

Factors influencing usage of computer assisted audit techniques: evidence from Jordanian private's companies

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Abstract: Purpose – The aim of this research paper is to analyze the factors influencing the utilization of Computer Assisted Audit Techniques (CAATs) system in Jordanian private companies.

Design/methodology/approach – The collection of data was done through questionnaire survey on 200 businesses in Jordan. A total of 255 respondents who used CAATs system including accountants and internal auditors had been surveyed. Respondents received their questionnaires through mail and 226 responses had been received. The findings were analyzed by the employment of SPSS version 25, and SmartPLS 3.0. The analyses involved the evaluation of the constructs' correlation through partial least square.

Findings - The results indicate a significant and positive correlation between the factors of Unified Theory of Acceptance and Use of Technology (UTAUT) such as facilitating conditions, effort expectancy, performance expectancy and social influence, and the utilization of CAATs among Jordanian businesses.

Limitations – Private companies is the limitation of this study.

Practical implications – The findings are very essential to business organizations. This is because audit firms, and computer audit divisions are facing problems in CAATs' adoption. The problems are preventing the firms from using automated tools to conduct computer audit. Moreover, managers often hide their technology from internal auditors.

Originality/value – This paper is the first of its kind that analyses UTAUT factors in Jordanian private companies in regard to internal auditors.

Keywords: *Computer assisted audit techniques (CAATs); internal audit; Unified Theory of Acceptance and Technology; Jordanian private companies.*

1. Introduction

In the international world of business, most companies seek to fund programs that help internal auditors to organize the data for annual financial reports. The majority of international firms have now shifted from paper systems to paperless ones as evidenced by the literature. Several international businesses are using Computer-Assisted-Auditing Techniques (CAATs) system so much that internal auditors have advised those firms on the characteristics of internal control and how to obtain assurance from the information in the face of increasing workloads and accountability. Organizations are urged to operate effectively and efficiently to realize growth in the current competitive market. As such, information system is one of the tools that can be utilized (AlKhasawneh, 2017). In most national companies, they are facing issues in adopting CAATs due to their limited budget (Obiyo, 2011). The cost of software licensing, trainings, hardware, management's time and assistance, and technical knowledge of internal auditors also add to the challenges (Saibaba, 2011).

In Jordan, there is a need to shed light on audit plan to understand the internal controls and how reliable financial reports can be achieved (Abuazza, 2015). It is also related to the ambiguous level of adoption and use of CAATs among public accounting firms (Amanuddin 2015). An overview of the present audit environment shows the lack of knowledge regarding CAATs among internal auditors in Jordan. Zainol (2017) examines the auditors' perception on CAATs' implementation and its issues. Although efforts have been exerted by Jordanian auditing

professional bodies, the adoption of CAATs is still in its infancy. The need to use such technology tools lies within their facilitation of high granular data analysis and the determination of information accuracy (Kasch, 2017). The primary issue in majority of the internal auditors in private companies in Jordan is the inability to use CAATs system and thus, its lack of use. Most Jordanian private companies are yet to implement CAATs system. Added to this, such companies have not yet adopted CAATs system for automated data analysis, with majority of them still manually processing their internal audit tasks. Likewise, most of internal auditors in Jordan are familiar with manual auditing and unable to work in a computerized environment. This is because CAATs are characterized by high investment; although its ability of processing large volume of data will ease auditing process. Also, in recent years, the Institute of Internal Auditors' (IIA) (2017) annual report has highlighted on the weakness of manual auditing system and the effectiveness and efficiency of using CAATs. Nonetheless, majority of Jordanian internal auditors still lack CAATs' knowledge as well as in its implementation (Lenz, 2015). CAATs so important cause it allows to summarize the accounting and auditing information. In addition, it adapts and implement the accounting and auditing criteria. It's necessary for any company that need to arrange the internal auditing information

The theoretical contribution is to demonstrate of UTUAT theory on intention to adopt and use CAATs. In addition, the empirical contribution is to examine factors of UTAUT theory on intention to adopt and use CAATs. This article is interesting for scholars because it highlights the theoretical framework of factors influencing usage of computer assisted audit techniques and its relationship with intention to adopt and use CAATs

However, given the introduction above, the motivation of this research paper is to analyze factors influencing the usage of CAATs system among Jordanian private companies. The remaining parts are organized as follows: literature review related to factors influencing CAATs. This is followed by hypothesis development, and research methodology. The next section presents results and discussions; whereas the last section presents the conclusion.

2. Literature review

2.1. Usage of Computer-Assisted-Auditing Techniques for Internal Audit in Jordan

The theoretical framework related to the current information system by previous researchers, and reviews by internal auditors have been used in explaining the utilization of technology and its implementation. Many companies are reformatting their business models to suit the model of e-business. They are also increasingly adopting modern sophisticated IT system, which includes accounting information system (AIS) (Awdat, 2015). The rapid changes in IT and its adoption have transformed the way companies gather and present their financial data. In fact, they are currently being presented with various types of IT applications that store data digitally instead of filing the information manually (Ljubisavljević, 2011). As a result, the auditors are facing challenges in keeping themselves up to date with new environment. They need to comprehend the processes of collecting, recording and reporting financial activities and other information. They also need to know how to track electronic documents (Amanuddin, 2015).

This knowledge is significantly required in the planning of auditing work, producing reliable audit report and determining the tests to be conducted for a better understanding of the firm's internal control (Goodwin, 2001). Several firms involved in auditing standards have recommended the adoption of CAATs for an efficient and effective audit (Khravish, 2011). This technology assists auditors to carry out audit tasks as well as audit tests. CAATs can range from simple routine such as electronic documentation, to complex ones such as statistical analysis and smart tool to forecast financial disaster or financial report frauds (Goodwin, 2001). The advantages of adopting CAATs are such as lower audit expenses, enhance the quality and productivity of auditing, faster production of audit report and more effective and efficient auditing (Lenz, 2015).

In the context of Jordan, the nation is experiencing an aggressive readiness in adopting ICT (Amanuddin, 2015). The nation has undertaken many efforts such as focusing on e-Business, encouraging the implementation of AIS by companies, developing legal framework and committing to International Standards on Auditing (ISAs) and International Financial Reporting Standards (IFRS) (Amanuddin, 2015). Nonetheless, in spite of these efforts and the current global trend, many companies are yet to implement CAAT in their companies (Ljubisavljević, 2011). CAATs is becoming increasingly crucial due to its ability in improving audit quality, therefore it is important to know the drivers that boost its acceptance and implementation. This will consequently bring policy implication to related professional and education institutions in Jordan that want to see a more efficient and effective auditors (Mihret, 2009).

2.2. Factors influencing Computer-Assisted-Auditing Techniques

Nowadays, technology has affected the audit profession in performing IT audit as businesses are implementing computerized accounting information systems. CAATs is one of the audit technologies or software that can be defined as a tool used to assist audit firm in their auditing on organizations' financial statements and internal monitoring (Zainol, 2017). In responding to this issue and to synchronize the studies relating to new technologies' acceptance, Venkatesh (2010) has established a unified framework that incorporates all views on

the acceptance by users and innovation acceptance, i.e., the Unified Theory of Acceptance and Use of Technology (UTAUT).

Facilitating factors can be defined as the extent of one's believing that the presence of infrastructure in terms of organizational and technical support in assisting of a system's utilization (Venkatesh, Morris, Davis, & Davis, 2003; Alazzam et al., 2015). From auditing perspective, this includes the offering of auditing firms of CAATs resources, technical assistance and process manuals to the staff and adequate information about CAATs (Venkatesh, 2003). Past study, Tan, Chong, and Lin (2012) has examined the factors influencing the desire to utilize online marketing among South Koreans and Malaysians. Their respondents consisted of 150 Malaysians and Koreans each. The method used to gather data was convenience sampling. Questionnaires had been used for this purpose. To analyze the data, multiple regressions method had been used. The findings indicate that facilitating factors have significant relationship with the desire to utilize online marketing among Malaysians and South Koreans. Therefore, it is important to educate the young generation about online marketing. Meanwhile, effort expectancy is the extent of perceived easiness in using a tool (Venkatesh, Morris, Davis, & Davis, 2003: 26). The UTAUT states that the perceived easiness will positively impact the desire to adopt, and this is through effort expectancy (Venkatesh, Morris, Davis, & Davis, 2003; Enaizan et al., 2018; Eneizan et al., 2019). However, complexity and difficulty in using CAATs may negatively impact the implementation of this technology (Aidi & Kent 2013). UTAUT proposes that auditors who are IT literate will likely use CAATs as they will find its usage is easier. As such, there will be no exasperating learning process (Payne & Curtis 2010).

Performance expectancy is associated with the degree of one believing that the tools assist in completing one's task (Venkatesh, Morris, Davis, & Davis, 2003). Past study by Aoun, Vatanasakdakul and Li, (2010) has examined factors of the impact AIS's utilization among Australian accounting firms. The study extends the model introduced by Hall (1973) by adding cultural related communication. Their aim at seeing the impact of low context communication (LC) on AIS's utilization and acceptance. The respondents were Australian accountants. The findings indicate that performance expectancy has a positive impact on the desire to use AIS. Moreover, they also empirically proven that LC, which characterizes Australian culture is positively related to AIS usage. Social influence refers to the extent of one's perception on how their important others believing he/she should utilize the new equipment (Venkatesh, Morris, Davis, & Davis, 2003: 27). In auditing, it is about the level of auditors perceiving their manager's acceptance of CAATs will impact their decision of adopting it. It has been found by Loraas and Wolfe (2006) that motivation by managers will positively support behavioral intention. Hsiao and Tang (2013) have defined social influence as the extent of one believing that other people think he/she should utilize e-textbooks. The study's aim at investigating of whether social influence causes college students to use e-textbooks. Their respondents were degree students of a huge university of not less than 1000 students. They used questionnaires to test the hypotheses. It was found that social influence positively affects their behavioral intention.

3. Hypothesis development

3.1. Relationship between UTAUT and CAATs usage system

There is positive relationship between UTAUT and intention to adopt and use CAATs (Skoumpopoulou, 2018). ICT is crucial for businesses nowadays due to its ability to support short-term and long-term goals. Ofurum and Ogbonna (2008); Agbatogun (2011); Enaizan et al., 2017 and Appah and Emeh (2011) have mentioned that technology plays a crucial part in our lives. In recent years, the utilization of IT has grown tremendously in businesses. This can change the processes of auditing and presenting challenges and opportunities to those involved (Mahzan and Veerankutty, 2011). Consistent with the transformation that is happening in the business environment, auditors are also responding swiftly. Nonetheless, it has been argued that auditors are having problem in maintaining their purpose and identity due to organizational changes, i.e., technological improvement (Solomon and Trotman, 2003). Most of the data are stored in the company's system. Gupta (2005) explains that an audit tool, CAATs are a method that utilizes computers. It uses programs and data to come out with certain information significant to auditors. There are various forms of CAATs uses such as for electronic documents, data extraction and assessment, e-commerce, cyber security and detection of fraud (Grand, 2001). Most companies have decided to implement IT in their operations (Ramamoorthi, 2004). This has resulted in an increase in the need for CAATs so that auditors are able to undertake their jobs effectively, and also to function as the main driver to innovation. The extensive usage of CAATs is a response to the advanced IT system employed by companies (Debreceeny, 2003; Ramamoorthi, 2004; Enaizan et al., 2020; Eneizan et al., 2020).

Curtis and Payne (2008) and Janvrin (2009) have argued that IT utilization among businesses has grown significantly over the past millennium. Its adoption causes auditors to use computer tools to assist in their auditing. However, how significant their adoption is, is still a question. Braun and Davis (2003) argue that these computer tools retrieve and assess information from computer software. Zhao (2004) and Curtis and Payne (2008) mention that CAATs allow the auditors to improve their productivity, and the function of audit. The tools decrease auditing time, and enable 100% population testing, which therefore improving the audit's reliability and

findings. Nonetheless, in spite of the emphasis on CAATs, studies have found that CAATs' utilization is still not frequent, and unsystematic (Kalaba, 2002; Sheikh, 2005; Janvrin, 2009 and Mohsin et al., 2020). Curtis (2014) defines Facilitating conditions refer to the level to which an individual is convinced that the organization contains technical and general infrastructure to support system use. It measures through

Venkatesh (2010) defined effort expectancy as the level of ease associated with the tool's use. In UTAUT, perceived ease of use is assumed to positively influence the behavioral intention towards tool adoption or usage through effort expectancy

Darono (2015) defines the level to which an individual is convinced that the use of the tool can assist in achieving job performance gains is known as performance expectancy.

Based on past studies, and UTAUT, the study is proposing a conceptual framework on elements that might impact the desire of external auditors of Jordan to utilize CAATs. UTAUT expects IT implementation to be influenced by social influence, effort expectancy, performance expectancy and facilitating conditions (Venkatesh, Morris, Davis, & Davis, 2003). The hypothesis includes from the literature review like (Skoumpopoulou 2018; Rawwash et al., 2020)

H1. There is a significant positive correlation between performance expectancy and CAATs utilization

H2. There is a significant positive correlation between effort expectancy and CAATs utilization

H3. There is a significant positive correlation between social influence and CAATs utilization

H4. There is a significant positive correlation between facilitating conditions and CAATs utilization

The question related to the concept due to it equivalent to literature review. In addition, the hypothesis also related to literature review. The author not used translator. The information about data is this type of companies is private companies in several economic activities like trade, industry, import & export and agriculture.

4. Research methodology

It is this study's main aim to analyze the elements that impact CAATs' utilization among Jordanian companies. The methodology based on theory and the theoretical framework of UTUAT theory. The research equivalent intellectual work based on Mansour (2006) studies in the same research area. The methodology is appropriate in this research area. Data were gathered by sending 200 Jordanian companies the questionnaires. There were 255 respondents encompassing internal auditors who used CAATs in Jordanian private companies. The respondents got their questionnaires through mail, and 226 of the identified participants responded (88.6% response rate). Nonetheless, we had to disregard 19 responses due to being outliers and incomplete responses. All questions were on 5 Likert scale, ranging from 1- strongly disagree to 5- strongly agree. The responses were assessed through SPSS v25; and SmartPLS was employed to assess the constructs' relationships by partial least square method.

5. Results and discussions

5.1. Demographic profile

The questionnaire was distributed with the cooperation of audit and accounting departments in Jordanian private companies. In addition, the questionnaire was distributed to 255 to employees and managers who work in Jordanian private companies. The number of valid questionnaires is 226. The incomplete questionnaires are 15. The outlier questionnaires are 14. The percentage of valid questionnaire is 88.6 %. However, the percentage of incomplete and invalid questionnaires is 11.3%. Consequently, the total of contributors are 226 employees of 200 Jordanian private companies. The community of study is 200 Jordanian companies. However, the contributors in the questionnaire are 255

In this study, the data were analyzed using SPSS program version 25. These analyses include descriptive analysis, reliability test and normality test. This study also highlights on the correlation analysis, reliability test and exploratory factor analysis. In addition, the researcher used SmartPLS 3.0 to analyze the influence of UTAUT factors on usage of CAATs systems. The data analyzed on SPSS version 25. The data entered and made sure that there is no missing data, then run the analysis. Moreover, the researcher used SMART PLS to analysis for achieving the research objectives.

Table (1): Demographic Profile

Category	Frequency	Percentage (%)
Gender		
Male	179	79.2
Female	47	20.8
Age		
20-30	68	30
31-40	73	32.3
41-50	52	23
Over 50	33	14.7

Education Level		
Diploma	42	18.6
Bachelor degree	141	62.4
Master	33	14.6
PHD	10	4.4
Organization Type		
Financial Companies	56	24.8
Tax collection companies	90	39.8
Auditing companies	80	35.4
Experience		
Below 1 Years	52	23
Between 1-5 years	66	29.2
Between 5-10 years	57	25.2
Over 10 years	51	22.6
Professional Certificates		
ACCA	56	24.8
CBA	90	39.8
ICBA	80	35.4

5.2. Descriptive Statistics

The descriptive analysis includes five variables. All variables have four items each, except for performance expectancy with six items. The results focus on the mean coefficient and the ranking between items.

Table (2): Facilitating Conditions variable

Code	Items	Mean	Std. Deviation	Ranking
FC4	The internal auditors enjoy the facilitating service provided by the CAATs system	4.80	0.689	1
FC2	I possess an adequate knowledge in utilizing CAATs.	4.70	0.726	2
FC3	Technical personnel is always there to help me with issues pertaining to CAATs	4.70	0.798	3
FC1	There is availability of resources for me to employ CAATs	4.50	0.819	1

Table 3 presents the effort expectancy. According to Likert scale, the accepted range for the items is from 3 to 5. The mean of the first item in the ranking is 4.33. The first item states (The engagement that I have with CAATs is explicit and comprehensible). The second item in the ranking is the item that states (For me, acquiring capabilities in utilizing CAATs is not demanding). The mean of the second items is 4.23. Moreover, the third item states (For me, CAATs is simple and easy tool to utilize). The third item achieved a value of 4.19.

Table (3): Effort Expectancy

Code	Items	Mean	Std. Deviation	Ranking
EE1	The engagement that I have with CAATs is explicit and comprehensible	4.33	0.710	1
EE2	For me, acquiring capabilities in utilizing CAATs is not demanding	4.23	0.691	2
EE3	For me, CAATs is simple and easy tool to utilize	4.19	0.666	3
EE4	For me, understanding how to use CAATs is a simple matter	4.17	0.729	1

Table 4 illustrates the performance of expectancy variable. This variable contains 6 items. According the Likert scale the total mean is significant if the variable achieves 3 and above. The result of performance expectancy variable shows that the first ranking is the sentence that states (CAATs is helpful for my job.). The mean of the first ranking is 5.4. There is another sentence in the first ranking which is (The utilization of CAATs allows me to finish my tasks quicker). The second ranking mean in the performance expectancy variable is 4.23. The second item in the performance expectancy variable states (The utilization of CAATs improves the productivity of my auditing). Moreover, the third ranking mean in the performance expectancy variable is 4.18. The sentence of the third ranking states (The utilization of CAATs might increase the chances of me obtaining a raise). In addition, the fourth ranking in the performance expectancy variable has a mean of 4.09. The fourth ranking in the sentence states (The utilization of CAATs would allow me to reduce the time spend on my usual audit tasks). The last ranking in performance expectancy variable in the item states (The utilization of CAATs enhances my auditing quality). The mean of the last ranking is 3.98.

Table (4): Performance Expectancy

Code	Statement	Mean	Std. Deviation	Ranking
PE 1	CAATs is helpful for my job	4.35	0.644	1
PE 2	The utilization of CAATs allows me to finish my tasks quicker	4.35	0.675	1
PE 3	The utilization of CAATs improves the productivity of my auditing	4.23	0.682	2
PE 4	The utilization of CAATs might increase the chances of me obtaining a raise	4.18	0.752	3
PE 5	The utilization of CAATs would allow me to reduce the time spend on my usual audit tasks	4.09	0.745	4
PE 6	The utilization of CAATs enhances my auditing quality	3.98	0.787	5

Table 5 reveals on social influence. According to Likert scale the items' acceptance ranges from 3 to 5. The mean of the first item in the ranking is 4.28. The first item states (Those who influence my attitude agreed that I must utilize CAATs). The second item in the ranking is the item that states (Those who are important to me think I must utilize CAATs). The mean of the second item is 4.25. Moreover, the third item states (My Company's senior management supports the utilization of CAATs). The third item has been achieved 4.19.

Table (5): Social Influence

Code	Statement	Mean	Std. Deviation	Ranking
SI1	Those who influence my attitude agreed that I must utilize CAATs	4.28	0.665	1
SI2	Those who are important to me think I must utilize CAATs	4.25	0.621	2
SI3	My company's senior management supports the utilization of CAATs	4.19	0.738	3
SI4	Generally, my company encourages the utilization of CAATs	4.18	0.663	4

Table 6 reveals the intention to adopt and use CAATs. Based on Likert scale, the acceptance of the items ranged from 3 to 5. The mean of the first item in the ranking is 4.19. The first item states (I have the intention to utilize CAATs in the future). The second item in the ranking is the item stating (I foresee that CAATs will be utilized by me in the future). The mean of the second items is 4.18. Moreover, the third item states (There is a great chance that CAATs will be utilized by me soon). The third item achieved a value of 4.08.

Table (6): Usage of CAATs system

Code	Statement	Mean	Std. Deviation	Ranking
IC1	I have the intention to utilize CAATs in the future	4.19	0.689	1
IC2	I foresee that CAATs will be utilized by me in the future	4.18	0.726	2
IC3	There is a great chance that CAATs will be utilized by me soon	4.08	0.798	3
IC4	Due to it being highly suggested, I utilize CAATs	4.06	0.819	4

Table 7 reveals the summary of the descriptive analysis. It should be noted that according to the Likert scale, the total mean is significant if the variable achieved 4 and above. The result shows that the total mean of the variable is up to 4. It means that all variables of the study allow to interpret the items in each variable.

Table (7): Summary of Descriptive Analysis

Variables	Total mean	Std. Deviation
Facilitating Conditions (FC)	4.00	0.791
Effort Expectancy (EE)	4.28	0.921
Performance Expectancy (PE)	4.30	1.294
Social Influence (SI)	4.12	0.812
Intention to adopt and use CAATs (IC)	4.11	0.726

5.3. Reliability Test

In scientific exploration, reliability often relates to being stable and repetitive, or the test's capability in producing similar findings under similar environment. It is about when the measurement is replicated for several times, the scale produces constant findings. A reliability assessment is known as reliability analysis. It is determined through the procurement of systematic variance of a scale. This can be undertaken by determining the relationships among the scores obtained from various managements of scales (Meyyappan, 2017). As such, should the relationship from reliability assessment is significant and produces constant findings, hence it is reliable. The results shows that Cronbach's alpha coefficient is 0.878.

5.4. The Assessment of measurement model

This research paper uses SmartPLS 3.0 to analyze the objectives and hypotheses. This analysis contains convergent validity, discriminant validity and latent variable (Fornell-Lacker Coefficient). This study will explain path coefficient of the research hypothesis. Convergent validity assists in establishing construct validity when there are two types of research approach and measurement. Table 5.8 reveals the convergent validity of the variables. Based on Hair (2016) the criteria to assess convergent validity include Cronbach's Alpha achieving 0.70 above in all variables. Moreover, the outer loading in each variable is significant. Moreover, the Cronbach's Alpha is very high in each variable. Composite reliability makes an estimation on the significance of indicators of latent construct in sharing their measurement with a construct. Meanwhile the average variance is the number of common variances among the indicators of latent construct (Ringle, 2011). Moreover, Cohen (2016) reveals that items between 0.4 and 0.7 are also accepted if their composite reliability is 0.80. According to Hair (2016) the outer loading is significant if an item achieves 0.7 above, and an item of between 0.4 and 0.7 is also accepted.

Table (8): Individual Item reliability (Item loadings)

The Model	Items	Outer Loading	AVE	CR	Cronbach's Alpha
Social Influence	SI1	0.610	0.517	0.832	0.827
	SI2	0.838			
	SI3	0.681			
	SI4	0.821			
Performance expectancy	PE1	0.766	0.540	0.847	0.847
	PE2	0.875			
	PE3	0.843			
	PE4	0.867			
	PE5	0.854			
	PE6	0.822			
Effort expectancy	EE1	0.866	0.530	0.875	0.828
	EE2	0.825			
	EE3	0.707			
	EE4	0.801			
facilitating condition	FC1	0.842	0.540	0.898	0.898
	FC2	0.863			
	FC3	0.854			
	FC4	0.749			
Usage CAATs system	IC1	0.882	0.522	0.842	0.869
	IC2	0.841			
	IC3	0.799			
	IC4	0.868			

AVE: Average Variance Extracted

CR: composite Reliability

5.5. Discriminant Validity

It is the extent the items differentiating among constructs, or the measure of different aspects through the analysis on the relationships between measures of possible overlapped constructs. It has been commonly accepted that discriminant validity being the prerequisite in analyzing links between variables. As such, discriminant validity estimates the variables, as well as their cross-loadings.

5.6. Latent Variable Correlation

To analyze the significance of shared variance among variables, Fornell-Larcker criterion is often used. Table 5.9 reveals the Fornell-Laker criterion. This table indicates the validity of the variables vertically and horizontally. The table also indicates that all variables are above 0.7.

Table (9): Fornell-Larker Criterion

Variables	Effort expectancy	facilitating condition	Usage of CAATs	Performance expectancy	Social Influence
Effort expectancy	0.802				
facilitating condition	0.645	0.828			
Usage of CAATs	0.499	0.738	0.848		
Performance expectancy	0.560	0.511	0.439	0.839	
Social Influence	0.588	0.724	0.719	0.565	0.744

5.7. The Assessment of structural model

The coefficient of determination (denoted by R²) interpreted as the proportion of the variance in the dependent variable that is predictable from the independent variable. R-squared value, which is also known as the coefficient of determination. In addition, the R-squared value represents the proportion of variation in the dependent variable that can be explained by one or more predictor variable (Hair, 2016). The variance's proportion in a dependent variable, which can be estimated from independent variable is called the coefficient of determination (R²). Additionally, it also explains a variation significance of dependent variable, which is explainable by one or more independent variables (Hair, 2016).

Wetzels (2009) has recognized that the R-squared coefficient of 10% and less should be rejected. However, Hair (2016) recognizes R-squared of 67%. Thus, the result is high and supported. In addition, R-squared value of 33% is moderate and supported. Hair (2016) reveals that R-squared of 19% should be rejected. Therefore, based on the above, the R coefficient value of the dependent variable has attained a value of from being moderate to high.

Figure 1 reveals the coefficient of determination. Usage of CAATs system (dependent variable) has achieved high effect between variables. This is because the R square is 0.692 and R square adjusted is 0.679.

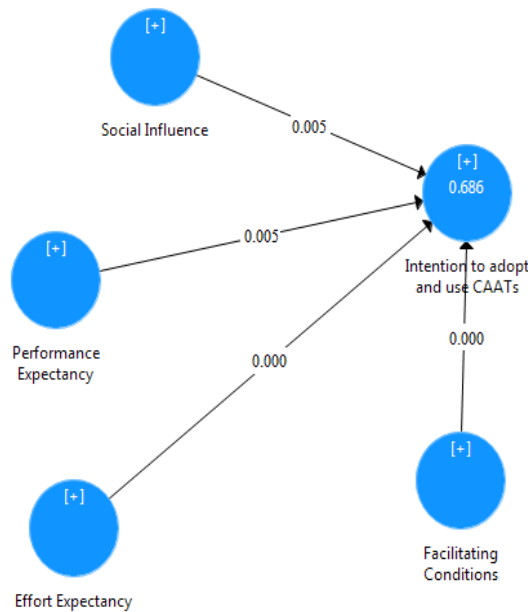


Figure (1): Coefficient of Determination

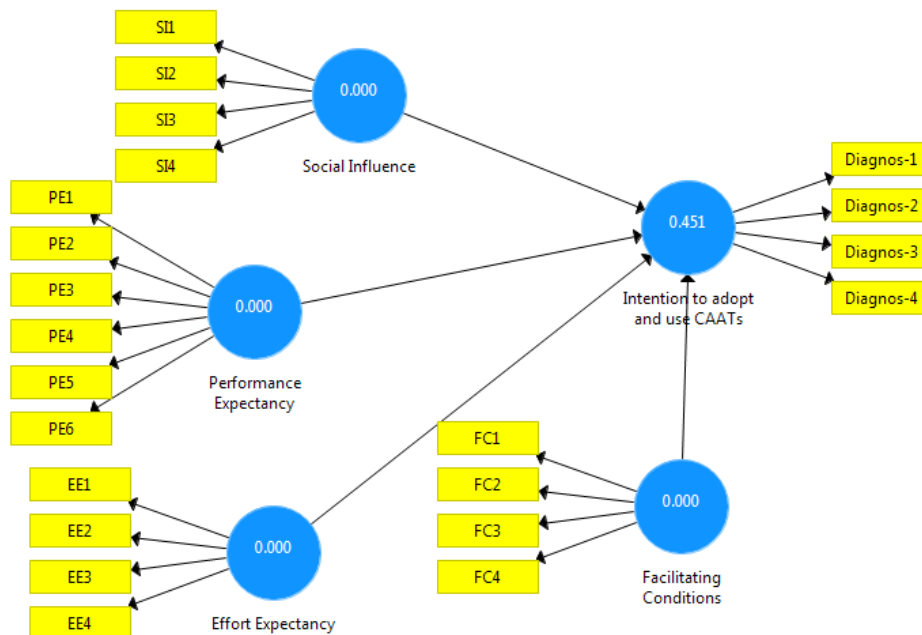


Figure (2): Construct Cross Validated Redundancy (Q2)

5.8. Path Coefficient of the Research Hypothesis

In path analysis, the relationship among models must be added, and also be causal naturally. The data utilized must be in the form of scale interval. To decrease data fluctuation, this approach assumes that all error terms are not correlated with the variables, and with themselves. There is also only one-way flow of causal. Path coefficients is a standard weightage format that can be utilized in analyzing the causal link between variables. Meanwhile, path analysis is an approach of disintegrating links into various parts for effect interpretation (Hair, 2016). Table 10 reveals the direct hypothesis of the study variables. The first hypothesis is accepted as the p value is 5%. In addition, the second hypothesis is also significant as the p value is 5%. The third and fourth hypotheses are significant as their p values are less than 5%. Consequently, there is a positive direct impact of social influence on the desire to adopt CAATs among Jordanian private companies. In addition, there is a positive direct impact of performance expectancy on the desire to adopt CAATs among Jordanian private companies. Moreover, there is a positive direct impact of effort expectancy on the desire to adopt CAATs among Jordanian private companies. Finally, facilitating conditions have positive direct impact on the desire to adopt CAATs among Jordanian private companies.

Table (10): Direct Hypothesis

Hypothesis	Std. Beta	Sample Mean (M)	Std. Error	T- value	P-value	Decision
H1 Social influence on desire to implement CAATs	0.374	0.345	0.125	2.992	0.005	Accepted
H2 Performance expectancy on desire to implement CAATs	0.182	0.182	0.015	11.762	0.005	Accepted
H3 Effort expectancy on desire to implement CAATs	0.825	0.755	0.207	3.978	0.000	Accepted
H4 Facilitating conditions on desire to implement CAATs	0.743	0.743	0.076	9.749	0.000	Accepted

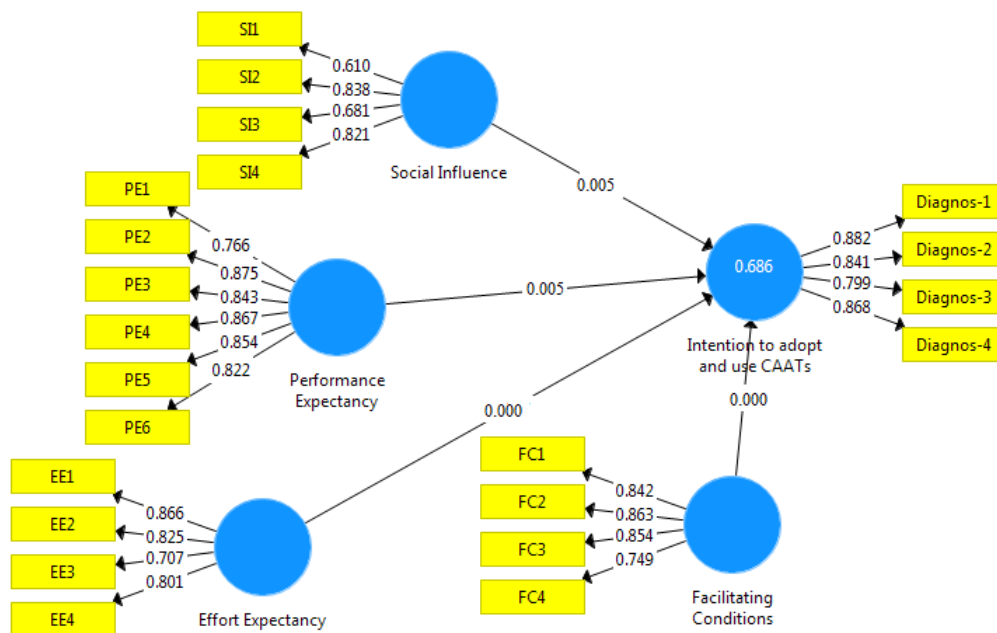


Figure (3): The Model of Study

6. Conclusion

6.1. Facilitating condition has positive significance relationship with usage of CAATs system

The result of the analysis indicates that there is a positive significant relationship between facilitating conditions and adoption of CAATs among Jordanian private companies. The P-value is less than 5%. The statistical analysis is consistent with the literature review, especially Mansour (2016). Al Matarneh (2011) has also discovered a positive and direct link between facilitating conditions and adoption of CAATs. Consequently, facilitating conditions are very desirable in enhancing the intention to adopt CAATs system among Jordanian private companies. In addition, the respondents believe about the focus on providing facilities and services to adopt CAATs system among Jordanian private companies.

6.2. Effort expectancy has positive significance relationship with usage of CAATs system

The result of the analysis shows that there is a positive significant relationship between effort expectancy and intention to adopt CAATs system among Jordanian private companies. The P-value is less than 5%. The statistical analysis is consistent with the literature review, especially Al Matarneh (2011). Al Matarneh (2011) has also found a positive and direct effect between effort expectancy and intention to adopt CAATs system. Consequently, the effort of auditors affects the accuracy of CAATs system.

6.3 Performance expectancy has positive significance relationship with usage of CAATs system

The result of the analysis shows that there is a positive significant relationship between performance expectancy and intention to adopt CAATs system among Jordanian private companies. The P-value is less than 5%. The statistical analysis is consistent with the literature review, especially Al_Khasawneh (2017). Mansour (2016) has also found a positive and direct correlation between performance expectancy and intention to adopt CAATs system. Moreover, performance expectancy allows those who utilize this system to achieve better work output.

6.4 Social influence has positive significance relationship with usage of CAATs system

The result of the analysis indicates on the significant and positive correlation between social influence and intention to adopt CAATs system among Jordanian private companies. The P-value is less than 5%. The statistical analysis is consistent with the literature review, especially Al_Khasawneh (2017). Khrawish (2011) also has found a positive and direct effect between social influence and desire to implement CAATs system. All results are consistent with UTAUT theory's factors and characteristics of social influence.

6.5. Limitations and suggestions for further study

The result reveals there is a positive significant relationship between UTUAUT and intention of use CAATs in Jordanian private companies. The findings are discussed by tackling the questions in chronological order, along with corresponding objective and hypothesis. This study also recommends future studies to highlight the pros and cons of using CAATs system in Jordanian private companies using the mixed method approach for in-depth analysis and accurate findings. Private companies one of the limitations of this study. There several suggestions for future studies. There can be an expansion in the analysis of UTUAUT theory among the Jordanian public sector. The future studies can change their studies' sample and expand their research on the challenge faced by CAATs system in the Jordanian work environment. Also, to study on the developing factors of UTUAUT theory and create new factors according the current circumstances in Jordanian companies. The researcher recommends to also examine the factors of UTAUT theory in the adoption and usage of CAATs system. Moreover, the research should cover some essential sectors in Jordan like public sector. In addition, the author recommends the application of factors of UTAUT theory in the banking sector and to study the effects on the internal audit departments. The effects of factors of UTAUT theory are also to be extended on the external auditors and to compare the effects on both internal and external auditors. To employ a mixed method in the research for more in-depth analysis. It is also suggested that future research attempts to design a training plan in enhancing employee's knowledge surrounding the using of CAATs system. There can also be a further examination on how CAATs system can be used to improve the performance of risk department. Also, to simulate the successful experience of CAATs system like Egypt and gulf countries.

This study also recommends future studies to highlight the pros and cons of using CAATs system in Jordanian private companies using the mixed method approach for in-depth analysis and accurate findings. Future studies could expand the UTAUT theory in their examination of the additional factors that have the potential of influencing CAATs adoption intention.

This study recommends that auditors make use of the computer in general, and CAATs techniques and tools in particular to achieve their audit tasks for work accuracy, speed and quality, and for authentic financial statement and document auditing. Such techniques are time and cost-effective and it provides the auditors with the confidence to support their opinions.

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