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Article

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FINANCIAL ECONOMICS | RESEARCH ARTICLE

Accounting information quality moderates the effect of dividends on investment decisions: Evidence in Vietnam

Quoc Trung Nguyen Kim^{1*}

Abstract: The author specifies the pivotal role of accounting information quality in moderating the influence of dividends on the investment decisions of listed firms in Vietnam from 2009 to 2020. In this study, the significant dependence of investment on dividends is proved by the Two-Step System Generalized Method of Moments. The key findings show that dividends and investment decisions have a statistically significant negative relationship. The relationship is clarified based on agency theory, asymmetric information theory, and signaling theory, which are used in low-information-transparency markets such as the Vietnamese market. Primarily, the role of a moderating factor could mitigate the negative relationship above.

Subjects: Corporate Finance; Investment & Securities

Keywords: accounting information quality; agency theory; asymmetric information theory; dividends; investment; signaling theory; SGMM; Vietnam

JEL Classification: D25; D82; E22; G11; L21

1. Introduction

According to Laopodis (2020), investment is an allocation of current resources (intelligence, labour, capital ...) to purchase or exchange other resources that aim to generate profits. Beginning with the generated profits, the firms consider dividend decisions, such as distributing proportional or whole retained earnings for shareholders or using retained earnings for a new operating cycle for investment opportunities (Chaleeda et al., 2018). In operational activities, the company requires sufficient funds to make investments that involve acquiring assets to obtain a return on investment in the form of dividends and capital gains (Rochmah et al., 2020). These authors specify that

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Quoc Trung Nguyen Kim Corresponding; Faculty of Accounting - Auditing; the University of Finance – Marketing, Vietnam. Email: nkq.trung@ufm.edu.vn. Ph.D. Nguyen Kim Quoc Trung is currently a lecturer of the Faculty of Accounting - Auditing; the University of Finance – Marketing, Vietnam. He is interested in researching the banking sector and finance and accounting. His fields of research and teaching are banking, finance, and governance. He has written a total of some articles in various international journals and conferences, including International Journal of Economics and Finance Studies, Cogent Business & Management, International Journal of Interdisciplinary Organizational Studies; and has served as a reviewer of some international journals listed in Scopus, such as Cogent Economics and Finance; International Journal of Law and Management; Journal of Financial Services Marketing; International Journal of Asian Business and Information Management.

dividend payment is one of the policies made by the shareholders because a dividend is derived from net earnings that is paid periodically to common and preferred stockholders (O'Hare, 2010). Depending on the firm's performance, the board of directors (BOD) declares a dividend policy, which includes the form of dividend payment. In detail, a company with a high retention ratio pays less dividends, and vice versa. Trang (2016) points out that retained earnings can become initial investment capital and additional paid-in capital. So, the company always tends to reserve through retained earnings to support future funding growth, reinvest, expand the scale, and pay down debt. The distribution of the retained earnings is closely connected to the firm's investment and financing policies. It means the companies declare that the dividend method (by cash or stocks) leads to efficient or inefficient resources for potential investment opportunities. So, adjusting the dividend growth rate depends on each company's strategy, especially the companies that earn net income tend to set up payment ratios higher than others (Bushra & Mirza, 2015).

According to Rizqia and Sumiati (2013), large companies with high reputations can pay high level of dividends respectively with their post-tax profits. Currently, there are two opposite arguments about dividend payments: Dividend Irrelevance and Dividend Relevance. As their names mentioned, the Dividend Irrelevance Theory believes that there is no significant relationship between dividend payment and company's potential profitability or stock price. On the other hand, Dividend Relevance proves a correlation between dividend policy and enterprise investment decisions. The two schools have different studies to support their sides that we can list as follows.

Fama and Miller (1972); Miller and Modigliani (1961); Modigliani and Miller (1958); Smirlock and Marshall (1983) show the independent effect of dividends on investment decisions. They reveal that in a perfect market with transparent information, there is an irrelevant relationship between investment decisions and dividends. In contrast, the studies by (Harakeh, 2020; Higgins, 1972; Jensen & Meckling, 1976; Ramalingegowda et al., 2013) find the negative effect of dividends on investment decisions.

In the scope of Vietnam, there is an urgent demand for recognition of the significant variables impacting investment activity because the Vietnamese capital market is one of the speediest stock markets in Asia. The need encourages many researchers to dig into the effect of dividends on investment decisions; however, these studies focusing on emerging markets such as Vietnam are still restricted. Therefore, this paper is motivated to strengthen the literature by aiming to improve Vietnamese listed firms' empirical accounting information quality. This research targets evaluating to what extent the dividends impacted the investment decisions of Vietnamese listed firms from 2009 to 2020 under the moderating role of accounting information quality. Hence, the research question is formulated as follows: "How does accounting information quality moderate the effect of dividends on the investment decisions of listed firms in Vietnam from 2009 to 2020?". Significantly, the author develops and tests a model in which accounting information quality moderates the relationship between dividends and investment decisions. Hence, the study makes substantial contributions since it shows how the relationship between dividends and investment decisions depends on the "fit" between dividends and accounting information quality.

The article is structured as follows: The first section mentions the literature review of fundamental theories to explain the dividend-investment relationship and the role of a moderating factor in the impact of dividends on investment decisions. Besides, this section discusses the empirical studies briefly to support the relationship above. Then, the author outlines the research method, including samples and the proposed models. The first model considers the effect of dividends on investment decisions, while the second one tests the existence of a moderator (accounting information quality). Based on the quantitative research method (SGMM), the author analyzes the cases of Vietnamese listed firms to evaluate the extent of dividends impacting investment decisions, which is moderating by accounting information quality. The discussion and conclusions of this paper are presented in the following sections. Finally, the author points out the limitations of the study.

2. Literature review and empirical studies

2.1. Literature review

2.1.1. Agency theory

Agency theory provides arguments for behavior between principal and agent (Mahadwartha & Ismiyanti, 2008). These interest conflicts arise because of their different desires to maximize their benefits (Nasution, 2019; Putra et al., 2018) related to the agency cost. As a result, the managers must reconcile the shareholders' different interests to solve the conflicts of interest between agents and principals (Jensen & Meckling, 1976) because the managers' presence in the entity has accelerated the conflicts of interest between owners and managers (Harakeh, 2020). Thus, a dividend payment can be used as a solution to principal-agent problems to avoid or reduce agency costs (Anazonwu et al., 2018; Utami & Inanga, 2011; Wei et al., 2011). In detail, the investors want a high return from a high dividend rate, while the managers prefer a low dividend rate to take advantage of the retained earnings after dividend payments. This encourages the managers to be more flexible in making investment decisions and actively use internal capital instead of external funds at a high cost. However, by earning more incentives and bonuses, the manager can overinvest in the project's inefficiency without the shareholder's consent, which is the trouble of information asymmetry. With the same idea, Jensen (1986) states that managers tend to invest more than optimally because they can take advantage of the growth in firm size in terms of reputation, power, and high returns. That means dividend payments can reduce the surplus of available company resources to prevent over-investment, which derives from the information asymmetry problem.

2.1.2. Asymmetric information theory

The Vietnamese market is a newly emerging stock that faces many constraints, especially asymmetric information (Nga, 2022). In detail, there is a gap in information between insiders (managers) and outsiders (investors) regarding the firm's operations and related policies (such as dividend declaration), which leads to severe asymmetric information. Because some parties have more information than others, they can take advantage of it when making economic decisions. Furthermore (Myers & Majluf, 1984), argue that information asymmetry will increase the cost of raising external capital. So, the manager will consider the investment decisions based on equity or debt financing (Harakeh, 2020). In fact, the manager prefers using the resource from equity at a lower cost than finance from outside. Thus, a high dividend payment leads to low earnings resources after the dividend payment, which makes the managers have fewer economic decisions for investment.

2.1.3. Signaling theory

Ross (1977) first proposed the signaling theory, also known as the information content hypothesis, based on the problem of asymmetric information between investors and managers in the enterprise. Creating a signal under company announcements about the level of paying dividends, such as the more a company pays dividends, the more it has for future projects. It means the company's growth is going well (Miller & Rock, 1985).

Dividend signaling indicates that the company can obtain good investment opportunities that deliver a positive message to its investors for earning profit (H. N. Dang et al., 2021; Stereńczak & Kubiak, 2022). However, Kane et al. (1984); Lang and Litzenberger (1989); Penman (1983) have demonstrated that the market responds more positively to dividend payment information. In contrast, other opinions on the signaling effects of dividends deserve attention. The higher the enterprise decides to pay dividends, the fewer future investment opportunities there will be (Lahiri, 2019). Because the business does not need to retain profits too much to reinvest, retained earnings are always prioritized when necessary to raise capital for investment projects. Therefore, the management board must always consider the signal effect when deciding on dividends because nothing affects stock prices faster than dividend announcements.

Ross's (1977) explains that dividend policy contains information and signals investors. In an imperfect market, increasing dividend payments means shareholders predict that the future earnings of the business are expected to increase. Similarly, cutting dividend payments can convey information to shareholders about the possibility of negative profits in the future and may cause the value of the business to decline. This is the direct reason why it is difficult for corporate management to cut dividend payments and instead cut back on expected investments (Brav et al., 2005). Therefore, it can be said that the signaling theory can explain the impact of dividends on investment decisions.

2.1.4. The moderating role of accounting information quality

The quality of accounting information plays a crucial role in mitigating the adverse effects of dividends on the investment decisions of corporations. According to (Bushman & Smith, 2001), the higher the quality of accounting information, the more valuable it is about the enterprise's future cash flows and investment projects. So, it reduces the problem of asymmetric information between managers and investors. Typically, it diminishes the likelihood that investors buy securities at inflated prices and leads to minimizing the cost of adverse selection when issuing additional securities.

High-quality accounting information improves investor control, thereby weakening moral hazard issues by facilitating the signing of contracts between investors and managers. Harakeh (2020) and Ramalingegowda et al. (2013) confirm that firms with higher quality accounting information have lower debt and capital costs than other firms. It means that corporations with high-quality information can better access external funds or raise capital at a lower cost.

The quality of accounting information plays a crucial role in mitigating the adverse effects of dividends on the investment decisions of corporations (Ball & Shivakumar, 2006; Bushman & Smith, 2001; Ramalingegowda et al., 2013; Zhai & Wang, 2016). Especially (Zhai & Wang, 2016), conclude that high-quality accounting information gives investors a comprehensive view of an enterprise's fundamental principles and operations, helping them better manage capital by strengthening the valuation function and the management function improve investment decisions effectively. For that reason, the quality of accounting information is considered a moderating factor to improve the negative correlation between dividends and investment decisions.

The quality of accounting information in the article will be measured based on the income management model of (McNichols & Stubben, 2008) because it helps to reduce information asymmetry among market participants (Stubben, 2010). measures earnings management by discretionary revenues or accruals as follows.

$$\Delta AR_{i,t} = \beta_0 + \beta_1 \Delta Sales_{i,t} + \mu_{it} \quad (1)$$

Where:

$\Delta AR_{i,t}$ is the change in account receivable.

$\Delta Sales_{i,t}$ is the change in revenues.

μ_{it} : residuals of model [1]

Based on the model (Stubben, 2010), shows that the accounting information quality is calculated by multiplying the absolute value of residuals by (-1). The formula is presented as follows: $AQ_{it} = -1 * |\mu_{it}|$, where AQ_{it} is accounting information quality of firm i at time t.

From the above discussions, the proposed hypotheses are as follows.

Hypothesis 1: dividends affect investment decisions of listed firms in Vietnam negatively.

Hypothesis 2: accounting information quality positively moderates the influence of dividends on investment decisions of listed firms in Vietnam.

2.2. Empirical studies

Liu (2022); Nguyen (2022); Nkuah and Yusif (2016); Ramalingegowda et al. (2013); Saddiq et al. (2018); Uzomah and Ihe (2021) proved that there is an existing relationship between dividends and investment. Concretely, Saddiq et al. (2018) show that the investment decision of Blue-Chip companies in Nigeria is driven positively by the payout ratio. The results highlighted the significantly positive effect of payout ratio rather than a dividend on investment decisions. However, Nguyen (2022); Nkuah and Yusif (2016); Ramalingegowda et al. (2013); Uzomah and Ihe (2021) explore the significant dependence of investment decisions on dividends. Regarding the study by (Uzomah & Ihe, 2021), they suggested that the company has to remain a stable dividend distribution pattern. Besides, Ramalingegowda et al. (2013) emphasize the role of financial reporting quality in moderating the relationship between dividends and investments. The studies find out that the moderator factor (financial reporting quality) decreases the conflict between dividends and investment by using the irrelevant theory to demonstrate that argument.

In the Vietnamese stock market, H. N. Dang et al. (2021); T. Q. A. Dang and Pham (2015); Ngo and Dang (2016) have studied the effects of dividends on listed firms' value. Their results show a dividend-investment relationship in the Vietnamese environment. Based on the empirical studies, the paper recognizes that most of the studies focus on the direct relationship between dividend and investment, except for the study of Ramalingegowda et al. (2013), which emphasizes the role of a moderating variable. Their study uses financial reporting quality with non-accrual measurement that moderates the dividend-investment relationship, while the current research paper will use the accrual basis for accounting information quality measurement. In addition, the research also applies instrument variables to solve endogeneity by using SGMM.

3. Research method

3.1. Samples

There were 329 listed firms on the Ho Chi Minh City Stock Exchange (HOSE) (except for the financial, banking, and insurance sectors) as of 31 December 2022. To satisfy the assumption of 10% error and Yamane (1973)'s formula, 71 firms are required sample size (after eliminating the firms that do not have enough information). Thus, the observed sample for the corresponding topic is $71 \times 12 = 852$ observations; and the data was collected within the period from 2009 to 2020, and

3.2. Research model

$$\text{investment}_{i,t} = \alpha_0 + \alpha_1 \text{dividend}_{i,t} + \alpha_2 \text{accounting_information_quality}_{i,t-1} + \sum_{k=4}^n \alpha_k \text{control_variables}_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

To build the second model, the author adds a moderating factor that aims to mitigate the impact of dividends on investment decisions made by listed firms in Vietnam.

$$\text{investment}_{i,t} = \beta_0 + \beta_1 \text{dividend}_{i,t} + \beta_2 \text{dividend}_{i,t} \text{accounting_information_quality}_{i,t-1} + \beta_3 \text{accounting_quality}_{i,t-1} + \sum_{m=4}^n \beta_m \text{control_variables}_{i,t-1} + \varepsilon'_{i,t} \quad (3)$$

3.3. Methodology

The endogeneity exists in the model which cash flows (such as dividends) occur, so the study needs to address the problem to obtain the reliable and unbiased results. Brown & Petersen (2009) and Ramalingegowda et al. (2013) find that in the relationship between dividends and investment

decisions cause the endogeneity. As a result, the current study conducts Two-step system GMM estimations to solve the problem (Arellano & Bond, 1991) with the instrument variables, such as $div_{i,t-1}$; $roa_{i,t}$; $div_{i,t-1} * roa_{i,t-1}$; $roa_{i,t} * aq_{i,t-1}$ (Ramalingegowda et al., 2013; Wooldridge, 2010).

According to Arellano and Bond (1991), the second-order autocorrelations of the residual with the test for AR(2) errors shows that endogeneity problem is solved. Besides, to test the validity of instrument variables, Sargan and Hansen Tests are implemented with p-values higher than 5%. Furthermore, the rule of thumb mentioned by (Roodman, 2009) is that the “number of instruments should not be larger than the number of groups”.

4. Research results and discussions

4.1. Research results

According to Table 1 & Table 2, the maximum value of “investment” variable is 0.043 which belongs to South Basic Chemicals Joint-stock company (CSV) in 2012, while VICEM Hai Van Cement Joint Stock Company (HVX) has its minimum value is -1.332 in 2013, so its means value is -0.067.

Regards to “dividend” variable, its maximum and minimum value are 0.190 (after the financial crisis, companies have tendency set up the dividend policies at high payout ratios) and 0.010, respectively. Its mean value is 0.058. The minimum value of dividend of 0.010 implies the least amount of dividend paid per unit of stock by the Vietnam firms within the time frame of the study was 0.010 (stating the unit of Vietnam currency) while the maximum dividend paid was 0.190. However, on the average, Vietnam companies paid 0.058 per unit of stock as dividend to their shareholders.

The maximum and minimum value of “size” variable are 29.355 (Vietnam Electric Cable Corporation—CAV in 2020) and 11.235 (Chuong Duong Beverages Joint Stock Company—SCD in 2016), respectively. Subsequently, the maximum and minimum value of “leverage” are 3.290, 0.000 respectively.

The highest values of the following variables: “cash, roa, tang, and cycle” correspond to 0.522, 0.539, 1.783, 8.704. While their lowest values are in the order of 0.000, -0.208, 0.000, 3.060.

For accounting information quality factor (aq), it takes the maximum value of 0.005, while its minimum value is -1.793, hence it has the mean value of -0.311. Concretely, the Vietnamese government has issued a legal requirement for the listed companies regarding disclosure information to ensure its transparent and reliable for the public. So, the information quality has improved and taken high scores in recent years.

The macro-economic factors include the national governance quality, gross domestic products, and inflation. The mean value of these factors are as follows 4.134, 0.061, 0.055, respectively.

The following section presents the results of multicollinearity test based on Variance inflation factors (VIF) and Correlation matrix. The model is free of multicollinearity if all VIF values are less than 4 (Hair et al., 2013). Table 3 shows that all VIF values are satisfied with the rule, hence multicollinearity is absent from the regression model. Furthermore, correlation matrix is conducted to confirm whether multicollinearity exists in the model or not.

Based on the correlation coefficient matrix in Table 3, it can be concluded that the model has no defects of multicollinearity because all of the correlation coefficients are all less than 0.8. Regarding dividend-investment relationship, dividend and investment having a correlation coefficient of -0.022 imply that there is a negative but weak association between dividend and investment. The results are expected as obtained in the literature that a high dividend means that the

Table 1. Variables in model		
Variable	Index	Formula
Dependent variable		
Investment	$inv_{i,t}$	$inv_{i,t} = \frac{\text{invest in fixed assets}_{i,t}}{\text{total assets}_{i,t-1}}$
Independent variables		
Dividend	$div_{i,t}$	$div_{i,t} = \frac{\text{announced dividend}_{i,t}}{\text{total assets}_{i,t-1}}$
Moderator		
Accounting information quality	$aq_{i,t}$	$aq_{i,t} = -1 * u_t $
Control variables		
Firm size	$size_{i,t-1}$	$size_{i,t-1} = \ln(\text{total assets}_{i,t-1})$
Leverage ratio	$lev_{i,t-1}$	$lev_{i,t-1} = \frac{\text{total liabilities}_{i,t-1}}{\text{total assets}_{i,t-1}}$
Cash	$cash_{i,t-1}$	$cash_{i,t-1} = \frac{\text{cash and cash equivalent}_{i,t-1}}{\text{total assets}_{i,t-1}}$
Profitability	$roa_{i,t-1}$	$roa_{i,t-1} = \frac{\text{net income}_{i,t-1}}{\text{total assets}_{i,t-1}}$
Fixed assets	$tang_{i,t-1}$	$tang_{i,t-1} = \frac{\text{tangible assets}_{i,t-1}}{\text{total assets}_{i,t-1}}$
Business cycle stages	$cycle_{i,t-1}$	$cycle_{i,t-1} = \ln(\frac{\text{average account receivables}_{i,t-1}}{\text{net sales}_{i,t-1}} + \frac{\text{average inventory}_{i,t-1}}{\text{cost of goods sold}_{i,t-1}})$
National governance quality	pci	National governance quality is measured by Provincial Competitiveness Index (PCI)
Gross domestic products	gdp	$gdp = \frac{gdp_{i,t} - gdp_{i,t-1}}{gdp_{i,t-1}}$
Inflation	inf	$inf = \frac{inf_{i,t} - inf_{i,t-1}}{inf_{i,t-1}}$

Table 2. Descriptive statistics

Variable	Obs	Mean	Min	Max
Investment	829	−0.067	−1.332	0.043
Dividend	829	0.058	0.010	0.190
Size	829	15.218	11.235	29.355
Leverage	829	0.589	0.000	3.290
Cash	829	0.076	0.000	0.522
Return on assets	829	0.068	−0.208	0.539
Tangible assets	829	0.250	0.000	1.783
Business cycle	829	5.065	3.060	8.704
Accounting information quality	829	−0.311	−1.793	0.005
National governance quality	829	4.134	4.090	4.210
Gross domestic product	829	0.061	0.030	0.090
Inflation	829	0.055	0.010	0.190

companies would have low retention of cash available for investment, and vice versa. The correlation coefficients should be interpreted in detail based on the regression analysis.

Table 3 also shows the positive correlation coefficient between firm size, business cycle, accounting information quality, national governance quality, and gross domestic product and investment. It means these factors could have a direct effect on the investment. While the remaining factors could affect the investment negatively.

Besides, Wooldridge and Breusch-Pagan tests are conducted to determine whether claim the *residuals are independent of each other* and *residuals with variance unchanged* (Quoc Trung & Abdul Wahab, 2021). All p-values of the tests are less than 5%, hence the model contains the autocorrelation and heteroskedasticity. As mentioned above, to solve the autocorrelation, heteroskedasticity, and endogeneity, two-step system GMM estimations is applied aim to obtain reliable and unbiased results shown in Table 4.

Based on Table 4, the Arellano-Bond tests for second-order autocorrelations of the residual with the test for AR (2) errors is statistically significant 5% level. It means that the endogeneity problem is solved. In addition, Sargan and Hansen Tests are used to detect an overidentifying restriction problem related to the validity of instrument variables. Table 4 shows the p-values of these tests are higher than 5%, thus the instrument variables are valid. Furthermore, because the number of instruments are smaller than the number of groups, the rule of thumb is satisfied (Roodman, 2009). Therefore, the instrument variables are adequate to solve endogeneity.

4.2. Discussions

Table 4 reports the estimation results of two regression models by implementing SGMM. The first model shows the effect of dividends on investment decisions while the model 2 considers the moderating role of accounting information quality on the relationship between dividends and investment decisions of Vietnamese listed firms.

Model 1 shows the effect of dividends on investment decisions of listed firms in Vietnam. Based on the research results, dividends have a negatively significant effect on investment decisions with its coefficient −0.487 that means the companies retain more cash for investment and will pay less dividends. The findings are consistent with hypothesis 1 and supported by the previous empirical studies (Nkuah & Yusif, 2016; Ramalingegowda et al., 2013; Uzomah & Ihe, 2021). The relationship

Table 3. Correlation matrix and VIF

	inv	div	size	lev	Cash	roa	tang	cycle	aq	pci	gdp	inf	VIF
inv	1.000												
div	-0.022	1.000											1.03
size	0.038	0.048	1.000										1.17
lev	-0.085	0.079	0.227	1.000									1.11
cash	-0.075	-0.031	-0.195	-0.159	1.000								1.15
roa	-0.114	0.015	-0.086	-0.071	0.245	1.000							1.09
tang	-0.259	-0.043	-0.129	0.085	-0.082	-0.035	1.000						1.05
cycle	0.006	-0.057	0.054	-0.082	0.058	0.035	-0.034	1.000					1.09
aq	0.003	0.105	0.038	0.086	-0.148	0.068	0.036	-0.266	1.000				1.13
pci	0.066	0.000	0.177	0.023	0.001	0.005	0.003	0.011	0.033	1.000			1.04
gdp	0.028	0.001	-0.005	0.020	-0.033	0.051	-0.020	0.015	-0.003	.018	1.000		1.07
inf	-0.078	0.067	-0.045	0.061	0.023	0.051	-0.005	-0.003	0.010	-0.035	-0.240	1.000	1.08

Table 4. Two-step system GMM estimations for two models

Variables	Model 1		Model 2	
inv	Coef.	p-values	Coef.	p-values
div	−0.487	.012*	−0.209	.027*
laq	0.212	.000***	0.110	.040*
divlaq			0.158	.000***
size L1.	0.087	.009**	0.011	.218
lev L1.	−1.281	.006**	−0.235	.025*
cash L1.	−0.027	.969	−0.107	.358
roa L1.	−0.276	.126	−0.041	.215
tang L1.	−1.968	.003**	−0.051	.076
cycle L1.	0.095	.014*	0.019	.037*
pci	0.170	.179	0.049	.000***
gdp	0.004	.576	0.003	.003**
inf	−0.015	.185	−0.002	.220

legend: * $p < .05$; ** $p < .01$; *** $p < .001$

All significant tests are two-tailed. The values in parentheses are robust standard errors.

Arellano–Bond test for AR(1) in first differences	z = −3.29 Pr > z = 0.008		z = −3.97 Pr > z = .011	
Arellano–Bond test for AR(2) in first differences	z = −1.16 Pr > z = 0.238		z = −2.56 Pr > z = .543	
Sargan test of overid. restrictions		.831		.982
Hansen test of overid. restrictions		.592		.499
Number of groups		71		71
Number of instruments		26		47

inv is the investment decisions; div is the dividends, laq is the accounting information quality at $t-1$; divlaq is the moderator in the relationship between investment decisions and dividends; size L1. is the firm size at $t-1$; lev L1. is leverage ratio at $t-1$; cash L1. is the cash at $t-1$; roa L1. is return on total assets at $t-1$; tang L1. is the tangible assets at $t-1$; cycle L1. is the business cycle at $t-1$; pci is the national governance quality; gdp is gross domestic product; inf is the inflation rate.

is explained on the platform of the Asymmetric Information Theory. The study demonstrates how asymmetric information in the Vietnamese market affects the relationship between dividend and investment decisions through the possibility of dividend signaling. They confirm that when a company decides to pay out a higher percentage of dividends, it eliminates access to future investment opportunities because it has fewer retained earnings available to be reinvested. Regarding the quality of accounting information, it also has a positive and significant effect on investment decisions of Vietnamese listed firms (at the 1%-level). Moreover, Model 1 reveals that the five remaining variables significantly affect investment decisions.

Model 2 presents the results of moderating effects. Hypothesis 2 predicts that accounting information quality positively moderates the effect of dividends on firms' investment decisions. In fact, hypothesis 2 is confirmed by the results in Table 4 with a p-value of less than 1%. Therefore, it is suggested that a positive fit exists between accounting information quality and dividends, which generates an improvement in the negative influence of dividends on the investment decisions of listed firms in Vietnam. In model 2, the finding shows that seven statistically

significant factors affect the investment of listed companies in Vietnam, including dividends, accounting information quality, dividends x accounting information quality, leverage, business operating cycle, national governance quality, and gross domestic product. The dividends are the key variable to evaluate its effect on investment decisions. The negative relationship between dividends and investment decisions is proved by the negative regression coefficient. From the results, the study aims to not only solve market inadequacy problems but also reinforce the basis for upcoming studies analyzing the unfavorable impact of dividends on investment.

Besides, the quality of accounting information is also considered a significant factor in moderating the relationship between dividends and investment decisions. The results are confirmed by (Ramalingegowda et al., 2013), who show that the interaction term (dividends x accounting information quality) positively affects the investment of listed firms in Vietnam at a significant level of 5%. Under moderating role of accounting information quality, the correlation coefficient of dividends to investment decisions increases from -0.487 (model 1) to -0.209 (model 2). It means accounting information quality is highlighted in moderating the relationship between dividend and investment decision. The findings are consistent with agency theory, bird-in-the-hand theory, signaling theory, and asymmetric information. It means the role of accounting information quality in the dividend-investment relationship has been a serious consideration. In confirmatory, a positive coefficient on the interaction term indicates that dividends' effects on investments are less negative for firms with higher accounting information quality than for firms with lower accounting information quality.

5. Conclusions and limitations

The paper's findings show the negative relationship between dividends and investment decisions, cases of Vietnamese listed firms under the moderating role of accounting information quality, which is explained based on asymmetric information theory. The quality of accounting information can moderately reduce the negative relationship between dividends and investment decisions.

It is obvious that numerous studies have supported the relationship between dividends and investments in different markets. However, in this paper, the author estimates a model in which accounting information quality plays a moderating role in the relationship between dividends and investment decisions. By implementing the SGMM, the study makes significant contributions to the empirical study of the dividend-investment decision linkage, which is moderated by accounting information quality. In addition, the research explores the other variables influencing these firms' investment decisions. At a confidence level of 95%, the dividend and leverage factors negatively affect investment decisions, while the accounting information quality, moderating factor, business cycle, national governance quality, and gross domestic product positively impact investment decisions. The author uses the SGMM with the appropriate instrument variables to address the endogeneity, which yields unbiased and reliable results.

In parallel with specific findings, the research still has the limitations of choosing only listed companies on the HOSE and ignoring the impact of dividends on investment decisions of listed companies in different sectors. Finally, the model omits COVID-19, which has been confirmed to significantly influence the Vietnamese market and is relevant to dividend and investment decisions.

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