

# FACTORS INFLUENCING THE INTENTION TO APPLY CLOUD BASED ACCOUNTING IN ORGANIZATIONS – RESEARCH AT ANIMAL FEED PROCESSING ENTERPRISES IN HANOI

*FATORES QUE INFLUENCIAM A INTENÇÃO DE APLICAR A CONTABILIDADE BASEADA EM NUVEM NAS ORGANIZAÇÕES – PESQUISA EM EMPRESAS DE PROCESSAMENTO DE RAÇÃO ANIMAL EM HANOÍ*

Article received on: 7/28/2025

Article accepted on: 10/29/2025

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The authors declare that there is no conflict of interest

## Abstract

The use of Cloud-Based Accounting - CBA platforms is becoming a trend that is unavoidable in the context of the intense global digital transformation that is occurring in order to innovate business accounting and financial management systems. The use of CBA improves management effectiveness and the caliber of accounting data in addition to automating accounting procedures and facilitating real-time connections and sharing of financial data. The purpose of this study was to determine and assess the variables influencing the degree of CBA use in Hanoi's animal feed processing businesses. The theoretical model based on the UTAUT framework was tested using quantitative research techniques, such as multiple linear regression analysis and exploratory factor analysis. The study's findings indicate that the intention to use cloud computing accounting is influenced by five factors: (1) Performance Expectancy; (2) Effort Expectancy; (3) Social Influence; (4) Facilitating Conditions; and (5) Organizational Capability. Based on this, the study makes some managerial recommendations to encourage the use of CBA in manufacturing businesses, particularly those that process animal feed, in order to improve the

## Resumo

O uso de plataformas de Contabilidade Baseada em Nuvem (CBA) está se tornando uma tendência inevitável no contexto da intensa transformação digital global que está ocorrendo para inovar os sistemas de contabilidade e gestão financeira empresarial. O uso de CBA melhora a eficácia da gestão e a qualidade dos dados contábeis, além de automatizar os procedimentos contábeis e facilitar conexões e compartilhamento de dados financeiros em tempo real. O objetivo deste estudo foi determinar e avaliar as variáveis que influenciam o grau de uso de CBA em empresas de processamento de ração animal em Hanói. O modelo teórico baseado na estrutura UTAUT foi testado utilizando técnicas de pesquisa quantitativa, como análise de regressão linear múltipla e análise fatorial exploratória. Os resultados do estudo indicam que a intenção de usar a contabilidade em nuvem é influenciada por cinco fatores: (1) Expectativa de Desempenho; (2) Expectativa de Esforço; (3) Influência Social; (4) Condições Facilitadoras; e (5) Capacidade Organizacional. Com base nisso, o estudo apresenta algumas recomendações gerenciais para incentivar o uso



efficiency of financial management and the caliber of accounting reports in the digital era.

**Keyword:** Animal Feed Processing Enterprise. CBA. Digital Era.

*da Análise de Custo-Benefício (ACB) em empresas de manufatura, particularmente aquelas que processam ração animal, a fim de melhorar a eficiência da gestão financeira e a qualidade dos relatórios contábeis na era digital.*

*Palavras-chave:* Empresa de Processamento de Ração Animal. ACB. Era Digital.

## 1 INTRODUCTION

The use of information technology in accounting and finance has been significantly altering the operations of manufacturing companies in the context of the global digital transformation. Cloud-Based Accounting systems, in particular, are becoming a game-changing solution that enables companies to automate accounting procedures, boost data integration capabilities, lower operating expenses, and enhance the timeliness and transparency of financial data. The application of CBA not only helps businesses optimize accounting information management but also contributes to improving the quality of financial reports, meeting transparency requirements in an increasingly competitive and globalized business environment.

Animal feed processing enterprises in Hanoi are characterized by large production scale, fast inventory turnover, high raw material costs and are often strongly affected by fluctuations in input prices (corn, soybeans, agricultural by-products). These factors make accounting work extremely complicated, requiring strong support from technology to ensure accurate, timely and reliable financial information.

## 2 RESEARCH OVERVIEW

Cloud-Based Accounting, which enables companies to access, process, and store accounting data on an online platform in real time rather than through conventional local software systems, is regarded as a significant advancement in the digital transformation process of the accounting and finance sector (Dai & Vasarhelyi, 2017). Al-Htaybat and von Alberti-Alhtaybat (2017) claim that because cloud accounting platforms enable instantaneous data integration between accounting, production, and corporate

administration departments, they help improve the timeliness and transparency of financial information.

From an organizational standpoint, using cloud accounting reduces human error, increases the effectiveness of internal controls, and speeds up reporting. Additionally, managers and auditors can access real-time financial data using Cloud-Based Accounting, which facilitates prompt discrepancy detection and enhances decision-making (Siew, Cheong & Ho, 2023).

However, some research also cautions that the accuracy of financial data may be compromised by data security threats, reliance on cloud service providers, and a lack of control over system access (Awa *et al.*, 2022). However, Rymarczyk (2020) contends that stakeholders' perceptions of the simplicity and usefulness of Industry 4.0 technologies in boosting an organization's competitiveness have a major impact on their quick adoption.

Recent studies have identified a number of important categories of criteria that affect cloud accounting adoption. In a study based on a survey of 276 small and medium-sized businesses in Indonesia, Hamzah *et al.* (2023) discovered that the following factors have a significant impact on the adoption of cloud accounting: complexity, security, top management support, adequate resources, competitive pressure, trading partner pressure, coercive pressure, government support, and supplier support. The adoption of cloud accounting is primarily driven by organizational, technological, and environmental variables, according to another study conducted in Saudi Arabian small and medium-sized businesses utilizing the TOE (Technology-Organization-Environment) paradigm (Al Farishi, 2025).

### **3 THEORETICAL BASIS AND RESEARCH MODEL**

#### **3.1 Cloud-Based Accounting – CBA**

A model of using cloud computing technology to gather, process, store, and distribute accounting data online is called cloud computing accounting. Cloud-Based Accounting enables users to view and update financial data in real time from a variety of devices and locations, in contrast to traditional accounting systems that run internally (Dai & Vasarhelyi, 2017). According to Al-Htaybat and von Alberti-Alhtaybat (2017), Cloud-Based Accounting is part of the new generation of accounting information systems (AIS),

capable of integrating accounting data with management subsystems (production, human resources, supply chain) to serve decision-making activities.

However, research also indicates that the use of Cloud-Based Accounting may provide new difficulties, including concerns to data security, privacy, reliance on service providers, and organizations' technological skills (Awa *et al.*, 2022). Thus, the degree of technological preparedness, the ability of accounting staff, and each company's internal control system all play a major role in how well Cloud-Based Accounting applications affect the quality of financial data.

Cloud-Based Accounting is regarded as both an inevitable technological trend and a platform to support innovation in financial and accounting management techniques, with the goal of boosting businesses' competitiveness, efficiency, and transparency in the digital economy.

According to earlier research (Siew *et al.*, 2023), the use of Cloud-Based Accounting improves the quality of financial reporting (Financial Reporting Quality, or FRQ) by increasing automation, decreasing manual errors, and increasing the speed and timeliness of accounting information processing. However, technology capabilities, internal control capacities, and managers' perceptions of the advantages determine the degree of impact (Moll & Yigitbasioglu, 2019).

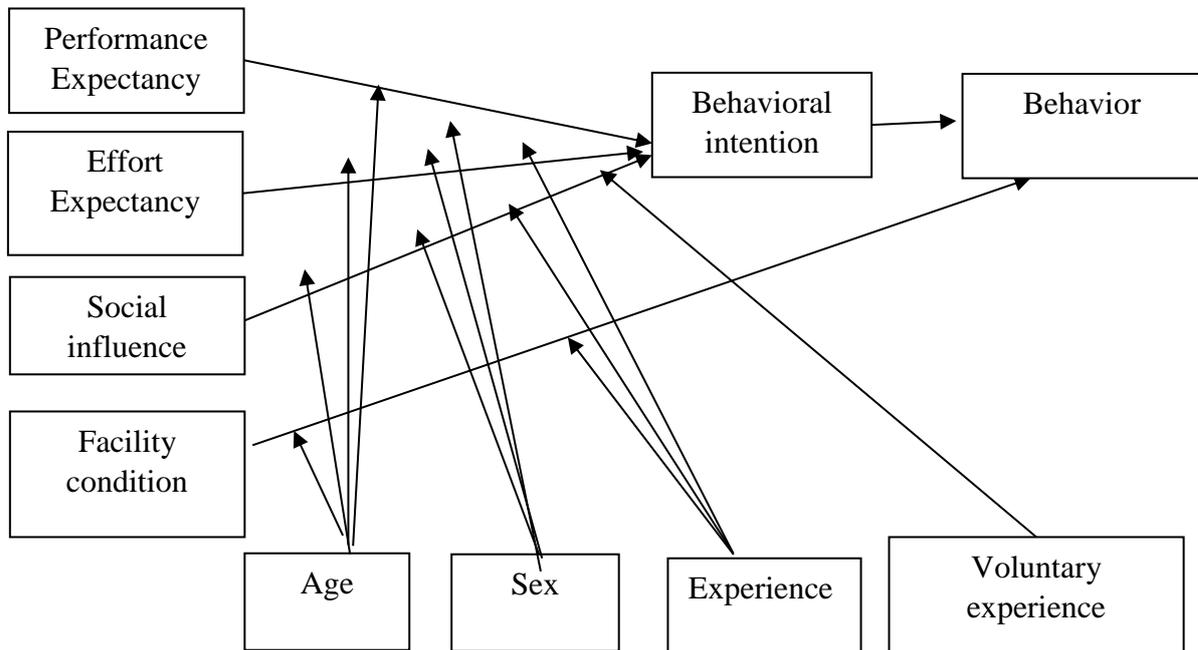
### **3.2. Basic theoretical framework**

This study is based on the Unified Theory of Acceptance and Use of Technology (UTAUT) of Venkatesh *et al.* (2003), which was developed from previous theories such as TRA, TPB and TAM. According to the UTAUT model, the behavior of accepting and using technology of individuals or organizations is influenced by four main factors: *Performance Expectancy (PE)*, *Effort Expectancy (EE)*, *Social Influence (SI)* and *Facilitating Conditions (FC)*. The UTAUT model considers the influence of these factors on behavioral intentions, on the basis that behavioral intentions and actual behavior are very closely related to each other.

Unified Theory of Acceptance and Use of Technology (UTAUT):

**Figure 1**

*Unified theoretical model of acceptance and use of technology (UTAUT)*



Source: Venkatesh *et al* (2003)

### 3.3 Research hypotheses and research model

#### **Performance Expectancy - PE**

Accountants and managers are more likely to embrace technology when they believe that using CBAPs increases productivity, automates procedures, and delivers timely information (Venkatesh *et al.*, 2003). Financial reporting will be more timely and transparent if technology is used effectively.

*Hypothesis H1: Performance Expectancy s has a positive influence on intention to adopt CBA*

#### **Effort Expectancy – EE**

Accountants' adoption of cloud accounting systems is influenced by how simple they are to use. According to Moll and Yigitbasioglu (2019), a system that is user-friendly, simple to learn, and easy to operate will be utilized more frequently, which will decrease data entry errors and boost information accuracy.

*Hypothesis H2: Effort Expectancy has a positive influence on intention to adopt CBA*

### **Social influence - SI**

Organizations may be encouraged to use CBA by social influence, such as support from superiors, coworkers, or authorities. The transparency and dependability of financial reporting are enhanced when executives encourage and put pressure on accountants to utilize the system more regularly (Ifinedo, 2011; Siew *et al.*, 2023).

*Hypothesis H3: social influence has a positive influence on intention to adopt CBA*

### **Facilitating Conditions - FC**

Effective CBA requires technical capacity, policy support, and technology infrastructure. The timeliness, integrity, and dependability of financial data can be guaranteed by businesses with reliable technological systems and tech-savvy personnel (Awa *et al.*, 2022).

*Hypothesis H4: Facilitating Conditions has a positive influence on intention to adopt CBA*

### **Organizational Capability - OC**

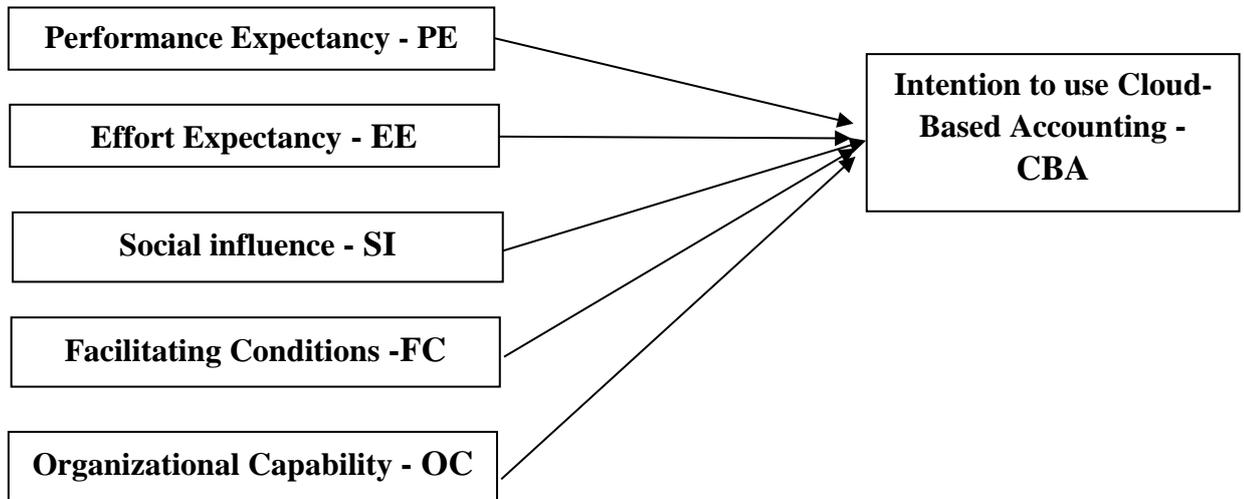
The extent to which businesses perceive the adoption of cloud accounting to bring strategic value such as improved productivity, enhanced competitiveness, and decision support. According to Al Farishi, (2025), businesses with a clear perception of the long-term benefits of cloud accounting – such as financial data transparency, reduced audit costs, and support for international reporting standards (IFRS) – will invest more heavily in this technology. This is a new factor that many studies have added to expand the UTAUT model, helping to reflect the context of modern corporate governance.

*Hypothesis H5: Organizational Capability has a positive influence on intention to adopt CBA.*

From the overview and research hypothesis, the author proposes the research model:

**Figure 2**

*Factors affecting the intention to use Cloud-Based Accounting - CBA*



Source: Authors' synthesis

In the proposed research model, with 5 independent variables and 1 dependent variable, the research team adjusted and revised the sentences from the observed variables accordingly. Therefore, there are a total of 27 observed variables, including:

- + Factor “Performance Expectancy - PE” includes 5 observed variables.
- + Factor “Effort Expectancy - EE” includes 5 observed variables.
- + Factor “Social influence - SI” includes 5 observed variables.
- + Factor “Facilitating Conditions - FC” includes 3 observed variables.
- + Factor “Organizational Capacity - OC” includes 5 observed variables.
- + Dependent variable “Cloud-Based Accounting - CBA” includes 4 observed variables.

## 4 RESEARCH METHODS

### *Qualitative research methods*

The impact of cloud computing accounting applications on the caliber of financial reporting is examined using a qualitative approach. The author created and modified the questionnaire to survey 165 animal feed producing companies in Hanoi based on in-depth discussions with specialists.

### *Quantitative research methods*

#### *Collect data*

According to Hair *et al* (2010), the smallest sample size should be 50, preferably 100, and the ratio of observations/measured variables should be 5/1. The research model is built with 5 groups of factors measured through 27 observed variables, so the minimum sample size is 135. The author selected 165 animal feed manufacturing enterprises in Hanoi. The sampling method is a convenient random method.

#### *Data processing*

Survey data processing is carried out in the next stage to screen out inappropriate survey forms due to blank answers or inconsistencies in the answers. The number of survey questionnaires included for data analysis included 165 valid questionnaires. The questionnaires included in the analysis are entered and processed using SPSS software with the main analysis techniques: descriptive statistics, EFA testing and regression analysis. Finally, there is the presentation of the research results and the presentation of the article.

## **5 RESEARCH RESULTS**

### *Cronbach's Alpha test*

All Cronbach's alpha coefficients of the variables were  $\geq 0.6$ , thus meeting the requirements to be included in factor analysis. At the same time, the total correlation coefficients of the observed variables all meet the requirement of  $\geq 0.3$ , ensuring that the given scales can be trusted in a statistically significant way.

**Table 1**

#### *Reliability Statistics*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha = .725				
PE1	15.32	2.351	.359	.727
PE2	15.98	2.426	.460	.691
PE3	16.00	1.841	.600	.628
PE4	15.80	2.551	.465	.695

PE5	15.87	1.836	.600	.628
Cronbach's Alpha=.844				
EE1	13.03	9.432	.611	.825
EE2	11.96	8.060	.653	.813
EE3	13.15	9.442	.596	.828
EE4	11.63	8.173	.651	.813
EE5	11.83	7.495	.773	.776
Cronbach's Alpha = .801				
SI1	14.56	9.016	.538	.777
SI2	14.51	9.300	.584	.765
SI3	14.50	8.569	.603	.757
SI4	14.74	8.755	.601	.758
SI5	15.27	8.465	.600	.758
Cronbach's Alpha= .795				
FC1	8.02	3.048	.639	.722
FC2	7.98	3.237	.629	.731
FC3	8.05	3.186	.648	.712
Cronbach's Alpha= .770				
OC1	13.68	7.595	.505	.741
OC2	13.84	7.491	.535	.731
OC3	13.57	7.978	.516	.737
OC4	13.30	7.637	.494	.745
OC5	13.68	7.034	.664	.685
Cronbach's Alpha= .745				
CBA1	8.62	3.396	.592	.655
CBA2	8.20	3.685	.497	.711
CBA3	9.30	3.698	.548	.681
CBA4	9.39	3.996	.525	.696

Source: Results compiled

### ***Exploratory factor analysis (EFA)***

The results of data testing with  $KMO = 0.756 (> 0.5)$ , Sig of Bartlett's Test is 0.000 less than 0.05, showing that these observations are correlated with each other and completely suitable for factor analysis. The factor loading coefficient of the observed

variables are all  $> 0.5$ , the total variance extracted is 58.261% ( $> 50\%$ ) and the Eigenvalue coefficient = 1.343 ( $> 1$ ). These tests have been guaranteed for exploratory factor analysis.

As a result, every scale chosen for the model's variables satisfies the criteria and is suitable for use in later analyses.

**Table 2**

*Rotated Component Matrix<sup>a</sup>*

	Component				
	1	2	3	4	5
EE5	.785				
EE1	.780				
EE4	.780				
EE3	.744				
EE2	.732				
SI3		.755			
SI2		.737			
SI4		.734			
SI5		.718			
SI1		.690			
OC5			.811		
OC2			.765		
OC4			.654		
OC1			.643		
OC3			.635		
PE3				.804	
PE5				.780	
PE4				.680	
PE2				.638	
PE1				.522	
FC2					.829
FC1					.804
FC3					.780

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 5 iterations.

Source: Results compiled

### *Results of regression analysis*

The following are the findings of the regression analysis of the model of factors influencing the desire to use T with five independent variables: The model's appropriateness test value, sig. = 0.000 (< 0.05), indicates that the dependent variable's change can be explained by the model's variables.

**Table 3**

*Coefficients<sup>a</sup>*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.715	.262		-2.731	.007
PE	.226	.060	.198	3.741	.000
EE	.428	.061	.387	6.986	.000
SI	.371	.066	.312	5.603	.000
FC	.118	.059	.113	2.003	.047
OC	.135	.065	.120	2.085	.039

R= 0.792; R<sup>2</sup>=0. 627, R<sup>2</sup> correction = 0. 616; F=53.533; Sig (F)= 0.000

Dependent Variable: CBA

Source: Results compiled

The linear model illustrates how the following factors affect businesses' intentions to use CBA:

$$CBA = 0.198* PE + 0.387* EE + 0.312* SI + 0.113* FC + 0.120* OC + \alpha$$

All of the variables in the extended UTAUT model have a favorable effect on the degree of Cloud-Based Accounting (CBA) adoption, according to the standardized regression results. In line with the findings of Venkatesh *et al.* (2003) and Hamzah *et al.* (2023), "effort expectancy" (EE) is the most influential factor among them ( $\beta = 0.387$ ), demonstrating that consumers tend to accept technology more when they believe it to be easy to use. The next factor is "social Influence" (SI) ( $\beta = 0.312$ ), which demonstrates the significance of organizational environment and leadership orientation in encouraging CBA adoption. "Performance expectancy" (PE) ( $\beta = 0.198$ ), which reflects consumers' impression of the useful advantages of technology in enhancing productivity, also has a

favorable impact. Despite having smaller effects, the remaining two factors - "Organizational Capability" (OC) ( $\beta = 0.120$ ) and "Facilitating Conditions " (FC) ( $\beta = 0.113$ )—remain statistically significant.

The adjusted R<sup>2</sup> coefficient (Adjusted R Square) = 0. 616 (61.6%) indicates that the research model is appropriate for the research data at the level of 61.6%, according to testing the regression model and research hypotheses. The VIF coefficient  $< 2$  and the sig. coefficient between each independent variable and the dependent variable are all less than 0.05, indicating that there is no multicollinearity issue, and the model does not break the principles of independence of errors.

## 6 CONCLUSION

The study identified and tested five factors influencing the application of Cloud-Based Accounting (CBA) in animal feed processing enterprises in Hanoi, including: expected performance, (1) *Performance Expectancy*; (2) *Effort Expectancy*; (3) *Social Influence*; (4) *Facilitating Conditions*; and (5) *Organizational Capability*. The regression results showed that all factors had positive and statistically significant impacts, in which expected effort and social awareness were the two factors with the strongest influence on the application of CBA. This demonstrates that key factors influencing the adoption of technology are its usability, convenience of use, and support from the organizational environment and leadership. The research makes several policy recommendations based on this: (1) Enterprises need to enhance training in technology skills and digital transformation awareness for accountants; (2) Business leaders need to play a guiding role, encouraging the application of new accounting technology; (3) State management agencies and professional associations should build mechanisms to support, advise and standardize the implementation of CBA; and (4) Enterprises need to invest in appropriate IT infrastructure and data security policies. These implications contribute to promoting the effective application of cloud computing accounting, aiming to improve transparency, reliability and efficiency of financial management in the animal feed processing industry, in line with the national digital transformation trend.

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### Authors' Contribution

Both authors contributed equally to the development of this article.

### Data availability

All datasets relevant to this study's findings are fully available within the article.

**How to cite this article (APA)**

Van, H. K., Duong, V. T., & Thanh, L. FACTORS INFLUENCING THE INTENTION TO APPLY CLOUD BASED ACCOUNTING IN ORGANIZATIONS – RESEARCH AT ANIMAL FEED PROCESSING ENTERPRISES IN HANOI. *Veredas Do Direito*, e223638. <https://doi.org/10.18623/rvd.v22.n4.3638>