

Factors influencing the adoption of responsibility accounting in the digital transformation context of Vietnamese enterprises

Pham Thi Thu^{1*}

¹Thanh Dong University, Hai Phong City, Vietnam; phamthu@thanhdong.edu.vn (P.T.T.).

Abstract: In the context of rapid digital transformation, the adoption of Responsibility Accounting (RA) has become essential for enhancing managerial control and accountability within enterprises. This study investigates the factors influencing the extent of RA adoption in Vietnamese enterprises, focusing on six key determinants: management accounting competency (MAC), accounting information system quality (AISQ), digital transformation capability (DTC), degree of decentralization (DE), innovation culture (IC), and competitive pressure (CP). Data were collected from 400 enterprises through a structured survey and analyzed using quantitative techniques, including Cronbach's Alpha, Exploratory Factor Analysis (EFA), and multiple regression analysis. The results indicate that all six factors exert positive and statistically significant effects on RA adoption, with digital transformation capability, accounting information system quality, and management accounting competency being the strongest predictors. The study concludes that RA implementation is jointly shaped by technological capabilities, information quality, and organizational characteristics. These findings provide important managerial implications for enterprises in improving information systems, accelerating digital transformation, and enhancing internal control mechanisms to strengthen managerial effectiveness in the digital era.

Keywords: Digital Transformation, Enterprises, Responsibility Accounting, Vietnam.

1. Introduction

In the context of rapid global digital transformation, Vietnamese enterprises are facing urgent demands to modernize their management systems and strengthen internal control mechanisms in order to adapt to an increasingly digitalized business environment. Digital transformation not only reshapes production and business processes but also fundamentally changes the way accounting information is collected, processed, and utilized within organizations. This shift necessitates the enhancement of management accounting tools to ensure transparency, efficiency, and accountability in managerial activities.

RA is recognized as a critical component of management control systems, enabling firms to clearly define authority and responsibility, establish responsibility centers, and evaluate performance at both individual and departmental levels. While RA has been widely adopted in developed economies, its application in Vietnam remains limited, uneven across industries, and significantly influenced by technological readiness, accounting competency, organizational structure, and competitive pressure. Moreover, existing studies on RA adoption have not adequately considered the digital transformation context, where big data technologies, ERP systems, integrated information platforms, and real-time analytics may profoundly reshape the functioning and effectiveness of RA systems.

Motivated by these issues, the study titled “*Factors Influencing the Adoption of Responsibility Accounting in the Digital Transformation Context of Vietnamese Enterprises*” was conducted to provide empirical evidence and contribute to both theoretical and practical perspectives. The findings are expected to support managers, accountants, and policymakers in improving responsibility control systems, enhancing managerial capabilities, and promoting sustainable digital transformation within enterprises.

2. Literature Review

2.1. International Studies

Argento et al. [1] conducted a systematic review combined with bibliometric analysis to explore the under-examined effects of digital transformation on accounting, auditing, and accountability. The study highlights that digitalization reshapes the nature of management control systems, particularly in terms of responsibility structures, reporting processes, and transparency levels. The authors emphasize the role of accounting information system quality, digital transformation capability, and innovation culture as key determinants shaping the functioning of responsibility systems.

Feghali et al. [2] examined the influence of digital technologies on accounting behaviors and practices during the COVID-19 period. The findings reveal that accountants increasingly rely on digital data and technology, underscoring the importance of management accounting competency and technological adaptability in effectively implementing managerial tools, including RA.

Oanh et al. [3] provided empirical evidence on the impact of digital transformation capability and accounting information quality on managerial effectiveness in enterprises. Although RA was not directly examined, the results demonstrate that digital technologies and AIS/ERP systems play a central role in supporting analysis, evaluation, and responsibility reporting, which are core components of RA.

Anthony and Govindarajan [4] offer a classical theoretical foundation for management control systems, asserting that decentralization is a key component of RA. Their work describes the design of responsibility centers, delegation mechanisms, and performance evaluation processes, forming the theoretical basis for most subsequent RA studies.

Kraus et al. [5] analyzed the role of innovation culture in successful digital transformation. The study concludes that innovation culture enhances organizational readiness for change and facilitates the adoption of modern management tools, including RA. This finding strengthens the linkage between innovation culture and the potential for RA adoption in digitally transforming environments.

In summary, international studies consistently highlight management accounting competency, accounting information system quality, digital transformation capability, decentralization, innovation culture, and competitive pressure as major determinants influencing an enterprise's ability to adopt RA.

2.2. Domestic Studies

Mai and Thu [6] are among the few scholars who have directly examined the extent of RA adoption in Vietnamese enterprises. Their findings indicate that the degree of decentralization and the quality of internal reporting play decisive roles in the implementation of RA. This study provides an important foundation for identifying organizational factors within the research model.

Hoang and Hang [7] focused on organizational factors influencing RA, including decentralization, organizational structure, and information technology capability. The results reveal that decentralization and IT capability are the two strongest determinants. This study offers critical empirical evidence showing that RA cannot operate effectively without adequate technological infrastructure.

Tho and Huong [8] analyzed the effects of ERP and accounting information systems on cost management and responsibility centers. Although RA was not examined directly, their findings demonstrate that AIS/ERP systems significantly enhance cost-center analysis, thereby strongly supporting RA implementation.

Nhung and Thuy [9] investigated factors influencing management accounting adoption in the context of digital transformation. Their results show that accounting competency, innovation culture, and IT quality are key determinants. This study is valuable because RA is considered an integral part of management accounting.

Hung and Tuan Anh [10] assessed the factors affecting management accounting adoption in Vietnamese manufacturing enterprises. They found that accounting competency and competitive pressure exert positive influences. This provides supporting evidence for including “competitive

pressure” in the RA model, especially in a highly competitive and increasingly digitalized market environment.

Overall, domestic studies have explored individual factors such as decentralization, accounting competency, AIS quality, and innovation culture. However, no research has simultaneously integrated technological, organizational, and environmental dimensions to evaluate the extent of RA adoption within the digital transformation context.

2.3. Research Gap

Although RA has been examined in various countries, existing reviews indicate that several important research gaps remain, particularly in the context of digital transformation. First, most prior studies focus on RA within traditional organizational settings, while digital transformation is fundamentally reshaping decentralization mechanisms, the design of responsibility centers, and reporting processes. However, research integrating RA with digitalization factors such as ERP, big data, or automation remains limited. Second, existing research models often address only isolated groups of factors, such as accounting competency or decentralization, without simultaneously incorporating the full set of technological, organizational, and environmental dimensions under the TOE framework, nor linking RA adoption to internal capabilities as suggested by the Resource-Based View (RBV). Third, in Vietnam, empirical studies on RA are still scarce and lack updated evidence reflecting the rapid digital transformation currently taking place. Therefore, a comprehensive study integrating technological, human, organizational, and environmental factors is needed to clarify the determinants influencing RA adoption in Vietnamese enterprises.

3. Theoretical Background and Research Model

3.1. Theoretical Background

The analysis of factors influencing the adoption of RA in the context of digital transformation is grounded in three main theoretical foundations: Responsibility Accounting Theory (RAT), Management Control Systems (MCS), and the Technology–Organization–Environment (TOE) framework combined with the Resource-Based View (RBV).

RAT posits that enterprises need to establish responsibility centers (cost, revenue, profit, and investment centers) to assign authority and responsibility to different managerial levels. The theory emphasizes the importance of decentralization, accurate information systems, and performance evaluation mechanisms in operating RA effectively [4].

MCS asserts that an effective control system must rely on key elements such as information quality, organizational structure, corporate culture, and personnel capability [11]. These elements align directly with the requirements of RA, which depend on structured reporting, delegated authority, and systematic performance assessment.

The TOE framework [12] and the RBV explain innovation adoption based on technological capability, organizational characteristics, and environmental conditions. In the context of digital transformation, TOE and RBV jointly clarify how digital capability, accounting information systems, decentralization, innovation culture, and competitive pressure influence the implementation of RA.

Integrating these theoretical foundations, the proposed research model includes six determinants: management accounting competency, accounting information system quality, digital transformation capability, degree of decentralization, innovation culture, and competitive pressure, each expected to influence the extent of RA adoption.

3.1.1. Management Accounting Competency (MAC)

MAC reflects the professional qualifications, analytical capability, information-processing skills, and decision-support functions of accounting personnel. In the digital era, accountants are required not only to collect data but also to employ analytical tools, evaluate performance, and prepare responsibility reports. Prior studies such as Feghali et al. [2] and Nhung and Thuy [9] confirm that accounting

competency is a critical factor that promotes the adoption of modern management accounting techniques, including RA.

Hypotheses H₁: MAC has a positive effect on the adoption of RA.

3.1.2. Accounting Information System Quality (AISQ)

AISQ refers to its ability to provide accurate, timely, integrated, and reliable data. Argento et al. [1] emphasize the essential role of information systems in ensuring accountability in the digital environment. Oanh et al. [3] provide evidence that high-quality AISQ directly supports performance evaluation and responsibility reporting. Therefore, AISQ serves as a fundamental infrastructure for the effective implementation of RA.

Hypothesis H₂: AISQ has a positive effect on the adoption of RA.

3.1.3. Digital Transformation Capability (DTC)

DTC reflects an enterprise's ability to implement, integrate, and effectively utilize digital technologies such as ERP systems, big data analytics, cloud computing, and automation. Digital transformation enhances transparency, traceability, and real-time reporting capabilities [1]. International studies Kraus et al. [5], demonstrate that enterprises with strong digital capabilities are more likely to adopt modern management control systems, including RA.

Hypothesis H₃: DTC has a positive effect on the adoption of RA.

3.1.4. Degree of Decentralization (DE)

DE is the most fundamental element of the RA system. RA can only be effectively implemented when an organization's structure clearly delineates authority and responsibility across responsibility centers. Both Otley [11] and Anthony and Govindarajan [4] emphasize that decentralization is the organizational foundation of RA. In Vietnam, Mai and Thu [6] as well as Hoang and Hang [7] also confirm that decentralization is one of the strongest determinants influencing RA adoption.

Hypothesis H₄: DE has a positive effect on the adoption of RA.

3.1.5. Innovation Culture (IC)

IC reflects the extent to which an enterprise encourages creativity, embraces change, and supports process improvement. According to Argento et al. [1], innovation culture is a critical condition enabling firms to adapt to new control systems in a digital environment. In management accounting, an innovation-oriented culture motivates organizations to adopt modern techniques, including RA [9].

Hypothesis H₅: IC has a positive effect on the adoption of RA.

3.1.6. Competitive Pressure (CP)

CP drives enterprises to strengthen cost control, enhance operational efficiency, and improve performance evaluation systems. International studies, Manita et al. [13], indicate that competitive pressure is a key motivator for the adoption of modern management tools. In Vietnam, Hung and Tuan Anh [10] provide evidence that competitive pressure positively influences management accounting adoption, implying that it may similarly promote RA implementation.

Hypothesis H₆: CP has a positive effect on the adoption of RA.

3.2. Research Model

Based on the theoretical foundations and the review of prior studies both domestically and internationally, this study proposes a research model consisting of six independent variables that may influence the adoption of Responsibility Accounting (RAA) in Vietnamese enterprises. These variables include: MAC, AISQ, DTC, DE, IC, and CP. The dependent variable in the model is Responsibility Accounting Adoption (RAA).

The proposed research model is illustrated in Figure 1.

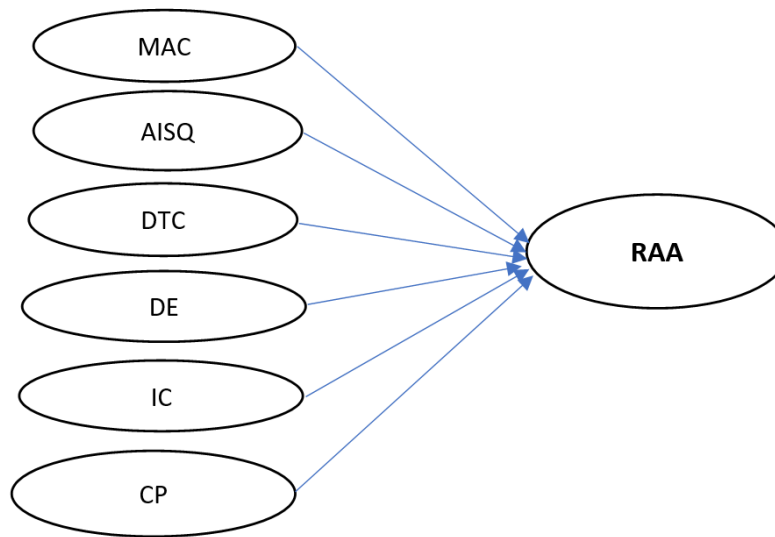


Figure 1.
Proposed Research Model.

4. Research Methodology

This study employs a mixed-methods approach combining both qualitative and quantitative techniques to ensure scientific rigor and reliability of the results. First, the qualitative phase was conducted through expert discussions and a review of prior studies to refine the measurement scales, ensuring that the observed variables are appropriate for the context of Vietnamese enterprises undergoing digital transformation. Based on this foundation, the quantitative phase was implemented to test the theoretical model and research hypotheses.

Quantitative data were collected using a structured questionnaire with a five-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). The survey respondents included accountants, chief accountants, financial-accounting managers, and managerial personnel with knowledge of accounting information systems in Vietnamese enterprises. These respondents are considered capable of accurately assessing the extent of RAA and the influencing factors.

A non-probability sampling method combined with purposive sampling was applied to ensure access to respondents who are suitable for the research objectives. The targeted sample size was 400 valid observations, following the recommendation of Hair et al. [14], which suggests a minimum sample size of at least five times the number of observed variables.

The collected data were analyzed using SPSS software through the following steps: (1) assessing the reliability of the measurement scales using Cronbach's Alpha; (2) conducting EFA; and (3) performing multiple linear regression analysis to examine the impact of the identified factors on RAA. This methodological approach ensures the validity, reliability, and suitability of the research model within the practical context of Vietnamese enterprises.

Table 1.
Summary of Measurement Scales.

Code	Observed Variables	Main Sources
Management Accounting Competency – MAC		
MAC1	Accountants are capable of analyzing managerial information.	Feghali et al. [2], Anthony and Govindarajan [4], and Nhung and Thuy [9]
MAC2	Accountants possess solid management accounting knowledge.	
MAC3	Accountants are able to process data for decision-making.	
MAC4	Accountants have the necessary technological skills.	
MAC5	Accountants collaborate effectively with other departments.	
Accounting Information System Quality – AISQ		
AISQ1	The system provides accurate data.	Argento et al. [1], Oanh et al. [3] and Tho and Huong [8]
AISQ2	The system provides timely data.	
AISQ3	The system supports responsibility center analysis.	
AISQ4	Data are integrated across departments.	
AISQ5	The system supports responsibility reporting.	
Digital Transformation Capability – DTC		
DTC1	The enterprise effectively implements digital technologies.	Argento et al. [1], Kraus et al. [5] and Oanh et al. [3]
DTC2	Accounting processes are digitalized.	
DTC3	Data are integrated in real time.	
DTC4	The enterprise has a clear digital transformation strategy.	
DTC5	Personnel are capable of meeting digital transformation requirements.	
Degree of Decentralization – DE		
DE1	Decision-making authority is clearly delegated.	Anthony and Govindarajan [4], Otley [11], and Mai and Thu [6]
DE2	Department managers have autonomy in their functions.	
DE3	Responsibilities are clearly defined across managerial levels.	
DE4	The enterprise has well-defined responsibility centers.	
DE5	Decentralization enhances management effectiveness.	
Innovation Culture – IC		
IC1	The enterprise encourages innovation.	Argento et al. [1], Kraus et al. [5] and Nhung and Thuy [9]
IC2	Employees are willing to adopt new technologies.	
IC3	Leaders support new ideas.	
IC4	The enterprise frequently improves and redesigns processes.	
IC5	Corporate culture supports digital transformation.	
Competitive Pressure – CP		
CP1	The enterprise faces high competitive pressure.	Manita et al. [13] and Hung and Tuan Anh [10]
CP2	Competition drives the improvement of operational efficiency.	
CP3	Customers demand greater transparency.	
CP4	Competition forces enterprises to adopt modern management tools.	
CP5	Competition encourages stricter cost control.	
Responsibility Accounting Adoption – RAA		
RAA1	The enterprise establishes responsibility centers.	Anthony and Govindarajan [4], Otley [11], and Mai and Thu [6]
RAA2	The enterprise prepares responsibility reports periodically.	
RAA3	Performance indicators are assigned according to responsibility centers.	
RAA4	RA information supports managerial decision-making.	
RAA5	RA is integrated into the management control system.	

5. Research Results

5.1. Descriptive Statistics of the Sample

A total of 400 valid survey responses were used for the quantitative analysis. The sample reflects a relatively diverse representation of Vietnamese enterprises applying RA during the digital transformation period. The characteristics of the sample are summarized in Table 2.

Table 2.
Sample Characteristics.

Sample Characteristics	Categories	Number of Enterprises	Percentage (%)
Type of Enterprise	Private	260	65
	State-owned	80	20
	FDI	60	15
Enterprise Size (employees)	< 50 employees	80	20
	50–300 employees	240	60
	> 300 employees	80	20
Job Position	Accountant	180	45
	Chief Accountant	100	25
	Finance/Accounting Manager	60	15
	Other middle-level managers	60	15
Work Experience	< 3 years	60	15
	3–5 years	140	35
	5–10 years	140	35
	> 10 years	60	15
Total Sample		400	100%

In terms of enterprise type, private enterprises account for the largest proportion of the sample (65%), followed by state-owned enterprises (20%) and foreign direct investment (FDI) firms (15%). This distribution reflects the overall structure of the Vietnamese economy, in which the private sector plays a dominant role and demonstrates a strong pace of digital transformation in accounting and management activities.

Regarding enterprise size, most surveyed firms employ between 50 and 300 employees (60%), while 20% have fewer than 50 employees and another 20% have more than 300 employees. This indicates that the sample primarily consists of medium and large enterprises, which are more likely to implement formal management accounting systems and Responsibility Accounting (RA) mechanisms.

With respect to job positions, the majority of respondents are accountants (45%) and chief accountants (25%), followed by financial-accounting managers and other middle-level managers (15% each). These positions are directly involved in accounting operations, reporting systems, and decentralization mechanisms, ensuring high reliability of the collected data.

In terms of work experience, 70% of respondents have between 3 and 10 years of experience, indicating that most participants possess adequate practical knowledge to assess the extent of RA adoption and its influencing factors.

Overall, the sample structure is appropriate and representative, providing a reliable foundation for subsequent quantitative analyses in the context of Vietnamese enterprises accelerating digital transformation in management and accounting.

5.2. Reliability Analysis

The study employed Cronbach's Alpha to assess the reliability and internal consistency of the measurement scales. According to Hair et al. [15], a scale is considered reliable when its Cronbach's Alpha coefficient is ≥ 0.7 , and each observed variable has a Corrected Item–Total Correlation ≥ 0.3 . The results of the reliability analysis for all factors and their corresponding observed variables are presented in Table 3.

Table 3.
Results of Reliability Analysis for Factors and Observed Variables.

Variable observation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Variable observation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Management Accounting Competency	Cronbach's Alpha = 0.934		Degree of Decentralization	Cronbach's Alpha = 0.938	
MAC1	0.796	0.924	DE1	0.817	0.926
MAC2	0.815	0.921	DE2	0.847	0.921
MAC3	0.830	0.917	DE3	0.819	0.926
MAC4	0.855	0.912	DE4	0.832	0.924
MAC5	0.832	0.917	DE5	0.856	0.920
Accounting Information System Quality	Cronbach's Alpha = 0.932		Innovation Culture	Cronbach's Alpha = 0.945	
AISQ1	0.809	0.920	IC1	0.839	0.934
AISQ2	0.843	0.913	IC2	0.830	0.936
AISQ3	0.820	0.917	IC3	0.861	0.930
AISQ4	0.816	0.917	IC4	0.875	0.928
AISQ5	0.823	0.916	IC5	0.847	0.933
Digital Transformation Capability	Cronbach's Alpha = 0.941		Competitive Pressure	Cronbach's Alpha = 0.939	
DTC1	0.832	0.929	CP1	0.845	0.922
DTC2	0.833	0.929	CP2	0.839	0.924
DTC3	0.835	0.929	CP3	0.819	0.927
DTC4	0.858	0.925	CP4	0.829	0.925
DTC5	0.849	0.926	CP5	0.848	0.923
Responsibility Accounting Adoption (Cronbach's Alpha = 0.935)					
RAA1	0.846	0.917	RAA4	0.826	0.921
RAA2	0.799	0.926	RAA5	0.848	0.917
RAA3	0.827	0.921			

The reliability analysis conducted on 400 valid observations shows that all measurement scales achieved high reliability. Specifically, the Cronbach's Alpha coefficients of the seven scales range from 0.932 to 0.945, indicating strong internal consistency among the observed variables within each construct. In addition, the Corrected Item–Total Correlation values of all observed variables exceeded the threshold of 0.3, demonstrating that none of the items needed to be removed from the model and that each scale exhibits high inter-item correlation.

Overall, the Cronbach's Alpha results confirm that all measurement scales in the model possess high reliability and are fully appropriate for subsequent EFA and regression analysis.

5.3. Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis was conducted on 30 observed variables to identify the underlying factor structure. The KMO value is 0.892, which is greater than the acceptable threshold of 0.5, indicating that the dataset is highly suitable for factor analysis. Bartlett's Test of Sphericity yields a Chi-Square value of 10268.421 with Sig. = 0.000, demonstrating that the observed variables are correlated in the population and meet the requirements for EFA.

The Total Variance Explained table shows that six factors were extracted with Eigenvalues greater than 1, corresponding to the independent variable groups in the research model. The total variance explained is 80.572%, which is significantly higher than the 50% minimum threshold, indicating that the six extracted factors account for more than 80% of the variance in the data. The extraction stops at the sixth factor, with an Eigenvalue of 3.310, confirming that the observed variables converge into six distinct factor groups.

Table 4.

Results of Total Variance Explained for Independent Variables.

Total Variance Explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.741	15.805	15.805	4.741	15.805	15.805	4.117	13.724	13.724
2	4.416	14.720	30.524	4.416	14.720	30.524	4.065	13.549	27.273
3	4.129	13.762	44.286	4.129	13.762	44.286	4.032	13.440	40.714
4	3.970	13.233	57.520	3.970	13.233	57.520	4.023	13.409	54.122
5	3.606	12.019	69.539	3.606	12.019	69.539	3.979	13.264	67.386
6	3.310	11.033	80.572	3.310	11.033	80.572	3.956	13.186	80.572
7	0.353	1.178	81.750						
8	0.349	1.162	82.912						
9	0.331	1.103	84.015						
10	0.318	1.061	85.076						
11	0.309	1.031	86.107						
12	0.298	0.995	87.102						
13	0.293	0.977	88.079						
14	0.287	0.958	89.037						
15	0.262	0.875	89.911						
16	0.257	0.857	90.768						
17	0.251	0.836	91.604						
18	0.240	0.799	92.403						
19	0.227	0.758	93.161						
20	0.225	0.752	93.913						
21	0.219	0.729	94.642						
22	0.209	0.697	95.339						
23	0.202	0.673	96.012						
24	0.197	0.657	96.669						
25	0.192	0.641	97.310						
26	0.176	0.587	97.897						
27	0.172	0.572	98.469						
28	0.164	0.546	99.016						
29	0.152	0.505	99.521						
30	0.144	0.479	100.000						

Given these results, it can be concluded that the observed variables are correlated at the population level, and the model contains six distinct factors that should be included in the subsequent regression analysis. The *Rotated Component Matrix* obtained through Varimax rotation reveals the following six factor groups:

Table 5.
Results of EFA.

	Component					
	1	2	3	4	5	6
IC4	0.921					
IC3	0.913					
IC5	0.903					
IC1	0.895					
IC2	0.889					
DTC4		0.910				
DTC5		0.904				
DTC2		0.894				
DTC3		0.894				
DTC1		0.893				
CP5			0.901			
CP2			0.900			
CP1			0.898			
CP4			0.891			
CP3			0.883			
DE5				0.911		
DE2				0.903		
DE4				0.893		
DE3				0.886		
DE1				0.880		
MAC4					0.909	
MAC5					0.894	
MAC3					0.892	
MAC2					0.881	
MAC1					0.865	
AISQ2						0.901
AISQ5						0.888
AISQ4						0.884
AISQ3						0.881
AISQ1						0.876
KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					0.892	
Bartlett's Test of Sphericity			Approx. Chi-Square		10268.421	
			df		435	
			Sig.		0.000	

The results of the rotated component matrix indicate that all 30 observed variables clearly converged into six distinct factor groups as expected, with no evidence of cross-loading. The factor loadings range from 0.865 to 0.921, exceeding the minimum threshold of 0.5, demonstrating strong convergent validity for all observed variables within their respective latent constructs (see Table 5).

The EFA results confirm that the measurement scales used in the research model are appropriate. All six independent factors exhibit clear representative value and meet the necessary conditions to be included in the subsequent regression analysis for hypothesis testing.

5.4. Model Testing

To evaluate the research hypotheses, multiple linear regression analysis was employed. The regression results (Table 6) show that the model achieves an R^2 value of 0.780 and an adjusted R^2 of 0.777, indicating that 77.7% of the variance in the dependent variable (RAA) is explained by the six independent variables in the model; the remaining variance is attributable to factors outside the model and random error.

The Durbin–Watson statistic is 2.118 (within the acceptable range of 1.5–2.5), and the Variance Inflation Factor (VIF) values for all independent variables are below 2, indicating no violation of first-order autocorrelation or multicollinearity assumptions. The F-test in the ANOVA table yields $F = 232.695$ with $\text{Sig.} = 0.000 (< 0.05)$, confirming that the regression model is statistically significant and that all independent variables included in the model contribute meaningfully to explaining the variation in RAA.

Table 6.

Regression Analysis Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.883 ^a	0.780	0.777	0.30268	2.118

Note: a. Predictors: (Constant), F_CP, F_DE, F_MAC, F_DTC, F_IC, F_AISQ.

b. Dependent Variable: F_RAA.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	127.914	6	21.319	232.695	0.000 ^b
	Residual	36.006	393	0.092		
	Total	163.920	399			

Note: a. Dependent Variable: F_RAA

b. Predictors: (Constant), F_CP, F_DE, F_MAC, F_DTC, F_IC, F_AISQ.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.346	0.178		-18.833	0.000		
	F_MAC	0.397	0.023	0.411	17.244	0.000	0.983	1.017
	F_AISQ	0.417	0.024	0.415	17.362	0.000	0.980	1.020
	F_DTC	0.424	0.024	0.425	17.921	0.000	0.992	1.008
	F_DE	0.329	0.024	0.324	13.612	0.000	0.988	1.012
	F_IC	0.328	0.023	0.333	14.019	0.000	0.988	1.012
	F_CP	0.258	0.023	0.273	11.435	0.000	0.984	1.017

Note: a. Dependent Variable: F_RAA.

The multiple linear regression analysis was conducted to evaluate the extent to which each factor influences the adoption of Responsibility Accounting in the context of digital transformation among Vietnamese enterprises. The estimated multiple regression equation is expressed as follows:

$$F_RAA = -3.346 + 0.397 * F_MAC + 0.417 * F_AISQ + 0.424 * F_DTC + 0.329 * F_DE + 0.328 * F_IC + 0.258 * F_CP$$

The results of the multiple linear regression analysis indicate that all six independent variables exert positive and statistically significant effects ($\text{Sig.} < 0.05$) on the adoption of Responsibility Accounting (RAA) among Vietnamese enterprises. All independent variables have positive regression coefficients and are statistically significant ($\text{Sig.} < 0.05$), and no multicollinearity issues are detected ($\text{VIF} < 2$), confirming that the model is stable and reliable.

Among the six factors, DTC demonstrates the strongest impact on RAA ($B = 0.424$). This finding highlights the pivotal role of digital transformation in enhancing data transparency, system integration, and information effectiveness for RA. Enterprises with strong digital infrastructure, digitalized processes, and advanced data-processing capabilities tend to adopt RA more effectively.

The second strongest predictor is AISQ ($B = 0.417$). When the accounting information system provides accurate, timely, and integrated data, enterprises have a solid informational foundation to establish, report on, and evaluate responsibility centers more effectively.

MAC also has a significant impact on RAA ($B = 0.397$). This finding reinforces the role of accounting personnel with strong analytical skills, data-processing capabilities, and managerial knowledge in effectively operating the RA system.

In addition, organizational factors such as the DE ($B = 0.329$) and IC ($B = 0.328$) exert positive effects on RAA. A clearly defined decentralization structure enhances transparency in assigning individual responsibility, while an innovation-oriented culture encourages enterprises to embrace and implement modern management mechanisms, including RA.

Finally, CP also exerts a statistically significant influence ($B = 0.258$). In highly competitive environments, enterprises are compelled to strengthen cost control, enhance information transparency, and use RA as a key tool to measure and improve operational performance.

Table 7.

Summary of Regression Analysis Results.

Interpretation	Coefficient B	Sig.	Hypothesis Testing Result	Impact Level
MAC positively influences RAA.	0.397	0.000	Accepted	Strong impact
AISQ positively influences RAA.	0.417	0.000	Accepted	Strong impact
DTC positively influences RAA.	0.424	0.000	Accepted	Strongest impact
DE positively influences RAA.	0.329	0.000	Accepted	Medium impact
IC positively influences RAA.	0.328	0.000	Accepted	Medium impact
CP positively influences RAA.	0.258	0.000	Accepted	Mild to moderate impact

Thus, all six hypotheses (H1–H6) are accepted. These findings indicate that the RAA in Vietnamese enterprises is not only influenced by accounting competency and the quality of accounting information systems but is also strongly driven by digital transformation, organizational structure, and competitive pressures. This implies that enterprises must simultaneously strengthen their digital capabilities, enhance information system quality, establish clear decentralization mechanisms, and foster an innovation-oriented culture to improve the effectiveness of RAA during the digital transformation era.

5.5. Discussion of Findings

The findings reveal that all six factors in the research model exert positive and statistically significant effects on the RAA in the context of digital transformation among Vietnamese enterprises. This indicates that the implementation of RA is not only influenced by internal organizational resources but is also strongly shaped by technological capabilities and competitive environmental conditions. These results are consistent with the theoretical foundations of RAT, MCS, and the TOE framework adopted in this study.

First, DTC is identified as the most influential factor affecting RAA. This reflects the reality of Vietnam's rapidly evolving digital transformation landscape, where enterprises increasingly rely on digitalized data, integrated systems, and automated processes to support accountability, performance evaluation, and responsibility reporting. This finding aligns with recent international research emphasizing the critical role of digital transformation in modern management accounting systems [1, 3].

Second, both AISQ and MAC exhibit strong and stable effects on RAA. These results underscore that decisions related to responsibility allocation, performance measurement, and responsibility reporting can only be effectively executed when accounting information is accurate, timely, and operated by competent accounting personnel. This finding is consistent with Feghali et al. [2] and Mai and Thu [6], who highlight information quality and accounting competency as foundational elements of any responsibility control mechanism.

Additionally, DE and IC also positively influence the RAA. Clear decentralization facilitates the establishment of responsibility centers and enhances transparency in performance evaluation processes. At the same time, an innovation-oriented culture encourages the acceptance and implementation of

advanced management practices, especially in rapidly evolving technological environments. These findings align with the work of Otley [11] and Kraus et al. [5].

Finally, although its effect is relatively smaller, CP still plays a meaningful role in promoting RAA. In highly competitive markets, enterprises must strengthen cost control, enhance informational transparency, and improve operational efficiency, thereby increasing their motivation to adopt modern management tools such as RA. This finding is consistent with Manita et al. [13], who emphasize the impact of competitive forces on management control systems.

Overall, the findings indicate that RAA in Vietnamese enterprises is simultaneously influenced by technological factors (DTC, AISQ), human resource factors (MAC), organizational factors (DE, IC), and environmental factors (CP). These results reinforce the theoretical foundations of MCS, RBV, and TOE while providing important empirical evidence on the role of digital transformation in shaping responsibility accounting systems, an emerging research topic in the Vietnamese context.

6. Conclusion and Managerial Implications

6.1. Conclusion

This study was conducted to evaluate the factors influencing the RAA in the context of digital transformation within Vietnamese enterprises. Based on a theoretical framework integrating RAT, MCS, the TOE framework, and the RBV, quantitative analysis using 400 survey responses revealed that all six factors, MAC, AISQ, DTC, DE, IC, and CP, exert positive and statistically significant effects on RAA.

Among these, DTC demonstrates the strongest influence, followed by AISQ and MAC. This reflects the growing reliance of enterprises on digital capabilities and integrated information systems to implement responsibility control mechanisms. Organizational factors such as decentralization and innovation culture also play essential roles, creating enabling conditions for the effective operation of RA. Meanwhile, competitive pressure continues to motivate firms to use RA as a means to enhance managerial efficiency and strengthen strategic responsiveness.

Overall, the study confirms that RAA is not merely a technical accounting activity but the outcome of a broader ecosystem encompassing technology, human capability, organizational structure, and external competitive forces. These findings provide important empirical evidence for the Vietnamese context, where digital transformation is accelerating, and RA remains an emerging but increasingly relevant area of research.

6.2. Managerial Implications

Based on the research findings, several managerial implications are proposed to help enterprises enhance the RAA:

6.2.1. Strengthen the Enterprise's Digital Transformation Capability

As DTC is the most influential factor, enterprises should prioritize investments in digital infrastructure, including ERP systems, intelligent accounting software, integrated data platforms, and analytical technologies. Digitalized processes ensure that responsibility-related data are transparent, timely, and accurate.

6.2.2. Improve the Quality of the Accounting Information System

Enterprises should develop accounting information systems with high reliability, cross-departmental data integration, and strong support for responsibility center reporting. An effective information system forms the foundation for the smooth functioning of RA.

6.2.3. Enhance Management Accounting Competency

Firms should invest in training accounting personnel in data analysis, managerial thinking, and the use of modern accounting tools. Competent staff ensure that RA systems are properly designed and effectively implemented.

6.2.4. Strengthen Decentralization Mechanisms Within the Enterprise

Given the positive impact of decentralization, enterprises should clearly define the authority and responsibilities of each responsibility center. A well-structured decentralized system allows RA to fulfill its role in monitoring responsibilities and evaluating performance.

6.2.5. Foster An Innovation-Oriented Organizational Culture

Enterprises should promote a flexible working environment that encourages experimentation, continuous improvement, and openness to new technologies. An innovation-oriented culture is essential for the acceptance and effective implementation of RA in practice.

6.2.6. Enhance Competitive Capability and Strengthen Transparency Requirements

Competitive pressure motivates enterprises to apply RA to optimize costs and improve operational efficiency. Therefore, firms should refine their competitive strategies while simultaneously improving internal control mechanisms to meet transparency and accountability requirements.

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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