THE IMPACT OF E-ACCOUNTING ON INFORMATION SECURITY: EVIDENCE FROM AMMAN STOCK EXCHANGE

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ARTICLE INFO

Article history:
Received 26 June 2023
Accepted 22 September 2023

Keywords:
E-Accounting; Information Security; Integrity; Confidentiality; Control; ASE.

ABSTRACT

Purpose: The study aims to knowing the impact of applying electronic accounting (E-Accounting) as a modern field on the information security between its protection or violation.

Theoretical framework: The main challenge facing the use of electronic accounting is the security of information in shade of switching databases in electronic form more than on paper.

Design/Methodology/Approach: In order to achieve study purpose, a questionnaire was designed and distributed to a random sample representing corporations listed in Amman Stock Exchange (ASE). The study used descriptive and analytical statistical measures with using simple and multiple regression and testing targeted hypotheses.

Findings: The study found a significant relationship between E-Accounting and information security, the impact was strong and positive, the strongest impact was on integrity followed by control followed by confidentiality. Thus, evidence of multiple regression showed the applying of E-Accounting would protect information and not violate it, as some previous studies noted, however, the simple regression evidence showed at the same time some inverse relationships between some dimensions. The study recommended increasing interest in training and qualification of electronic accounting cadres and working on maintain the confidentiality of information.

Originality/Value: This study provides new empirical evidence regarding E-Accounting and information security literature, the main contribution of this study is the information protection is responded due to measurements of E-Accounting.

Doi: https://doi.org/10.26668/businessreview/2023.v8i9.3505

Resumo

Objetivo: O estudo tem como objetivo conhecer o impacto da aplicação da contabilidade eletrônica (E-Accounting) como um campo moderno na segurança da informação entre sua proteção ou violação.

Quadro teórico: O principal desafio enfrentado pelo uso da contabilidade eletrônica é a segurança das informações à sombra da troca de bancos de dados em formato eletrônico mais do que em papel.

Design/Metodologia/Abordagem: Para atingir o objetivo do estudo, foi elaborado um questionário e distribuído a uma amostra aleatória representando empresas listadas na Bolsa de Valores de Amã (ASE). O estudo utilizou medidas estatísticas descritivas e analíticas com o uso de regressão simples e múltipla e teste de hipóteses direcionadas.

Constatações: O estudo encontrou uma relação significativa entre a contabilidade eletrônica e a segurança da informação, o impacto foi forte e positivo, o impacto mais forte foi na integridade seguido pelo controle seguido pela confidencialidade. Assim, evidências de regressão múltipla mostraram que a aplicação da E-Contabilidade protegeria a informação e não a violaria, como alguns estudos anteriores observaram, no entanto, a evidência de regressão simples mostrou ao mesmo tempo algumas relações inversas entre algumas dimensões. O estudo

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Elessa, M. S. (2023)
The Impact of E-Accounting on Information Security: Evidence from Amman Stock Exchange

recomendou o aumento do interesse na formação e qualificação de quadros de contabilidade eletrônica e trabalhar para manter a confidencialidade das informações.

Originalidade/Valor: Este estudo fornece novas evidências empíricas sobre e-Contabilidade e literatura de segurança da informação, a principal contribuição deste estudo é a proteção da informação é respondida devido às medições de E-Contabilidade.

Palavras-chave: Contabilidade Eletrônica, Segurança das Informações, Integridade Confidencialidade, Controlo, BASE.

EL IMPACTO DE LA CONTABILIDAD ELECTRÓNICA EN LA SEGURIDAD DE LA INFORMACIÓN: EVIDENCIA DE LA BOLSA DE VALORES DE AMMAN

RESUMEN
Objetivo: El estudio pretende comprender el impacto de la aplicación de la contabilidad electrónica (E-Accounting) como campo moderno en la seguridad de la información entre su protección o violación.

Marco teórico: El principal desafío que enfrenta el uso de la contabilidad electrónica es la seguridad de la información a la sombra del intercambio de bases de datos en formato electrónico más que en formato papel.

Diseño/Metodología/Enfoque: Para lograr el objetivo del estudio, se diseñó y distribuyó un cuestionario a una muestra aleatoria que representaba a empresas que cotizan en la Bolsa de Valores de Ammán (ASE). El estudio utilizó medidas estadísticas descriptivas y analíticas mediante regresión simple y múltiple y pruebas de hipótesis específicas.

Hallazgos: El estudio encontró una relación significativa entre la contabilidad electrónica y la seguridad de la información, el impacto fue fuerte y positivo, el impacto más fuerte fue en la integridad, seguido por el control y luego la confidencialidad. Así, la evidencia de regresión múltiple mostró que la aplicación de la Contabilidad Electrónica protegería la información y no la violaría, como observaron algunos estudios anteriores; sin embargo, la evidencia de regresión simple mostró al mismo tiempo algunas relaciones inversas entre algunas dimensiones. El estudio recomendó aumentar el interés en la formación y cualificación del personal de contabilidad electrónica y trabajar para mantener la confidencialidad de la información.

Originalidad/Valor: Este estudio proporciona nueva evidencia empírica sobre la literatura sobre contabilidad electrónica y seguridad de la información, la principal contribución de este estudio es que la protección de la información se responde gracias a las mediciones de contabilidad electrónica.

Palabras clave: Contabilidad Electrónica, Seguridad de la Información, Integridad Confidencialidad, Control, BASE.

INTRODUCTION AND BACKGROUND

When mentioning the E-Accounting concept, it immediately comes to mind the accounting automation, including data sources, records, work mechanism, and dispensing with paper (Thottoli and Ahmad, 2022). In other words, modern accounting in light of the role of technology in the business environment, where accounting was greatly affected and became less paper work, with the important role of the electronic computer, Internet and ready-made software that can be used, as these are considered one of the most important electronic accounting tools (Viola and Eskandar, 2022).

Businesses reap importance by adopting E-accounting such as saving time, effort, cost, and this would contribute to improving the performance of these Businesses and strengthening their competitive position in the market, in addition to support cash flows and profitability (Bataineh, 2018; Elessa et al, 2023). Is it possible for Businesses to survive without adopting
the E-Accounting? Especially since the main objective of financial accounting as one of the social sciences that studies society and people in its axis, is to provide appropriate financial information - which is the output of the accounting system - to stakeholders in society in order to help them make their various decisions (Shroeder et al, 2019). It is necessary to keep pace with technological developments that society and people need and facilitating the society’s access to the outputs of the accounting system, which is important to decision-making that depends directly on accounting information, so the correctness, accuracy, effort, and speed associated with it will affect the decision quality, negatively or positively (Kieso et al, 2020; Aysel, 2014).

A lot of researches like (Teru et al, 2019; Toshniwal, 2016; Yadav, 2015) discussed the benefits of electronic accounting, which are expected to be reflected on the user in the light of talking about the way he enters and obtains the accounting information that interests him, the extent of its availability at any time, the powers granted to him in order to access it, and all this would reap the following most important desired benefits:

- Saving the cost, time and effort of obtaining accounting information.
- Keeping accounting information in databases so that it is ready for use at any time the user needs, while giving the powers and passwords authorized to access it (Suzan et al, 2020).
- Dispensing with papers and manual records that take up space that may be used for other important activities in the project.
- Exchanging and disseminating accounting information and upload it from and to any party, from any computer and from anywhere easily and speedily.
- Electronic archiving and obtaining additional copies of the databases that may be used in the event of damage to any components in the electronic systems (Oladejo and Yinus, 2020).
- Finding job opportunities and new channels to keep pace with modern accounting (Al-Dmour and Al-Dmour, 2018).
- Paving and facilitating means of communication between all stakeholders.
- Raising coordination level between departments within the project and increasing the effectiveness of performance in preparing reports and budgets (Mardi et al, 2020).
- Improving the qualitative characteristics of the accounting information included in the financial statements (Schroeder et al, 2019).
• Keeping financial data, accounting records and software in a secure environment (Elina and Jukka, 2019).
• Reducing the risks of wasting time, vacations and the risks of employee turnover rates (Al-Delawi and Ramo, 2020).
• Usefulness of electronic application services such as e-mail, scanners, and other digital transformation. (Alshanti and Elessa, 2023)
• Reducing mistakes, improving productivity, and auditing operations (Ahmad and Al-Shbiel, 2019).

It’s noticeable that there is a large focus on computers and the Internet as tools for the application of e-accounting, hence some researches like (Teru, 2019; Yadav, 2015) talked about the challenges that could occur with regard to the spread and globalization of information, such as:

• Protecting information from penetration, modification or loss (Elina and Jukka, 2019).
• The characteristics and specifications of the used devices, stores, networks and software, and if they keep pace with the targeted goals and needs.
• The availability or outage of the electricity supplying the e-accounting tools and the quality of providing Internet services, whether from the provider or from units within the project.
• The capabilities of the human elements that work in the mental, technical and practical electronic systems.
• The strength or weakness in the internal control system in the project in its various parts (Lawita, 2020; Malahim et al, 2023).
• The reflection of any development or change in information technology on electronic accounting tools (El-dalabeeh, 2019).
• Cost requirements for investing in e-accounting tools such as computers, software, experts and specialists, and the cost of systems and their operations.
• The need of training and skill refining of workers continuously (Kanakriyah, 2017).
• Deny and resistance changing by different parties and risk disclosure practices (Malahim, 2023).
FURTHER RELEVANT LITERATURE

Previous studies have discussed E-Accounting and information security. The following studies can be highlighted in this context:

(Teru et al, 2019) study entitled "The Impact of E-Accounting in Modern Business" concluded that many of the projects that failed were not due to the low quality of materials, the availability of training for employees, or management problems, but rather that the reason was the practical application. For the accounting used by these projects, there is a need to use e-accounting instead of traditional accounting. Furthermore, "Cyber Security for Cyber Accounting- tool for the Digital Enterprise" was the title of (Crestina et al, 2019) study that talked about the shift to new ways in the business world that are concerned with finding and capturing new sources of value. The study presented the future impression of digital information transfer with not ignoring the challenges and weaknesses of the electronic security management of accounting information, and the study revealed that working in the digital environment would provide possible opportunities for accountants to deal with the field of electronic security of accounting information. Prevention must be used and has become necessary in the information society, despite the difficulty of measuring information protection financially. However, as for the study (Bawaneh, 2018), which was titled "Securing Information Technology for Banks and Accounting Information Systems", the study dealt with three types of information security for organizations in the Amman Stock Exchange, especially banks, which are expected to be used in their accounting information system, and concluded that banks are able to Protecting its information from fraud and control procedures related to inputs, operations and outputs. Computer crimes can be mitigated through methods such as increasing caution among employees, security measures and passwords, and taking the belief that computer crimes are caused by the absence of control more than its failure. She talked about the emergence of a need and opportunities for forensic accountants and specialized software to achieve the above. She also talked about the good security of information from non-solid planning and control, and this will pave the way for future research.

While the study (Al-Zoubi, 2017), which was titled “The Extent of Electronic Accounting Information Systems Ability to Provide Quantitative Indicators of Financial Performance” dealt with data analysis of questionnaires and interviews to see to what extent you can electronic AIS should provide financial performance indexes, and concluded that electronic AIS cannot provide these financial indicators regarding Universities in Jordan. Another study in talking about electronic accounting, (Hajera, 2016) entitled "The Impact of E-
Accounting in Today's Scenario" related to this field, as it talked about E-accounting and called it online accounting, which keeps financial data in digital stores and software instead of paper. A secure and protected environment for accounting information and through the powers granted to the parties to access it, and showed that this modern development in accounting led to savings in the cost and time of the user and helped him to obtain comparable financial statements easier and faster and led to the creation of additional opportunities that work more efficiently and effectively than before. Also, the application of this development is accompanied by work without papers, and for the user, I called it the term friendly accounting. Also, in the comparison between electronic accounting and traditional accounting, the study of (Toshniwal, 2016) dealt with this topic, entitled "E-Accounting: The Necessity of Modern Business". It talked about electronic accounting as an emerging field that was alerted at the international level and stated that the sources of financial data exist digitally instead of paper, and this saves time, effort, and cost, and it concluded that while traditional accounting consumes time and waiting to know the results, it likens to the autopsy process, and when compared to modern accounting applications, we can get the results with one click on the computer.

As for the security of accounting information systems based on information technology, (Shu, 2016) titled "Modern Accounting Information System Security (AISS) Research Based on IT Technology" dealt with this topic and considered accounting information systems using the concept of networks to process, broadcast and query information, but at the end On the other hand, we find that this has results on information security during the aforementioned stages, and among the developments in this field is the so-called B/S, which means search and stores, and this would lead to storing accounting information in secure databases and stores, with the presence of a risk associated with this concept in the stage Broadcasting and transmitting information.

In talking about the relationship between Electronic Accounting and a secure environment, the study of (Yadav, 2015) entitled "E-Accounting: Challenges and Future" was applied to India and showed that electronic accounting helps to create a safe environment for keeping financial data and accounting records, which are available in the form of Digital instead of paper, electronic accounting also allows information for authorized persons to view it, regardless of their location, and all of this helped to adopt it internationally. In addition to, the study of (Aysel, 2014) titled "Role of Technology in Accounting and E-Accounting" mentioned the implementation of accounting functions through electronic media as a reflection of the digital revolution in information science and digital resources. Among these digital applications
is the so-called electronic accounting that contributes to the implementation of more Efficiency, reasonable cost and flexibility through Internet facilities. Finally, the study talked about the need for electronic accounting staff in line with the requirements of the modern era. And in another study by (Soudani, 2013) entitled "The Impact of Implementation of E-Accounting System Financial Performance with Effects of Internal Control Systems", where this study surveyed, by means of a questionnaire, all listed companies in the United Arab Emirates due to the advent of the era of technology and radical changes in the method of accounting. In order to maintain competitive capabilities, the study concluded that there are effects of electronic accounting on these companies on financial performance, taking into account the internal control system. But the study of (Wang, 2011) titled "Accounting informationization and information security research" stated that the acceptance of the concept of information that develops on an electronic basis is fast, but there is something to pay attention to, which is that although accounting information will be convenient and more effective, information security will remain in bottleneck. Also, the way to complete the accounting information is to guarantee the security of the accounting information.

FORMULATING THE PROBLEM

Working according to this modern field, which is electronic accounting, will make, as mentioned above, the presence of data sources, records, and databases in electronic form more than on paper, and this is expected, and as many previous studies have talked about in this field and how it affects the quality of providing accounting information to stakeholders as it improves and develops it, but what about the security of this information associated with the adoption and use of electronic means? The aspects that were mentioned in previous studies were divided in talking about this subject, some of which talked about the positive aspect and raising the level of protection for information, and others talked about the negative aspect and the possibility of breaching these means, which leads to the impact or loss of this information, and from here and based on this challenge the main challenge facing the use of electronic accounting is the security of information, this current study came to shed light on this challenge, as the following main question can be formulated in the study problem, which is: Does the employment of electronic accounting have an impact on the security and protection of information in corporations listed on the ASE?

In order to answer the previous question, the following sub-questions were asked:

1- What are the benefits and challenges of using E-Accounting?
2- What is the impact of the application of E-Accounting on the integrity of information?
3- What is the impact of the application of E-Accounting on the confidentiality of information?
4- What is the effect of applying E-Accounting on control of information?
5- Which of the above factors is considered to have the strongest influence in the relationship and relative importance?

MEASURES AND DATA COLLECTION

The study relied on secondary data, which was represented by scientific references and previous studies, the other one is primary data through the design of a questionnaire that covered the variables of the study, which adopted the five-point Likert Scale to measure the responses, which consisted of (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, and 5: strongly agree).

The study population consisted of all corporations listed on the Amman Stock Exchange, a random sample was drawn from the study population covering all its sub-sectors, and the number of companies in the sample was (24) corporations from various sectors, where (5) questionnaires were distributed for each corporation, of which (80) questionnaires were retrieved valid for statistical analysis.

The study model was derived based on researches as showed below in operational definitions which consisted of electronic accounting as an independent variable, which was measured through three dimensions: (computers and networks, accounting software, capabilities and qualification). But the dependent variable, which is the security of information was measured through three dimensions: (integrity, confidentiality and control).

OPERATIONAL DEFINITIONS

Independent variable: electronic accounting is the implementation of accounting functions using electronic technologies, computers, software, and the Internet, including data sources and records, and dispensing with the use of paper and notebooks. This variable includes the following dimensions: (Oladejo and Yinus, 2020; Teru et al, 2019; Zhang, 2019; Yvonne and Nizam, 2018; Toshniwal, 2016).

- Computers and networks: computers and communication via networks and the Internet in receiving, executing and sending accounting data.
• **Accounting software**: relying on ready-made systems and software to implement accounting steps and tasks.

• **Capabilities and Qualifications**: The capabilities and technical qualifications of the working cadres to deal with electronic systems and the training required for that.

**Dependent variable**: Information security is preventing information from being accessed and wasting it without authority and providing protection from any internal or external risks and threats. This variable includes the following dimensions: (Cristina et al, 2019; Steinbart and Romney, 2017; Shu, 2016).

• **Integrity**: the correctness of the information and that it is not erroneous and preventing its distortion or modification.

• **Confidentiality**: Not allowing or disclosing specific information except to authorize parties, including unauthorized penetration.

• **Control**: Ensuring access to information by authorized parties upon request, encryption, and giving access to specific parties with the ability to modify that.

**DISCUSSING RESULTS AND TESTING HYPOTHESES**

**Validity and Reliability of the Questionnaire Results**

(120) questionnaires were distributed and (80) questionnaires were retrieved, which is a statistically appropriate number, and the Reliability Analysis - Scale (Alpha) test, called Cronbach’s Alpha Test, was performed. It was found that the value of (Alpha) is 88.67%, which is acceptable because it is greater than 60% (Sekaran and Bougie, 2019). Therefore, the measurement tool (the questionnaire) can be relied upon to reach the results of this study.

**Descriptive Sample Characteristics**

<table>
<thead>
<tr>
<th>Demographic indicator</th>
<th>Frequency/Total</th>
<th>Frequency%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of (Male)</td>
<td>55/80</td>
<td>68.7%</td>
</tr>
<tr>
<td>Academic qualification of (bachelor's degree)</td>
<td>50/80</td>
<td>62.5%</td>
</tr>
<tr>
<td>Experience of (less than 10 years)</td>
<td>60/80</td>
<td>75%</td>
</tr>
<tr>
<td>Specialization of (Accounting and Accounting Information Systems)</td>
<td>70/80</td>
<td>87.5%</td>
</tr>
<tr>
<td>How to work of (using a computer)</td>
<td>62/80</td>
<td>77.5%</td>
</tr>
</tbody>
</table>

Source: prepared by the researchers based on the outputs of the statistical analysis (Berenson et al, 2018)
Descriptive Statistics for Variables

Table (2): Descriptive statistics of the study variables

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Level</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The impact of electronic accounting on the information integrity.</td>
<td>4.47</td>
<td>0.72</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>The impact of electronic accounting on the information confidentiality.</td>
<td>3.68</td>
<td>0.45</td>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>The impact of electronic accounting on the information control.</td>
<td>4.20</td>
<td>0.61</td>
<td>High</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: prepared by the researchers based on the outputs of the statistical analysis (Berenson et al, 2018)

HYPOTHESIS TESTING RESULTS

The three hypotheses of the study were tested based on the analysis of the answers to the questions of related variables and dimensions. as follows:

First Hypothesis Testing Result

H1o: There is no statistically significant impact at the level of α = 0.05 for electronic accounting on the information integrity.

H1ı: There is a statistically significant impact at the level of α = 0.05 for electronic accounting on the information integrity.

Multiple regression analysis was used to test the first hypothesis, and its results are as shown below:

Table (3): summary of the model and the results of the multiple and simple regression analysis on the information integrity

<table>
<thead>
<tr>
<th>Dimensions of Electronic Accounting</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>F Sig</th>
<th>B</th>
<th>t</th>
<th>Sig t</th>
<th>dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and networks</td>
<td>0.921</td>
<td>0.848</td>
<td>7.82</td>
<td>0.000</td>
<td>0.88</td>
<td>2.61</td>
<td>0.010</td>
<td>Information Integrity</td>
</tr>
<tr>
<td>Accounting software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.79</td>
<td>2.42</td>
<td>0.016</td>
<td></td>
</tr>
<tr>
<td>Capabilities and qualification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.57</td>
<td>2.99</td>
<td>0.003</td>
<td></td>
</tr>
</tbody>
</table>

Constant = 0.892, α= 5%, table F = f (α, k-1, n-k) = 2.73

Source: prepared by the researchers based on the outputs of the statistical analysis (Sekaran and Bougie, 2019)

Table (3) above shows the calculated F value for multiple regression, which amounted to 7.82, which is greater than the table F value above, also shows the value of Sig t which amounted to 0.000, which is less than the significance level α, and accordingly, the null hypothesis H1o is rejected and the alternative hypothesis H1ı is accepted, and this means that there is a significant impact of electronic accounting on the information integrity.
Table (3) also shows the value of R, where we find it 0.921, and this means that the relationship between electronic accounting and the information integrity is strong and positive. Likewise, electronic accounting with its different dimensions can explain 84.8% of the change in the information integrity based on the value of R², which is 0.848.

By looking to calculated t values contained in table (3), it can be seen that the results of the simple regression analysis of the regression coefficients, and accordingly, each of the (computers and networks), (accounting software) and (capabilities and qualifications) are statistically significant based on the Sig values for each of them, which amounted to 0.010, 0.016 and 0.003 respectively, and therefore, the multiple regression equation for information integrity can be derived according to the following:

Information integrity = 0.892 + 0.88 computers and networks + 0.79 accounting software + 1.57 capabilities and qualifications.

Second Hypothesis Testing Results

H2o: There is no statistically significant impact at the level of α = 0.05 for electronic accounting on the information confidentiality.

H2ı: There is a statistically significant impact at the level of α = 0.05 for electronic accounting on the information confidentiality.

Multiple regression analysis was used to test the second hypothesis, and its results are as shown below:

Table (4): Summary of the model and the results of the multiple and simple regression analysis on information confidentiality

<table>
<thead>
<tr>
<th>Dimensions of Electronic Accounting</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>F Sig</th>
<th>B</th>
<th>t</th>
<th>Sig t</th>
<th>dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and networks</td>
<td>0.780</td>
<td>0.608</td>
<td>12.31</td>
<td>0.000</td>
<td>-0.91</td>
<td>-1.60</td>
<td>0.120</td>
<td>Information Confidentially</td>
</tr>
<tr>
<td>Accounting software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.80</td>
<td>3.62</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>Capabilities and qualification</td>
<td>0.29</td>
<td>3.24</td>
<td></td>
<td></td>
<td>0.29</td>
<td>3.24</td>
<td>0.004</td>
<td></td>
</tr>
</tbody>
</table>

Constant = 0.411, α= 5%, table F = f (α, k-1, n-k) = 2.73

Table (4) Above shows calculated F value for multiple regressions as it reached 12.31, which is greater than the table F value, also shows the value of Sig t which amounted to 0.000, which is less than significance level α, and accordingly, the null hypothesis H2o is rejected and accepted the alternative hypothesis H2ı, which means that there is a significant impact of electronic accounting on the information confidentiality.
Table (4) also shows the value of R, where we find it 0.780, and this means that the relationship between electronic accounting and the information confidentiality is strong and positive. Likewise, electronic accounting in its various dimensions can explain 60.8% of the change in information confidentiality based on the value of $R^2$, which is 0.608.

In view of the calculated t values contained in Table (4), it can be said that the results of the simple regression analysis of the regression coefficients, and accordingly, each of the (computers and networks), (accounting software) and (capabilities and qualifications) are statistically significant based on the Sig values for each of them, which amounted to 0.120, 0.002 and 0.004 respectively, and so, the multiple regression equation for information confidentiality can be derived according to the following:

Information confidentiality = 0.411 -0.91 computers and networks + 1.80 accounting software + 0.29 capabilities and qualifications.

### Third Hypothesis Testing Results

**H3o**: There is no statistically significant impact at the level of $\alpha = 0.05$ for electronic accounting on the information control.

**H3ı**: There is a statistically significant impact at the level of $\alpha = 0.05$ for electronic accounting on the information control.

Multiple regression analysis was used to test the third hypothesis, and its results are as shown below:

Table (5): Summary of the model and the results of the multiple and simple regression analysis on information control

<table>
<thead>
<tr>
<th>Dimensions of Electronic Accounting</th>
<th>R</th>
<th>$R^2$</th>
<th>F</th>
<th>F Sig</th>
<th>B</th>
<th>t</th>
<th>Sig t</th>
<th>dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers and networks</td>
<td>0.833</td>
<td>0.693</td>
<td>11.0</td>
<td>0.000</td>
<td>1.40</td>
<td>3.8</td>
<td>0.000</td>
<td>Information Control</td>
</tr>
<tr>
<td>Accounting software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.37</td>
<td>5.45</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Capabilities and qualification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.64</td>
<td>-3.65</td>
<td>0.002</td>
<td></td>
</tr>
</tbody>
</table>

Constant = 0.720, $\alpha= 5\%$, table $F = f (\alpha, k-1, n-k) = 2.73$

Source: prepared by the researchers based on the outputs of the statistical analysis (Sekaran and Bougie, 2019)

Table (5) Above shows calculated F value for multiple regressions as it reached 11.06, which is greater than the table F value, also shows the value of Sig t which amounted to 0.000, which is less than significance level $\alpha$, and accordingly, the null hypothesis H3o is rejected and accepted the alternative hypothesis H3ı, which means that there is a significant impact of electronic accounting on the information control.
Table (5) also shows the value of R, where we find it 0.833, and this means that the relationship between electronic accounting and the information control is strong and positive. Likewise, electronic accounting in its various dimensions can explain 69.3% of the change in information control based on the value of R², which is 0.693.

In view of the calculated t values contained in table (5), it can be said that the results of the simple regression analysis of the regression coefficients, and accordingly, each of the (computers and networks), (accounting software) and (capabilities and qualifications) are statistically significant based on the Sig values for each of them, which amounted to 0.000, 0.000 and 0.002 respectively, and so, the multiple regression equation for information control can be derived according to the following:

\[ \text{Information control} = 0.720 + 1.40 \text{computers and networks} + 0.37 \text{accounting software} - 0.64 \text{capabilities and qualifications}. \]

CONCLUSION

The study indicated high levels descriptive responses towards strongly agreeable impact of using E-Accounting on information security, the highest rise was on information control while the lowest rise was on information confidentiality, likewise, further multiple regression analysis proved this effect with positive and strongest impact on each of information integrity followed by information control followed by information confidentiality, and accordingly, the E-Accounting can explain 84.8%, 60.8% and 69.3% of the changes in these dimensions respectively, however, further simple regression clarified some inverse relations between (computers and network) and information confidentiality, (capabilities and qualifications) and information control. Thus, the evidences intend the E-Accounting would protect information and not violate it.

RECOMMENDATIONS

The study recommends the following:

- Increasing interest in qualifying and training technical cadres working in the Electronic Accounting system and providing them with the appropriate capabilities to adapt to this new field and its requirements.
- Increasing the level of control over computers and networks in order to maintain the confidentiality of information.
REFERENCES


