

THE ROLE OF ACCOUNTING INFORMATION SYSTEMS IN ENHANCING THE QUALITY OF EXTERNAL AUDIT PROCEDURES

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ABSTRACT

This research investigates the role of Accounting Information Systems (AIS) in enhancing the quality of external audit procedures. An empirical survey was conducted to gather the data using online questionnaire to achieve the research aim about how AIS influence the quality of external audit procedures. The main research question is does employing AIS in accounting data input and output in the facilities subject to audit process contribute in improving the quality of audit procedures. The research hypotheses were tested using regression analysis. The findings illustrate that there is a statistically significant impact of the availability of appropriate AIS in improving some aspects of the external audit quality. This research highlighted that external auditors believe the significant function of AIS on the quality of external audit procedures. The results also show how AIS can enhance the quality of external audit performance. The findings also illustrate that elements and applications of AIS contribute significantly to improve the quality of the external audit procedures (the planning for the audit process, audit testing procedures, risk assessments, implementation of the audit), which indicates the availability of components of computer and technology can impact different aspects of the audit procedures. Due to the recent development in IAS and the use of computerized systems and applications in the audit process; the importance of the study stems from the lack of such studies related to the extent of the role of using AIS on the external auditing process. AIS are assumed to improve the reliability of audited accounting information and the external audit procedures for audit firms by using computers and information technology.

Keywords: Accounting information System; Quality of external audit procedures; Information technology.

INTRODUCTION

In recent years, accounting systems applications have received attention from technology and economic specialists (Fordham & Hamilton, 2019); many institutions tend to activate computers and introduce it technologies to their systems (Mamić & Oluić, 2013). Institutions endeavor to benefit from information technology because of it improves efficiency and productivity and it is necessary for in the current era (Toth, Z. 2012; Jnr & Romli, 2019),

especially in the field of accounting, which has led institutions to use communication technologies to improve interactions among information users (Belfo & Trigo, 2013; Al-Momani & Al-Shibil, 2013). Organizations employ different technological and computerized systems to store, capture, process, and publish financial information to increase the reliability and quality of financial information (Al-Hanini, 2011, Handoko et al., 2019). The dramatic development in information technology practice between organizations leads to coping the application of audit with these technologies (Al-Hanini, 2011, Lowe et al., 2018, Handoko et al., 2019). This study is concerned with measuring the extent to which computer-based accounting systems play a role in improving the quality of external auditing since these systems are considered to be one of the components of companies in the light of technological interference in the modern era and technological development along this path so that the use of these systems has economic and financial benefits for auditing service. External auditors in supporting the implementation of the audit process use AIS (Handoko et al., 2019). Implementing AIS also affects the quality financial reports (Sumaryati et al., 2020). For instance, Jordan has experienced accounting scandals similar to the globally recognized the scandals, that other countries have experienced by different countries. Consequently, appeals were made to establish monitoring agencies. AIS are considered to be the primary source for providing adequate information to the administration to assist it in the administrative decision-making process and contribute to enhancing the department's ability to perform its planning and control functions. Technology and computers are recognized to improve the quality of audited accounting information (Abou-El-Sood et al., 2015; Haija, 2016). Therefore, AIS are among the most important techniques that produce information and contribute significantly to rationalizing and supporting economic decisions that affect the income, wealth and resources of societies (Awosejo et al., 2013; Trigo et al., 2014). Computer generated accounting system lead to the improvement of the organizational process and give relevant information to meeting different administrative needs (Bedard et al., 2003; Sacer et al., 2006; Wilkin & Chenhall, 2010; Jnr & Romli, 2019). Nevertheless, the quality of auditors' reports remains uncertain and has been questioned due to the collapse of several well-known, large companies (Fan & Wong, 2005; Köhler & Quick, 2018; Alawaqleh & Almasria, 2021). Hence, companies and individuals who make use of financial statements are reliant on companies' financial reports besides auditors' reports to make decisions (Hay et al., 2008; Rahman et al., 2019). Auditors' training and proficiency in information systems support conducting the audit service (Curtis et al., 2009; Janvrin et al., 2009). AIS support improving the auditing process by detecting and fixing errors quickly, and creating a tight and accurate information system that improves the quality of external auditing processes and auditing evidence (Zare et al., 2013; Kanakriyah, 2016; Janvrin et al., 2009; Almasria, 2018; Almasria et al., 2018). Thus, the extent of the effectiveness of AIS in improving the external audit in improving the quality and reliability of the auditor reports and audit evidence needs to be investigated. In the following question, this study formulated the problem from this point of view:

1. Does the availability and implementation of computerized AIS have impact on enhancing the quality of the external audit procedures (the planning for the audit process, audit testing procedures, risk assessments, implementation of the audit)?
2. What are the perceptions of the external auditors concerning the role of the AIS in enhancing the quality of the external audit procedures?

3. Does the use of computer-based AIS have impact on enhancing the performance of Jordanian audit firms?
4. Are there statistically significant differences between the average respondents' response to the role of AIS in improving the quality of external auditing in Jordanian auditing firms at a level of significance (0.05) due to the following demographic academic variables: (job position, years of experience, educational qualification)?

LITERATURE REVIEW

As per Sacer and Oluic (2013), the accuracy of accounting data affected decision-making by the AIS consistency and accuracy. Many organizations tend to apply complicated and advance IT systems involving AIS (Al-Hanini, 2011, Lowe et al., 2018, Handoko et al., 2019). AIS affect the companies' reporting process and company performance (Cohen et al., 2002). This study focuses on an important issue for the users of financial statements, auditors and management as the importance of using AIS and its role in improving the quality of external audit and the accuracy of financial information. The importance of the study stems from the lack of studies related to the extent of the role of using AIS and external auditing. The AIS can help the auditors to conduct the main audit steps, which include the planning, gathering evidence, risk assessment measures, substantive testing procedures, communicating audit results (Janvrin et al., 2009). It allows the auditors to collect data quickly and accurately. The computerized system imposes different control procedures on the financial process. One of the main advantages of the computerized system is access to the information, which reflects on the main characters of the information that involves reliability, accessibility, accuracy, appropriateness and timely. Also, accounting work can be adequately done by reducing the probability of the falsification of financial information (Belfo & Trigo, 2013).

Investigating the role of AIS in improving the quality of external audit is a vital and basic issue for financial regulators, academics and policymakers such as government authority, management and shareholders, as the impact of the AIS on work and culture strategies as this information system is complementary to other control systems (Hayale & Abu Khadra, 2006).

Abu Hasira's (2015) study aims to identify the effects on the efficiency of internal auditing of telecommunication companies operating in the Gaza Strip through AIS. Thirty-five questionnaires valid for analysis, i.e., a recovery rate of 87.5, have been found for the telecommunications companies operating on the telecommunications companies operating in the Gaza Strip and covering the field of research. Due to the presence of several independent variables, a multimedia regression approach was used, and the following results were found: the existence of the positive impact in (personal skills-equipment-software, procedures, and information features) the internal audit efficiency of AIS, and their respective dimensions.

Al-Momani and Al-Shibil, (2013); purpose of their study was to identify the impact on the functions of auditors for increasing accountability and transparency of information systems used in state institutions. To achieve the objectives of this research, a questionnaire has been designed and distributed in the audit office to a random sample (208), which included (162) questionnaires used to analyze the data and the test hypotheses, as well as the results of this study, descriptive statistical methods and a T-test. The impact on and enhance the accountability and transparency for the functions of the audit office of AIS used by state institutions.

Al-Nuaimat (2013), this study aims to demonstrate the effect of computer use on applications related to accounting systems and how this use affects the work of the internal auditor by mentioning the problems facing the accounting system used for the computer which the auditor must take into account, as the researcher used the descriptive and analytical approach in the study using the questionnaire As a study tool, Moreover, among the results of the study: The use of accounting systems affects the internal auditor's work procedures. Familiarity with the help of computers is considered a successful internal auditor, especially in the establishment that uses computers in his daily activities. Al-Eqab and Ismail (2011), the objective of this study was to reveal the factors contributing to the design of the accounting data system and findings show that the four dimensions of IT (technological, informative, functional and administrative) development and the design of accounting systems have significant and positive impacts. Curtis et al. (2009), while the potential to enhance the efficiency and effectiveness of audit commitments is provided by the computer-assisted audit techniques (CAAT), research in this area indicates that these techniques are useful in the public accounting sector. They suggest that this condition is based on pressure for performance assessment and multi-purpose budgets, which misalign firm and individual employee objectives. We use technologies and budgeting theories to test this argument and potential organizational strategies to reduce impediments in the audit profession to technology acceptance. The experimental results with experienced auditors suggest that firms have the capacity, by using the longer budget and evaluation periods and communicating the approval of remote software superiors, to influence the implementation of new technologies. The individual characteristics of the auditor (risk aversion and budget pressure perceptions), in the absence of such firm interventions, will determine the implementing decisions. In particular, people who seek risk may be more likely to implement technology independently of the perception of budgetary pressure. Still, the decision to apply is related to perceived budgetary strain for people that are averse to risk.

Payne and Curtis (2017) training are one of the main factors influencing technology acceptability and use. As a potential intervention to prevent auditors from using optional technology, we study the date of technology training. Adequate timing could reduce the pressure associated with time, thereby enhancing readiness for training if pressure is lower (non-working season) and reducing technology resistance. Training long before use (in non-working seasons too) can, however, raise memory decline concerns. We manipulate three-fold training (July, November and December), which varies in both time pressure and proximity to the time the technology is used to conduct an audit. We then get the perceptions of two strains commonly acknowledged in accounting (time pressure and memory confidence) and intentions to develop and use new techniques. When training is available earlier, we see that training is higher; that busy seasonal stress is more important than memory retention. Intention to train is also directly affected by technology using ease of use and confidence in memory, work experience, gender and position within the company. As AIS is one of the administrative items to collect, classify process, analyse and communicate to outside parties' financial information suitable for making decisions and managing the company (Toth, 2012). The external audit is a set of principles, standards, rules and methods by which an organized critical examination of the internal control systems and the data proven in the books, records and financial statements of the project can be carried out (Belfo & Trigo, 2013; Al-Momani & Al-Shibil, 2013).

The concept of AIS defined by (Corrado & Jordan, 2002) is the advanced use of information technology, as information technology is a component of information systems.

According to the contemporary use of information systems and its advanced technologies, the banking sector has adopted new working methods that depend on these systems for their superior ability to provide accurate, organized and valuable information that helps finance departments to make their financial decisions, meet the needs of their customers in the best possible way, and facilitate the process of continuous change and modernization. As Loudon and Loudon (2008) define it: as a set of interconnected elements that work together to collect, retrieve, process, store and disseminate information, to support decision-making, coordination, control, analysis and observation in an organization. At the same time, it is a group of individuals, equipment, procedures, software, communications, and databases, working manually, mechanically or automatically to collect, store and process information and then transmit it to the beneficiary (Mamić & Oluić, 2013). Further, auditing has the methods used for auditing by the auditor's work in examining the systems of internal controls and the content of the transactions (Alawaqleh et al., 2021). The books' methodology is not limited to that of the auditors. Financial records and auditing objectives are represented by assessing the degree to which the financial statements at the end of a specified period express the project's results, such as profit or loss and its financial position.

The Role of the Accounting Information Systems in Enhancing the Quality of Audit Procedures (Information Technology in Auditing)

IT auditing started as an audit of the electronic data process (EDP) was created mainly through increased accounting systems technology, IT regulatory requirements, and computer impacts, and the ability to provide certification services (Janvrin et al., 2009). The accounting scandals and the increased regulation have led to an exciting time for IT audit over the last couple of years (Janvrin et al., 2009; Appelbaum et al., 2018). Computerized accounting provides some more advantages than manual accounting; more information is processed faster by accountants, measured totals are checked by formulas, so it's less likely that errors are (Fordham & Hamilton, 2019). Accounting systems are also customizable to the industry and allow accountants to use default models in general. Accountants can also retain financial records with relative ease for many years, allowing them the ability to analyze information from the previous year without going through stacks of paper ledgers. A computerized accounting system can be used by most businesses documenting and submitting financial information. This system enables companies to record company transactions reliably and easily produces management financial reports. The computerized AIS incorporate various component systems for the development of computerized account books and accounting records and records generated by the computer. It is a method by which accountants include financial data in tablets and other accounts software and then calculate the details using mathematical algorithms for the relevant ledgers and financial statements. The computerized system also enables accountants to produce trend analysis and easily and reliably record any variances. Moreover, transactions from all divisions of the company can be accessed through computerized accounting systems to improve access to financial information for accountants. Accountants can prepare a computerized accounting system for financial statements, as this would allow auditors to operate the audit computer as well, thus, the reports of the auditors are quicker, more detailed and more accurate. In order to audit a computerized accounting system, consequently, the auditor should have fair knowledge about various organizational hardware and software. The accounting scandals and increasing

laws have made IT auditing a thrilling time in recent years. Four key phases are included in the audit process for the AIS: performing the first analysis (Plan of Audit); internal controls review and analysis; monitoring of compliance (testing for internal control) and conducting substantive testing (comprehensive data testing). From the start, the auditor should agree on the nature and limitations of the audit with the customer. The AIS audit process consists of four main steps (Bierstaker et al., 2001); first steps (plan of audit); internal controls review and evaluation; compliance monitoring (internal controls testing); Significant testing (comprehensive data testing); and reporting (conclusions and findings). From the start, the auditor should agree on the nature and limitations of the audit with the customer. They can effectively and efficiently promote the achievement of the audit objectives:

Conduct the entity's preliminary survey for planning

This is a first step towards preparing how the audit can be carried out. The auditors collect information on the accounting system for use in the audit plan including: a prior understanding of how to organize computer-related accounts; identify the software and computer hardware of the company; a pre-conception of each essential computer-processed accounting application; Identifying the implementations proposed (Pickett, 2006).

Conduct tests of conformity (Audit testing process)

There are two kinds of controls are general and efficiency. General controls apply to computer environment organization, management and production, but not the program. They are to be checked before application checks so that the auditor cannot rely on application checks if they are found to be inadequate. General controls include items such as proper task sharing, Plan for a catastrophe, backup of data, use of marks, access regulation, procurement procedures and new programs and facilities implementation, etc. Specific activities performed by the system include application controls. They include input controls, process controls and output controls and should ensure that data are initiated correctly, registered, processed and reported.

Risk assessments process

Conduct Risk assessments process determining whether the data is true and the controls are working and functioning as intended (Zsidisin et al., 2000). There are three general approaches to conformity testing: The test data approach in which the auditor processes client system test transactions and then the auditors shall compare the results with preset results (Carnaghan, 2006); the integrated testing facility approach, which involves dummy transactions and predetermined results; and the parallel simulations approach, where actual transactions can be processed by the same programs through the customer system and also by the parallel system developed by the auditor and When the samples are available and perform correctly, the auditor should be aware of the outcomes of the methods employed (Low, 2004; Fukukawa & Mock, 2011).

Implementation audit plan

Auditors must collect and review information about the claims made by management on financial statements. Five claims are made: completeness; rights and duties; assessment or assignment; presence or incident; statements and divulgations presentation (Carpenter, 2007; Appelbaum et al., 2018). The assertions are used by the auditor to establish audit priorities and to plan substantive assessments. Transaction tests and balance sheets and empirical methods intended to support the declarations are substantive tests. The auditor is expected to obtain adequate qualified evidence to provide an assessment basis on the audited financial statements (Kesimli, 2019). If it is difficult to obtain adequate qualified evidence, then an opinion cannot be given. Thus, according to the study' objectives and previous discussion, the following hypotheses were developed:

H1: there is a significant impact for computerized accounting information systems on planning audit process.

H2: there is a significant impact for computerized accounting information systems on Audit testing process.

H3: there is a significant impact for computerized accounting information system on Risk assessments process

H4: there is a significant impact for computerized accounting information system on Implementation audit plan.

RESEARCH METHODOLOGY

This study aims to measure the role of electronic AIS in enhancing the quality of the external audit process. AIS is assumed to improve audited accounting information and external audit processes, by using computers and technology. AIS applications have received attention from technology and economic specialists; many institutions tend to activate computers and introduce it technologies to their systems. Institutions endeavor to benefit from information technology because of it improves efficiency and productivity and it is necessary for in the current era, especially in the field of accounting, which has led institutions to use communication technologies to improve interactions among information users. To achieve the research objectives, this study has employed descriptive and analytical tests to analyze the questionnaire data and assess the relationship between its variables.

This section describing the sample under focus as well as the method of data collection and the definition of the study variables, then the data are described, and statistical tests are conducted to measure the role of electronic AIS in enhancing the quality of the external audit process.

Measuring Variables

The major independent variable in this study is applying electronic AIS; this variable can measure from several variables as:

Availability and Implementation of the elements of computerized accounting information systems, where the availability is an important factor, we can measure it by five Likert scale, this variable was measured by 7 questionnaires.

The major dependent variable in this study is enhancing external audit process quality; this variable can measure from several variables as:

1. The planning for the audit process, where external auditor depends on Computer programs to formulate audit plan, we measure this variably by five Likert scale with 4 questionnaires.

2. Audit testing procedures get and document an understanding of internal controls, where external auditor depend on Computer programs to test procedures; we measure this variably by five Likert scale with 4 questionnaires.
3. Risk assessments where external auditor depends on Computer programs to assessment audit risk; we measure this variably by five Likert scale with 4 questionnaires.
4. Implementation of the audit plan where external auditor depends on Computer programs to apply the audit plan effectively; we measure this variably by five Likert scale with 4 questionnaires.

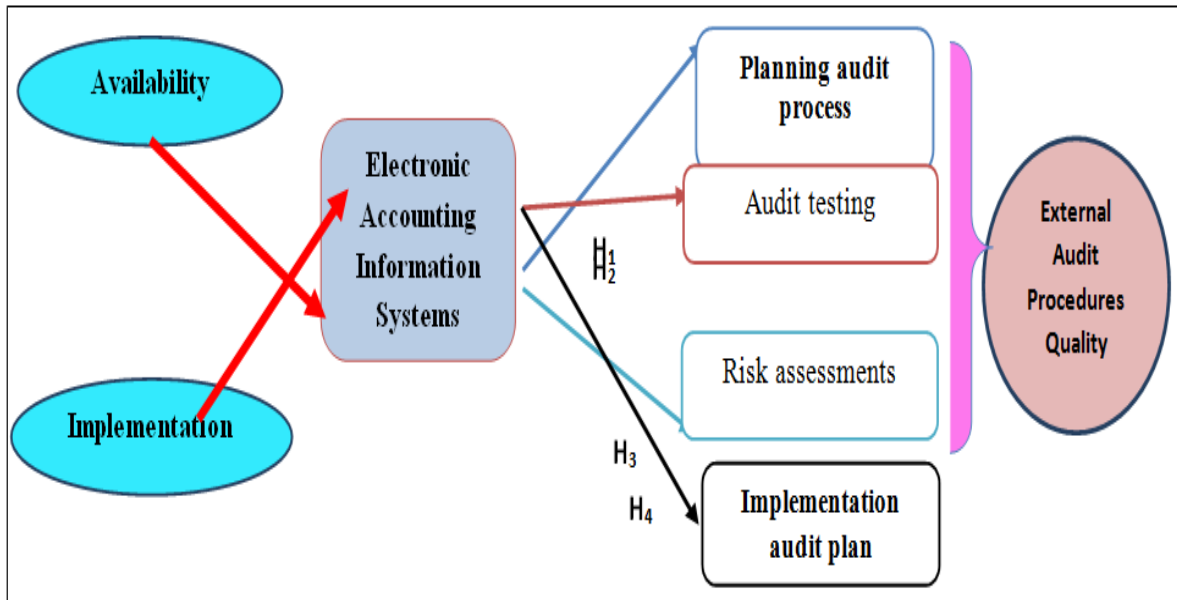


FIGURE 1

MODEL OF HYPOTHESES

Formulate Hypotheses

Model for the proposed hypotheses is presented in Figure 1.

H1: there is a significant impact of the availability and application of computerized accounting information systems on planning audit process.

H2: there is a significant impact of the availability and application of the computerized accounting information systems on Audit testing process.

H3: there is a significant impact of the availability and application of the computerized accounting information systems on Risk assessments process.

H4: there is a significant impact of the availability and application of the computerized accounting information systems on Implementation audit plan.

Data Collection

To achieve the research objectives, this study has employed descriptive and analytical tests to analyze the questionnaire data and assess the relationship between its variables. The study used primary data collection as the main tool for the study to address the practical aspects of the research topic and was explicitly designed for this purpose. Using the random sampling method, by selecting (67) auditor from among the employees of the Jordanian audit companies, and all of them are valid for analysis. The following section provides data relating to a participant's background information and their answers to the questions found in the survey. The questionnaire offered background information concerning four characteristics relating to the respondents, namely, the highest level of education they attained, role in audit inspection, Specialization, and the number of years they have worked as an auditor.

The following section provides data relating to a participant's background information and their answers to the questions found in the survey. The questionnaire offered background information concerning four characteristics relating to the respondents, namely, the highest level of education they attained, role in audit inspection, Specialization and the number of years they have worked as an auditor. A list of number of statement and questions were formulated through which the opinions of the different study sample were collected. distribution of the list to others, and this list includes four dimensions, this number of employees reached, we distribute 75 Questioner to them, 69 questioners was received, and after they were investigating, it was found that 3 of Questioner was not valid.

We can describe sample according to Years of Experience, Qualification, specialization, and role in audit inspection as Table 1 and Figure 2.

| Variable | Item | Repetition | Percentage |
|---------------------|--------------------------------|-------------------|-------------------|
| Years of Experience | Less than 5 years | 23 | 34.32 |
| | From 5 to 10 years | 36 | 53.7 |
| | 10 years or more | 8 | 11.9 |
| Qualification | Diploma | 45 | 67.1 |
| | Bachelor | 20 | 29.8 |
| | Postgraduate | 2 | 2.9 |
| Specialization | Business Administration | 42 | 62.6 |
| | Accounting | 19 | 28.3 |
| | Banking and Financial Sciences | 6 | 8.9 |
| Role in audit | Staff assistance audit | 21 | 31.33 |

| | | | |
|------------|---------|----|------|
| Inspection | Senior | 27 | 40.2 |
| | Manager | 19 | 28.3 |

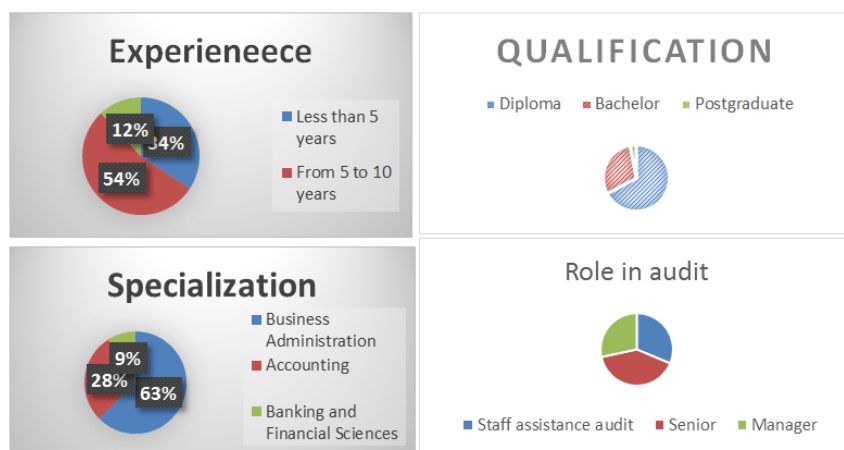


FIGURE 2

DESCRIPTION OF THE STUDY SAMPLE

Research Tool

This research employed a questionnaire that was developed after examining relevant literature, regulations applicable and professional standards. The pilot study was conducted with academics and auditors; the questionnaire used in this research has been established to describe the role of the accounting information system in enhancing the quality of the external audit.

RESULTS AND DISCUSSION

Questionnaire Validity

We can measure the validity of questionnaire by using Cronbach's Alpha test; tests results were given in the Table 2.

| TABLE 2 RESULTS CRONBACH'S ALPHA TEST | | | |
|--|------------------------|-------------------------|-------------------|
| Variables | Variable symbol | Cronbach's Alpha | N of Items |
| Electronic Accounting Information Systems | X1 | 0.829 | 7 |
| Planning audit process | Y1 | 0.728 | 4 |
| Audit testing | Y2 | 0.792 | 4 |
| Risk assessments | Y3 | 0.639 | 4 |
| Implementation audit plan | Y4 | 0.699 | 4 |

From the Table 2, we find that the results show that Cronbach's Alpha for the first Variable is 82.9%, the results show that the second Variable Cronbach's Alpha is 72.8%, the

results show that the third Cronbach's Alpha is 79.2%, the results show that the Fourth Cronbach's Alpha is 63.9%. The results show that the fifth Cronbach's Alpha is 63.9%.

This result means we can depend on the questionnaire and complete the statistical tests.

Descriptive Analysis

This section for describe sample perceptions on every statement of the questionnaire; where we ask about some thinks well preview it in tables in a degree of impact, we can see these elements as follow:

Descriptive analysis for electronic accounting information systems

We can do the descriptive Analysis for this variable to achieve the mean, mode, and standard deviation, we were this test where results as Table 3.

| Indicators | N | Mean | Mode | Std. Deviation | Variance |
|--|-------|--------|-------|-------------------|----------|
| | Valid | | | | |
| The availability of the elements of AIS which are effective and well-built in the organization | 67 | 3.5942 | 3.00a | 1.22857 | 1.509 |
| Having AIS that provides guidance to accurate accounting data facilitates the audit process. | 67 | 3.6522 | 5.00 | 1.34849 | 1.818 |
| Organization's AIS characterizes with fast communication | 67 | 3.6957 | 5.00 | 1.20421 | 1.450 |
| The availability of the elements of AIS that varies with the size and complexity of the company, | 67 | 3.8986 | 5.00 | 1.26194 | 1.592 |
| Coordination between the accounting control and the availability of the elements of AIS to develop the audit plan of the organization avoids the organization's losses. accounting control that accustomed to the organization with great success. | 67 | 3.2167 | 4 | 1.32140 | 1.568 |
| The applications of the elements of AIS provides control over the company transactions | 67 | 3.8841 | 5.00 | 1.10528 | 1.222 |
| The experience and knowledge of the employees about the elements of computerized AIS. | 67 | 3.4638 | 3.00 | 1.14506 | 1.311 |
| Having accurate, effective and well-built computerized AIS | 67 | 3.98 | 4 | 1.15227 | 1.328 |
| There is a sufficient number of accountants specialized in applying computerized AIS | 67 | 4.31 | 5.00 | 1.13301 | 1.284 |
| Jordanian firms uses computerized accounting programs that suit the nature of the company's work | 67 | 3.800 | 5 | 1.22086 | 1.491 |
| There are sufficient number of the hardware and software programs | 67 | 4.21 | 3 | 1.24823 | 1.577 |
| firm's computerized accounting systems database has a high level of flexibility and adaptability | 67 | 4.11 | 4 | 1.114321 | 1.491 |
| Applying AIS in the organization affects the financial position of the organization in terms of the success and ongoing activities. | 67 | 4.33 | 3 | 1.32154 | 1.457 |
| The AIS in the company are characterized by security requirements from penetration | 67 | 3.95 | 3 | 1.2528 | |

| | | | | | |
|--|----|-------|---|---------|-------|
| The AIS in the Jordanian audit firms depend on recent and accurate programs | 67 | 3.86 | 3 | 1.27033 | 1.436 |
| The presence of application of AIS in terms of the people experience and competence in the organization that makes the process of planning and accounting data correct and reliable. | 67 | 4.24 | 4 | 1.19822 | 1.436 |
| The presence of the application of AIS in the organization makes the process of planning and accounting data sound clear and applicable, | 67 | 30752 | 4 | 1.26868 | 1.610 |
| the organization AIS by the decision-makers to determine the risks facing the organization affecting the financial and administrative position of the organization | 67 | 4.35 | 3 | 1.5201 | |

From Table 3 it can be seen that the mean for most of the statements was not less than 3.463, this means that most of the respondents' opinions are on the extent of agree to fully agree, which means the importance of electronic programs in the review. We can show that mode was 5 or 3 for statements this means the response direction is to agree with these statements. It can be seen the availability of the elements of accounting information system is the development of the audit plan, one of the important things in the audit process that results in continuous success for the organization" was 3.54 this in the agree degree. The higher mean was to the fourth statement that "The availability of the elements of accounting information system provides control to plan the audit process that varies with the size and complexity of the audit" where 3.898.

Descriptive analysis for external audit process quality

We can do the descriptive Analysis for this variable to achieve the mean, mode, and standard deviation; we were this test as follow:

Descriptive analysis for planning audit process

This test results were as Table 4.

| Indicators | N Valid | Mean | Mode | Std. Deviation | Variance |
|--|---------|--------|------|----------------|----------|
| The development of the comprehensive audit plan is one of the important things in the audit process that results in continuous success for the organization. | 67 | 3.5942 | 5.00 | 1.33195 | 1.774 |
| Having AIS that provides guidance on planning and auditing data facilitates the audit process. | 67 | 3.0870 | 3.00 | 1.29182 | 1.669 |
| Effective and well-built AIS in the organization that helps the administration to implement the planning process accurately. | 67 | 3.2174 | 3.00 | 1.22318 | 1.496 |
| AIS provides control to plan the audit process that varies with the size and complexity of the audit, | 67 | 2.9565 | 3.00 | 1.27688 | 1.630 |
| The audit work is developed by a proper planning process that increase the auditor's confidence in the control systems, the lower the risk incidence | 67 | 4.33 | 5.00 | 1.33458 | 1.581 |

From Table 4 it can be seen that the mean for most of the statements was not less than 2.956, this means that most of the respondents' opinions are on the extent of neutral, agree and fully agree, which means the importance of electronic programs in the Audit plan process. We can show that mean for "The availability of the elements of accounting information system is the development of the audit plan, one of the important things in the audit process that results in continuous success for the organization." Was 3.594 this in the agree degree.

Descriptive analysis how the role of applying AIS on the Audit testing procedures aspects

This test results were presented in Table 5.

| Indicators | N Valid | Mean | Mode | Std. Deviation | Variance |
|--|------------|--------|------|-------------------|----------|
| One of the duties of accounting control to implement the audit plan is to enable the auditor to obtain reliable and correct evidence. | 67 | 3.4348 | 3.00 | 1.07756 | 1.161 |
| The availability of the elements of AIS limits the possibility of a dispute between the auditor and the client, by clarifying the necessary matters and responsibilities for starting the audit testing, which helps in achieving efficiency and effectiveness | 67 | 3.3478 | 4.00 | 1.30413 | 1.701 |
| The availability of the elements of AIS implements procedures to provide sufficient and quick evidence about the amounts and disclosures in the financial statements. | 67 | 3.5507 | 4.00 | 1.15728 | 1.339 |
| The availability of the elements of AIS allows conducting audit test based on a focus on material weakness and misstatements | 67 | 3.93 | 3 | 1.17421 | 1.379 |
| The availability of the elements of AIS allows high level of documentation in the completed audit files for audit tests | 67 | 3.99 | 3.50 | 1.19344 | 1.424 |
| The availability of the elements of AIS must specify the reasons that cause the customer to request audit in order to promote the development of the audit plan. | 67 | 3.3768 | 3.00 | 1.12592 | 1.268 |
| The application of accounting systems helps to increase the quality of external audits in terms of conducting audit tests collecting evidence to backing an audit reports | 67 | 3.4348 | 3.00 | 1.07756 | 1.161 |
| The use of AIS helps improve the procedures of external audits of auditing assets and operations of the company | 67 | 3.3478 | 4.00 | 1.30413 | 1.701 |
| The auditor is technically competent in terms of using statistical techniques and conducting audit tests | 67 | 3.5507 | 4.00 | 1.15728 | 1.339 |
| The use of AIS leads to a tight and precise information system that ensures the quality of external audit tests. | 67 | 3.3768 | 3.00 | 1.12592 | 1.268 |

We can show that mode was 3 or 4 for statements this means the response direction is to agree with these statements. Mean for the latest question "The availability of the elements of accounting information system implements procedures to provide sufficient and quick evidence about the amounts and disclosures in the financial statements" was 3.550 in the agree degree. That means the important of accounting information system to Audit test.

Descriptive analysis for risk assessments

This test results were as Table 6.

| TABLE 6 RESULTS OF DESCRIPTIVE ANALYSIS FOR RISK ASSESSMENTS | | | | | |
|---|----------------|-------------|-------------|-----------------------|-----------------|
| Indicators | N Valid | Mean | Mode | Std. Deviation | Variance |
| The availability of the elements of AIS allows evaluating the risks and decide on precautions effectively. | 67 | 2.8116 | 3.00 | 1.29791 | 1.685 |
| The availability of the elements of AIS in the organization help decision-makers to determine the risks facing the organization that affecting the financial and administrative position of the organization. | 67 | 3.0000 | 3.00 | 1.22474 | 1.500 |
| The availability of the elements of AIS oversees the development of the audit plan that leads to improved organization's production and reduces risk occurrence. | 67 | 3.0056 | 1.3181 | 1.27678 | 1.337 |
| The audit work undertaken is based primarily on an assessment of the risks associated with the client's financial | 67 | 2.8116 | 3.00 | 1.29791 | 1.685 |
| The role of applying AIS on limiting the possibility of a dispute between the auditor and the client, by clarifying the necessary matters and responsibilities for in relation to compliance risk, which helps in achieving efficiency and effectiveness and focus on the important matters. | 67 | 3.0000 | 3.00 | 1.22474 | 1.500 |
| The role of applying AIS is required to implement the audit test and direct available economic resources to implement the audit process appropriately to reduce the financial and operational risk | 67 | 3.7101 | 4.00 | 1.01607 | 1.032 |
| The role of applying AIS provides the auditor with the independence and confidentiality in the work until the audit plan is implemented as intended to produce a neutral technical report and avoid Security and Fraud Risk. | 67 | 3.5797 | 5.00 | 1.33291 | 1.777 |
| Successful The role of applying AIS on oversees the audit plan (Asset identification, Risk Analysis, Risk likelihood & impact) and ensures that all auditor work is performed according to international auditing standards or as per the relevant standards in order to evaluate the risks and decide on precautions | 67 | 2.8116 | 3.00 | 1.29791 | 1.685 |
| One of the duties of accounting control to implement the audit plan is to enable the auditor to obtain reliable and correct evidence. | 67 | 3.0000 | 3.00 | 1.22474 | 1.500 |
| The role of applying AIS on limiting the possibility of a dispute between the auditor and the client, by clarifying the necessary matters and responsibilities for in relation to compliance risk, which helps in achieving efficiency and effectiveness and focus on the important matters. | 67 | 3.7101 | 4.00 | 1.01607 | 1.032 |
| The availability of the elements of AIS led to increase the auditor's confidence in the control systems, the lower the risk incidence | 67 | 3.0000 | 3.00 | 1.22474 | 1.500 |
| Applying AIS in the organization affects the financial position of the organization in terms of the success and ongoing activities. | 67 | 3.7101 | 4.00 | 1.01607 | 1.032 |

| | | | | | |
|--|----|--------|------|---------|-------|
| The existence of effective AIS indicates the possibility of discovering a certain material deviation or activity that affects the productivity of the organization. | 67 | 3.5797 | 5.00 | 1.33291 | 1.777 |
| The application of AIS on helps Confirm the validity of assets valuation | 67 | 2.8116 | 3.00 | 1.29791 | 1.685 |
| The role of applying AIS the financial auditor in the organization reduces the possibility of fraud and increases its production activity and reduces the possibility. | 67 | 3.0000 | 3.00 | 1.22474 | 1.500 |
| The application AIS lead to increase the auditor's confidence in the accounting control systems, the lower the risk for the auditors. | 67 | 3.7101 | 4.00 | 1.01607 | 1.032 |
| The role of applying AIS in the organization provides the auditor with a plan and an audit program in which the auditor can identify the deviations and this increases the auditor's efficiency and can accomplish his work. | 67 | 3.5797 | 5.00 | 1.33291 | 1.777 |
| The availability of the elements of AIS allows evaluating the risks and decide on precautions effectively. | 67 | 2.8116 | 3.00 | 1.29791 | 1.685 |
| The existence of effective AIS indicates the possibility of discovering a certain material deviation or activity that affects the productivity of the organization. | 67 | 3.82 | 4 | 1.26868 | 1.610 |

From Table 6 we can show that the mean for most of the statements was not less than 2.811, this means that most of the respondents' opinions are on the extent of neutral, agree and fully agree, which means the importance of electronic programs in the Audit Risk assessments. We can show that mean for "The accounting information systems in the company are characterized by security requirements from penetration" Was 3.710 this in the agree degree.

Descriptive analysis for implementation audit plan

This test results were as Table 7.

| TABLE 7 | | | | | |
|--|---------|--------|------|----------------|----------|
| RESULTS OF DESCRIPTIVE ANALYSIS FOR IMPLEMENTATION AUDIT PLAN | | | | | |
| The availability of the elements of AIS on External Audit Procedures (implementation of the audit plan aspects | N Valid | Mean | Mode | Std. Deviation | Variance |
| The role of applying AIS the financial auditor in the organization reduces the possibility of fraud and increases its production activity and reduces the possibility. | 67 | 3.7971 | 5.00 | 1.15783 | 1.341 |
| The higher the auditor's confidence in the accounting control systems, the lower the risk for the auditors. | 67 | 2.9420 | 3.00 | 1.28205 | 1.644 |
| The role of applying AIS in the organization provides the auditor with a plan and an audit program in which the auditor can identify the deviations, and this increases the auditor's efficiency and can accomplish his work. | 67 | 3.6981 | 3.50 | .87367 | 1.700 |
| the implementation of the audit plan The availability of the elements of AIS allows the effective implementation of the audit plan and makes sure that all audit work is carried out according to international auditing standards | 67 | 4.43 | 3.4 | 1.25232 | 1.568 |
| The role of applying AIS on recording the audit findings and implementing them | 67 | 4.22 | 4 | 1.15227 | 1.328 |

| | | | | | |
|---|----|--------|------|---------|-------|
| The availability of the elements of AIS limits the possibility of a dispute between the auditor and the client, by clarifying the necessary matters and responsibilities for starting the implementation of the audit plan, which helps in achieving efficiency and effectiveness | 67 | 3.8667 | 3.50 | .87367 | .763 |
| The availability of the elements of AIS in the organization by the decision-makers to determine the risks facing the organization affecting the financial and administrative position of the organization. | 67 | 3.7971 | 5.00 | 1.15783 | 1.341 |
| The AIS in the company are characterized by security requirements from penetration | 67 | 2.9420 | 3.00 | 1.28205 | 1.644 |
| The availability of the elements of AIS lead to increase the auditor's confidence in the control systems, the lower the risk incidence | 67 | 3.6981 | 3.50 | .87367 | .763 |
| The applications of the elements of AIS help the auditor to detect material misstatement. | 67 | 3.4094 | 3.00 | .92848 | .862 |
| The availability of the elements of AIS in the organization by the decision-makers to determine the risks facing the organization affecting the financial and administrative position of the organization. | 67 | 3.7971 | 5.00 | 1.15783 | 1.341 |
| The AIS in the company are characterized by security requirements from penetration | 67 | 3.9420 | 3.00 | 1.28205 | 1.644 |

From Table 7 presents the role of applying accounting information system on External Audit Procedures (risk assessments aspects). It can be seen that the mean for most of the statements was not less than 2.942; this means that most of the respondents' opinions are on the extent of neutral, agree and fully agree, which means the importance of electronic programs in the implementing audit plan. We can show that mean for "The role of applying accounting information system the financial auditor in the organization reduces the possibility of fraud and increases its production activity and reduces the possibility" was 3.797 this in the agree degree.

Hypothesis Tests

Regression test

We can do the Regression test to determine the impact of each independent variable on the dependent variable as follow:

Regression test for first hypothesis

We can test this hypothesis by regression test, we done the regression test the result was as Table 8 and Figure 3.

| TABLE 8 | |
|--|--------------|
| RESULTS OF REGRESSION TEST FOR FIRST HYPOTHESIS | |
| | Model |
| | 1 |
| R | 0.659 |
| R ² | 0.434 |
| Adjusted R ² | -0.118 |

| | | |
|----------------------------|-----------------|---------|
| Std. Error of the Estimate | | 0.11187 |
| Change Statistics | R Square Change | 0.068 |
| | F Change | 0.366 |
| | df1 | 1 |
| | df2 | 5 |
| | Sig. F Change | 0.006 |

From Table 8 we show that there is a significant impact to the Electronic Accounting Information System on Planning audit process where R^2 is 0.434 at sig less than 5%.

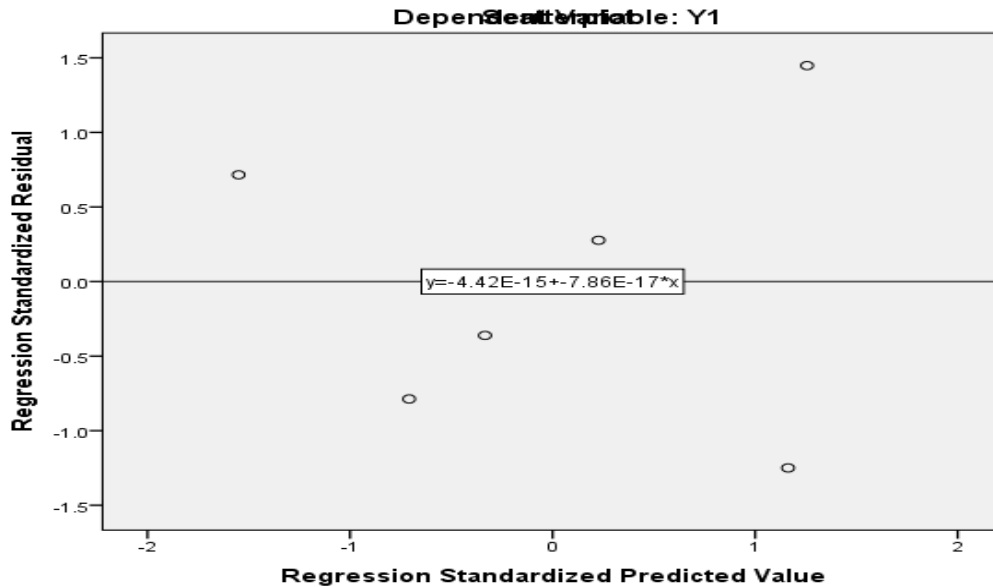


FIGURE 3

REGRESSION TEST RESULTS FOR FIRST HYPOTHESIS

Regression test for second hypothesis

We can test this hypothesis by regression test, we done the regression test the result was as Table 9 Figure 4.

| TABLE 9 | | |
|---|-----------------|--------------|
| RESULTS OF REGRESSION TEST FOR SECOND HYPOTHESIS | | |
| | | Model |
| | | 1 |
| R | | 0.724 |
| R^2 | | 0.524 |
| Adjusted R^2 | | -0.048 |
| Std. Error of the Estimate | | 0.21584 |
| Change Statistics | R Square Change | 0.127 |
| | F Change | 0.725 |
| | df1 | 1 |

| | | |
|--|---------------|-------|
| | df2 | 5 |
| | Sig. F Change | 0.004 |

From Table 9 we show that there is a significant impact to the Electronic Accounting Information System on Audit testing where R^2 is 0.524 at sig less than 5%.

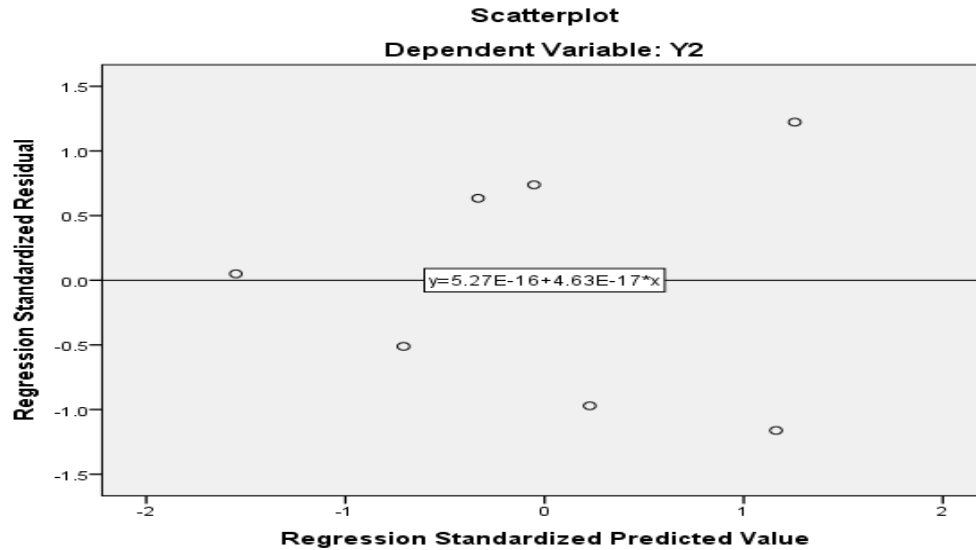


FIGURE 4

REGRESSION TEST RESULTS FOR SECOND HYPOTHESIS

Regression test for third hypothesis

We can test this hypothesis by regression test, we done the regression test the result was as Table 10 and Figure 5.

| TABLE 10 RESULTS OF REGRESSION TEST FOR THIRD HYPOTHESIS | | |
|---|----------------------------|--------------|
| | | Model |
| | | 1 |
| | R | 0.531 |
| | R^2 | 0.281 |
| | Adjusted R^2 | 0.652 |
| | Std. Error of the Estimate | 0.25637 |
| Change Statistics | R Square Change | 0.710 |
| | F Change | 12.233 |
| | df1 | 1 |
| | df2 | 5 |
| | Sig. F Change | 0.017 |

From Table 10 we show that there is a significant impact to the Electronic Accounting Information System on Risk assessments where R^2 is 0.281 at sig less than 5%.

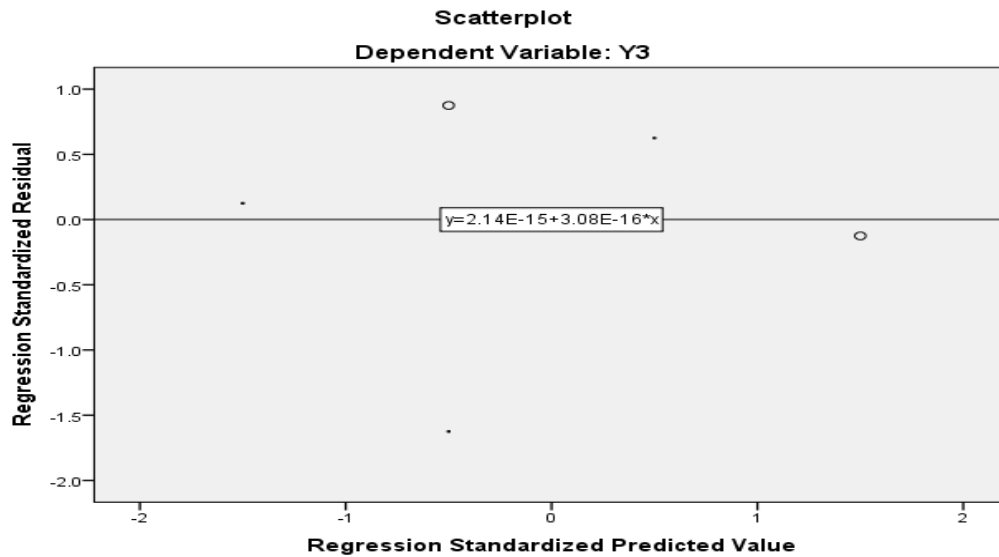


FIGURE 5

REGRESSION TEST RESULTS FOR THIRD HYPOTHESIS

Regression Test for fourth hypothesis

We can test this hypothesis by regression test, we done the regression test the result was as Table 11 and Figure 6.

| TABLE 11 | | |
|---|-----------------|-------|
| RESULTS OF REGRESSION TEST FOR FOURTH HYPOTHESIS | | |
| | Model | |
| | 1 | |
| R | 0.748 | |
| R^2 | 0.559 | |
| Adjusted R^2 | 0.522 | |
| Std. Error of the Estimate | 0.22041 | |
| Change Statistics | R Square Change | 0.602 |
| | F Change | 7.558 |
| | df1 | 1 |
| | df2 | 5 |
| | Sig. F Change | 0.040 |

From Table 11 we show that there is a significant impact to the Electronic Accounting Information System on Implementation audit plan where R^2 is 0.559 at sig less than 5%.

There is a significant relationship between Electronic Accounting Information System and Planning audit process where R is 0.659 at sig less than 5%. There is a significant impact to the Electronic Accounting Information System on Planning audit process where R^2 is 0.434 at sig less than 5%.

There is a significant relationship between Electronic Accounting Information System and Audit testing where R is 0.724 at sig less than 5%. There is a significant impact to the Electronic Accounting Information System on Audit testing where R^2 is 0.524 at sig less than 5%.

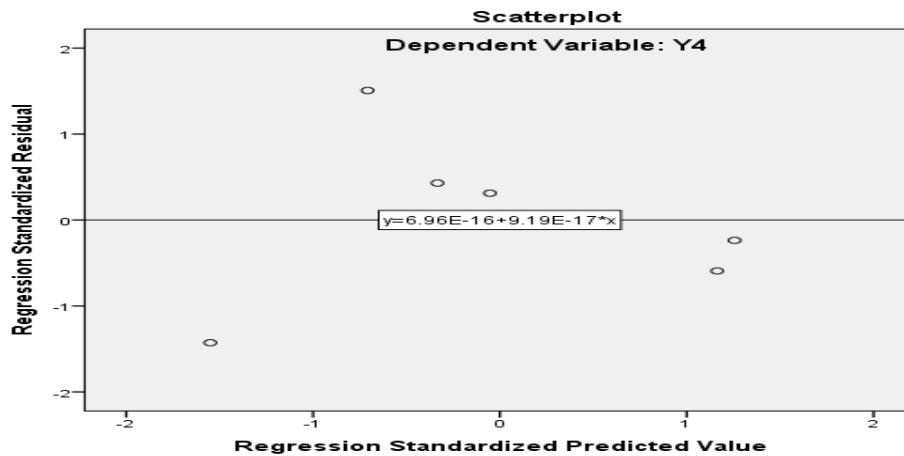


FIGURE 6

RESULTS OF REGRESSION TEST FOR FOURTH HYPOTHESIS

There is a significant relationship between Electronic Accounting Information System and Risk assessments where R is 0.531 at sig less than 5%. There is a significant impact to the Electronic Accounting Information System on Risk assessments where R^2 is 0.281 at sig less than 5%.

There is a significant relationship between Electronic Accounting Information System and Implementation audit plan where R is 0.748 at sig less than 5%. There is a significant impact to the Electronic Accounting Information System on Implementation audit plan where R^2 is 0.559 at sig less than 5%.

CONCLUSION AND IMPLICATIONS

The findings of this study have provided regulators with several suggestions. In particular, having considered the current rules, the participants stated that the Corporate Governance Code must be rewritten to show the recent changes and amendments in the auditing standards and governance rules. This is for the reason that the updated version of the JCGC was published in 2012 and progress has been made about the government regulations and international standards, particularly, the regulations regarding the non-audit service, the auditor's responsibility as regards assessing the internal control and providing valuable suggestions about

failings in the control measures and their weakness. Moreover, the external auditors should evaluate and communicate the internal governance system effectiveness (Beisland et al., 2015).

Furthermore, the auditor must take into account the evidence and effort of the governance mechanisms in implementing their procedures and audit test effectively. The Jordanian policymaker created the governance code and followed international professional standards to improve the audit quality and prevent weaknesses in the governance mechanisms. Hence, audit quality enables audit failure to be controlled and reduces the prospect of litigation. The audit has a sizable role to play in protecting the investor from both fraud and scandals. Apparent audit failures are hard to pinpoint with a degree of assurance. However, they can be concluded from various sources involving auditor litigation and business failures, as result of audit failure can lead to the risk of litigation for auditors. These litigation cases reveal that the auditor is one of the central accountable bodies verifying firms' financial positions and transactions. The research findings are essential for professionals, academics and regulatory bodies in Jordan, for example, the JSC and JACPA so that regular workshops can be arranged to increase awareness as regards the significance of the interaction between the external auditors and governance mechanisms about ensuring the quality of financial reporting and the audit process. Likewise, the audit committee, board of directors, as well as internal audit is more effective in adhering to their responsibilities by way of establishing a specialist body for these mechanisms, such as JACPA about external auditors. Regulatory bodies in Jordan, for instance, JACPA and JSC have sought to enhance the effectiveness of monitoring mechanisms and made a significant effort to ensure that this takes place. Additionally, audit quality supports financial reporting quality.

Those professional auditing bodies should hold workshops regularly for auditors in order to familiarize them with new technologies and software package developments used in computerized auditing of accounting systems, to make it more effective for them to do their job. Earlier research shows that the adoption of computerized systems by individual auditors remains relatively poor, considering the rapid growth of IT in industry today and support from regulators. Despite these limitations, our findings provide valuable insights into how auditors are actually using the accounting information system for both researchers and practitioners, as it can improve audit effectiveness and efficiency. Given the slower than anticipated adoption of the accounting information system by auditors, understanding the drivers of acceptance of the accounting information system allow researchers and practitioners to design preparation, marketing and support infrastructure to promote acceptance of the accounting information system. Second, this study provides standard setters with insights into the use of the accounting information system by auditors, as well as whether auditors may or may not comply with audit standards. Third, this research provides practitioners with insights about how to boost their acceptance rates for their accounting information system. The main purpose of an audit is to carry out a comprehensive review of the accounting reports and reports of a firm and to supply a firm with suggestions for change based on this assessment. The study showed that in a society that involves many individuals and business organizations. The audit value can be emphasized in a accounting information system process. The integration of computer technology into systems has changed the storage, retrieval and control of information. Furthermore, this research findings contributed the audit and AIS literature through highlighting how the implementation of computerized AIS can impact the quality of the external audit procedures (the planning for the audit process, audit testing procedures, risk assessments, implementation of the audit). The results from this research can be used by the professionals and policy makers to assist them, in improving the level of the

control and external audit procedures. In the light of these results, it is recommended to strengthen the AIS used in the organization tightly and accurately, and the need for the control reports submitted to management to include recommendations and proposals to address and evaluate performance, and the company's need to support all requirements of commitment to the quality of the external audit. This research relies on data from the questionnaires. However, further studies can make use of different approaches, for instance, observations of focus groups, which may provide a greater understanding, additional details and a more thorough explanation.

REFERENCES

- Abou-El-Sood, H., Kotb, A., & Allam, A. (2015). Exploring auditors' perceptions of the usage and importance of audit information technology. *International Journal of Auditing*, 19(3), 252-266.
- Abu Hassira, M. A. (2015). *The impact of using of computerized accounting information systems on the efficiency of the internal audit*. Islamic university, thesis retrieved from <http://hdl.handle.net/20.500.12358/18031>
- Alawaqleh, Q. A., & Almasria, N. A. (2021). The Impact of Audit Committee Performance and Composition on Financial Reporting Quality in Jordan. *International Journal of Financial Research*, 12(3), 55-69.
- Alawaqleh, Q. A., Almasria, N. A., & Alsawalhah, J. M. (2021). The Effect of Board of Directors and CEO on Audit Quality: Evidence from Listed Manufacturing Firms in Jordan. *The Journal of Asian Finance, Economics, and Business*, 8(2), 243-253.
- Al-Eqab, M., & Ismail, N. A. (2011). Contingency factors and accounting information system design in Jordanian companies. *IBIMA business review*, 2011, 1661288.
- Al-Hanini, E. (2011). *The Role of Using Information Technology in Enhancing the Quality of Auditing Services in Jordan-Empirical study at auditing offices and companies working in Jordan*. Master's thesis An-Najah University.
- Al-Hanini, E. (2015). Evaluating the reliability of the internal control on the computerized accounting information systems: An empirical study on banks operating in Jordan. *Research Journal of Finance and Accounting*, 6(8), 176-186.
- Almasria, N. A. (2018). *The relationship between internal corporate governance mechanisms and the quality of external audit process-empirical evidence from Jordan*. Doctoral dissertation submitted at University of Bedfordshire.
- Almasria, N., Choudhury, S., & Clark J. (2018). Empirical Evidence on the Relationship between Internal Audit Factors and the Quality of External Audit. *International Journal of Management and Applied Science*, 4(2), 72-80.
- Al-Momani, M., & Al-Shibli, A. (2013). *The Impact of Computerized Accounting Information Systems on the Functions of the Auditors of the Jordanian Audit Bureau in Enhancing Accountability*, pp 236.
- Al-Nuaimat (2013). Explaining the impact of using computerized accounting information systems in the internal audit process on the Jordanian commercial banking sector. *Scientific Journal of Economics and Trade*, 1, 977- 1019.
- Appelbaum, D. A., Kogan, A., & Vasarhelyi, M. A. (2018). Analytical procedures in external auditing: A comprehensive literature survey and framework for external audit analytics. *Journal of Accounting Literature*, 40, 83-101.
- Awosejo, O. J., Kekwaletswe, R. M., Pretorius, P., & Zuva, T. (2013). The effect of accounting information systems in accounting. *International Journal of Advanced Computer Research*, 3(3), 142.
- Bedard, J. C., Jackson, C., Ettredge, M. L., & Johnstone, K. M. (2003). The effect of training on auditors' acceptance of an electronic work system. *International Journal of Accounting Information Systems*, 4(4), 227-250.
- Beisland, L. A., Mersland, R. & Strøm, R. Ø. (2015). Audit quality and corporate governance: Evidence from the microfinance industry. *International Journal of Auditing*, 19(3), 218-237.
- Belfo, F., & Trigo, A. (2013). Accounting information systems: Tradition and future directions. *Procedia Technology*, 9, 536-546.
- Bierstaker, J. L., Burnaby, P., & Thibodeau, J. (2001). The impact of information technology on the audit process: an assessment of the state of the art and implications for the future. *Managerial Auditing Journal*, 16(2), 159-164.

- Carnaghan, C. (2006). Business process modeling approaches in the context of process level audit risk assessment: An analysis and comparison. *International Journal of Accounting Information Systems*, 7(2), 170-204.
- Carpenter, T. D. (2007). Audit team brainstorming, fraud risk identification, and fraud risk assessment: Implications of SAS No. 99. *The Accounting Review*, 82(5), 1119-1140.
- Cohen, J., Krishnamoorthy, G., & Wright, A. M. (2002). Corporate governance and the audit process. *Contemporary accounting research*, 19(4), 573-594.
- Corrado, C. J., & Jordan, B. D. (2002). *Fundamentals of investments: valuation and management*. McGraw-Hill Companies.
- Curtis, M. B., Jenkins, J. G., Bedard, J. C., & Deis, D. R. (2009). Auditors' training and proficiency in information systems: A research synthesis. *Journal of information systems*, 23(1), 79-96.
- Fordham, D. R., & Hamilton, C. W. (2019). Accounting Information Technology in Small Businesses: An Inquiry. *Journal of Information Systems*, 33(2), 63-75.
- Fukukawa, H., & Mock, T. J. (2011). Audit risk assessments using belief versus probability. *Auditing: A Journal of Practice & Theory*, 30(1), 75-99.
- Hajja, A. A. A. (2016). The Mediating Role of IT in the Relationship between Audit Quality and Faithful Representation of Accounting Information. *British Journal of Economics*, 13, 1.
- Handoko, B. L., Sabrina, S., & Ayuanda, N. (2019, August). Admission of Information Technology in External Audit Profession: Impact of Organizational, Social and Individual Factors. In *2019 International Conference on Information Management and Technology (ICIMTech)* pp. 36-41.
- Hayale, T. H., & Abu Khadra, H. A. (2006). Evaluation of The Effectiveness of Control Systems in Computerized Accounting Information Systems: An Empirical Research Applied on Jordanian Banking Sector. *Journal of Accounting, Business & Management*, 13, 300.
- Janvrin, D., Bierstaker, J., & Lowe, D. J. (2009). An investigation of factors influencing the use of computer-related audit procedures. *Journal of Information Systems*, 23(1), 97-118.
- Jnr, B. A., Majid, M. A., & Romli, A. (2019). Green information technology adoption towards a sustainability policy agenda for government-based institutions: An administrative perspective. *Journal of Science and Technology Policy Management*, 10(2), 274-300.
- Kesimli, I. (2019). External Audit from Process and Quality Perspective. In *External Auditing and Quality* pp. 101-179. Springer, Singapore.
- Loudon, K & Loudon, J., (2008). *Management Information Systems*. 11th Ed, Prentice Hall Into, Inc.
- Low, K. Y. (2004). The effects of industry specialization on audit risk assessments and audit-planning decisions. *The accounting review*, 79(1), 201-219.
- Lowe, D. J., Bierstaker, J. L., Janvrin, D. J., & Jenkins, J. G. (2018). Information technology in an audit context: have the big 4 lost their advantage?. *Journal of information systems*, 32(1), 87-107.
- Mamić Sačer, I., & Oluić, A. (2013). Information technology and accounting information systems' quality in Croatian middle and large companies. *Journal of information and organizational sciences*, 37(2), 117-126.
- Payne, E. A., & Curtis, M. B. (2017). Factors associated with auditors' intention to train on optional technology. *Current Issues in Auditing*, 11(1), A1-A21.
- Pickett, K. S. (2006). *Audit planning: a risk-based approach*. John Wiley & Sons.
- Sacer, M. I., Katarina, Z., & Boris, T. (2006). Accounting Systems Information as The Ground for Quality Business Reporting. *IADIS International Conference E-Commerce* Pp.59-64.
- Sumaryati, A., Novitasari, E. P., & Machmuddah, Z. (2020). Accounting Information System, Internal Control System, Human Resource Competency and Quality of Local Government Financial Statements in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(10), 795-802.
- Toth, Z. (2012). The current role of accounting information systems. *Theory, Methodology, Practice*, 8(1), 91.
- Trigo, A., Belfo, F., & Estébanez, R. P. (2014). Accounting information systems: The challenge of the real-time reporting. *Procedia Technology*, 16, 118-127.
- Wilkin, C. L., & Chenhall, R. H. (2010). A review of IT governance: A taxonomy to inform accounting information systems. *Journal of Information Systems*, 24(2), 107-146.
- Zsidosin, G. A., Panelli, A., & Upton, R. (2000). Purchasing organization involvement in risk assessments, contingency plans, and risk management: an exploratory study. *Supply Chain Management: an international journal*, 5(4), 187-198.