

Firm Determinants that Influences Implementation of Accounting Technologies in Business Organizations

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Abstract: - This research examined firm factors of accounting technology adoption in businesses. The research examines how technical, organizational, environmental, and owner-manager variables affect accounting technology deployment in businesses. The study used *expos facto* design as its research method. Every employee of hotel and tourism firms in the Amman Stock Exchange forms the population for the study. In order to get an accurate representation of the population, 76 respondents were selected for the study. The study found that technical, organisational, environmental, and owner/manager factors affect accounting technology adoption in businesses. The findings demonstrate and indicate that there is a significant effect of technical, organizational, environmental, and owner-manager variables on the implementation of accounting technology in business organizations. Based on the findings of the study, it was recommended that the creator of an e-accounting system should exploit the geographic concentration of businesses to their advantage by creating a locally made, affordably priced e-accounting system that can be deployed to businesses and used by several users with different preferences.

Key-Words: - Firm, Implementation, Accounting, Technologies, Business Organizations

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1 Introduction

Without accounting, a company cannot function. Due to technological advances, accounting bookkeeping has moved to computerized accounting systems (CAS). "Accounting system," "accounting information system," and "accounting software" are all synonymous. Because of this, "accounting system" may be used interchangeably with "software," "information," and "system" throughout this research. Understanding "accounting" may help you comprehend "accounting software" or "accounting information systems."

Accounting services are much more crucial to a company's success. Accounting systems record, analyse, monitor, and evaluate financial transactions, tax records, and other corporate information. Before personal computers, corporations managed their money on paper. Pre-electronic accounting used paper ledgers, typewriters, and calculators, [1]. Typewriters wrote invoices and checks, while calculators calculated money. False information might be incorporated into the final result due to this method's long-term flaws. As in other sectors, personal computers changed accounting. Computerized accounting

systems analyze financial data rapidly and correctly, but their main value is in their immediate reporting.

Accounting data may help organizations make decisions. Many firms still use manual accounting, while others don't bother, [2]. Manual accounting makes financial data retrieval sluggish and tedious. Commercial firms cannot operate a manual accounting system or not keep records. As the business develops and enters new areas, it will require outside financing.

Information and communication technologies have improved spreadsheets, off-the-shelf accounting systems like Sage and Peachtree software, in-house-built accounting technologies, e-accounting technologies, and I.C.T devices like phones, laptops, etc. Technology has made accounting more efficient and flexible. Many organisations still hesitate to embrace cutting-edge accounting software.

1.1 Objectives of the Study

1. To investigate the link between technological qualities and the deployment of accounting technology.
2. To investigate the link between organisational

characteristics and the deployment of accounting technology.

3. To investigate the link between environmental conditions and the application of accounting technology.

1.2 Research Questions

What is the link between technological qualities and the deployment of accounting technology?

What is the link between organisational characteristics and the deployment of accounting technology?

What is the link between environmental conditions and the application of accounting technology?

1.3 Hypotheses

1. Technological qualities do not significantly affect the deployment of accounting technology.
2. Organisational characteristics do not significantly affect the deployment of accounting technology.
3. Environmental conditions do not significantly affect the application of accounting technology.

2 Review of Related Literature

2.1 Accounting Technologies

New technology is changing the careers of millions of employees worldwide. The fast development of new technology highlights this concern. Technological advancement, globalisation, internet communication, and changing rules and regulations have all contributed to the transition.

Recent studies have examined how new technology affects accounting. The study, [3], lists accounting issues that technology may soon solve. Using blockchain technology, researchers are also studying accountants' evolving roles and skills. Using blockchain technology will require new accountants that understand its environment, [4]. After blockchain technology is introduced, auditors will focus on internal control with a new approach.

Late in the 20th century, accounting changed. Computers and accounting software have changed accounting. Accountants might manage their money digitally using spreadsheet applications like Microsoft Excel. We no longer need calculators, ledgers, or pencils. The work was less repetitive and error-prone. Accountants no longer study

bookkeeping, auditing, and tax filing. Statistical accounting and computer-based analysis help accountants forecast better. Accounting software has given accountants more options and challenges than abacuses did, [5].

Today's efficient accountants work online. They do vital business online. Accounting organisations may simplify client contacts and improve internal procedures using e-business. Intranets may be used to access business applications. The intranet informs employees about corporate policies and programs. Users enter the system via the portal. Web interfaces may get data from various sources.

ERP technologies help 21st-century accountants prepare for the future. This software unites business divisions. Data in several forms improve cross-departmental communication. Accounting, finance, marketing, HR, and production and manufacturing exchange it via a single database, [6].

Cloud computing is also gaining popularity. "Cloud computing" is named after the Internet cloud symbol in flowcharts. The solution lets customers operate cloud-based business apps and permanently save data on a remote server. Software-as-a-service (SaaS) is web-based software computing" named after the Internet cloud symbol in flowcharts. The solution lets customers operate cloud-based business apps and permanently save data on a remote server. Software-as-a-service (SaaS) is web-based software. Massive data centres store data forever.

2.2 Concept of Accounting Technology Implementation

Accounting technology deployment starts when a firm realises it needs ICT to record its financial transactions and concludes when the technology is fully used. Cooper and Zmud's IT implementation process model helped frame this notion. This model was used to show the spread of accounting technology because it clearly arranged the procedures needed to adopt a new system. Several favourable studies have employed this approach, [7].

2.3 Accounting Technology Implementation and Technological Characteristics

Accounting technology usability is how effectively the system meets users' expectations, objectives, and worldviews. According to, [8], innovation compatibility is judged by how effectively a new concept fits with established business practices, the company's beliefs and goals, and its network of

suppliers and consumers. According to, [9], innovation adoption is proportionate to how effectively the adopter thinks it meets a business need. Complicated inventions are hard to utilise.

Accounting technology adoption may also depend on cost. Price may hinder technology adoption. According to, [10], installing the necessary technologies and reorganising the organisation to accommodate the new technology make up the cost of any technology.

Reliability, capacity, availability, affordability, security, and an attitude toward a technology based on relative benefit, compatibility, trialability, complexity, observability, and image difficulties are described in the literature. These included external knowledge and services, software quality, vendor support, IS/IT alternatives available to the organisation, IS/IT objectives and assumptions, and an IS/IT benefits evaluation cost, compatibility, and benefit, [11].

2.4 Organizational Characteristics and Accounting Technology Implementation

Internal resource availability and utilisation are organisational factors. Previous research has stressed capital, human resources, knowledge, efficiency, priorities, and profitability. Organization size also matters, [12].

Businesses have distinct traits. These factors vary by MSE. Age, size, global connections, and hiring an external auditor may impact the implementation of an e-accounting system. An organization's size impacts its electronic accounting system utilization, [13]. Comparatively, business organisations are small. However, these companies differ greatly. Bigger companies spend more on hardware and software because they value ICT more.

A company's "age" is a general approximation of its founding date. Longevity may alter a company's accounting practices. The business life cycle model does not need startups to maintain thorough records. The business life cycle model describes how companies grow and mature.

2.5 Implementation of Accounting Technologies and Environmental Factors

The literature describes environmental impacts as markets, competitive pressures, government norms and laws, external IT advice, and supplier, vendor, partner, and customer pressure. Information technology enables an organisation to change the makeup of a sector, set new rules of competition, and start new businesses, according to, [14]. New

IT is linked to competitiveness, according to research.

The study, [15], found strong internal and external enablers for ICT B2C e-commerce in Saudi Arabia. B2C e-commerce adoption depends on organizational IT readiness, top-level management support, strategic direction, customer pressure, regulatory environment, and national preparedness. Business-to-consumer e-commerce adoption by Zimbabwean SMEs depends on technological, environmental, and organizational factors.

3 Theoretical Framework

3.1 Theory of Reasoned Action

Social psychologists use the Theory of Reasoned Action to explain and predict behavior. Ajzen and Fishbein's years of work produced the TRA, [16]. TRA, one of the best-known theories of human will, has been examined in various circumstances since its introduction to behavioural science. It assumes rational people weigh all relevant information before making judgments. The hypothesis assumes that individuals will behave according to their intentions, barring unanticipated occurrences, since intentions directly determine behaviour. Consider how motivated rural customers are to utilise mobile phone payment technology. As a result, before adopting mobile phone payment technology, rural populations must evaluate information about it. Mobile phone payment technologies don't have to be expensive or complicated to work. The authors say they're interested in how behavioural intentions develop. study by, [17]. A person's "attitude" toward their behaviour and their sense of "subjective norms" (social expectations) influence their behaviour. Depending on the situation and the actor, attitudes and subjective standards influence behavior. Beliefs and evaluations of a behavior's results impact a person's view of it. An individual's subjective standard comes from their assumptions and ambitions to fulfil others' standards. The Rural residents value peaceful neighbourhoods. Thus, they are thoughtful at work. They consider how their actions will affect loved ones. Social pressure may accelerate mobile phone payment system adoption. The subjective norm affects cultural acceptance of new technology. Some academics use reasoned action in conjunction with other technological theories and models, particularly when attitudes and perceptions are involved. Attitudes and subjective standards about a

behaviour strongly influence its likelihood. Adopting and using new technology is particularly important. Researchers, [18], discovered that one's perspective affects whether one accept and use new technologies. Figure 1 from, [19], displays these connections' overall structure.

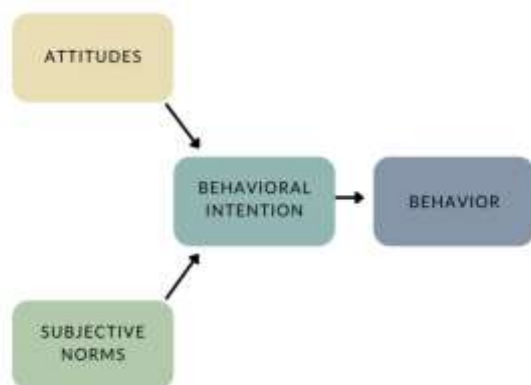


Fig. 1: Theory of Reasoned Action Model

To quote the TRA: "Attitude toward the activity (their attitude) and perception of social pressures from people they perceive they must please impact behaviour" (technically referred to in the theory as "subjective norms"). People often avoid doing things that make them feel awful or unpopular and prefer doing things that make them feel good or popular. After deciding, people are more inclined to follow through. Studies show that positive attitudes increase the chance of participation in an activity, whereas negative attitudes decrease it. According to the TRA, a person's opinion of an activity depends on their expectations of the outcomes. People will approve of an activity if they believe it will largely benefit them (and negative consequences will appear unlikely). Since statistics imply bad things will happen most of the time and good things are rare, being pessimistic makes sense. A student may feel that studying more would improve academic achievement but decrease social connection. Students who value pleasure above schoolwork or don't feel they can improve their grades through hard work are more likely to dislike studying. However, if a kid values academic performance above socialising and believes academic work pays well, their study habits may improve.

4 Methodology

4.1 Design of the Study

The research uses Expost-Facto. This research strategy was excellent since it examined existing correlations between independent and dependent variables. Nworgu (1991:136) highlights that a research design is a plan or blueprint which specifies how data relating to a given problem should be collected and analyzed. It provides the procedural outline for the conduct of any investigation.

4.2 The Area of Study

The area of this study was the hotels and tourism companies listed on the Amman Stock Exchange.

4.3 Source of Data

The data of the research are of two kinds; primary and secondary data. [19], agrees that the primary data contains a direct or original account of an event or phenomenon given by someone who observed the event or phenomenon. These are relevant information obtained from the works of others.

4.4 Population of the Study

This survey included 1290 Amman stock exchange-listed hotel and tourist employees. [20], expects that the members of the population should have identical characteristics needed for the investigation.

4.5 Sample and Sampling Technique

A sample size of 78 respondents was used for the study. The sample size was statistically determined using the sample fraction.

4.6 Instrumentation

The work used a structured questionnaire to elicit information from the respondent. The research instrument was made up of two sections; A and B. Section A, focused on the personal data of the respondents. Section B measured the constructs of the dependent and independent variables. Each variable was measured with a 4 points level internal scale of measurement -Strongly Agreed (SA) (4 points), Agreed- (A) (3 points), Disagree-(D) (2 points); Strongly Disagreed (SD)- 1 point if the item was positively worded.

4.7 Validity of the Instrument

The questionnaire used for the collection of data was validated by two research experts, who

corrected all forms of error in line with the aim and objectives of the study.

4.8 Reliability of the Instrument

The researcher adopted Pearson Product Moment Correlation (PPMC) analysis to determine the reliability of the instruments. In the trial testing, a total of 20 workers who were not part of the main study were randomly selected from the study area and the instruments administered questionnaire. The data collected were analyzed and the result showed a 0.72 reliability coefficient. This indicated that the instrument was reliable for use.

4.9 Means of Data Collection

COVID-19 compliance prevented the researcher from visiting chosen hotels and tourist companies

to collect contact information; therefore, snowball sampling was used. The snowball approach found participants via their relationships. This study included fewer than 500 questions. Only 76 Amman Stock Exchange-listed hotels and tourist enterprises participated in the survey.

4.10 Data Analysis

Statistical Package for the Social Sciences is used to assess the precision of the data in this study.

5 Analysis Results and Findings

5.1 Demographic Analysis

Table 1. Demographics of the study

Demographic Variables	Measures	Freq	Per
Gender	Male	29	35.8
	Female	49	60.5
Years of Experience Using Accounting Software	1 – 2	5	6.2
	3-4	7	8.6
	5-6	14	17.3
	7 and above	52	64.2
Service Years	1- 5	27	33.3
	6 – 10	18	22.2
	11 – 15	15	18.5
	15 and above	18	22.2
Does your firm use a computerized System?	Yes	78	100
Does your firm have computerized Data Recording?	Yes	77	95.1
	No	1	1.2
Accounting Technologies used by the current firm	Sage	14	17.3
	Quick Books	5	6.2
	S.A.P	21	25.9
	Peachtree	3	3.7
	Auto count	18	22.2
	Others	17	21.0

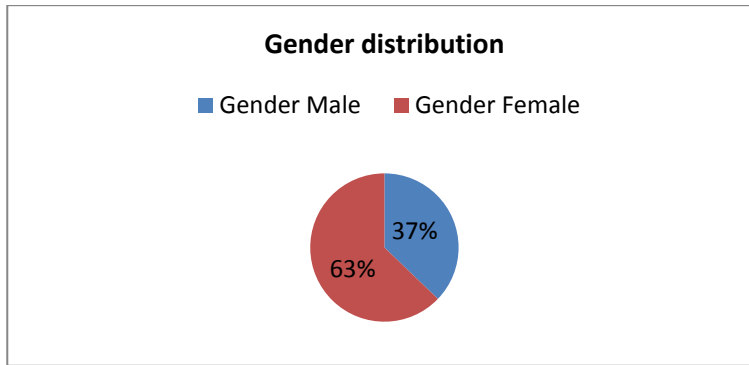


Fig. 2: Gender Distribution

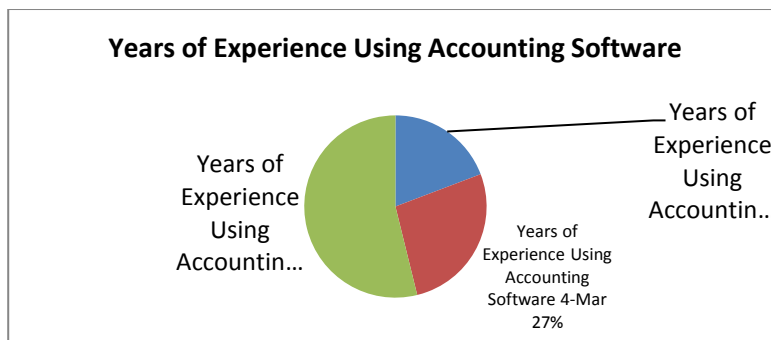


Fig. 3: Years of Experience Using Accounting Software

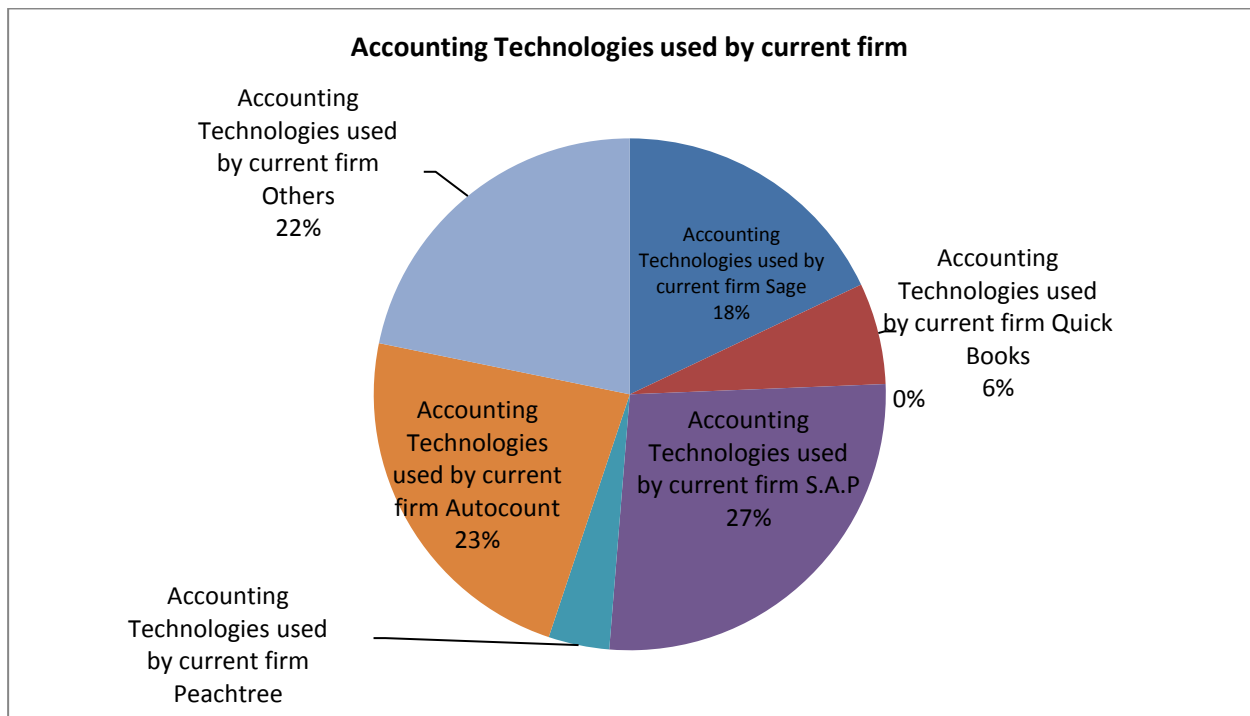


Fig. 4: Accounting Technologies used by current firm

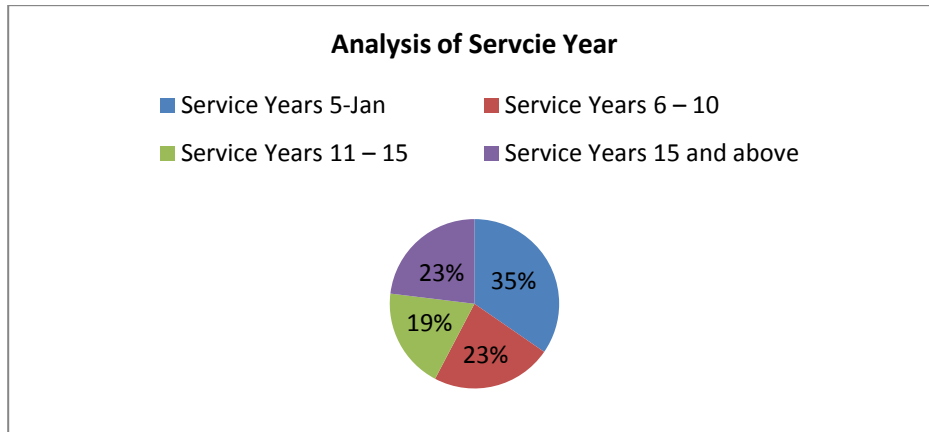


Fig. 5: Analysis of Service Year

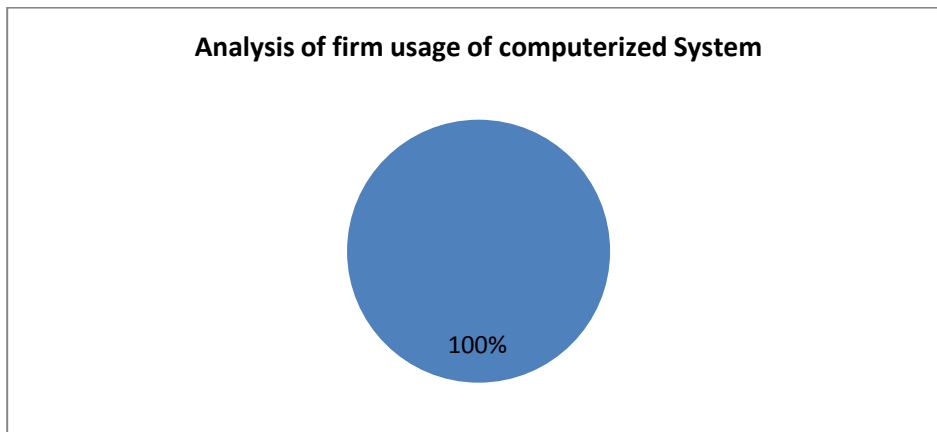


Fig. 6: Analysis of firm usage of computerized System

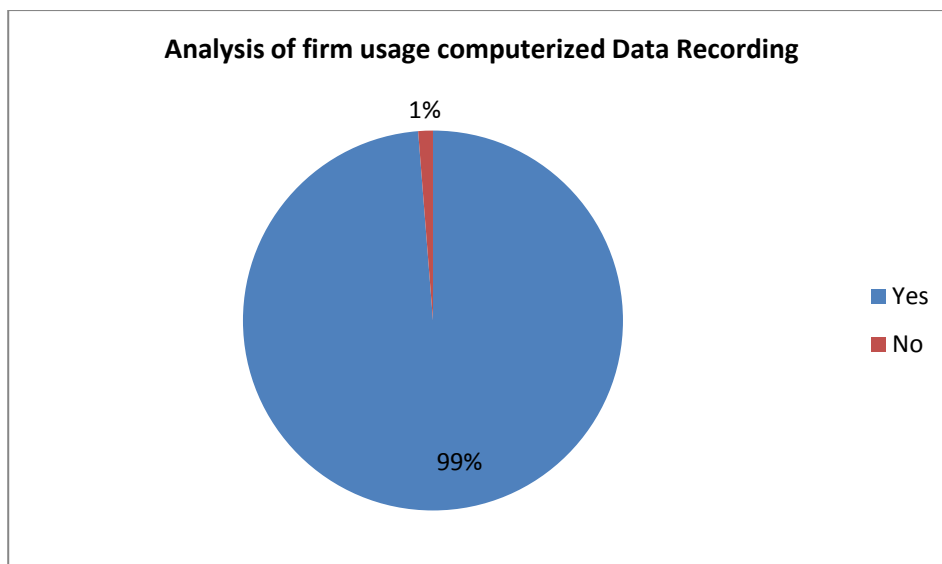


Fig. 7: Analysis of firm usage computerized Data Recording

Respondent demographics are shown on the above Table 1 and graphical presentations. 37.2% were male, and 62.8% were female. Data showed that more women use accounting software at work. 52 respondents have used accounting technology for over 7 years. The demographic profile indicated that 100% of enterprises employed computerised

systems, and 98.7% used them to capture data. Twenty-seven (27) respondents worked for the same business for five years, fifteen (15) for less than 15 years, and eighteen (18) for more than 15 years. This analysis found that 21 enterprises in Jordan used SAP, 18 used Autocount, 14 used Sage, and 3 used Peachtree.

5.2 Hypothesis Testing

Hypothesis I: Technological qualities do not significantly affects the deployment of accounting technology.

The r-value (0.771) is shown in the Table 2. 76 degrees of freedom were used to figure out how important it was by comparing this number to the essential r-value, which was 0.086. 0.771 was more than the required r-value of 0.086. So, the finding was positive technological qualities do significantly affect the deployment of accounting technology

Hypothesis II: organisational characteristics does not significantly affects the deployment of

accounting technology.

The Table 3 displays the discovered r-value as (0.801). By comparing this value to the crucial r-value (0.086) at 0.05 levels and 76 degrees of freedom, its significance was examined. The discovered r-value (8.01) was more than the threshold r-value (0.086). The outcome was crucial as a result. The outcome demonstrates that organisational traits and the use of accounting technology have a perfect correlation.

Hypothesis III: Environmental conditions do not significantly affect the application of accounting technology.

Table 2. Analysis of the relationship between Technological qualities and deployment of accounting technology

Variables		Accounting Technologies Implementation	technological Characteristics
Accounting technologies implementation	r-value	1	.771**
	Sig. level		.000
	N	78	78
Technological characteristics	r-value	.771**	1
	Sig. level	.000	
	N	78	78

*Sig. at 0.025; Degree of freedom =76; N =78; crit r-value = 0.086

Table 3. Analysis of the Relationship between organisational characteristics and deployment of accounting technology

Variables		Accounting technologies implementation	Organizational characteristics
Accounting technologies implementation	r-value	1	.801**
	Sig. level		.000
	N	78	78
Organizational characteristics	r-value	.801**	1
	Sig. level	.000	
	N	78	78

*Sig. at 0.025; Degree of freedom =76; N =78; crit r-value = 0.086

Table 4. Analysis of the Relationship between Environmental conditions and the application of accounting technology

Variables		Accounting technologies implementation	Environmental characteristics
Accounting technologies implementation	r-value	1	.768**
	Sig. level		.000
	N	78	78
Environmental characteristics	r-value	.786**	1
	Sig. level	.000	
	N	78	78

*Sig. at 0.025; Degree of freedom =76; N =78; crit r-value = 0.086

The r-value that was found is shown in the Table 4 as (0.768). The significance of this value was tested by comparing it to the critical r-value (0.086) at 0.05 levels and 150 degrees of freedom. The r-value that was found (0.768) was higher than the "critical" r-value (0.086). Because of this, the result was important. The result shows that there is a strong link between Environmental conditions and the application of accounting technology.

5.3 Summary of Findings

This study examines the effect of firm determinants that influence the implementation of accounting technologies in business organizations. From the review of related literature and data analysis, it could be concluded thus:

1. Technological qualities do significantly affect the deployment of accounting technology.
2. Organizational characteristics do significantly affect the deployment of accounting technology.
3. Environmental conditions do significantly affect the application of accounting technology.

5.4 Discussion of Findings

Analysis of the demographic variables shows that majority of the respondents were female with 60.5% as expressed in Figure 2, 64.2% of the respondent and corresponding Figure 3 shows that 15 and above years of experience using accounting Software, 22.2% and corresponding Figure 4 shows that the respondent had work for 6-10 years and 15 and above, 100% and corresponding Figure 5 of the respondents affirmed that their firm use a computerized System, 95.1% of the respondents and corresponding Figure 6 affirmed that their firm have computerized Data Recording while 25.9% of the respondent and corresponding Figure 7 affirmed that accounting Technologies used by the

current firm is S.A.P

The Table 2, Table 3 and Table 4 respectively shows that the results of the data analysis were significant because the obtained r-values (.771, .801 and .768) were higher than the critical r-value (0.086) at 0.025 levels with 150 degrees of freedom. This means that there are important links between the technological, organizational, and environmental characteristics and the implementation of accounting technologies. The study fits with the work of, [8], who opines that the price of technology can make people less likely to use it. Also, [8], state that the cost of any technology is the total cost of putting the necessary technologies into use and the effort put into reorganising the business to fit the new technology. The null hypothesis had to be thrown out because the result was so important, and the alternative hypothesis had to be accepted.

6 Conclusion

Based on the data analysis of the study, the study concluded that technological, organizational, and environmental characteristics influence the implementation of accounting technologies in business organizations.

6.1 Recommendations

1. The person who makes an e-accounting system should take advantage of the fact that most businesses are in the same area by making an e-accounting system that is made locally and can be used by a variety of users with different preferences.
2. System developers need to do more than just provide the technical framework for in-house e-accounting systems; they should also offer consulting services before, during, and after rollout.

3. Organizations devoted to accounting as a profession should set up places where businesses can meet and form strategic alliances to talk about the problems with integrating electronic accounting systems into current practices and share ideas for how to solve them.

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