“Determinants of the level of financial information disclosure in Vietnamese agricultural cooperatives”

AUTHORS	Do Thi Minh Tam Pham Duc Cuong

ARTICLE INFO	Do Thi Minh Tam and Pham Duc Cuong (2026). Determinants of the level of financial information disclosure in Vietnamese agricultural cooperatives. *Investment Management and Financial Innovations*, *23*(2), 364-378. doi:10.21511/imfi.23(2).2026.27
DOI	http://dx.doi.org/10.21511/imfi.23(2).2026.27
RELEASED ON	Wednesday, 10 June 2026
RECEIVED ON	Sunday, 21 September 2025
ACCEPTED ON	Wednesday, 27 May 2026

LICENSE	This work is licensed under a Creative Commons Attribution 4.0 International License

JOURNAL	"Investment Management and Financial Innovations"
ISSN PRINT	1810-4967
ISSN ONLINE	1812-9358
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
47	0	3

© The author(s) 2026. This publication is an open access article.

BUSINESS PERSPECTIVES

LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

Do Thi Minh Tam (Vietnam), **Pham Duc Cuong** (Vietnam)

DETERMINANTS OF THE LEVEL OF FINANCIAL INFORMATION DISCLOSURE IN VIETNAMESE AGRICULTURAL COOPERATIVES

Abstract

This study aims to assess the level of financial information disclosure in financial statements and the factors influencing the disclosure level in agricultural cooperatives in the Northwestern provinces of Vietnam. Grounded in key theories, the study first applies a qualitative approach to refine the disclosure index and research model. Then, we employ a quantitative approach using data from the 2023 financial statements and survey responses of 216 agricultural cooperatives operating in four Northwestern provinces of Vietnam. Financial statements were collected and coded in 2024. To assess the disclosure level of each cooperative, we construct an unweighted index of 75 financial disclosure items and count the number of items presented in each entity's financial statements. To find factors affecting the level of information disclosure, we distribute and collect structured questionnaires and then analyze the data using Cronbach's Alpha, Exploratory Factor Analysis (EFA), and multiple linear regression. The findings reveal that the average disclosure index reaches 55.6% of the expected items, and four groups of factors significantly affect the level of information disclosure, including: (1) cooperative-specific characteristics, (2) financial factors, (3) internal control and monitoring, and (4) the legal environment. These results contribute to refining the theoretical framework of financial disclosure within the collective economic sector and provide policy recommendations to enhance financial transparency in agricultural cooperatives in the Northwestern provinces of Vietnam. The implications of this study can also be applied to other countries with similar economic structures or enterprise models to those of agricultural cooperatives in Northwestern Vietnam.

Keywords financial information disclosure, financial statements, agricultural cooperatives, Vietnam

JEL Classification G32, M40, M41, M48

Type of the article: Research Article

Received on: 21st of September, 2025
Accepted on: 27th of May, 2026
Published on: 10th of June, 2026

© Do Thi Minh Tam, Pham Duc Cuong, 2026

Do Thi Minh Tam, PhD., Economics Faculty, Accounting Department, Taybac University, Vietnam.

Pham Duc Cuong, Ph.D., Associate Professor, School of Accounting and Auditing, The National Economics University, Vietnam. (Corresponding author)

This is an Open Access article, distributed under the terms of the Creative Commons Attribution 4.0 International license, which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Conflict of interest statement:
Author(s) reported no conflict of interest

INTRODUCTION

In the context of globalization and international economic integration, the requirement for financial information transparency is no longer limited to large or listed enterprises but has increasingly become an inevitable demand for all economic organizations, including agricultural cooperatives (ACs). Financial disclosure in financial statements not only serves as a tool for organizations to enhance internal governance capacity but also provides a foundation for attracting external resources, accessing support programs, and ensuring community oversight. Particularly for agricultural cooperatives, which embody both market-oriented and community-oriented characteristics, disclosure becomes even more critical in harmonizing members' interests and strengthening organizational legitimacy.

In Vietnam, the collective economic sector in general, and agricultural cooperatives in particular, have received significant attention from the Party and the State, being recognized as a cornerstone in the agricultural restructuring process associated with new rural development. However, in practice, the level of financial disclosure by agricultural

http://dx.doi.org/10.21511/imfi.23(2).2026.27

cooperatives remains limited, inconsistent, and often non-compliant with existing legal regulations. This situation reflects weak accounting and financial capacity, a lack of incentives for transparency, and insufficient supervisory mechanisms in many cooperatives (Cao, 2023). Contributing factors include challenging geographical conditions, uneven educational levels, shortages of professional personnel (especially accountants), and the small-scale, fragmented operations of cooperatives that are heavily influenced by seasonality and community traditions. Consequently, these factors make disclosure practices difficult to implement in reality.

Financial disclosure can be defined as any intentional provision of financial or non-financial information, whether quantitative or qualitative, mandatory or voluntary, and communicated through formal or informal channels (Gibbins et al., 1990). Mandatory disclosure plays a vital role in ensuring the transparency and reliability of financial information while also enhancing performance oversight and safeguarding stakeholders' interests. As Adina and Ion (2008) concluded, disclosure helps mitigate risks and strengthen transparency in business operations. It leads to fairness and efficiency in resource allocation within society. It also ensures that information is conveyed adequately and accurately, thereby reducing information disparities between firms and stakeholders.

Nevertheless, most existing studies have predominantly focused on listed companies and large joint-stock firms with well-established accounting and internal auditing systems. In-depth research on disclosure practices in the collective economic sector remains limited. In addition, existing studies have often failed to fully integrate key cooperative-specific features, such as small size, democratic decision-making processes, community cohesion, and the social roles of the collective sector into their analytical models.

This reality underscores the urgent need to evaluate the current level of financial disclosure in agricultural cooperatives, particularly in the Northwestern provinces of Vietnam, where significant disparities exist in development levels, infrastructure, human resources, and cultural characteristics.

Against this background, a key scientific problem emerges: there is still little empirical evidence on how much financial information agricultural cooperatives in the Northwestern provinces of Vietnam actually disclose and which specific factors explain differences in disclosure levels across cooperatives. By focusing on this problem, the present article seeks to provide a systematic assessment of the current level of financial information disclosure in agricultural cooperatives in Northwestern Vietnam and to clarify how cooperative characteristics, financial factors, internal control and monitoring mechanisms, and the legal environment are associated with this level. The remainder of the paper is structured as follows. Section 1 reviews the relevant literature and develops the research hypotheses. Section 2 describes the data and research methods. Section 3 presents the empirical results. Section 4 discusses the findings in the light of previous studies and offers policy recommendations, and the last section concludes with the main contributions and directions for future research.

1. LITERATURE REVIEW AND RESEARCH HYPOTHESES

Economic organizations disclose information in two main forms: mandatory disclosure and voluntary disclosure. Mandatory disclosure refers to organizations' compliance with legal requirements, providing a minimum level of information (Owusu-Ansah, 1998). In contrast, voluntary disclosure represents an expansion beyond what is legally required, particularly when mandatory disclosure is insufficient to depict the financial situation and operations of an entity. In this sense, voluntary disclosure supplements mandatory disclosure (Chen & Bouvain, 2009).

Transparent disclosure helps reduce information asymmetry, supports decision-making, and enables more efficient capital allocation (Adina & Ion, 2008). However, empirical research shows

that measuring disclosure is not straightforward because of its multi-dimensional and qualitative nature (Beattie et al., 2004). As a result, scholars have developed diverse measurement frameworks. Among them, the most common are: (i) subjective methods based on surveys, questionnaires, and expert opinions, and (ii) objective methods based on content analysis of original reports (Beattie et al., 2004). Within the objective methods, constructing disclosure indices is widely employed to quantify the extent of information actually disclosed (Marston & Shrives, 1991). A disclosure index comprises a comprehensive checklist of both mandatory and voluntary items that researchers expect an entity to disclose. Each item is coded in binary: "1" if the information is disclosed, and "0" if otherwise. This idea first appeared in Cerf (1961) and was further developed in subsequent studies such as Singhvi and Desai (1971), Buzby (1974), Cooke (1989, 1991, 1992), Ahmed and Nicholls (1994), and Hassan and Marston (2010).

Initially, disclosure indices were limited to annual reports, but were later extended to other sources such as semi-annual reports and analysts' presentations to capture a more comprehensive picture of disclosure practices. Despite differences in scope, the underlying logic remains the same: the greater the number of items coded '1', the higher the level of transparency. Cooke (1989) proposed an unweighted disclosure index computed as the ratio of disclosed items to the maximum applicable items; we operationalize this computation in Section 3.

Building on this approach, Ghani (2022) constructed 134 disclosure items tailored specifically to the cooperative sector in Malaysia. Employing the six-step model by Coy & Dixon (2004), Ghani (2022) identified six item groups and applied an unweighted binary coding method for measuring disclosure.

From a theoretical perspective, disclosure in financial statements has been analyzed through multiple lenses. Signaling theory (Arrow, 1971; Schipper, 1989) posits that disclosure is a way for organizations to send positive signals to the market to reduce information asymmetry. Agency theory highlights disclosure as a mechanism for monitoring managers' behavior and protecting owners' interests (Jensen & Meckling, 1976). Institutional theory argues that organizations face pressures from legal frameworks and societal expectations that compel them toward greater transparency (DiMaggio & Powell, 1983). Meanwhile, political cost theory (Watts & Zimmerman, 1986) suggests that large, profitable entities – subject to stronger scrutiny – tend to disclose more information to mitigate inspection risks. Taken together, these theories provide a comprehensive framework for understanding disclosure behavior and are particularly relevant for nonprofit and agricultural cooperative organizations, where multiple stakeholders and social objectives coexist alongside economic goals.

Research on determinants of disclosure has drawn significant scholarly attention. Classic studies by Cerf (1961) and Cooke (1989) demonstrated that larger entities, with greater accounting resources and stronger monitoring by shareholders, tend to disclose more details. However, Lang and Lundholm (1993) argued that smaller firms might voluntarily disclose more to attract capital and reduce information asymmetry, implying a potentially inverted relationship between size and disclosure. In Southeast Asia, Novianita and Hadi (2017) found that service cooperatives in Java with assets exceeding 50 billion Rupiah disclosed 78% of items on average, 22% higher than smaller cooperatives. Similarly, Fouché & Polo Garrido (2024), analyzing over 300 leading cooperatives worldwide, confirmed that cooperative size (measured by total revenue) had the most significant positive impact on disclosure.

Regarding profitability, the literature presents mixed evidence. Skinner (1994) showed that low-profit firms disclose more to justify poor performance, whereas Ahmed and Courtis (1999) found that profitable firms are more willing to invest in transparency to maintain investor trust. Profitability is thus considered a dual-effect variable (Healy & Palepu, 2001).

For financial leverage, Rajan and Zingales (1995) demonstrated that highly leveraged firms may be more cautious in disclosure, while Huynh et al. (2020) argued that high leverage encourages transparency to reassure creditors. Similarly, liquidity is often associated with more complete informa-

http://dx.doi.org/10.21511/imfi.23(2).2026.27

tion disclosure (Singhvi, 1968). Conversely, Cooke (1989) observed that firms facing liquidity problems might voluntarily share more information to solicit market sympathy.

Firm age also remains debated**.** Bushman et al. (2007) argued that older organizations disclose more due to more mature control systems and accumulated reporting experience, whereas Leuz and Verrecchia (2000) suggested that longer firm age could foster complacency and reduce disclosure incentives.

Good accounting skills and strong internal control act as filters that improve the quality of financial information. Francis and Krishnan (1999) and Curtis and Turley (2007) found that stronger controls enhance clarity in financial reporting, but Cohen et al. (2016) cautioned that an excessive compliance focus may complicate reports. Likewise, while Bushman and Smith (2001) acknowledged that skilled accountants improve transparency, Brown et al. (2008) warned that overly sophisticated reporting could limit accessibility for general investors.

Asset structure and leverage also force firms to balance transparency with confidentiality. Biddle and Hilary (2006) argued that higher fixed assets encourage detailed disclosure to build trust, while Leuz and Verrecchia (2000) cautioned that firms may withhold information to protect technological advantages.

Finally, the legal environment serves as a safeguard for information. Studies in the U.S. and Europe (Leuz et al., 2003; Barth et al., 2001) support the view that stringent regulation enhances disclosure, though Jones et al. (2018) noted that effectiveness depends on organizational culture.

In summary, prior studies highlight that the relationship between firm characteristics and financial information disclosure is complex, context-dependent, and shaped by organizational, financial, governance, and institutional factors. However, empirical evidence remains scarce for agricultural cooperatives in emerging economies, particularly in the Northwestern provinces of Vietnam, where cooperatives face specific challenges related to small scale, limited resources, and heterogeneous legal enforcement. Building on the theories and empirical findings discussed above, this study focuses on agricultural cooperatives in Northwestern Vietnam to assess their current level of financial information disclosure and to examine how cooperative characteristics, financial factors, internal control and monitoring, and the legal environment jointly influence this level. In line with this literature, we formulate the following hypotheses and corresponding conceptual model:

H1: Cooperative size has a positive impact on the level of financial information disclosure.

H2: The value of fixed assets has a positive impact on the level of financial information disclosure.

H3: The longer the cooperative's operating history, the higher the level of financial information disclosure.

H4: Higher accounting competence is associated with a higher level of financial information disclosure.

H5: Higher managerial competence is associated with a higher level of financial information disclosure.

H6: Stronger overall financial conditions are associated with a higher level of financial information disclosure.

H7: Stricter monitoring and internal control mechanisms are associated with a higher level of financial information disclosure.

H8: A more supportive and better-enforced legal environment is associated with a higher level of financial information disclosure.

These hypotheses guide the empirical analysis presented in the subsequent sections of the paper**.**

2. RESEARCH METHODOLOGY AND DATA

This study applies both qualitative and quantitative approaches, following the multi-method recommended by Lymer (1999). This mixed design ensures the exploratory depth of qualitative research while allowing statistical testing of the theoretical model through quantitative analysis.

First, a qualitative approach was used to explore and refine the measurement scale. Pioneering studies on disclosure, Cerf (1961) and Bollen (2002), emphasized the value of expert interviews during the scale development stage. Building on this idea, we conducted 12 in-depth interviews in four Northwestern provinces that represent the region's economic characteristics and cooperative models. Experts were selected using theoretical sampling to maximize knowledge diversity, including: (i) those with practical experience in accounting or supervising agricultural cooperatives; (ii) those involved in preparing or approving financial statements; and (iii) those knowledgeable about Vietnam's current accounting regime for agricultural cooperatives.

The interviews focused on two main issues: (1) the validity of theoretical factors such as size, profitability, fixed assets, financial leverage, liquidity, firm age, internal control, accounting competence, managerial competence, and legal environment; and (2) the disclosure index checklist (Cooke, 1989). Each interview lasted 30-45 minutes, and the interview transcripts were coded by hand and then grouped into a table showing the main views and how often each view was mentioned.

The results indicated that all nine factors were rated from influential to strongly influential, though fixed assets and liquidity were noted as less impactful (16-25%). Experts suggested grouping profitability, leverage, and liquidity into a financial capacity construct, as these variables collectively reflect capital strength. Based on expert input, we added two new factors: Agricultural Cooperative Characteristics (COC) and Managerial Competence (MAN). COC captures structural pressures for transparency: agricultural cooperatives often have large memberships, dual economic-social objectives, seasonal dependence, and oversight from public support programs, which both increase demand for information and create operational challenges in accounting. MAN represents internal capability and attitude: directors who understand accounting standards, attend training, and view transparency as a tool for capital mobilization produce more complete statements, whereas less knowledgeable managers tend to reduce disclosure. Including COC and MAN in the model provides a fuller explanation of disclosure dynamics in Northwestern agricultural cooperatives.

Survey items were localized to the Northwestern context. The four provinces were chosen as regional representatives (terrain, climate, cooperative models), ensuring generalizability while remaining feasible in terms of resources. A full survey across the entire Northwestern region would require excessive costs, whereas a sample of 240 cooperatives exceeds statistical requirements and enables regional comparisons. The refined questionnaire included 27 observed variables measuring nine factors.

In this study, the level of financial information disclosure (DL) is modeled as:

$$DL = f\begin{pmatrix} SIZ, FIN, FIX, AGE, INC, \\ ACC, LEG, COC, MAN \end{pmatrix}, \quad (1)$$

where *SIZ* = cooperative size; *FIN* = financial capacity; *FIX* = fixed assets; *AGE* = firm age; *INC* = internal control; *ACC* = accounting competence; *LEG* = legal environment; *COC* = cooperative characteristics; *MAN* = managerial competence.

Second, a quantitative approach was applied for model testing and hypotheses validation. We collected secondary data from the 2023 financial statements of 240 agricultural cooperatives in Son La, Dien Bien, Lai Chau, and Lao Cai provinces (60 cooperatives per province). To be included in the research sample, cooperatives were required to (i) generate revenue, (ii) employ staff, (iii) be registered before January 1, 2019, and (iv) still be in operation at the time of data collection. Survey questionnaires (via Google Forms/Zalo and hard copies) were distributed to directors, chief accountants, accountants, and members of supervisory boards of agricultural cooperatives. After collecting the questionnaires and removing inappropriate responses, we finally got 216 responses. According to the sample size requirement by Yinbo Feng (2012), where $N \geq 50 + 8p$, with 9 independent variables, we believe that the study sample size ensures representativeness for further analysis.

http://dx.doi.org/10.21511/imfi.23(2).2026.27

2.1. Data collection timeline and time-lag caveats

FY2023 financial statements in Vietnam are typically filed by March 31 of the subsequent year (i.e., March 31, 2024, for FY2023). Therefore, the collection and manual coding of FY2023 financial statements necessarily involved a time lag; we collected and processed FY2023 statements during May – August 2024.

The questionnaire was prepared and refined through multiple rounds (expert review and pilot testing). The official survey fieldwork was conducted during September–November 2024 and was administered to directors/accountants of the cooperatives whose FY2023 financial statements were collected.

Accordingly, survey responses capture organizational perceptions and practices around the preparation and disclosure of FY2023 reports. We acknowledge potential caveats associated with this timing (e.g., recall bias and contemporaneous changes in reporting practices) and discuss them in the Limitations subsection.

To measure the level of financial disclosure, we adopted an unweighted index approach, eliminating subjectivity associated with users' perceptions of disclosed information. This method is particularly suitable for agricultural cooperatives due to their small scale, limited financial management capacity, and diverse financial structures. It allows for direct comparisons of disclosure levels across cooperatives and over time, facilitating evaluation of disclosure improvements.

The disclosure index was developed based on Coy and Dixon's (2004) framework and adapted to Vietnam's legal context. According to Vietnamese regulations for cooperatives issued by the Ministry of Finance (Circular 24/2017/TT-BTC), financial statements include the Balance Sheet, Income Statement, and Notes. Each disclosed item was treated as an index element, resulting in 75 items grouped as follows:

1. General information – 3 items
2. Cash information – 5 items
3. Investments – 11 items
4. Assets and owners' equity – 11 items
5. Liabilities – 18 items
6. Revenue – 12 items
7. Business performance – 15 items

Financial statements were coded using the unweighted index method, in which the disclosure index I_j was calculated using the following formula:

$$I_j = \frac{\sum_{i=1}^{nj} d_{ij}}{n_j}, \quad (2)$$

where I_j – Disclosure index of firm j, with $0 \le I_j \le 1$, d – Binary variable for each disclosure item:

- $d = 1$: if item i is disclosed;
- $d = 0$: if item i is not disclosed.
- n: Maximum number of disclosure items that could potentially be disclosed.

(here, 75 items).

The nine independent variables were measured using a 5-point Likert scale (1 = strongly disagree … 5 = strongly agree), with items adapted from international studies and adjusted through expert interviews for contextual validity.

The full questionnaire (Vietnamese original and English translation) is provided as Appendix A in the resubmission package (supplementary material).

A multiple regression model was applied to test linear relationships between the dependent variable (disclosure index) and the independent variables, specified as follows:

$$CBTT = \alpha + \beta 1SIZ + \beta 2FIN + \beta 3FIX + \beta 4AGE + \beta 5INC + \beta 6LEG + \beta 7ACC + \beta 8COC + \beta 9MAN + \varepsilon, \quad (3)$$

where $CBTT$ – Disclosure index of agricultural cooperatives in Northwestern Vietnam, α – Constant, β_i – Coefficients of explanatory variables, ε – Error term, SIZ = Cooperative size; FIN = Financial ca-

pacity; *FIX* = Fixed assets; *AGE* = Firm age; *INC* = Internal control; *LEG* = Legal environment; *ACC* = Accounting competence; *COC* = Agricultural cooperative characteristics; MAN = Managerial competence.

Data were processed using SPSS. We computed percentages describing disclosed items, along with mean values and standard deviations for each disclosure group. The disclosure index scores were tabulated to highlight key sample characteristics, enabling visual comparisons and the identification of disclosure patterns and differences. In addition, the reliability and validity of the measurement scales were assessed using Cronbach's Alpha and Exploratory Factor Analysis (EFA) before estimating the regression model.

The micro-level dataset used in this study contains financial statements and survey responses of agricultural cooperatives located in small rural communities. Under the cooperation agreements and consent procedures with participating cooperatives, and in line with Vietnamese regulations on the use of cooperative financial data, these data may only be used for academic research purposes and reported in aggregated and anonymized form. For these ethical and legal reasons, the full dataset cannot be deposited in a public open-access repository. Detailed information on variable definitions, questionnaire items and the construction of the disclosure index is provided in the article. Additional aggregated outputs or a highly anonymized analytical subset of the data may be made available to qualified researchers upon reasonable request to the corresponding author, subject to prior institutional approval and the protection of cooperative confidentiality.

3. RESULTS

Descriptive statistics for 216 agricultural cooperatives in Northwestern Vietnam reveal that levels of information disclosure remain modest and highly uneven across disclosure categories. The overall disclosure index averaged 55.6 per cent (median = 56.4 per cent), ranging from 23 to 77 per cent, with a standard deviation of 10.5. The distribution showed skewness = –0.67 and kurtosis = 0.51, indicating slight left-skewness; most cooperatives cluster around the mean, with a few achieving high transparency, though no outliers reached full disclosure.

Table 1. Overall disclosure level by cooperative

N	Valid	216
	Missing	0
Mean		55.586
Median		56.400
Std. Deviation		10.506
Skewness		–0.670
Std. Error of Skewness		0.166
Kurtosis		0.505
Std. Error of Kurtosis		0.330
Minimum		23.000
Maximum		77.000

3.1. Disclosure by item groups

The breakdown of disclosure indices highlights significant variation. General information and basic financial information were fully disclosed (100%), reflecting strong compliance with the minimum requirements of Vietnamese Accounting Regulations for cooperatives (Circular 24/2017/TT-BTC). The disclosed items for assets are ranked secondly at 67.7 per cent; items such as inventories, fixed assets, and depreciation were reported at high rates (around 85-95 per cent), suggesting managers recognize these as critical for protecting members' equity. However, asset impairments were disclosed by only 2.8 per cent of cooperatives, implying little attention to risk provisioning or insufficient reserves.

By contrast, the investment group scored lowest at 29.9 per cent. Items on financial investments, term deposits, or internal credit activities were nearly absent (less than 8 per cent), consistent with the reality that Northwestern cooperatives operate with small member-based capital and rarely engage in long-term investments. The liabilities group averaged about 45.6 per cent, with strong reporting on payables, taxes, and bank loans, but weak disclosure on credit risk reserves or overdue interest. Expert explanations suggested that most cooperatives borrow infrequently, often requiring collateral, making internal credit provisions negligible; however, the lack of explanatory notes undermines reliability.

The average disclosure rate for the revenue group is 44.3 per cent. Information about net sales, revenues for outsiders, owners' equity, and after-tax profits

http://dx.doi.org/10.21511/imfi.23(2).2026.27

was reported by more than 90 per cent of cooperatives, reflecting a preference to highlight positive outcomes in those entities. In contrast, sales discounts and returns were almost never disclosed, possibly due to low incidence but also potentially from fear of negative perceptions among members and investors.

Finally, business performance results exhibit the highest level of disclosure, except for internal credit activities: the average disclosure index reaches 62.9%, with both profit before tax and profit after tax fully disclosed at 100%. In addition, the disclosure rate for management expenses is nearly 98%, reflecting an increasing emphasis on transparency in operational efficiency and cost control. However, information related to revenues and expenses from internal credit activities is disclosed at less than 31%. The absence of such data highlights uneven transparency across different areas of operation, particularly in credit activities, which are of significant importance to members. This limitation reduces the ability to comprehensively assess financial performance and entails potential risks of information asymmetry between management and cooperative members.

3.2. Reliability and factor analysis

The paper applies reliability analysis and exploratory factor analysis (EFA). First, nine original constructs (SIZ, FIN, FIX, AGE, INC, ACC, LEG, COC, MAN) were tested for Cronbach's Alpha. Results show that all exceeded the 0.60 threshold; all items with corrected item–total correlations >0.30 were retained. Only MAN1 failed (r = 0.128) and was dropped, improving the MAN alpha from 0.681 to 0.773. Consequently, 42 items satisfied all the conditions for exploratory factor analysis (EFA).

EFA was performed iteratively, eliminating items with factor loadings smaller than 0.50. Across all specifications, the KMO values remained higher than 0.90, and Bartlett's Test was significant (p = 0.000), confirming suitability for factor extraction. The final rotated solution contained 25 items loading on six factors, explaining 65.04% of total variance, with all factor loadings greater than 0.50 and no high cross-loadings.

The six retained factors were: F_COC (cooperative characteristics), F_FIN (financial capacity), F_INC (internal control), F_FIX (fixed assets), F_MAN (managerial competence), and F_LEG (legal environment). This structure aligned with theory and confirmed construct validity, supporting their use in regression analysis.

Table 2. Pearson correlation matrix

		DL	COC	FIN	INC	FIX	MAN	LEG
Disclosure Level (DL)	Pearson Correlation	1	.554**	.518**	.600**	.508	–.056**	.504**
	Sig. (2-tailed)		.000	.000	.000	.000	.410	.000
	N	216	216	216	216	216	216	216
Cooperative Characteristics (COC)	Pearson Correlation	.554**	1	.508**	.538**	.575**	.060	.419**
	Sig. (2-tailed)	.000		.000	.000	.000	.377	.000
	N	216	216	216	216	216	216	216
Financial capacity (FIN)	Pearson Correlation	.518**	.508**	1	.461**	.593**	–.092**	.362
	Sig. (2-tailed)	.000	.000		.000	.000	.180	.000
	N	216	216	216	216	216	216	216
Internal Control (INC)	Pearson Correlation	.600**	.538**	.461**	1	.569**	.005**	.488**
	Sig. (2-tailed)	.000	.000	.000		.000	.945	.000
	N	216	216	216	216	216	216	216
Fixed Assets (FIX)	Pearson Correlation	.508**	.575**	.593**	.569**	1**	–.076**	.517**
	Sig. (2-tailed)	.000	.000	.000	.000		.265	.000
	N	216	216	216	216	216	216	216
Managerial Competence (MAN)	Pearson Correlation	–.056	.060	–.092	.005	–.076	1	–.011
	Sig. (2-tailed)	.410	.377	.180	.945	.265		.874
	N	216	216	216	216	216	216	216
Legal Environment (LEG)	Pearson Correlation	.504**	.419**	.362**	.488**	.517**	–.011**	1**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.874	
	N	216	216	216	216	216	216	216

3.3. Correlation analysis

Pearson correlation analysis showed that all factors – except managerial competence – were significantly and positively correlated with disclosure ($p < 0.01$). The strongest correlation was observed for internal control ($r = 0.600$).

3.4. Regression analysis

Multiple regression analysis confirmed model fitness ($R^2 = 0.501$; Adjusted $R^2 = 0.487$; $F = 35.009$; $p < 0.001$). No autocorrelation was detected (Durbin-Watson = 1.805); VIF values ≤ 2 indicated no serious multicollinearity, except for fixed assets (2.174, mild collinearity). Fixed assets ($p = 0.826$) and managerial competence ($p = 0.300$) were non-significant and removed from the final model.

Based on the results, we propose the estimated model as follows:

$$DL = 1.063 + 0.268INC + 0.189FIN + 0.174COC + 0.142LEG + \varepsilon. \quad (4)$$

The model identifies four statistically significant factors positively influencing disclosure: cooperative characteristics ($\beta = 0.174$), financial capacity ($\beta = 0.189$), internal control ($\beta = 0.268$), and the legal environment ($\beta = 0.142$). Cooperative characteristics reflect structural identity (ownership, socio-economic objectives, democratic governance). Their positive effect indicates that stronger cooperative identity increases internal accountability, driving broader disclosure.

Financial capacity (profitability, liquidity, leverage) suggests that cooperatives with stronger financial performance or credit pressures disclose more to signal strength and reduce capital costs. The results indicate that internal control is the most influential driver. It implies that the frequent and intensive monitoring by tax, insurance, statistics, and inspection agencies raises the costs of noncompliance, strengthening incentives for transparency.

Legal environment – measured by clarity, timeliness, and enforceability of cooperative laws and accounting regulations – facilitates standardization, guidance, and credible enforcement, thereby enhancing disclosure. By contrast, size, age, fixed assets, and managerial competence were insignificant variables. Size was irrelevant due to uniform reporting requirements and seasonal revenue fluctuations. The age of the cooperative shows an insignificant role, which might be because newer cooperatives often adopt modern technologies, while older ones remain constrained by outdated infrastructure. Fixed assets and managerial competence were not impactful since many cooperatives outsource accounting, and the book values of fixed assets did not capture intrinsic economic capacity.

ANOVA results confirmed that the cooperative size ($p = 0.090$) and cooperative age ($p = 0.260$) did not significantly affect the level of information disclosure, suggesting that transparency depends much more on governance quality and monitoring pressures than on scale or longevity of cooperatives.

In short, the findings show that disclosure in Northwestern agricultural cooperatives is not determined by capital size or age but rather by supervisory mechanisms, financial strength, cooperative characteristics, and the legal framework. These results reinforce governance perspectives: to enhance transparency, emphasis should be placed on strengthening independent monitoring, improving financial health, refining cooperative-specific legal frameworks, and transferring modern governance models, rather than merely expanding size or extending operational history.

Taken together, the hypothesis-testing results show that several of the initially formulated relationships are not supported by the data. Cooperative

Table 3. Regression results (N = 216)

Independent variable	B (Unstd.)	Beta	Sig.	VIF
Constant	1.063	–	0.000	–
INC (Internal control)	0.268	0.301	0.000	1.759
FIN (Financial capacity)	0.189	0.201	0.002	1.688
COC (Coop. characteristics)	0.174	0.218	0.001	1.779
LEG (Legal environment)	0.142	0.200	0.001	1.492

http://dx.doi.org/10.21511/imfi.23(2).2026.27

size (H1), the value of fixed assets (H2) and cooperative age (H3) do not have a statistically significant effect on the disclosure index, so these hypotheses are rejected. Likewise, managerial competence (H5) is not significant once other factors are controlled for, leading to the rejection of H5. By contrast, the financial capacity construct (FIN) has a positive and significant association with disclosure, supporting H6, while the internal-control construct (INC), which captures monitoring and accounting-governance aspects, emerges as the strongest predictor, consistent with the logic of H7. The legal environment (LEG) also exerts a positive and significant effect, providing support for H8. In addition, the cooperative-characteristics construct (COC), which was added inductively from the qualitative phase, is positively and significantly related to disclosure, indicating that cooperative-specific features play an independent role beyond the relationships formally stated in H1-H8.

4. DISCUSSION

The empirical results indicate that the overall level of financial information disclosure in agricultural cooperatives in Northwestern Vietnam is moderate and heterogeneous, with notable variation across cooperatives and disclosure item groups. This pattern is broadly consistent with prior evidence that disclosure practices in non-listed and member-owned entities tend to fall below the transparency levels observed in listed firms (Marston & Shrives, 1991; Beattie et al., 2004). The relatively higher disclosure of core balance sheet and performance items, contrasted with very low disclosure of investment- and credit-related items, reflects structural features of agricultural cooperatives in the region, where capital is limited, external investment is rare, and internal credit activities are either underdeveloped or informally managed. These findings echo Buzby's (1974) observation that disclosure in developing contexts often remains confined to minimum regulatory requirements.

The positive and significant effect of cooperative characteristics (COC) supports the view that cooperative identity and member-oriented governance play an important role in shaping transparency. Studies in other cooperative settings (Novianita & Hadi, 2017; Fouché & Polo Garrido, 2024) show that entities with stronger member participation and clearer cooperative principles tend to disclose more information to maintain members' trust and organizational legitimacy. In the Northwestern Vietnamese context, cooperatives with larger memberships, stronger socio-economic mandates, and closer interactions with public support programs appear to face greater internal and external accountability pressures, which translate into broader disclosure. This finding reinforces the relevance of cooperative-specific constructs that are often underrepresented in disclosure models originally developed for investor-owned firms (Cerf, 1961; Cooke, 1989).

The strong and significant impact of internal control (INC) is consistent with the corporate governance literature, which emphasizes that robust internal control systems enhance the quality and clarity of financial reporting (Francis & Krishnan, 1999; Bushman & Smith, 2001). For agricultural cooperatives in Northwestern Vietnam, internal control is closely tied to the frequency and intensity of inspections by tax, social insurance, and statistical authorities. Because internal control is the strongest driver, disclosure in this context is largely determined by governance factors. Cooperatives facing higher perceived monitoring and sanction risks have stronger incentives to comply with reporting requirements and to reduce information asymmetry vis-à-vis regulators and members. This result is in line with institutional arguments that formal and informal monitoring mechanisms shape disclosure behavior (DiMaggio & Powell, 1983; Watts & Zimmerman, 1986).

The positive role of financial capacity (FIN) in explaining disclosure is also consistent with prior research showing that financially stronger entities, or those more exposed to external financing, tend to disclose more to signal strength and lower the cost of capital (Healy & Palepu, 2001). In the cooperative literature, Ghani (2023) similarly documents that cooperatives with better financial positions in Malaysia achieve higher disclosure scores, partly because they must demonstrate sound financial management to banks and government agencies. In the Northwestern Vietnamese context, cooperatives with more favorable liquidity, profitability, or leverage profiles appear better able and more motivated to invest in accounting sys-

tems and provide more complete financial statements, especially when participation in credit and support programs requires regular reporting.

The significant effect of the legal environment (LEG) aligns with cross-country evidence that stricter, clearer, and better-enforced accounting and securities regulations are associated with higher disclosure levels (Barth et al., 2001; Leuz et al., 2003). Although agricultural cooperatives are not listed entities, they are governed by a specific regulatory framework, notably the Law on Cooperatives (National Assembly of Vietnam, 2012). Where local authorities provide more guidance, training, and enforcement, cooperatives tend to standardize their reporting practices and expand disclosure. This suggests that regulatory quality and implementation at the local level can partly compensate for limited internal resources and act as an external driver of transparency.

By contrast, the insignificance of cooperative size and age stands in partial tension with classic findings in the disclosure literature. Cerf (1961) and Cooke (1989) reported that larger and more mature firms generally disclose more, due to economies of scale and greater public scrutiny, and several cooperative studies also find a positive association between size and disclosure (Novianita & Hadi, 2017; Fouché & Polo Garrido, 2024). In this study, however, size and age do not significantly explain differences in disclosure. A plausible explanation is that agricultural cooperatives in Northwestern Vietnam are relatively homogeneous in scale and are subject to uniform reporting requirements, which reduces variability attributable to size. In addition, many older cooperatives still operate with outdated infrastructure and limited access to digital tools, while some younger cooperatives adopt more modern accounting practices, rendering the net effect of age statistically insignificant.

The absence of a significant effect for fixed assets (FIX) and managerial competence (MAN) also merits discussion. In theory, higher fixed assets could encourage more detailed disclosure to reassure members and creditors about asset management (Biddle & Hilary, 2006), and more competent managers should be better positioned to implement transparent reporting (Bushman & Smith, 2001). In the Northwestern context, however, many cooperatives outsource accounting services and rely heavily on external accountants, which may weaken the link between managers' self-reported competence and actual disclosure practices. Furthermore, book values of fixed assets do not necessarily capture effective economic capacity or dependence on external finance, limiting the explanatory power of this proxy. This pattern echoes Singhvi's (1968) argument that inadequate disclosure is often rooted more in organizational structures and governance arrangements than in size or asset levels per se.

Overall, the findings suggest that financial information disclosure in Northwestern agricultural cooperatives is driven less by scale and longevity and more by governance quality, financial strength, cooperative-specific characteristics, and the legal-institutional environment. This governance- and institution-oriented pattern complements earlier size- and profitability-based explanations derived from listed firms and reinforces the view that disclosure in cooperatives must be understood within their specific ownership, governance, and regulatory context. From a theoretical perspective, the results highlight the value of incorporating cooperative-specific constructs such as COC and MAN into disclosure models and of reassessing the applicability of conventional corporate disclosure determinants to member-owned organizations operating in emerging markets.

CONCLUSION

This study investigates the level and determinants of financial information disclosure among Vietnamese agricultural cooperatives. The findings indicate a moderate average disclosure level of 55.6%, with substantial heterogeneity across cooperatives. Internal control is the strongest predictor of disclosure, while accounting competence, legal environment, financial capacity, and managerial competence also contribute positively. Therefore, improving internal governance and accounting capability, together with more consistent regulatory guidance and enforcement, is crucial for closing the transparency gap in the cooperative sector.

http://dx.doi.org/10.21511/imfi.23(2).2026.27

Accordingly, to close the transparency gap between agricultural cooperatives in Northwestern Vietnam and modern financial reporting standards, this study proposes policy recommendations grounded in three interrelated pillars. These pillars are not independent but function interactively within a feedback loop model.

The first pillar concerns the internal structure of cooperatives. From the perspectives of signaling theory and agency theory, transparency is a tool to reduce information asymmetry (Bushman et al., 2007), lower capital costs, and protect management from legal risks. Therefore, each cooperative needs to restructure its accounting and internal control processes. A new process should begin with the digitalization of invoices/documents at the stages of harvesting, purchasing materials, and service expenses; data should be instantly updated into accounting software aligned with the Vietnamese Accounting Regulation for Cooperatives (Circular 24/2017/TT-BTC), integrated with the 75 disclosure items. Monthly, the system automatically closes ledgers, generates cash flow and profitability reports, and internal supervisory boards cross-check journals against ledgers. Directors and chairpersons approve the reports after soliciting feedback from members. Quarterly, cooperatives should publish financial summaries on bulletin boards, websites, or members' social media groups to create early feedback loops. At year-end, raw data should be submitted to independent auditors, with audited reports filed with tax authorities and publicly disclosed. The expected incentives for adopting such a system include: (i) reduced borrowing costs via improved credit scores; (ii) stronger internal governance as members monitor capital efficiency; and (iii) reduced legal risks since documents, data, and processes comply with standards.

The second pillar is the legal framework, which should guide the transformation. The Ministry of Finance should consider amending the Accounting Regulation for Cooperatives (Circular 24/2017/TT-BTC) based on a three-tiered structure. The minimum tier retains core legal indicators of balance sheets, income statements, and concise notes. The incentive tier requires disclosure of debt structure, risk provisions, and projected cash flows to support liquidity assessments by banks and investors. The advanced tier demands simplified environmental, social, and governance (ESG) reports, investment portfolio analyses, and agricultural price risk assessments suitable for cooperatives engaged in international value chains. Linked to these tiers are enforcement-incentive mechanisms: cooperatives meeting incentive-tier standards should receive priority funding from the Cooperative Development Support Fund; those maintaining only the minimum tier but filing late or with significant errors should face penalties and public disclosure of violations; those voluntarily achieving the advanced tier should access export promotion programs, green credit, and preferential bidding opportunities for supplying agricultural products to schools and institutional kitchens.

The third pillar focuses on modernizing supervision. Tax, social insurance, and statistical agencies should build integrated digital platforms storing standardized electronic financial statements, e-invoices, bank statements, and labor data. Machine learning algorithms can assess risk, triggering in-depth inspections only when risk thresholds are exceeded, reducing inspection frequency by 70% while increasing violation detection rates. Social insurance authorities can cross-check declared wage funds against income data, while statistical offices can publish quarterly cooperative sector indices (average revenue, labor productivity, value added) as benchmarks for local transparency. Risk-based supervision reduces fiscal costs, increases expected penalties for concealment, and encourages managers to disclose early rather than face delayed sanctions.

This study has several limitations. A limitation of this study is that it surveyed four provinces in the Northwestern region and focused exclusively on agricultural cooperatives. Regarding measurement methodology, although we argue that there is no single metric for disclosure, as disclosure indices have traditionally been employed, more recent approaches also incorporate measures of timeliness and quality. Nevertheless, this study applies only a disclosure index comprising 75 items under the Vietnamese Accounting Regulation for Cooperatives. This index measures the extent of disclosure but does not capture its quality, timeliness, or usability.

In addition, the collection/coding of FY2023 financial statements (May - August 2024) and the survey fieldwork (September - November 2024) introduce a time-lag that may entail recall bias and contemporaneous changes in reporting practices.

Future research should expand the geographical scope, differentiate more clearly among types of cooperatives, develop indices based on quality dimensions, test the causal impact of new policies, and undertake comparative analyses with international experience.

AUTHOR CONTRIBUTIONS

Conceptualization: Pham Duc Cuong.
Data curation: Do Thi Minh Tam.
Formal analysis: Do Thi Minh Tam.
Funding acquisition: Pham Duc Cuong.
Investigation: Do Thi Minh Tam.
Methodology: Pham Duc Cuong.
Resources: Do Thi Minh Tam.
Software: Do Thi Minh Tam.
Supervision: Pham Duc Cuong.
Visualization: Do Thi Minh Tam.
Writing – original draft: Do Thi Minh Tam.
Writing – review & editing: Pham Duc Cuong.

REFERENCES

1. Adina, P., & Ion, P. (2008). Aspects regarding corporate mandatory and voluntary disclosure. *Journal of the Faculty of Economics, 3*(1), 1407-1411. Retrieved from https://ideas.repec.org/a/ora/journl/v3y2008i1p1407-1411.html
2. Ahmed, K., & Courtis, J. K. (1999). Association between company characteristics and annual report disclosure: A meta-analysis. *British Accounting Review, 31*(1), 35-61. https://doi.org/10.1006/bare.1998.0082
3. Ahmed, K., & Nicholls, D. (1994). The impact of non-financial company characteristics on mandatory disclosure compliance in developing countries: The case of Bangladesh. *The International Journal of Accounting, 29*(1), 62-77. Retrieved from https://www.scirp.org/reference/referencespapers?referenceid=2561942
4. Arrow, K. J. (1971). *Selected readings in economic theory from Econometrica*. Cambridge, MA: The MIT Press. Retrieved from https://archive.org/details/selectedreadings0000arro
5. Barth, M. E., Beaver, W. H., & Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: Another view. *Journal of Accounting and Economics, 31*(1-3), 77-104. https://doi.org/10.1016/S0165-4101(01)00019-2
6. Beattie, V. A., McInnes, W., & Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports. *Accounting Forum, 28*(3), 205-236. https://doi.org/10.1016/j.accfor.2004.07.001
7. Biddle, G. C., & Hilary, G. (2006). Accounting quality and firm-level capital investment. *The Accounting Review, 81*(5), 963-982. https://doi.org/10.2308/accr.2006.81.5.963
8. Bollen, K. A. (2002). Latent variables in psychology and the social sciences. *Annual Review of Psychology, 53,* 605-634. https://doi.org/10.1146/annurev.psych.53.100901.135239
9. Brown, L. D., Call, A. C., Clement, M. B., & Sharp, N. Y. (2008). Inside the black box of sell-side financial analysts. *Journal of Accounting Research, 46*(1), 1-41. https://doi.org/10.1111/1475-679X.12067
10. Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics, 32*(1-3), 237-333. https://doi.org/10.1016/S0165-4101(01)00027-1
11. Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2007). What determines corporate transparency? *Journal of Accounting Research, 42*(2), 207-252. https://doi.org/10.1111/j.1475-679X.2004.00136.x
12. Buzby, S. L. (1974). Selected items of information and their disclosure in annual reports. *The Accounting Review, 49*(3), 423-435. https://doi.org/10.2308/TAR-4514766
13. Cao, P. (2023). Introduction to the revised Law on Cooperatives 2023. *Legal Dissemination and Education in Thanh Hoa*. Retrieved from https://pbgdpl.thanhhoa.gov.vn

http://dx.doi.org/10.21511/imfi.23(2).2026.27

14. Cerf, A. R. (1961). *Corporate reporting and investment decisions*. University of California Press. Berkeley: Public Accounting Research Program, Institute of Business and Economic Research, University of California. Retrieved from: https://openlibrary.org/books/OL5870846M/Corporate_reporting_and_investment_decisions

15. Chen, S., & Bouvain, P. (2009). Is corporate responsibility converging? A comparison of corporate responsibility reporting in the USA, UK, Australia, and Germany. *Journal of Business Ethics, 87*(1), 299-317. https://doi.org/10.1007/s10551-008-9794-0

16. Cohen, J., Krishnamoorthy, G., & Wright, A. M. (2016). Corporate governance and the audit process. *Contemporary Accounting Research, 19*(4), 573-594. https://doi.org/10.1506/983M-EPXG-4Y0R-J9YK

17. Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research, 19*(74), 113-124. https://doi.org/10.1080/00014788.1989.9728841

18. Cooke, T. E. (1991). An assessment of voluntary disclosure in the annual reports of Japanese corporations. *The International Journal of Accounting, 26*(3), 174-189. Retrieved from https://www.scirp.org/reference/referencespapers?referenceid=2561945

19. Cooke, T. E. (1992). The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations. *Accounting and Business Research, 22*(87), 229-237. https://doi.org/10.1080/00014788.1992.9729440

20. Coy, D., & Dixon, K. (2004). The public accountability index: Crafting a parametric disclosure index for annual reports. *The British Accounting Review, 36*(1), 79-106. https://doi.org/10.1016/j.bar.2003.10.003

21. Curtis, E., & Turley, S. (2007). The business risk audit: A longitudinal case study of an audit engagement. *Accounting, Organizations and Society, 32*(4-5), 439-461. https://doi.org/10.1016/j.aos.2006.09.005

22. DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147-160. https://doi.org/10.1016/S0742-3322(00)17011-1

23. Feng, Y. (2012). Relation research between information disclosure and capital cost of Chinese listed company. In 2012 IEEE Fifth International Conference on Advanced Computational Intelligence (ICACI) (pp. 449-452). IEEE. https://doi.org/10.1109/ICACI.2012.6463307

24. Fouché, K. B., & Polo Garrido, F. (2024). Corporate reporting by cooperatives: Mapping the landscape and identifying determinants. *Journal of Contemporary Accounting & Economics, 20*(3), 100436. https://doi.org/10.1016/j.jcae.2024.100436

25. Francis, J. R., & Krishnan, J. (1999). Accounting accruals and auditor reporting conservatism. *Contemporary Accounting Research, 16*(1), 135-165. https://doi.org/10.1111/j.1911-3846.1999.tb00577.x

26. Ghani, R. (2022). Development of financial reporting disclosure index: A study of the cooperative sector in Malaysia. *Indian-Pacific Journal of Accounting and Finance, 6*(4), 11-18. https://doi.org/10.52962/ipjaf.2022.6.4.139

27. Ghani, R. (2023). Timeliness of financial reporting by cooperatives in Malaysia. *Indian-Pacific Journal of Accounting and Finance, 7*(2), 3-11. https://doi.org/10.52962/ipjaf.2023.7.2.147

28. Gibbins, M., Richardson, A., & Waterhouse, J. (1990). The management of corporate financial disclosure: Opportunism, ritualism, policies, and processes. *Journal of Accounting Research, 28*(1), 121-143. https://doi.org/10.2307/2491219

29. Hassan, O. A. G., & Marston, C. L. (2010). Disclosure measurement in the empirical accounting literature: A review article. *Accountancy Discussion Papers*, No. 1004. Accountancy Research Group, Heriot-Watt University. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1640598

30. Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics, 31*(1-3), 405-440. https://doi.org/10.1016/S0165-4101(01)00018-0

31. Huynh, T. C. T., Tran, K. N., Nguyen, T. Q., Phan, N. B. A., & Nguyen, H. T. (2020). Factors affecting the level of information disclosure in the financial statements of listed real estate companies in Vietnam. *Journal of Scientific Research & Economic Development, 10,* 134-157. Retrieved from https://ideas.repec.org/a/ajn/ijssel/v9y2025i6p1-9id472.html

32. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

33. Jones, M. J., Ye, K., & Raval, V. (2018). Internal control weaknesses and financial reporting fraud. *Auditing: A Journal of Practice and Theory, 36*(3), 45-69. Retrieved from https://aaahq.org/portals/0/newsroom/intnl%20cntrl%20weakness%20and%20finan%20rpt%20fraud.pdf

34. Lang, M. H., & Lundholm, R. J. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research, 31*(2), 246-271. https://doi.org/10.2307/2491273

35. Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research, 38*(Supplement), 91-124. https://doi.org/10.2307/2672910

36. Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics, 69*(3), 505-527. https://doi.org/10.1016/S0304-405X(03)00121-1

37. Lymer, A. (1999). The Internet and the future of corporate reporting in Europe. *European Accounting Review, 8*(2), 289-301. https://doi.org/10.1080/096381899336041

38. Marston, C. L., & Shrives, P. J. (1991). The use of disclosure indices in accounting research: A review article. *British Accounting Review, 23*(3), 195-210. https://doi.org/10.1016/0890-8389(91)90080-L

39. National Assembly of Vietnam. (2012). *Law on Cooperatives No. 23/2012/QH13 dated November 20, 2012*. Retrieved from https://english.luatvietnam.vn/law-no-23-2012-qh13-dated-november-20-2012-of-the-national-assembly-on-cooperative-75400-doc1.html

40. Novianita, N., & Hadi, S. (2017). Pengaruh pengetahuan perkoperasian, kualitas pelayanan dan partisipasi anggota terhadap perolehan sisa hasil usaha (SHU) anggota KUD Banyumanik Kota Semarang [The influence of cooperative knowledge, service quality and member participation on the acquisition of residual business results (SHU) of KUD Banyumanik members in Semarang City]. *Economic Education Analysis Journal, 6*(2), 591-601. (In Indonesian). Retrieved from: https://doaj.org/article/73e8dc71d8644175991602b705634736

41. Owusu-Ansah, S. (1998). The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe. *The International Journal of Accounting, 33*(5), 605-631. https://doi.org/10.1016/S0020-7063(98)90015-2

42. Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance, 50*(5), 1421-1460. https://doi.org/10.1111/j.1540-6261.1995.tb05184.x

43. Schipper, K. (1989). Commentary on earnings management. *Accounting Horizons, 3*(4), 91-102. Retrieved from https://www.proquest.com/docview/208918065

44. Singhvi, S. S. (1968). Characteristics and implications of inadequate disclosure: A case study of India. *The International Journal of Accounting, 3*(2), 29-44. Retrieved from https://www.econbiz.de/10003682048

45. Singhvi, S. S., & Desai, H. B. (1971). An empirical analysis of the quality of corporate financial disclosure. *The Accounting Review, 46*(1), 129-138. https://doi.org/10.2308/TAR-4482572

46. Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research, 32*(1), 38-60. https://doi.org/10.2307/2491386

47. Watts, R. L., & Zimmerman, J. L. (1986). *Positive accounting theory*. Prentice Hall. Englewood Cliffs, NJ: Prentice-Hall.

http://dx.doi.org/10.21511/imfi.23(2).2026.27