auditing in improving the quality of practicing the internal audit profession:

The goal of the auditing profession is to impart confidence, credibility, and transparency to financial statements, due to the large volume of activities and increase in the volume of information that must be processed and stored. This requires keeping up with technological developments by the auditor and using technological means to complete the audit process.

Objectives of electronic audit of accounts:

The objectives of the auditor did not change between checking data manually or using the computer but he found some differences in audit methods and procedures used to obtain sufficient evidence for the audit process, and audit and evaluate the internal control

The effects of electronic operating systems' use of accounting data on internal audit methodology:

First: The use of electronic operating systems for accounting data affects auditor's methodology: as follows:

A. Change in culture and knowledge of auditors (scientific and practical qualification). B. Reconsidering the audit plan and program. C. Reconsidering the nature of the evidence, and making use of electronic data checking to obtain more evidence. D. Reconsidering the mechanism of internal control systems, and enhancing the control procedures applied to strengthen the internal control systems for data and information, and the validity of audit tests. E. Reconsidering methods of preparing and presenting internal audit reports in line with the needs of senior management. F. Determine the rules that must be followed to provide the safety and security of information systems and to maintain them, and raise their efficiency and effectiveness.

Second: How does an internal audit work under electronic operating systems for accounting data: The auditor focuses his attention on the following aspects: (Abu Ghaya, 2009)

1. Pre-audit of inputs
2. Auditing data entering the computer:
3. Checking computer programs used to run data, download, and display the information
4. Auditing information outputs, how to present, and interpret them

Third: The stages of auditing under the electronic operating systems for accounting data:

The auditor carries out internal audit tasks under the electronic accounting information system through the following stages:

1. The task order: The task order is the mandate given by the organization's general management to the auditor; it informs the officials concerned with the auditor carrying out the audit task, as the auditor obtains information related to the institution in terms of the strength of its financial position and its financial trends.

2. The planning stage of the audit process: The auditor at this stage increases the depth of information in areas he obtained while expanding the information base which helps the auditor to discover errors and risks that are difficult to notice.

3. The implementation stage of the audit process: The audit team implements the instructions in the audit program so that they can collect sufficient and appropriate evidence, by examining the integrity of the database, and copying the appropriate parts of the database to use audit programs and obtaining information. **At this stage, two main types of tests are carried out:**

First Compliance tests: These are tests to obtain adequate evidence of the efficiency and effectiveness of the internal control system to ensure that there is no weakness in the internal control system. It includes the following:

1. **General control systems test:**
 - A. Prohibitive control (input control);
 - B. Discovery control (control over processing operations);
 - C. Corrective Control (Control of Outputs).
2. **Detailed tests:** After verifying the reliability and confidence of the control procedures by conducting detailed tests and examining the confidence in the operation of the data.

3. **The reporting stage:** This stage is the last stage of the audit process, and the auditor at this stage collects the evidence obtained to evaluate it and draws conclusions to ensure that the level of audit risk is at an acceptable low level, then Prepare an audit report that expresses the opinion of the auditor in the light of the findings reached by using electronic audit programs, and gives an opinion on the outputs of the electronic operating system, and enables him to provide many forms of reports according to the needs of users and to retain data and information that enables the auditor to process it again in any time. (Khalaf, 2002)

Most researchers have found that electronic systems are an effective way to transfer knowledge of more experienced auditors to junior auditors, and the auditors' perception of using programs during the next five years:

- Most auditors believe that their use of automated media technologies will increase over the next five years.
- The contributions of technological technologies to increase the added value of auditing.
- Controlling these technologies may lead to an expansion of audit tasks.

Conclusion

The auditing profession has gained great importance in society and the business environment because of its role in imparting confidence, credibility, and transparency to the financial statements, and due to the large volume of activities and the increase in the volume of information that must be processed and stored, information technology has been developed to implement these activities, and it became to keep abreast of technological developments by the auditor and use Technological means in completing the audit process, which led to increased attention to the quality of auditing and its role in activating and improving corporate governance, and thus maximizing the value for parties benefiting of financial statements.

This led to the difference in each of the objectives and procedures of auditing, and the emergence of different methods that enable the auditor to perform his job easier, and in a suitable time because The use of electronic systems by the auditor enables him to collect the required information easily and quickly, and It helps in auditing and analyzing a large volume of data and recording all the auditing processes that he carries out, which contributes to improving the quality of the work of audit for companies in addition to their compliance of IFRS because all companies must apply it in work to still their stocks in Amman stock exchange and reach their goals.

The Coronavirus crisis has affected companies significantly, some companies have expanded in their electronic operations and e-commerce enabled them to increase their sales via the Internet by benefiting from the advantage of electronic transactions, which required the provision of software for control and audit for financial and logistical operations to ensure the preservation, protection of company's assets, these software help auditors of remote audits and auditing companies can audit without visiting company's site.

Through the above, the following results were reached:

- There is a role for using electronic audit programs in the audit system its role in improving and increasing the quality of internal audits.
- The use of electronic audit systems in the field of audit helps the auditor to plan accurately and expand control, which helps him discover errors timely.
- The use of electronic audit systems in auditing increases the ease of obtaining information with a degree of confidence and impartiality and provides accuracy, confidence, reduction of cost, and time.
- The use of electronic auditing leads to improving the quality of the audit service, by making use of the advantages of information technology in the auditing process and contributing to the development and advancement of

the audit profession and its keeping pace with technological developments related to the audit profession.

- The internal audit activity adds value to the organization through the functions it performs within the framework of governance, maximizing the value for the beneficiaries, protecting their rights, evaluating the internal control system, managing risks, and the institution's commitment to corporate governance.

Most researchers have found that electronic systems are an effective way to transfer knowledge of more experienced auditors to junior auditors, and the auditors' perception of using programs during the next five years:

- Most auditors believe that their use of automated audit technologies will increase over the next five years especially after the Corona crisis.
- The contributions of technological technologies to increase the added value of auditing.
- Improving these technologies may lead to an expansion of audit tasks.

References

- [1] Abu Ghaya, Samir (2009) "Recent Trends in Monitoring and Reviewing Electronic Information Systems", Book Distribution Center, Cairo, 2009, pp. 137-106.
- [2] Al-Aroud, Shaher, Al-Khattinah, Wahid, Al -Sharafa, Amjad. (2011) "The effect of auditor's application of information technology methods on completion of the electronic audit process in Jordan", Islamic University Journal Administration and Insurance, Cairo University, 01
- [3] Ali, Abd El-Wahab Nasr and others(2003), Studies in Advanced Review, University House, Alexandria, 2003, pp. 376-375
- [4] Al-Shanti, Ayman (2011) "The Role of Information Technology in Evolution of Auditing Profession: An Empirical Study", Journal of the Islamic University, a series of Humanity studies(1), 21
- [5] American Accounting Association, <http://audit-reporting.blogspot.com/2011/04/definition-of-auditing.html>
- [6] American Institute of Certified Public Accounting, "CPA, 1972" (1972). *Newsletters*. 115.https://egrove.olemiss.edu/aicpa_news/115
- [7] Asef, Lakhdar (2017), "The nature of the governance of the relationship between internal audit quality and corporate governance, risk management internal control under Standard No. 2100 (Nature of Work)", Journal of Economic Sciences, Management and Business Sciences Issue 17, University of Messila, Algeria
- [8] Belkhadem, Hanan (2016), "The Impact of Quality Internal Auditing on Corporate Governance: A Case Study of Matahen Corporation Al-Zayban", Memorandum submitted within the requirements for obtaining a Master's degree, College of Economic, Business and Trivial Sciences Mohamed Khader University, Biskra, Algeria
- [9] Hamid, Tolba Muhammad, and others, Studies in accounting systems, without publishing house, Cairo, 2010, p. 73
- [10] International Federation of Accountants, (2019) "Publications of International Standards for Quality Control, Auditing, Review and Other Assurance Processes and Related Shocks", Part One.

- [11] Khadash, Hussam al-Din, Siam, Walid, (2003) "The extent to which auditors accept the use of information technology in auditing. A field study on major auditing offices in Jordan", *Journal of Studies for Science* 211-201, (2) Administrative, 30
- [12] Khasawnah, Reem (2013) "The role of digital auditing in achieving competitive advantages in auditing companies in Jordan", *The Second International Scientific Conference of the College of Finance and Business, The World Islamic Sciences University, The Hashemite Kingdom of Jordan.*
- [13] Khalaf, Eid Mahmoud Hamida, (2002). "The effect of electronic disclosure of accounting information on assessing the risks inherent in reviewing financial statements in light of the Electronic Environment", *Journal of Business Studies and Research, Faculty of Commerce, Zagazig University in Benha, Volume Twenty-second, Issue 1, 2002, P.83.*
- [14] Massahil Sasiah, (2006), "The Impact of Information Technology on the Internal Audit Function in the Institution", Master's Degree (unpublished), Management Specialization, p. 76 / Institutions, Department of Management Sciences, Faculty of Economic Sciences and Management Sciences, Haji Lakhdar University, Batna, 20
- [15] Moorthy, S. M., A. M. z., & Gopalan, H. S. (2011). "The Impact of Information technology on internal auditing". 5, 9. *African Journal of Business Management*
- [16] Morshed, Eid (2013), "The Impact of Auditing Profession Risks on Audit Quality: A Field Study on Audit Firms In the Gaza Strip", a memorandum submitted within the requirements for obtaining a master's degree, Faculty of Commerce, Islamic University, Gaza Palestine
- [17] OECD, G20/OECD Principles of Corporate Governance, Available on: <http://www.oecd.org/corporate/principles-corporate-governance.htm>, viewed at 08/03/2018.
- [18] OECD's elaboration is based on data from the US Census Bureau, the Office for National Statistics in the United Kingdom, and the Euro state.
- [19] Othman and Jamil study, (2015) "The extent of the possibility of using artificial intelligence techniques in controlling the quality of internal auditing in Jordanian public joint-stock companies", Field study in joint-stock companies
- [20] Rahmani Musa, Sardouk Fatih (2014), "The concept of review quality in light of academic studies and professional bodies For review", *Journal of the Human Sciences, Volume 14 Issue - 2*
- [21] Ramos, Michael, "Auditor's Responsibility for Fraud Detection", *Journal of Accountancy, January 2003*, <http://www.aicpa.org/pubs/jofa/jan2003/ramos.html>, PP03-12.
- [22] Richard E. Cascarino, *Auditors Guide to Information System Auditing, Information System Control Journal, Vol. 01, 2008, P01.*
- [23] The Institute of Internal Auditors, IIA POSITION PAPER: "The Role of Internal Auditing in Resourcing the Internal Audit Activity", January 2009, www.theiia.org, P02.
- [24] Yassin, Saad Ghalib (2000), "Information Systems Download and Design", House of Manayj for Publishing and Distribution, Amman, 2000, p66.
- [25] [Http://www.teammatesolutions.com](http://www.teammatesolutions.com)
- [26] [Https://www.casewareanalytics.com/products/idea-data-analysis](https://www.casewareanalytics.com/products/idea-data-analysis).
- [27] [Https://www.acl.com](https://www.acl.com)
- [28] [Https:// www.acua.org/College-and-University-Auditor-Journal/Fall-2018/Connect-Further-Audit-Management-Software-Programs](https://www.acua.org/College-and-University-Auditor-Journal/Fall-2018/Connect-Further-Audit-Management-Software-Programs)
- [29] [Https://www.smartinsights.com/digital-marketing-strategy/online-retail-sales-growth/](https://www.smartinsights.com/digital-marketing-strategy/online-retail-sales-growth/)