Al-Muthanna Journal of Administrative and Economic Sciences

PRINT ISSN: 2226-1419 - ONLINE ISSN: 2572-5386

Volume 15 | Issue 3 Article 4

30-9-2025

The Impact of Media Convergence on Accounting Information System Effectiveness: A Contingency Conditions Perspective

Haetham H. Kasem Alkhaffaf
Department of Accounting, College of Administration and Economics, University of Mosul, Mosul, Iraq,
haitham_alkhafaf@uomosul.edu.iq

Alaa A. D. Taha
Department of Accounting, College of Administration and Economics, University of Mosul, Mosul, Iraq,
alaa_abd_d@uomosul.edu.iq

Arsalan Ibraheem Alafandi
Department of Accounting, College of Administration and Economics, University of Mosul, Mosul, Iraq,
arsalan_ibrahem@uomosul.edu.iq

RESEARCH ARTICLE

The Impact of Media Convergence on Accounting Information System Effectiveness: A Contingency Conditions Perspective

Haetham H. Kasem Alkhaffaf, Alaa A. D. Taha, Arsalan Ibraheem Alafandi

Department of Accounting, College of Administration and Economics, University of Mosul, Mosul, Iraq

ABSTRACT

This research investigates the effect of media convergence on AIS in SMEs in Iraq during emergencies. The adopted research methodology was quantitative in nature in which 301 accountants participated in the study, and the phenomenon was measured using partial least squares structural equation modelling (SEM-PLS). The findings reveal the net benefits of decision-making and demonstrate how useful they are for Iraqi SMEs to consider while making decisions based on the factors like civil strife and the COVID-19 outbreak. This research contributes to the literature by analysing the MCI according to the hypothetical model in the context of Iraqi SMEs and second, ensures a significant understanding of the extent of impact of technology on AIS effectiveness.

Keywords: Accounting information systems, Effectiveness, Media convergence, Contingency theory, Cloud accounting, Mobile accounting applications

1. Introduction

It must be noted that the current world of accounting is significantly different today and much more so during moments of global recession, as well as by the recent global COVID-19 pandemic. The future is dynamic and so is the economy and this means that accounting needs to change to accommodate the force of change. In line with this argument, Saad & Yacoub (2021) posit that accountancy should be an ongoing process of improvement while highlighting the importance of systems that support accountancy in businesses. As stated by Thabit et al. (2016), an efficient system of accounts will be economically beneficial, assist in decreasing costs as well as will help in lessening certain risks at the

Received 22 March 2025; revised 7 May 2025; accepted 23 May 2025.
Available online 30 September 2025

E-mail addresses: haitham_alkhafaf@uomosul.edu.iq (H. H. K. Alkhaffaf), alaa_abd_d@uomosul.edu.iq (A. A. D. Taha), arsalan_ibrahem@uomosul.edu.iq (A. I. Alafandi).

https://doi.org/xx.xxxxx/2572-5386.1510

same time. In essence, AIS is a growth process that is related to business management and information technology and which affects considerably a company's accounting systems (Cavalluzzo & Ittner, 2004). However, efforts to adopt proper accounting systems, including media convergence technologies like mobile accounting applications, have met resistance, particularly in Iraqi companies (Rashid, 2017; Thabit, 2019). Therefore, there is a need to identify factors that may affect the use of media convergence technologies in determining the rate of use of mobile accounting applications among Iraq companies in transaction documentation and financial reporting. Others challenges AIS in Iraq include; dilemmas of supporting IT in workplace as a result of internal crises as well as inadequate IT training of graduates (Al-Busisi & Al-Khafaji, 2009; Al-Dhahabi & Jacob, 2014; Al-Fatlawi, 2013). Two main factors related to the civil war and an unstable environment that deals a blow to improve the prerequisites for socioeconomic development and the development of information and technology infrastructure (United Nations (UN), 2014). Therefore, media convergence research is crucial to optimize the effectiveness of AIS in Iraqi enterprises and consider factors that influence efficiency.

In addition, the significance of this matter within Iraqi organizations is underscored by claims that the AIS in Iraq lags behind those in industrialized and some developing nations (Alkhaffaf et al., 2018). Contributing factors include economic, political, legal, and educational aspects. Conventional manual systems have overlooked software program incorporation due to concerns over computer usage security. The role of information technology (IT) in determining AIS efficiency is emphasized. Yet, the correlation between media convergence technology (MCT) and AIS effectiveness in emergencies, particularly in Iraq, remains largely unexplored. In light of these gaps, this study aims to address the following questions:

How does Media Convergence (MC) influence accounting information system effectiveness in Iraqi SMEs within the context of contingency factors?

a. *To what extent does cloud accounting, as a critical variable, influence AIS effectiveness in Iraqi SMEs within the context of contingency factors?*
b. *How do mobile accounting applications, as critical variables, influence AIS effectiveness in Iraqi SMEs within the context of contingency factors?*

2. Theoretical background

2.1. Enhancing the effectiveness of AIS in the light of contingency conditions

Contingency theory, as articulated by Nicolaou (2000), posits that the effectiveness of an accounting information system hinges on various elements, including organizational structure, size, and the external environment. The efficiency of accounting information systems relies on decision-makers understanding of the generated information, which is crucial for operational processes, management reporting, budgeting, and control within the organization. Sambasivam & Assefa (2013) affirm that the effectiveness of accounting information systems is gauged by their capacity to meet system and user needs, facilitating informed decision-making.

Contingency circumstances, particularly alterations in organizational structure, may impact the effectiveness of the accounting information system, necessitating adjustments to align with the new structure (Salam, 2022). Failure to modify the system could lead to inefficiencies and errors. Another factor that may hinder the effectiveness of the system is also the external conditions like changes in its economic performance or in the regulatory

conditions that call for system adaptations in order to attain social sensitivity (Al-Hiyari et al., 2013). The precision of business operations can be attained through using accounting information systems that work under specified constraints. The two variables that have been proposed as effective predictors of success outcomes in previous studies include user participation, efficiency, and convation of organization senior officials; For instance, Nurhayati & Mulyani (2015) pointed out the following as key determinants of effectiveness; It is important to formally train new staff since the system's competency has to be maintained, therefore, attrition in some part may need updates on institutional knowledge that affect the performance of the whole system. Ernawatiningsih & Kepramareni (2019) urged the need for updating the systems, so that one can exploit the new technologies that are available everywhere and if not, then there is something wrong in terms of compatibility since the components of the information system are related to one another and needs a proper understanding of Information technology.

Implementation of organizational change may have impacts on the system thus showing some level of inefficiency and hence changes to enable new initiatives to be implemented. However, it is also important underlined that information needs can also vary for organizations based on the dynamic character and scope of their development (Saad & Yacoub, 2021). Extent of change: modification of AIS to fit new data types or provide extra reporting option could also be varying significantly.

Therefore, it would be correct to state the successful usage of AIS in emergencies fully depends upon the organisation's capability of adapting the change as per its AIS framework, environment, technology, people, strategies, and information requirement in critical situations. The systems employed should be total and flexibly planned and the organization should have the capacity to make modifications where necessary. Hence, this study aims at establishing the influence of the media convergence technology on the AIS as the above-revealed dimension has not been confirmed.

2.2. Media convergence technology

As described by Chakaveh & Bogen (2007), media convergence envisions the eventual merger of major mass media into a single medium with the emergence of new communication technologies. This phenomenon involves intricate processes encompassing the production, distribution, and utilization of forthcoming digital media services, spanning various channels like mobile devices, digital television, and the internet.

Peil & Sparviero (2017) define media convergence as integrating diverse mass media platforms, including digital media, portable and interactive technologies, traditional media, print media, broadcast media, new media, and the internet. Communication, processing, and content convergence arise from their inherent technical interdependence. A tangible example of this convergence is evident in smartphones, which seamlessly integrate print media (e-books, news applications), broadcast media (streaming platforms, radio, music applications), and new media (the internet) into a singular device capable of multifunctionality.

Media convergence is relevant to the contemporary business landscape (Krumsvik, 2018; Urban & Bodoky, 2013). Media convergence, exemplified by the smartphone's versatility, has gained prominence in accounting. Specifically, the concept extends to utilizing "mobile accounting applications," leveraging cloud computing technologies, smartphones, and tablets to enhance the efficiency of accounting information systems (Kim, 2019). This technology aims to offer accessible accounting solutions over the internet, with accounting data stored on cloud servers rather than locally on a computer (Al-Malahmeh, 2023).

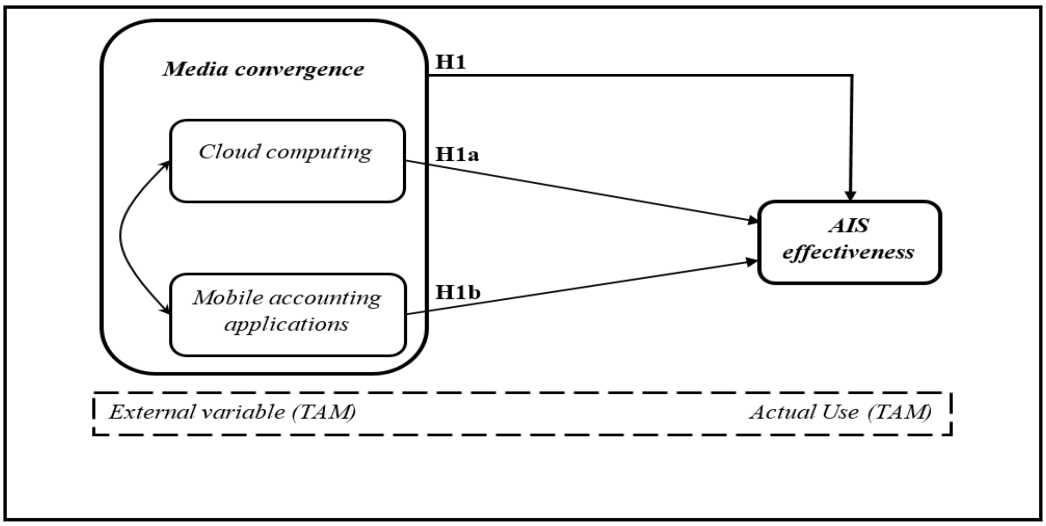

Fig. 1. The proposed conceptual model of study.

2.3. The conceptual model of study and development of hypotheses

The research model, illustrated in Fig. 1, delineates the pivotal role of the integration between the Technology Acceptance Model (TAM) (Davis et al., 1989) and Media Convergence Theory (MC) in shaping the effectiveness of Accounting Information Systems (AIS). The alignment of these variables is crucial, as they are envisioned to establish prerequisites for integrating indispensable information to meet computing, communications, and content demands within a business context. AIS design will be modified and guided by the contingency formulation employed in this study, with the overarching goal of meeting users' information requirements and, consequently, being perceived as productive.

The significance of this research is underscored by numerous studies investigating the adoption of technology-based accounting, particularly the implementation of computerized accounting systems utilizing computer technology (Brandas et al., 2015; Fazli et al., 2012). The investigation assumes paramount importance due to its potential implications on the effectiveness of the accounting information system in contingency situations. Such a case is notably driven by integrating a mobile accounting app with cell phones, facilitating the recording of diverse business transactions.

The surge of digitalization has profoundly reshaped the accounting sector, offering enhanced flexibility and mobility to professionals and leading to heightened productivity (Saxton, 2012). The Mobile Accounting App (MAA) emerges as a highly effective mechanism within this transformative landscape, facilitating industry-wide evolution. Leveraging these technologies on mobile devices enables real-time updates and monitoring of accounts, enhancing convenience and efficiency and ultimately boosting productivity among accountants and financial teams (Brandas et al., 2015).

Cloud accounting and mobile accounting applications extend several advantages, including cost and space savings, heightened data accuracy, improved security, streamlined information access, and expedited auditing and financial reporting procedures. These modern technologies provide advantageous solutions for businesses, particularly small to medium enterprises seeking flexible and accessible accounting systems, facilitating efficient financial operations (Kholid et al., 2020).

Fig. 1 illustrates the conceptual model of this study, which examines the impact of media convergence on Accounting Information System (AIS) effectiveness within the context of Iraqi SMEs. Media convergence is presented as an external variable, comprising two key dimensions: cloud accounting and mobile accounting applications. The model proposes three main hypotheses (H1, H1a, and H1b) that posit a positive relationship between these variables and AIS effectiveness, aligning with the Technology Acceptance Model (TAM) where external variables influence actual use, which in this case is represented by AIS effectiveness.

Gupta et al. (2013) delve into the perceived inclination of micro and small businesses towards Mobile accounting, identifying five influential factors in adopting cloud accounting applications: ease of use, security, cost reduction, reliability, and sharing and collaboration. Cloud accounting has become crucial for seamless accounting operations, potentially enhancing software engineering processes through computational, storage, and network resources (Münch, 2013). The constant and convenient availability of software and information is imperative for efficient accounting enterprise operations, minimizing the time spent initiating the start up process of laptops or desktops for frequent verifications (Cloud Accounting Institute, 2013). In light of this information, the following initial hypotheses are proposed:

H1: *Media convergence (by using cloud accounting and mobile accounting applications) positively affects the effectiveness of accounting information systems under contingency conditions.*

H1a: *Cloud accounting positively affects the effectiveness of accounting information systems.*

H1b: *Mobile accounting applications positively impact accounting information systems' effectiveness.*

3. Research design

This research has adopted a quantitative research approach to assess the impact of media convergence (MC) on the effectiveness of accounting information systems (AIS). Data were gathered through surveys conducted both in-person and online. The survey participants were accountants and auditors working in small and medium-sized enterprises (SMEs) situated in various cities across Iraq, including Baghdad, Basrah, Kirkuk, and Erbil.

The collected data was analyzed for the sort of relationship that exists between the study variables by carrying out multiple regression analysis. The researchers managed to gather the data and got the replies for questionnaires from 301 to 355 answering questionnaires were distributed in overall totaling to 84% response rate. 8%. This response rate is acceptable since according to Sekaran (2003) the minimum response rate for survey appropriateness should be 60% so the response rate of this study is good enough.

Besides, the survey involved the use of a 5-Likert scale that consisted of strongly disagree, disagree, neutral, agree, and strongly agree statements The research in this study utilized the Likert scale with a range of 1 (Strongly disagree) to 5 (Strongly agree) to measure the perception of the respondents. There is also the global scale—this scale is renowned and is highly appropriate for evaluating the degree of information technology advancement in Iraq. This means that in this study the measurement items used were developed from existing research and modified to fit the context of the study.

Al-Mushayt (2000) produced six prescripts to assess the AIS utility. These statements have been formulated based on the categorization made by DeLone & McLean (1992)

Table 1. Respondents' demographics.

Categories	*Details*	*#*	*%*
Gender	*Male*	229	76.1
	Female	72	23.9
Professional specialization	*Accountant*	173	57.5
	Auditor	128	42.5
Age (#years)	*20–29*	63	20.9
	30–39	96	31.9
	40–49	112	37.2
	50–59	27	8.9
	More than 59	3	1.1
Work experience (#years)	*Less than 1*	5	2.1
	1–5	33	10.5
	6–10	123	40.9
	More than 10	140	46.5
Educational level	*Undergraduate*	185	61.5
	Postgraduate	116	38.5

N = 301.

which explains how well AIS aids in the enhancement of organizational data quality, reduction of duplications and enhancement of overall system productivity. The respondents provided ratings on a five-point scale about these aspects where the two extremes are marked as 'Strongly Disagree' and 'Strongly Agree.' Four statements as suggested in the Cloud Accounting Institute (2013) were used to measure cloud computing. Furthermore, three statements about the use of mobile accounting applications are borrowed from the given work by Dinh et al. (2011).

Table 1 presents details of the demographic aspect of the study sample; it exhibits data on respondents' profession, job description, educational level, gender, age, and work experience. To provide reliability and success into the results achieved, it is particularly essential that the information utilized in this study should not contain any systematic/random error before subjecting it to inferential statistical analysis. To ensure this, four distinct procedures have been implemented to assess the soundness of the data: Outliers and Missing Values: One has to look at the treatment of both outliers and missing values first before proceeding with other methods of analyzing data. Common Method Bias: In studying the data, one has to pay attention to possible issues on this concern which is called common method variance. Normality Test: One has to look at the data critically to consider if it conforms to the normal distribution. Multicollinearity: One has to be aware that It refers to the data that is not available in the form of matrices either due to incomplete data collection, or the respondent's choice to remain silent when answering a particular question. Outlier issues relate to the deviation of a variable's value from the foundation model, which analyzes how a specific variable is distributed (Kwak and Kim, 2017). In this study, no cases of missing values were evident hence the researcher did not have to remove any of them The frequency distribution of scores displayed minimal departures from the general distribution which made the researcher not to have to delete any of the 301 obtained scores.

CMV refers to systematic variance was of the measurement that is attributable to the technique used for measurements and not the variables that are being measured (Tehseen et al., 2017). To confirm the adequacy of the data in the study released on male fecundity, two tests were performed to rule out CMV issues. To take the first test, it is recommended to use Harman's single factor. The results of this test highlighted an average general variance of 41 for the first factor. All showed coefficients above 167%, below the 50%

Table 2. Common method variance.

	Initial Eigenvalues			*Extraction Sums of Squared Loadings*		
Factor	*Total*	*% of variance*	*Cumulative %*	*Total*	*% of variance*	*Cumulative %*
1	5.653	43.487	43.487	5.352	41.167	41.167
2	1.999	15.377	58.864	1.702	13.096	54.263
3	1.784	13.725	72.589	1.450	11.153	65.416

Table 3. Description of study construct.

Construct	*Mean*	*SD*	*Kurtosis*	*Skewness*	*VIF*
CC	3.493	0.648	0.162	0.174	1.784–2.719
MAA	3.461	0.775	0.504	0.005	1.550–2.190
E_AIS	3.508	0.643	0.450	0.046	1.368–2846

cutoff threshold as indicated in Table 2. Additionally, the KMO for the total sample was 0.921 that also shows the minimum value of 0.898 < sig. It is pointed out in the DRCs of Q1-cif:Table <info return = 0.000> that there is no problem in relation to CMV issues.

Table 1: Common Method Variance, This table presents the results of a common method variance analysis. It displays the initial eigenvalues and the extraction sums of squared loadings for the extracted factors. The table includes the total variance explained by each factor, the percentage of variance accounted for by each factor, and the cumulative percentage of variance explained.

For the second test assessment, Levene's F-ratio test was used for variances analysis and t-test for comparison of means to assess the degree of bias in early and late response regimes. It was possible to find thirty early and thirty late responses according to the response sequence. It is likewise important to determine if there are statistically significant differences between the participants' early and late responses. Preliminary results showed the second test's similarity for all variables in these responses when performing statistical analysis at $p < 0.05$. Therefore, it can be assumed that there is no reason to discuss the bias of the late responses received for this study.

The Descriptive statistics; measures of skewness and kurtosis were used in checking the normality of the distribution of the data. The Skewness test measures the extent of different or skewed distribution to the left or to the right. At the same time, the examination of Kurtosis reveals the length of the distribution's tails and its weight. The professional considers the distribution of data normal when the skewness and kurtosis coefficients equal approximately 0. From the results in Table 3, it can be deduced that the data is normally distributed to a certain extent. Thus, if there are standard errors, which can change the correlation and impact relationship values, the analysis procedure will not be affected.

It occurs when various independent variables that a multiple linear regression analysis comprises are related to both the dependent variable and other independent variables. To identify multicollinearity, it is essential to employ two diagnostic techniques: from the results of the Measure test, VIF analysis, and the correlation matrix recommended by Kim (2019). This was accomplished in the current study using the correlation matrix to test for lack of highly correlated multi-collinearity greater than 0.85 was used and in addition the VIF test was checked according to the recommended value of <3. From the results presented in Table 3, it is clear that all the values, inclusive of the VIF values, did not surpass acceptable thresholds, hence, no presence of multicollinearity problem.

Table 4. Constructs reliability and validity.

Constructs	*Factor loadings (min-max)*	*Cronbach's Alpha*	*Composite Reliability*	*Average Variance Extracted (AVE)*
Cloud Accounting (CC)	0.759–0.944	0.889	0.923	0.752
Mobile Accounting Applications (MAA)	0.769–0.898	0.821	0.892	0.735
Effectiveness of AIS (E_AIS)	0.623–0.887	0.901	0.925	0.677

Table 5. Fornell–Larcker criterion.

Constructs	*Cloud Accounting (CC)*	*Effectiveness of AIS (E_AIS)*	*Mobile Accounting Applications (MAA)*
Cloud Accounting(CC)	**0.867**		
Effectiveness of AIS (E_AIS)	0.471	**0.823**	
Mobile Accounting Applications (MAA)	0.228	0.346	**0.857**

4. Results

4.1. Estimation of the measurement model

In this study, the process of the measurement model validation comprises the use of SmartPLSv3. 9 software to perform tests on; convergent validity, discriminant validity, and reliability. In the context of convergent validity, four tests are the most commonly used, namely, individual item loading should be higher than 0.60, composite reliability (CR) should be higher than 0.70, average variance extracted (AVE) should be more than 0.50, and Cronbach's alpha should be higher than 0.70 based on Hair et al. (2017). The convergent validity of the study's variables, namely CC, MAA, and E_AIS, is presented in Table 4. Concurrent validity for all the variables under study showed that all the items bounded to these variables complied with global recommended cutoff measures which show that each concept measures a single vision, and all the 13 study items can be accepted without omitting any in statistical analysis.

Discriminant validity; this assesses the distinctiveness of every variable in the measurement model from other variables; this can be evaluated using methods like cross loading analysis, Fornell and Larcker criterion, and the HTMT matrix. It examines cross-loading and that loading factors are a cross between attributes of data where a variable should show higher loading point that are outstanding procedure on its items compared to other variables. In enabling discriminant validity, Fornell and Larcker stated that the AVE criterion is met when the square root of AVE exceeds the correlations with other variables. As a result of the need to focus on discriminant validity, there is a requirement to make sure that the HTMT values chosen are within the limits (0.85/0.90) against predetermined segments. In this context, In this context, the results show the reliability presented in Tables 4 to 6: all the loading factors of the variable items are higher than 0.707, while the values of both the square root of AVE and HTMT meet the required criteria. This offers support on discriminant validity and helps to eliminate any concern that may have been brought forth by a high level of relationship amongst the items used in the measurement model.

To evaluate the reliability of the tools used, both CR and Cronbach's alpha coefficients were employed and placed at a value above 0.70 was met. Significantly, while estimating the values presented mathematically in Table 4, it was possible to conclude that all computed values of both CR and Cronbach's alpha were above 0. Hunter &

Table 6. Heterotrait-monotrait ratio of correlations (HTMT) criterion.

Constructs	*Cloud Accounting (CC)*	*Effectiveness of AIS (E_AIS)*	*Mobile Accounting Applications (MAA)*
Cloud Computing (CC)			
Effectiveness of AIS (E_AIS)	0.519		
Mobile Accounting Applications (MAA)	0.279	0.385	

Schrier (2010) suggested that the values above 0.7 are exemplary for the reliability of the measurement model used in the given study and the calculated alpha coefficient is 0.70. Some levels of internal consistency were established for the items that have do with the study variables, which made it possible to use them in the subsequent statistical analysis procedures.

4.2. Test the relationships in the structural model

The critique of the presented study involves two stages: the verification of the groups of the conceptual model and the evaluation of the structural model. As an extracted sample of a population of variables, different measurement indices can be used to estimate by the level of common variation in determining whether the collected data provide the support for the posited hypotheses of the structural model within a research study under consideration, using the Partial Least Squares Structural Equation Modeling (PLS-SEM). These are the measure of square of multiple correlation coefficient (R2), F-test of ETA-squared – effect size (F2), chi-square test of predictive significance (Q2), beta coefficient (b), T-value and P-value. Numbers also include fit-related indices, for example, SRMR and NFI, during the assessment of the study model's fit. Parameter NFI of the Bentler and Bonett (1980) ranges from 0 to 1, with the higher value showing better fitness to the model.

The coefficient of determination (R2) defines the relative measure of the fit, whereby the change in the dependent variable is explained by the change in independent variables, and an R2 larger than 0. Here, the reason cited, and because 10 is deemed enough to account for the fluctuation. F2 effect size assesses the proportion of variance of every independent variable that impacts the dependent variable and is deemed reasonable when it is equal or more than 0. significant if the value is bigger than 0 or equals 0.25. Predictive significance (Q2) indicates the model's capability to predict changes in dependent variables, with a Q2 value >0 signifying predictive significance.

The study encompasses one main hypothesis and two sub-hypotheses. SmartPLSv3.9 software was utilized to evaluate the structural model. Fig. 2 and Table 7 present the outcomes of this analysis, revealing positive, direct, and significant impact relationships between media convergence and effectiveness of AIS ($b = 0.519$; $T = 10.405$; $P = 0.000$), supporting H1. Similar positive relationships were found between cloud computing and the effectiveness of AIS ($b = 0.414$; $T = 7.148$; $P = 0.000$), supporting H2, and between mobile accounting applications and the effectiveness of AIS ($b = 0.251$; $T = 4.675$; $P = 0.000$), supporting H3. Model fit indicators, including $R2 = 0.282$, $Q2 = 0.262$, and F2 (CC→E_AIS = 0.227; and MAA→E_AIS = 0.048), demonstrated significant goodness, attesting to the structural model's accuracy and high predictive relevance. The SRMR value was 0.078, and the NFI value was 0.759, indicating a strong predictive fit for the current study's model.

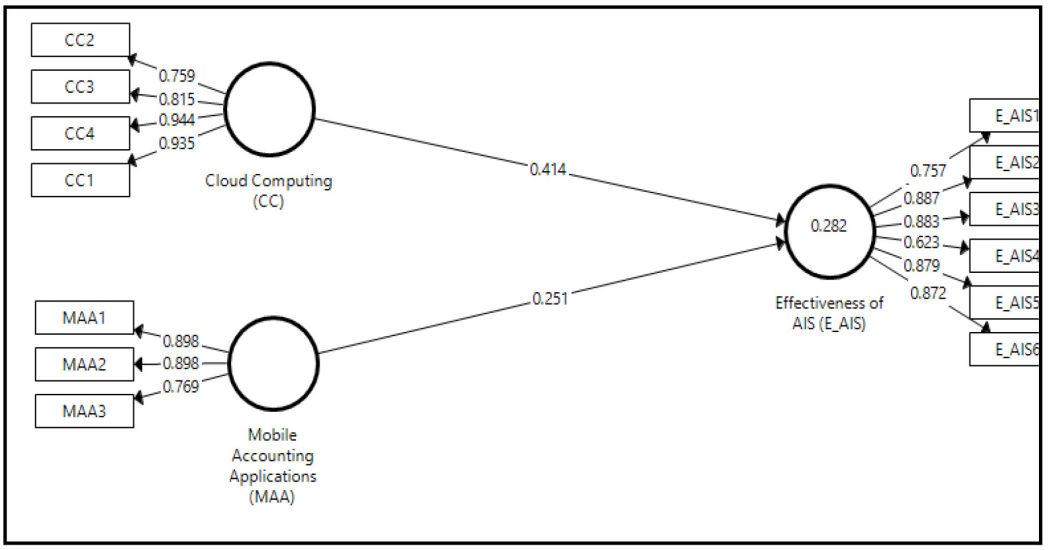

Fig. 2. The proposed conceptual model of study.

Table 7. Assess the structural model of the study.

Relationships	*Original Sample (O)*	*Standard Deviation (STDEV)*	*T Statistics (|O/STDEV|)*	*P Values*	*Results*
Cloud accounting (CC) → Effectiveness of AIS (E_AIS)	0.414	0.058	7.148	0.000	*Accept*
Mobile Accounting Applications (MAA) → Effectiveness of AIS (E_AIS)	0.251	0.054	4.675	0.000	*Accept*
Media Convergence → Effectiveness of AIS (E_AIS)	0.519	0.050	10.405	0.000	*Accept*

5. Discussion and conclusions

Based on the aforementioned findings, the study highlights how Iraqi SMEs can enhance decision-making under crisis conditions by adopting cloud-based AIS tools.

In addition, responds to critical issues regarding AIS effectiveness research's theoretical, contextual, practical, and methodological issues. It also seeks to find out how the selected applications, which include Cloud Accounting and Mobile Accounting, affect AIS efficiency. Based on the literature survey MC, TAM, the framework and the hypothesis of the study have been developed. SPSS and SmartPLSv3 are the Statistical tools for current study where the data has been analyzed by using PLS-SEM technique. 9 were utilised to process the obtained data and to check hypotheses.

By applying the regression analysis, the investigation identified that R2 of this study is particularly equal to 0.282, The analysis of the above variables show that the usage of cloud accounting and mobile applications for accounting addresses 28% of the variance in AIS effectiveness. As for main and sub-formulated hypotheses, they were supported, regarding each of them as a valuable contribution to enhance the theoretical and practical knowledge of AIS effectiveness.

The paper there by confirms the overall conclusions made in the theoretical concepts, regarding the impacts of Media convergence factors, Cloud Accounting and Mobile

Accounting applications on AIS effectiveness. This research contributes to the literature and existing evidence about AIS by investigating its efficiency under the conditions of crises, namely extended and severe civil unrest in Iraq. Extending TAM and media convergence theory (MC) enriches the theoretical LIS AIS research on its usefulness. Besides, the integration of these theories with other theories in this study extends the theoretical research stream and enhances the research framework in AIS effectiveness research. Media convergence greatly extends all types of accounts through the use of different forms of electronic media hence enable person to acquire financial reports and other statistic data from anywhere, thereby helping in decision making and quick response to business situations. Furthermore, media convergence makes the transition between various IT within the context of an organization smooth so that the accounting information systems can be seamlessly integrated with the ERP, CRM, and SCM systems to promote consistency in the data collected and processed by such systems as well as a reduction in unnecessary duplication.

Besides aiding in the process of integration, media convergence also helps in customisation and personalisation of accounting information. By allowing flexibility of what content is present in reports and how it is presented, the financial reports can be better understood and relayed to various stakeholders. It is thus important for a company to have a well-developed technology platform covering the areas of media technology: systems, hardware, networks, and databases. It is important for organizations to allocate capital in procuring the right technical tools and suitable compatibilities with the accounting information systems required.

In conclusion, one can argue that convergence influences media in a positive way with respect to the effectiveness of the AISs. This study therefore calls on organizations to evaluate AIS plans according to media convergence initiatives, adapt and deal with some issues arising from Media Convergence in order to realize more positive impacts and reduce negative impacts.

Ethical approval

This research received ethical approval from the Department of Accounting, College of Administration and Economics, University of Mosul, prior to the commencement of data collection.

Conflict of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper. None of the authors have any personal, financial, or professional relationships that could be perceived as influencing the results or interpretation of the research presented. All authors are affiliated with the Department of Accounting, College of Administration and Economics, University of Mosul, Iraq, and have conducted this study independently and objectively.

Author contribution

Asst. Prof. Dr. Haetham H. Kasem Alkhaffaf: Conceived and designed the research framework; led the development of the conceptual model; contributed to the literature review and theoretical background; supervised the overall research process; and was

responsible for manuscript editing and correspondence. **Asst. Prof. Dr. Alaa A.D. Taha:** Led the data collection and survey administration; contributed to the research design and methodology; performed statistical analyses and interpretation of results; and participated in drafting and revising the manuscript. **Dr. Arsalan Ibraheem Alafandi:** Assisted in data analysis and interpretation; contributed to the literature review and discussion of findings; participated in the preparation and critical revision of the manuscript; and provided expertise on accounting information systems and media convergence technologies.

Data availability

The data that support the findings of this study are available from the corresponding author upon reasonable request. Due to privacy and confidentiality agreements with participants, the raw survey data are not publicly available. However, de-identified datasets and materials used in the analysis can be provided for academic and research purposes.

References

Abc news point, top 10 most dangerous countries in the world, http://www.abcnewspoint.com/top-10-most-dangerous-countries-in-the-world-2015.

Al-Busisi, H., & Al-Khafaji, H. (2009). The quality of the university's scientific curriculum and techniques are used to improve the quality of the education process, reality, and ambition. *Paper is presented at the Quality Assurance and Accreditation Our vision for future development*, Al-Najaf-Iraq.

Al-Dhahabi, G. A., & Jacob, A. A. (2014). Strengthening the competence of the accounting profession according to the new Iraqi environment with the help of international experiences. *The Arab Organization for Administrative Development*.

Al-Fatlawi L. N. (2013). Accounting environment and indicators of adaptation of information technology. First Annual General Arab Conference. *The reality of the accounting profession among the challenges and ambition*. Baghdad – Iraq.

Al-Hiyari, A., Al-Mashregy, M. H. H., Mat, N. K., & Alekam, J. E. (2013). Factors that affect accounting information system implementation and accounting information quality: A survey in University Utara Malaysia. *American Journal of Economics*, *3*(1), 27–31.

Alkhaffaf, H. H. K., Idris, K. M., Abdullah, A., & Al-Aidaros, A. H. (2018). The influence of technology readiness on information technology competencies and civil conflict environment. *Indian-Pacific Journal of Accounting and Finance, 2*(2), 51–64.

Al-Malahmeh, H. (2023). The role of cloud computing in supporting decision making: Evidence from the banking industry. *International Journal of Data and Network Science, 7*(1), 131–140.

Al-Mushayt, O. S. (2000). *An empirical investigation of factors influencing the successful treatment of organizational issues in information systems development* (Doctoral dissertation, ©Omar Saeed Al-Mushayt).

Brandas, C., Megan, O., & Didraga, O. (2015). Global perspectives on accounting information systems: mobile and cloud approach. *Procedia Economics and Finance, 20*, 88–93.

Cavalluzzo, K. S., & Ittner, C. D. (2004). Implementing performance measurement innovations: evidence from government. Accounting, organizations and society, *29*(3-4), 243–267.

Chakaveh, S.,& Bogen, M. (2007). Media Convergence, an Introduction. In: Jacko, J.A. (eds) Human-Computer Interaction. HCI Intelligent Multimodal Interaction Environments. HCI 2007. Lecture Notes in Computer Science, vol 4552. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-73110-8_88.

Cloud Accounting Institute. (2013). Cloud Solutions Best Practices: 2013 Benchmark Study. retrieved from: http://www.amllp.com/documents/WhitePaper_BenchmarkStudy_2013.pdf.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale, New Jersey: L.Lea, *56*, 102.

Dave, A. (2011). Media convergence: different views and perspectives. IMS Manthan, *1*(1), 171–176.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982–1003.

Deloitte Consulting. (2009). Cloud computing - Forecasting change. Cloud computing Market overview and perspective.

DeLone, W., & McLean, E. (1992) Information systems success: The quest for the dependent variable. Information Systems Research. *3*(1), 60–95.

Dinh, H. T., Lee, C., Niyato, D., & Wang, P., 2011. A survey of Mobile Cloud Computing-Architecture, Applications, and Approaches. *Wireless Communication and Mobile Computing*, retrieved from: http://onlinelibrary.wiley.com/doi/10.1002/wcm.1203/abstract.

Ernawatiningsih, N. P. L., & Kepramareni, P. (2019). Effectiveness of accounting information systems and the affecting factors. *International Journal of Applied Business and International Management (IJABIM)*, *4*(2), 33–40.

Fazli, S., Mehnert, J., Steinbrink, J., Curio, G., Villringer, A., Müller, K. R., & Blankertz, B. (2012). Enhanced performance by a hybrid NIRS–EEG brain-computer interface. *Neuroimage*, *59*(1), 519–529.

Gupta, P., Seetharaman, A., & Raj, J. R. (2013). The Usage and Adoption of Cloud Computing by Small and Medium Businesses, *International Journal of Information Management*, *33*, 861–874.

Kaddouri, S. (2014). International Accounting Standards and Their Impact on the Reform of The Accounting System in the Economy of Iraq. *Published research, the University of Ibn Rushd /Netherlands.*

Kholid, M. N., Alvian, S., & Tumewang, Y. K. (2020). Determinants of Mobile Accounting App Adoption by Micro, Small, and Medium Enterprises in Indonesia. *Journal of Accounting and Strategic Finance*, *3*(1), 52–70.

Kim, H. W. (2019). *Media convergence: concept, discourse and influence* (Doctoral dissertation, City, University of London).

KPMG. (2010). Cloud Computing - A Compelling Business Model, Accounting and Auditing Update – April 2010.

KPMG. (2013a). The cloud takes shape. Global Cloud Survey: the Implementation Challenge.

KPMG. (2013b). The Mobile Evolution. The challenges and opportunities of mobile.

Krumsvik, A. H. (2018). Redefining user involvement in digital news media. *Journalism Practice*, *12*(1), 19–31.

McPhillips, S., & Merlo, O. (2008). Media convergence and the evolving media business model: An overview and strategic opportunities. *The Marketing Review*, *8*(3), 237–253.

Münch, J. (2013). Cloud-Based Software Engineering, *Proceedings of the Seminar No. 58312107*, 05.08.2013, University of Helsinki, Faculty of Science, Department of Computer Science.

Nicolaou, A. I. (2000). A contingency model of perceived effectiveness in accounting information systems: Organizational coordination and control effects. *International journal of accounting information systems*, *1*(2), 91–105.

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders: A handbook*, 97–146.

Nurhayati, N., & Mulyani, S. (2015). User participation on system development, user competence and top management commitment and their effect on the success of the implementation of accounting information system (empirical study in Islamic bank in Bandung). *European Journal of Business and Innovation Research*, *3*(2), 56–68.

Pallant, J. (2011). Survival manual. *A step-by-step guide to data analysis using SPSS*, *4*(4).

Peil, C., & Sparviero, S. (2017). Media convergence meets deconvergence. *Media convergence and deconvergence*, 3–30.

Rahma, M. M., Ahammed, M. M. U., Rouf, M. A., & Uddin, M. M. (2015). Obstacles and implementation of accounting software system in small medium enterprises (SMEs): Case of South Asian perspective. *Available at SSRN 2609658*.

Rashid, C. A. (2017). An Evaluation of Mobile Instant Messaging Applications' Preferences: Case of Kurdistan Region of Iraq. *International Journal of Social Sciences & Educational Studies*, *3*(4), 20.

Saad, Salma Mansour, & Yacoub, Ibtihaj Ismail. (2021). Accounting response and adaptation to the Corona pandemic. Journal of Administration and Economics, (127), 324–326.

Salam, R. (2022). The Effectiveness of Accounting Information Systems on Vehicle Sales Growth. *AKADEMIK: Jurnal Mahasiswa Ekonomi & Bisnis*, *2*(1), 10–18.

Sambasivam, Y., & Assefa, K. B. (2013). Evaluating the design of accounting information system and its implementation in Ethiopian manufacturing industries. *Research Journal of Sciences & IT Management*, *2*(7), 16–29.

Saxton, G. D. (2012). New media and external accounting information: A critical review. Australian Accounting Review, *22*(3), 286–302.

Sekaran, U. (2000). Research method for business: a skill-building approach. New York: Johnwileg & Sons, Inc.

Sekaran, U. (2003). Research method for business, a skill building approach. 4thed., New Delhi: John Wiley & Sons.

Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill-building approach. United Kingdom: John Wiley & Sons.

Sekaran, U., & Bougie, R. (2010). *Research methods for business* (5 Ed.). UK, Haddington, East Lothian: John Wile & Sons Ltd.

Tabachnick, B. G., & Fidell, L. S. (2007). *Experimental designs using ANOVA* (Vol. 724). Belmont, CA: Thomson/Brooks/Cole.

Thabit, T. (2019). The Influence of Mobile Information Technologies in Enhancing the Electronic Audit. *Available at SSRN 3495738*.

Thabit, Thabit H., Raewf, Manaf B., Abdulrahman, Omar T., & Younis, Saif K. (2016). The Adoption of E-commerce in SMEs A case Study on a Sample of Iraqi Enterprises. International Journal of Latest Research in Engineering and Technology, *2*(6), 38–46.

United Nations (UN). (2014). Information and communication technology development indices. Paper presented at the United Nations Conference on Trade and Development in New York and Geneva.

Urban, A., & Bodoky, T. (2013). The Impact of Facebook on News Consumption. In: Friedrichsen M., Mühl-Benninghaus W. (eds) Handbook of Social Media Management. Media Business and Innovation. Springer, Berlin, Heidelberg, Germany.