

# The Impacts of Earnings Quality on Dividend Policy of Listed Enterprises in Vietnam

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## Abstract

The paper examines the impact of earnings quality (EQ) on the dividend policy of enterprises in Vietnam. We consider the EQ in terms of multiple dimensions such as accruals quality, earnings persistence, relevance and timeliness of earning information. The study uses regression method according to Structural Equation Modeling (SEM), with EQ as an intermediate variable, data collected at enterprises listed on the stock market in Vietnam in the period of 2010 - 2018, with 4541 observations. The research results have found that EQ has a positive influence on dividend policy on all aspects of EQ. The empirical research results are a useful basis to help enterprises improve EQ, thereby helping business in implementing appropriate dividend policy.

**Keywords:** earnings quality, dividend policy, SEM

**JEL Classification:** G31, G32, M41

## 1. Introduction

Dividend policy is a policy of distributing between retained earnings of reinvestment and dividend payment to shareholders. Retained earnings provide investors with a potential source of future earnings growth through reinvestment, while dividends provide them with a current distribution. It determines how the company's earning after tax will be distributed, how much of it is retained for reinvestment, and how much is used to pay dividends to shareholders. Therefore, the dividend policy will affect the proportion of equity in the capital structure of the business and the cost of capital.

Besides, the transparency and quality of information, especially accounting information, is an important content, but the EQ of Vietnamese enterprises should be carefully considered. If the financial statements are distorted, the rights of investors may be significantly affected. In recent years, many accounting frauds have occurred in some companies. For example, in the case of Bibica Joint Stock Company, after the procedure of hiding debts and expenses was discovered, the company had to adjust its loss from 5.4 billion dong to 12.3 billion dong in 2002. In another case of Bong Bach Tuyet Joint Stock Company, the earning of more than VND 2.2 billion in 2006 was due to a loss of revenue, adjustment of depreciation and provision, etc. Therefore, we can see that the quality of financial statements in general and EQ in particular of some listed companies in Vietnam is not high. Therefore, if based on false reports to make decisions, investors may suffer heavy losses. So, is it true that in Vietnam, are the reported earning targets of companies paying dividends more reliable? To clarify this issue, we use data from listed companies in Vietnam to study the relationship between EQ and dividend policy in Vietnam. If the company has an incentive to signal EQ through its dividend policy, then the relationship between EQ and its dividend policy is in the same direction. This means that companies with high EQ pay higher dividends.

Previous studies on EQ have been conducted around corporate events such as Initial Public Offering (IPO) (Siew Hong Teoh, Ivo Welch, & Tak J Wong, 1998), issuing securities after IPO (SH Teoh, I. Welch, & TJ Wong, 1998), (Shivakumar, 2000), and acquiring companies (Bergstresser, Desai, & Rauh, 2006), (Louis, 2004) in while other studies look at the motivation for managers to take earning manipulation (Healy, 1985). As such, many studies focus on the relationship between EQ and the company's investment or funding decisions. Because investment policies, sponsorship and dividend policies are interrelated, EQ is also likely to affect dividend policy. However, the evidence

on the relationship between EQ and dividend policy is quite limited. Therefore, this study will provide more evidence on the relationship between EQ and dividend payment policy in the context of a marginal market.

## 2. Theories and Literature Review

### 2.1 Dividend Policy

Although companies have paid dividends to shareholders for four centuries (Baskin, 1989), the motivation for companies to pay dividends remains a controversial issue in the academic community. The amount of dividends the company pays to its shareholders can affect the company's valuation, the amount of tax that investors have to pay, the manager's investment decisions, and can provide information to the market about the performance of companies compared to its competitors. (Lintner, 1956) proposed the hypothesis of target dividend payment, which suggests that dividends are a function of long-term sustainable income. According to Lintner, smoothing behavior is common because managers believe that the market places a compensation on companies with stable dividend policies. Therefore, companies will not issue a new dividend policy every quarter. Regarding the decision to increase dividends, managers consider carefully, especially profitability targets because this is the most important factor affecting dividend policy. Subsequent research by (Miller & Modigliani, 1961) argues that in perfect and efficient capital markets, dividend policy does not affect the value of a firm. The basic premise for their argument is that firm value is determined by choosing optimal investments. Net payment is the difference between earning and investment. Given Miller and Modigliani's "perfect world" assumptions, no dividend policy has any effect on the value of the company. As such, investors will not pay a compensation for any specific payment policy.

### 2.2 Earnings Quality

Earnings quality (EQ) is an indicator of the quality of financial reporting (Lev, 1989). According to (Francis, LaFond, Olsson, & Schipper, 2004), the EQ includes non-modifiable and modifiable components. In particular, the non-adjustable component of the EQ is determined by the environment and the business model and the adjustable component depends on the financial reporting process.

Management's financial reporting decisions, including judgments and estimates (ii) The quality of information systems used to support financial reporting (iii) activities monitoring activities, including internal audit and independent audit (iv) management actions, including actions of the board of directors, compensation agreement and ownership structure (v) supervision (vi) reporting standards, such as generally accepted accounting principles. According (Healy & Wahlen, 1999), there are three motivational groups leading to the intervention of earning targets, including: (i) Capital market incentives: companies or regulators tend to incur higher costs when reporting reduced earnings or losses (ii) Contracts-driven incentives: due to the existence of provisions imposed in the contract if the company fails to meet the set accounting numbers (iii) Antitrust or governmental regulations, such as those of the bank is to avoid excess of the liquidity ratios imposed by the governing body or the motives of companies to be granted higher protection from imports. High quality earnings accurately reflect the company's current performance or intrinsic value. Therefore, high quality earnings are also called sustainable earnings (Black, 1980). In addition, according to (Katherine Schipper & Vincent, 2003), earnings are of high quality when accurately reflecting the long-term performance of the company; in contrast, earnings are of low quality when managed. Managed earnings are the result of intentional intervention of managers in the preparation of financial statements through accounting options to gain benefits either for themselves or the company (K.Schipper, 1989).

The manager has the ability to interfere with the financial reporting process and structure of transactions to change the financial statements in order to mislead some stakeholders about the company's basic economic performance or impact on contract results depends on the reported accounting data (Healy & Wahlen, 1999). There are many ways that managers can manipulate earnings, for example, managers need to estimate many future economic events such as the useful life and estimated return of long-term assets, deferred taxes, damage from bad debts or property damage. Managers must also select one of the accepted accounting methods to report an economic operation, such as the straight-line or quick-depreciation method or the method of evaluating pre-export inventories. In addition, managers have to manage working capital, such as deciding inventory levels, delivery or purchase times and collection policies, etc. These decisions will influence the allocation of costs and net sales. Managers must also choose to make or delay spending, such as product research and development, advertising or maintenance. Besides, they must decide how to structure the company's transactions. For example, an asset lease contract can be structured into a finance lease or an operating lease, from which, the associated obligations will be shown on the balance sheet or not. As such, managers can choose one or more of the above ways to hide the basic economic efficiency of the company. This may occur when managers believe that the parties are unable to reproduce the financial statements that are not managed or that they have access to information that is not available to the parties. It is possible that outsiders may not be aware of this

earning manipulation. Stakeholders can only predict the company's earnings and are forced to accept a certain amount of manipulated earnings.

According to (Dichev, Graham, Harvey, & Rajgopal, 2013), although EQ is commonly used in both academia and practice, there has been no consensus on the definition and meaning of the term. In some studies, high-quality returns are defined and measured as follows: (i) is sustainable, so this is the best forecast for long-term sustainable earnings in the future (Penman & Zhang, 2002), (ii) stability (Francis et al., 2004), (iii) better forecast of future earnings (Katherine Schipper & Vincent, 2003) (iv) no special items distinct or infrequent (McVay, 2006) (v) arising out of prudent accounting principles or the prudent application of related principles (RL Watts, 2003; R. L Watts, 2003), (vi) based on past, present or future cash flows (PM Dechow, Sloan, & Sweeney, 1996), (Patricia M Dechow & Dichev, 2002); (vii) there are small changes in the cumulative sum not related to the fundamentals (Jones, 1991). According to (Francis et al., 2004) the business risk as well as the selection and application of the company's accounting regimes will affect the EQ. In particular, business risk includes the impact of cyclical factors and other factors on profitability, stability, origin and change of earnings. By ingenious management strategies, the company can reduce business risks. The lower the business risk, the higher the EQ. In addition, the choice of accounting principles significantly affects the company's EQ. This choice may be optimistic or prudent. Prudentially determined margins are considered to be of higher quality because the likelihood of current and future hype is lower than that of optimally determined earnings (R. L. Watts, 2003). However, excessive caution can reduce the reliability and relevance of earnings in the long run. In addition, managers can manipulate earnings by applying accounting principles when determining revenues and expenses. For example, expenses such as advertising, marketing, repairs, maintenance, research and development may be adjusted to change the reported profitability.

### 2.3 Theories

**Signaling theory:** This theory originated in (Lintner, 1956), explaining how market prices respond to changes in payout rates. In considering the possibility of signaling effects, (Miller & Modigliani, 1961) argued that although dividend policy does not have an impact on firm value, market perceptions of policy change dividend may impact stock prices. According to them, the systematic irrationality on the part of investors could explain why stocks of companies with low dividends are sold at low prices. The market may reassess its value when the company changes its dividend payment policy because dividends signal a future increase in cash flow. (Ross, 1977) was the first to exploit the signaling argument based on the message of (Miller & Modigliani, 1961). The model of (Ross, 1977) addresses changes in capital structure. By using debt, managers signal the company's ability to meet its debt obligations.

**The theory of agency costs and free cash flow:** In a large company with scattered ownership, most investors cannot or do not have an incentive to monitor and control all management activities. In the absence of a complete and workable contract, the manager may carry out activities that are not in the best interest of the investor. Overinvestment often occurs in companies with high free cash flow but limited investment opportunities. Self-management managers will be motivated to invest excess cash in activities that destroy the company's value. These actions include unnecessary privileges or acquisition and expansion of the company without foundation. Therefore, researchers often call this scenario a problem of overinvestment. A possible solution to this problem is to reduce the company's free cash flow. A major proponent of the free cash flow theory, (Michael C Jensen, 1986) argues that dividend payments can help achieve this goal. (Easterbrook, 1984) makes the same argument. Specifically, (Michael C Jensen, 1986) argues that managers can expand companies beyond the optimal scale because larger sizes require increased resources under their control and attached remuneration will be higher. Investors are aware of this representation and respond positively to the decision to start paying dividends or increasing dividends because the potential for overinvestment is likely to decrease. Conversely, the announcement of a dividend reduction will create a negative market response. In addition, the market response to the announcement of dividend changes is greater for companies with high potential for overinvestment.

### 2.4 The Relationship Between Earnings Quality and Dividend Policy

Dividends often exhibit a commitment to cash distribution that managers do not want to disrupt (Lintner, 1956). Thereby, managers can signal to investors about the quality of the reported earning figure. Therefore, managers will not make a decision to increase dividends unless they believe dividends can be maintained at a new level. Instead, they tend to smooth dividends to ensure a constant stream of dividends. (Brav, Graham, Harvey, & Michaely, 2005) also show that managers are willing to sell assets, fire employees, raise outside capital or even skip positive NPV projects before cutting dividend. They also believe that the stability of future earnings and the sustainable changes in earnings are the two most important factors affecting the company's dividend policy. The reported fraudulent earnings are often

reversed in future periods (P. M. Dechow et al., 1996), so this is not a sustainable earning. Therefore, companies that do not cheat will be less likely to make decisions to increase dividends.

Under the information content hypothesis of dividends proposed by (Miller & Modigliani, 1961), managers' dividend policy decisions communicate information about the earning prospects of firms, i.e. increased dividends signaled good news and dividends decreased signaled bad news. According to (Brav et al., 2005), managers believe that dividends convey information but they do not use dividends explicitly as an expensive signal to change market perceptions. EQ can influence dividend policy by reducing the problem of free cash flow. According to (Michael C Jensen, 1986), this issue is one of the most serious representative conflicts. Instead of reimbursing free cash flow to investors, managers can pay low dividends, not even pay dividends and spend free cash flow to maximize their own benefits while the costs of shareholders suffer, such as financing projects that destroy the company's value or increase their own remuneration, power and reputation. The dividend payment is likely to reduce the problem of free cash flow because at that time, there is not much opportunity to waste for managers. At the same time, paying dividends may also force firms to access external funding more often in the future and be subject to the supervision of the capital market (Easterbrook, 1984). There are two contradictory views explaining why EQ can affect dividend policy.

The outcome view of (Michael C Jensen, 1986), (La Porta, Lopez – de – Silanes, Shleifer, & Vishny, 2000) confirms that dividends are the result of effective governance. This view underscores the motivation of managers to hold excess cash in order to spend on personal benefits. Strong governance mechanisms can reduce the problem of free cash flow because it is very difficult and expensive for managers to pursue and continue to invest in unearningable projects, resulting in an incentive to hold money. Excessive face of the manager will decrease and the company's ability to pay dividends will increase. Financial statements are an important source of information that investors can use to monitor managers. If the financial statements are high quality, a lot of information about the value of investment projects will be transmitted to investors. They may then discover which projects are destroying company value. Moreover, when the financial statements are of high quality, investors can sign contracts with managers in a way that links their interests more closely, thereby reducing the incentive to waste free cash flow into projects that are not earningable of managers. In short, from a performance standpoint, if the company has a high EQ, the manager's low incentive to pay dividends and wasting free cash flow on value-destroying projects will decrease. Meanwhile, companies will pay higher dividends. Therefore, the results view that predicts the relationship between EQ and dividends is the same direction.

Meanwhile, the substitute view of (Rozeff, 1982), (La Porta et al., 2000) argues that dividend policy will replace strong governance. Because the company needs to access the capital market in the future, managers have an incentive to establish a good reputation with the market that they will not spend free cash flow on value-destroying projects of a company because a good reputation can help them raise money from outside at a lower cost in the future. However, because the strong governance mechanism has limited the problem of free cash flow, the incentive to use dividends to build reputation will decrease. At that time, the marginal benefit of dividend payment will be smaller, so the company will be less likely to make a decision to pay dividends. Therefore, the alternative view predicts an inverse relationship between EQ and dividend policy.

### *2.5 Literature Review*

Examine the content of dividend information by verifying whether the dividend payment policy provides information on EQ, (Tong & Miao, 2011) finds that dividend payment status is an indicator of EQ and partial information may be provided by relevant dividends EQ. Similarly, (Skinner & Soltes, 2011) also find that dividends provide more information on sustainable earnings and require more stable cash flows, so companies paying dividends have sustainable earnings than companies that don't pay dividends. In addition, (Skinner & Soltes, 2011) found that companies in the US do not want to cut dividends and they smooth out dividends to maintain a continuous stream of dividends, so the relationship between dividends and Sustainability of substantial stable returns over a thirty-year research period. In addition, companies with dividend payments are less likely to report losses and these losses are only temporary due to special items. Moreover, the relationship between current earnings and future earnings is stronger for companies paying dividends. However, a company that pays dividends does not mean that the company does not cheat accounting and act for the benefit of shareholders. Of the 330 companies accused of fraud on earnings reports from 1982 to 2005, (Caskey & Hanlon, 2013) found that 72 companies spent nearly \$ 20 billion to pay dividends. Even so, the overall research results show that companies accused of fraud are less likely to pay dividends and are less likely to increase dividends or maintain a sustainable relationship between profitability and pay dividends. This evidence supports the argument that dividends are an indicator of EQ's (Skinner & Soltes, 2011), (Tong & Miao, 2011). In addition, companies with dividend payout are less likely to commit fraud because they are unable to maintain their

dividend policy. Recent research by (Koo, Ramalingegowda, & Yu, 2017) also shows that EQ has an impact on the company's dividend policy. Specifically, high EQ companies pay higher dividends.

Overall, these studies find evidence that is consistent with the information content of dividends hypothesis. This paper examines whether dividend policy provides information about earnings quality within Vietnam's institutional setting. Using a sample of the firms listed on Vietnam stock exchange, this paper documents that dividend policy is an indicator of earnings quality. This finding is in line with those prior studies.

### 3. Research Method

#### 3.1 Research Model

Based on an overview of studies, we build a model to study the effect of EQ on dividend policy, according to the following model:

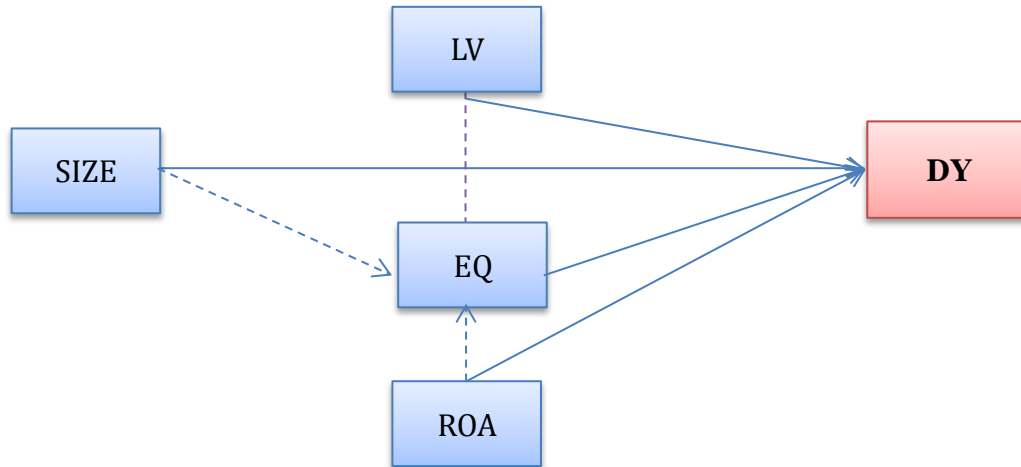


Figure 1. Influence of earnings quality on dividends

#### Dividend policy (DY)

When studying corporate dividend policy, many measures have been used to represent dividend policy. In particular, dividend rates are used in many studies such as (Bradford, Chen, & Zhu, 2013), (Koo et al., 2017). In addition, some studies in Vietnam also use this measure to represent dividend policy (Dang, Tran, & Tran, 2019), (Hung, Ha, Van, & Xuan, 2018). Therefore, the dividend rate is also used in research. This dependent variable is calculated by dividing the dividend per share by the closing price on the last trading day of the year.

#### Measuring earnings quality (EQ)

This study measures EQ on aspects such as accruals quality, earnings persistence, the relevance of earning information, and timeliness. The measurement of EQ components is shown as follows:

##### + Earnings quality is measured through accruals quality (EQ\_AQ)

To estimate the quality of accruals, the author uses a model developed by (Patricia M Dechow & Dichev, 2002), which represents the quality of accruals as current working capital accruals (Working capital accruals) is regressed with the operating cash flow of the previous year, this year and the succeeding year, all divided by the total assets at the beginning of the period.

To measure EQ, an AQ variable is created as the negative standard deviation of residual  $\epsilon_{i,t}$  of equation (1) after performing the regression.

$$WCA_{it} = \beta_0 + \beta_1CFO_{it-1} + \beta_2CFO_{it} + \beta_3CFO_{it+1} + \epsilon_{it} \tag{1}$$

In which:

$WCA_{it}$  is the accumulated working capital of firm  $i$  in year  $t$ , calculated by the change in short-term assets ( $\Delta CA$ ) minus the change of cash and cash equivalents ( $\Delta Cash$ ), minus the change short-term debt ( $\Delta CL$ ) and the change in bank short-term debt ( $\Delta Debt$ ).

$CFO_{it-1}$ ,  $CFO_{it}$ ,  $CFO_{it+1}$  are operating cash flows in year t-1, year t, and year t + 1, respectively. All variables are divided by the total assets at the beginning of the period ( $A_{it-1}$  – Total assets).

A higher value of accruals quality (AQ) indicates poorer accruals quality because less variation of current accruals is explained by cash flow execution. Because earning is the sum of accruals and cash flows, and the cash flow composition is often considered to be objective and unmanaged, the EQ depends on the quality of the accruals. Therefore, poorer accruals quality implies lower EQ. The variable EQ measures the accruals quality  $EQ\_AQ = AQ * (-1)$ .

**+ Earnings quality is measured through the stability of earnings (EQ\_SMOOTH)**

In this respect, the EQ that this study wants to mention is the ability of enterprises to show signs of adjustments and interventions to report their earnings in financial statements. Specifically, according to (Bigus & Häfele, 2018), a firm's earning should have fluctuated when its operating cash flow fluctuated. Therefore, the operating cash flow of an enterprise is very volatile but the earning of the enterprise is less volatile, a sign that the earning statement in the financial statements of the business is likely to have been intervened (earnings manipulation). The author estimated the standard deviation of earning and the standard deviation of the operating cash flow rate.

$$SMOOTH_{it} = \frac{\sigma(EARN_{it})}{\sigma(CFO_{it})} \quad (2)$$

The standard deviation of earning represents the volatility of earning. The standard deviation of the operating cash flow to total assets ratio represents the volatility of cash flows. The ratio of the volatility of earning to the volatility of cash flow implies how many times the unit of volatility will generate earnings. The smaller the percentage, the less the change in earnings is compared to the fluctuation of cash flow, therefore, it is highly likely that this enterprise will make a earning on its financial statements. The EQ variable measured by stability is defined as  $EQ\_SMOOTH = SMOOTH * (-1)$ .

**+ Earnings quality measures through earnings persistence (EQ\_PERS)**

(F. Li, Abeysekera, & Ma, 2014) measured EQ according to persistence. For the earnings persistence, he based on the research of (Kormendi & Lipe, 1987) on the basis of the regression results of model (3) between current earning and previous year's earning, regression coefficients are estimated from the model to measure the sustainability of earnings.

$$\frac{Earn_{it}}{A_{it-1}} = \alpha + \alpha_1 \frac{Earn_{it-1}}{A_{it-1}} + \epsilon_{it} \quad (3)$$

$Earn_{it}$  is the net earning of enterprise i before extraordinary amounts in year t

$Earn_{it-1}$  is the net earning of the enterprise before the extraordinary amounts in year t – 1.

To measure the EQ according to the earnings persistence, EQ is determined based on the regression results from equation (3). Proxy variables reflect EQ\_PE as the R2 coefficient of equation (3), denoted as EQ\_PERS

**+ Earnings quality is measured through relevance (EQ\_RELEV)**

Based on the research model developed by (Easton & Harris, 1991) and used by some researchers to study the usefulness of accounting information such as (Chen, Chen, & Su, 2001), (Lang & Stulz, 1994).

$$P_{it} = \beta_0 + \beta_1 EARN_{it} + \beta_2 \Delta EARN_{it} + \epsilon_{it} \quad (4)$$

$P_{it}$ : The company's stock price in year t

$EARN_{it}$ : Earnings per share of company i in year t;

$\Delta EARN_{it}$ : Changes in earnings per share of company i in year t;

To measure the EQ in terms of relevance, the EQ is determined based on the regression results from equation (4). Proxy variables reflect EQ as the R2 coefficient. The EQ variable measured by stability is defined as EQ\_RELEV.

**+ Earnings quality is measured through the timeliness of earnings (EQ\_TIMEL)**

Based on the model (Basu, 1997), stock prices are determined on the basis of combining all information in the market in a timely manner from a variety of sources, including corporate earnings reports. Therefore, the change in stock prices is the criterion for evaluating news received in each period. Meanwhile, income statements of enterprises are influenced by the asymmetry of timely recording of information - often receiving bad information faster than good information. Basu's regression function is as follows:

$$\text{EARN}_{it} = \beta_0 + \beta_1 \text{NEG}_{it} + \beta_2 \text{RET}_{it} + \beta_3 \text{NEG}_{it} * \text{RET}_{it} + \varepsilon_{it} \quad (5)$$

In which:

$\text{EARN}_{it}$ : Earnings per share of company  $i$  in year  $t$ ;

$\text{RET}_{it}$ : the stock return of company  $i$  in year  $t$ ;

$\text{NEG}_{it}$  is dummy variable with value = 1 in case of bad information;

$\text{NEG}_{it}$  is dummy variable with value = 0 in case of good information;

The slope of the model represent the degree of asymmetry of timeliness in recording information into the company's earning value. The timeliness of earning information (TIMEL) is negatively related and is determined by the coefficient  $\beta_2$  from equation (5).

The higher value of timeliness (TIMEL) implies less timely income and poorer quality of earnings. Earnings reflect information integrated into stock returns faster than investors consider it to be of higher quality. The variable EQ measured by timeliness is defined EQ\_TIMEL.

### The control variables

In addition to the EQ, this study also considers other factors that may affect dividend policy including profitability, firm size, and leverage. These factors will be described in more detail in the section below:

#### *Company size (SIZE)*

According to (M. C. Jensen & Meckling, 1976), managers have more control over larger companies with more decentralized ownership. In these companies, shareholders have little motivation and ability to supervise. As a result, the severity of the representation problem and information asymmetry increased. Companies can send positive but costly signals to shareholders about the company's prospects, management goodwill and low levels of representation conflict through a high dividend payout ratio (Lloyd, Jahera, & Page, 1985). Many studies support this argument, such as (Jabbouri, 2016). However, a number of other studies have found the opposite effect of firm size on dividends. Specifically, (Yoon & Starks, 1995) has cited that the response of share prices in small firms to dividend announcements is higher than responses in large firms. In addition, the larger the size of a firm, the more information is disclosed and the lower the level of information asymmetry (Eddy & Seifert, 1988). Therefore, these studies imply that the signaling power of dividends decreases as the company grows. In this study we measure the logarithm of total enterprise assets.

#### *Leverage (LEV)*

Companies with high levels of financial leverage are at higher risk of financial exhaustion and external financing. Therefore, the incentive and the ability to pay dividends in these companies will be lower (Fama & French, 2002). (Bradford et al., 2013), (Breuer, Rieger, & Soypak, 2014), (Jabbouri, 2016) also find the impact of financial leverage on dividend policy is opposite. Meanwhile, a number of other studies find that financial leverage has a positive impact on dividend policy such as (Kuo, Philip, & Zhang, 2013). Financial leverage is measured as liabilities divided by total assets.

#### *Profitability (ROA)*

According to the free cash flow hypothesis (Michael C Jensen, 1986), companies tend to increase dividend payments when profitability increases and limits retained earnings within the firm. Therefore, the company's profitability is a deciding factor of dividend policy. Most studies have shown that firm's ability to pay dividends is positively correlated with profitability such as (Fama & French, 2001), (DeAngelo, DeAngelo, & Stulz, 2006), (Bulan, Subramanian, & Tanlu, 2007), (K. Li & Zhao, 2008), (Alzahrani & Lasfer, 2012), (Jiang, Ma, & Shi, 2017). Profitability is measured as the after-tax earning divided by total assets.

### 3.2 Data and Research Method

The paper explores the impact of EQ on dividend policy of enterprises listed on Vietnam's stock market in the period of 2010-2018 with 4541 observations. The data of these companies is collected in the financial statements of enterprises and Vietstock data sets, as well as aggregated from the data published on some reputable securities websites such as [cafef.vn](http://cafef.vn) or [cophieu68.com](http://cophieu68.com). The original data will be aggregated and recalculated in the correct way of identifying variables, in which some variables will be regressed to get the remainder and initialize the corresponding new variable through Stata 14.0 software. The study used regression method according to Structural Equation Modeling (SEM).

#### 4. Results and Discussion

Table 1 presents descriptive statistics including mean, median, standard deviation as well as minimum and maximum values of variables used in the model. Table 1 gives the average dividend rate (DY) of firms in the sample at 10.2%. The average earnings quality of each aspect such as accruals quality (EQ\_AQ) is -0.078, the stability of earning (EQ\_SMOOTH) is -1.088, the sustainability of earning (EQ\_PERS) is 0.843, The relevance of information (EQ\_RELEV) is 0.150 and the timeliness of information (EQ\_TIMEL) is 0.132. Firm size is measured in terms of the logarithmic value of the average total assets of 27,055, the ratio of liabilities (LEV) to the average total assets is 49.1% and the profitability after tax (ROA) on assets production is 5.9%.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DY	4541	0.102	0.143	0.000	1.864
EQ_AQ	4541	-0.078	0.071	-0.464	0.000
EQ_SMOOTH	4541	-1.088	2.615	-30.626	-0.003
EQ_PERS	4541	0.843	0.159	0.609	1.128
EQ_RELEV	4541	0.150	0.094	0.040	0.332
EQ_TIMEL	4541	0.132	0.098	0.009	0.314
SIZE	4541	27.055	1.503	23.330	33.294
LV	4541	0.491	0.220	0.002	0.993
ROA	4541	0.059	0.085	-1.779	0.784

Source: Author calculated from Stata 14.0

Table 2 shows the correlation coefficient results between the variables. The purpose of checking the close correlation between independent variables and dependent variables is to eliminate factors that may lead to multicollinearity before running the regression model. The relationship between the dependent variable is the dividend policy (DY) and the independent variable is the EQ is considered in 5 aspects showing that there is a level of statistical significance, in which all aspects of the EQ benefit relationship positively with dividend policy. The correlation coefficient between the independent variables in the model does not have any pair greater than 0.8, so it is less likely to have multi-collinear phenomena (based on VIF).

Research results on the relationship between EQ and dividend policy are presented in Table 2. In which, the dependent variable is the dividend rate (DY). Based on Table 2, EQ is measured in terms of accruals quality, earning sustainability, earning stability, earning suitability and timely information of relevant earnings positively and statistically significant. Thus, companies with higher EQs will pay higher dividends, which is consistent with this study (Koo et al., 2017). The reason may be that companies with dividend payments often have a more stable cash flow, resulting in better quality returns. In addition, when the information environment is less transparent, insiders have the opportunity to retain more money to serve their own interests without being detected. Conversely, when the information environment is more transparent, the notification of no dividend payment will adversely affect the reputation of the company, while reducing the ability to access external capital. The results also support the results of free cash flow (Michael C Jensen, 1986), (La Porta et al., 2000). In conclusion, when controlling for factors that may affect dividend policy, the study results show that companies with high EQ pay higher dividends. When the company pays dividends, the individual control benefits for insiders are limited and they have fewer opportunities to consume these benefits. Conversely, when making decisions not to pay dividends, managers will have more personal control benefits, and they can conceal these benefits through earning management behavior. As such, companies can signal investors about the EQ through dividend payment notices.

For control variables, firm size is negatively related to DY and statistically significant at 1%. The results of this study are in agreement with those of (Yoon & Starks, 1995), (Eddy & Seifert, 1988), but contrary to those of (Lloyd et al., 1985), (Jabbouri, 2016). Financial leverage (LEV), on the other hand, has a positive effect on DY, in agreement with the study (Kuo et al., 2013) but in contrast to the study (Fama & French, 2002). (Bradford et al., 2013), (Breuer et al., 2014), (Jabbouri, 2016). For the profitability factor (ROA) positively related to the dividend policy of the firm, this research result is consistent with the research of most studies (Fama & French, 2001), (DeAngelo et al., 2006), (Bulan



et al., 2007), (K. Li & Zhao, 2008), (Alzahrani & Lasfer, 2012), (Jiang et al., 2017), (Dang, Nguyen, & Tran, 2020; Dang, Pham, Nguyen, & Nguyen, 2020; Hung & Van, 2020; Khanh, Hung, Van, & Huyen, 2020; N. Phuong & D. Hung, 2020; N. T. T. Phuong & D. N. Hung, 2020; Phuong, Hung, Van, & Xuan, 2020; Van Khanh & Hung, 2020; Van Thi Thuy, Phan, & Dang, 2020 .

In the path structure model, with the earnings quality variable (EQ) as an intermediate variable, there are two factors: firm size and capital structure affecting EQ in all respects. In which, firm size is negatively related to the enterprise's EQ, while financial leverage is positively related to the enterprise's EQ (Appendix 1, 2,3,4,5). Meanwhile, profitability only positively affects EQ\_SMOOTH when measuring in terms of stability.

Table 4, showing that the test results meet the standards, so the research results ensure reliability, is the basis for the authors to propose some recommendations presented in the next section.

Table 2. Correlation matrix

	DY	EQ_AQ	EQ_SMOOTH	EQ_PERS	EQ_RELEV	EQ_TIMEL	SIZE	LV	ROA
DY	1								
EQ_AQ	0.1212	1							
EQ_SMOOTH	0.0474	-0.006	1						
EQ_PERS	0.1643	0.0858	-0.0158	1					
EQ_RELEV	0.2042	0.147	0.0097	0.2452	1				
EQ_TIMEL	0.191	0.1175	0.0092	0.2899	0.8775	1			
SIZE	-0.1282	-0.0631	-0.0227	-0.0464	-0.0656	-0.0584	1		
LV	0.0413	0.032	0.0425	0.0377	0.0253	0.0229	0.3286	1	
ROA	0.2841	0.003	0.0269	-0.0363	0.0087	0.0061	-0.0123	-0.3457	1

Source: Author calculated from Stata 14.0

Table 3. Regression results

	EQ_AQ	EQ_SMOOTH	EQ_PERS	EQ_RELEV	EQ_TIMEL
DY <-EQ_AQ	0.203***				
DY <-EQ_SMOOTH		0.00128*			
DY <-EQ_PERS			0.144***		
DY <-EQ_RELEV				0.278***	
DY <-EQ_TIMEL					0.252***
DY <- LV	0.146***	0.149***	0.145***	0.143***	0.144***
DY <- SIZE	-0.0182***	-0.0189***	-0.0181***	-0.0175***	-0.0178***
DY <- ROA	0.607***	0.610***	0.617***	0.602***	0.604***
_cons	0.503***	0.506***	0.362***	0.429***	0.443***
EQ <- SIZE	-0.00404***	-0.0820***	-0.00675***	-0.00541***	-0.00500***
EQ <- LV	0.0222***	0.904***	0.0376***	0.0273***	0.0252***
EQ <- ROA	0.0217	1.628***	-0.036	0.0332*	0.0287
_cons	0.0189	0.59	1.009***	0.281***	0.253***
N	4541	4541	4541	4541	4541

Source: Author calculated from Stata 14.0

Table 4. Test results

Fit Indexes	Standard	EQ-AQ	EQ_ SMOOTH	EQ_ PERS	EQ_ RELEV	EQ_ TIMEL
X2 (df) (Prob > chi2)	> 0.05	0.0605	0.0700	0.1200	0.1500	0.1400
RMSEA	< 0.05	0.0000	0.0000	0.0000	0.0000	0.0000
CFI	> 0.90	1.0000	1.0000	1.0000	1.0000	1.0000
TLI	> 0.90	1.0000	1.0000	1.0000	1.0000	1.0000
SRMR	< 0.05	0.0000	0.0000	0.0000	0.0000	0.0000
CD		0.1420	0.1200	0.1850	0.2050	0.2240

Source: Author calculated from Stata 14.0

## 5. Conclusion

The decision to pay dividends is considered as a signaling device for investors about the prospects of the company. At the same time, this decision also contributes to reducing the severity of representation issues and the asymmetric information situation among insiders and outside investors. Besides, the decision to pay dividend is also an indicator for the company's EQ. Through a decision to pay dividends, managers can establish or enhance the company's reputation. Therefore, a stable cash dividend payment policy will help the company to strengthen investor confidence, and create more favorable conditions for the company to raise equity in the future. In addition, in a market where the level of information asymmetry is still high and investor protection is not as strong as Vietnam, the decision to pay cash dividends is welcomed by investors. These notices convey information related to the company's performance. Therefore, when the company is performing well, managers may consider starting to pay, continue to pay or increase dividends. When the company is in financial difficulties or needs to invest in earningable projects in the future, the company can change the dividend payment policy to suit the operating situation. However, in this case, the company should provide sufficient information to investors to keep them from staying with the company.

Investors need to study the financial situation of the business such as profitability of the business, which will make a big decision to pay dividends in the next period. Dividend policy is still a reference source for investors because companies that pay dividends are expected to have a higher earnings quality. Thus, companies with dividend payments can be considered as safer. Therefore, when selecting stocks into the portfolio, investors with low risk tolerance can choose companies with dividend payout. Investors need to study the financial situation of the business such as profitability of the business, which will make a big decision to pay dividends in the next period. Dividend policy is still a reference source for investors because companies that pay dividends are expected to have a higher earnings quality. Thus, companies with dividend payments can be considered as safer. Therefore, when selecting stocks into the portfolio, investors with low risk tolerance can choose companies with dividend payout.

Managers should analyze the pros and cons of each type of dividend policy and consider which will suit the specific characteristics of their company. Most importantly, the administrator must have a clear choice of dividend payment policy and pursue that choice. Because, in order to maintain the dividend payment, forcing managers to have long-term financial and investment strategies, be more responsible in raising capital use efficiency, contributing to increasing business value in the long term.

The company needs to prioritize a stable dividend policy to maintain dividends to a certain extent and only increase dividends to a higher level when the company can achieve a stable and sufficient increase in earnings. The company must try to maintain the dividends at a set level until it becomes clear that it cannot hope to prevent the long-term decline in earnings in future.

This paper investigates whether dividend policy is related to earnings quality in Vietnam, which is a frontier market, during the period between 2010 and 2018. The empirical evidence indicates that dividend payers have higher earnings quality than dividend payers. Although Vietnam's institutional settings are different from those of developed markets, the positive relation between dividend policy and earnings quality still holds. Therefore, understanding the relation between dividend policy and earnings quality can help investors make right decisions.

## Acknowledgements

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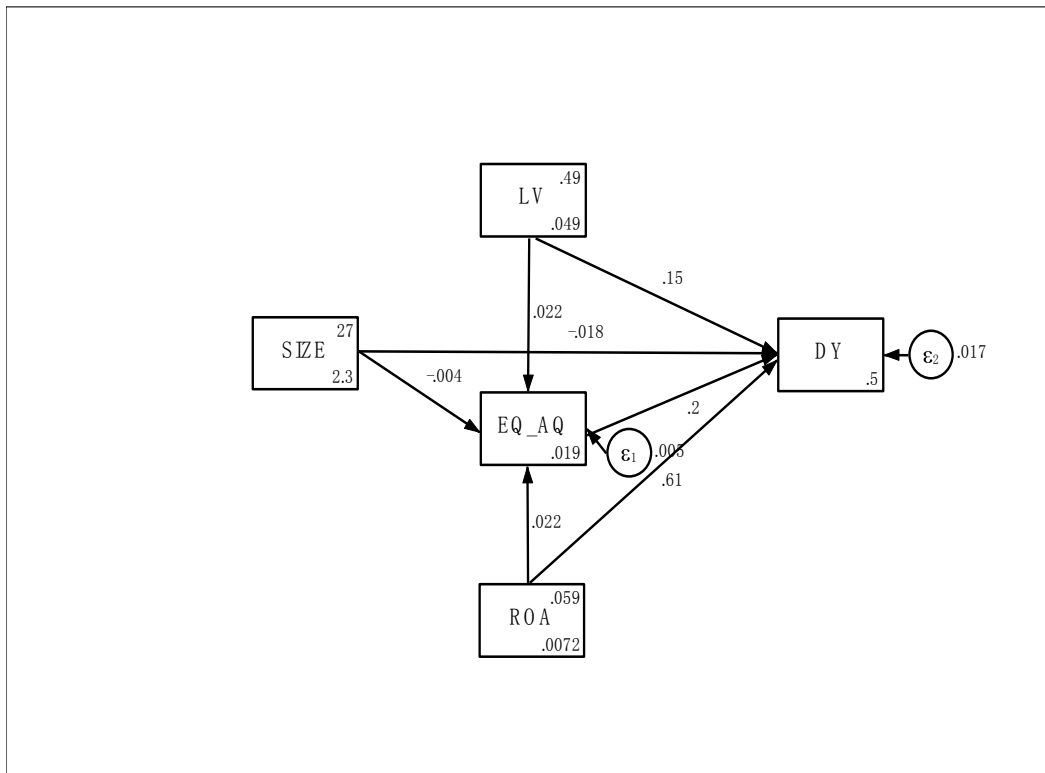
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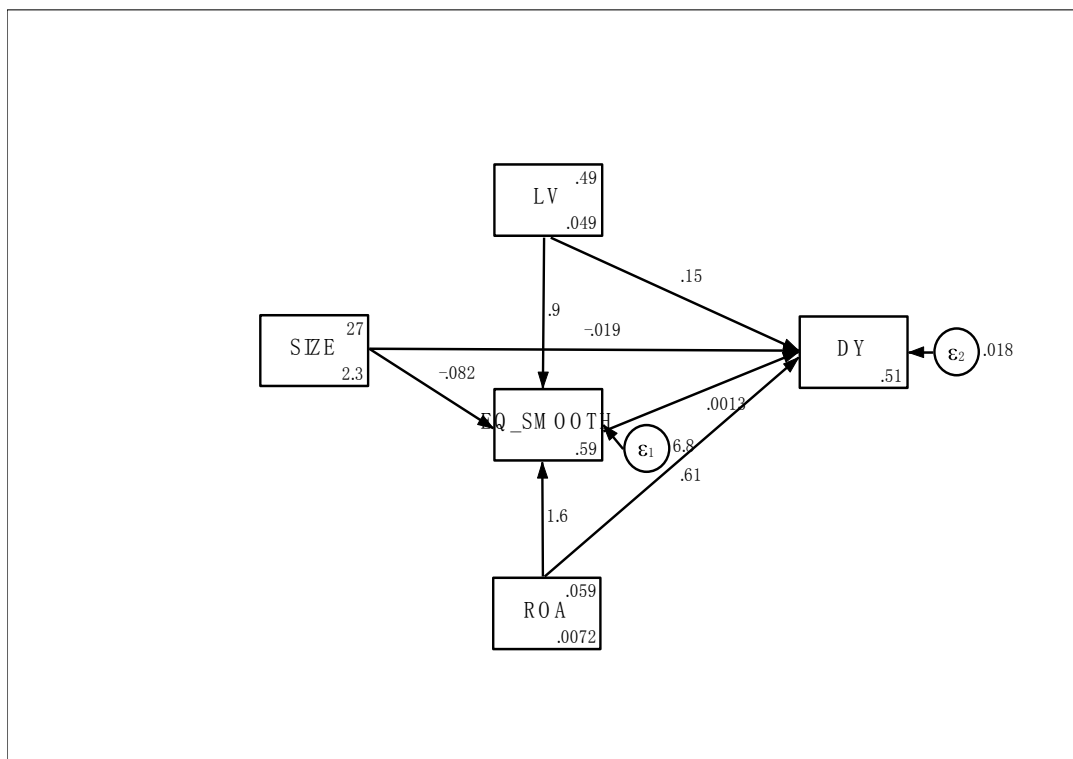
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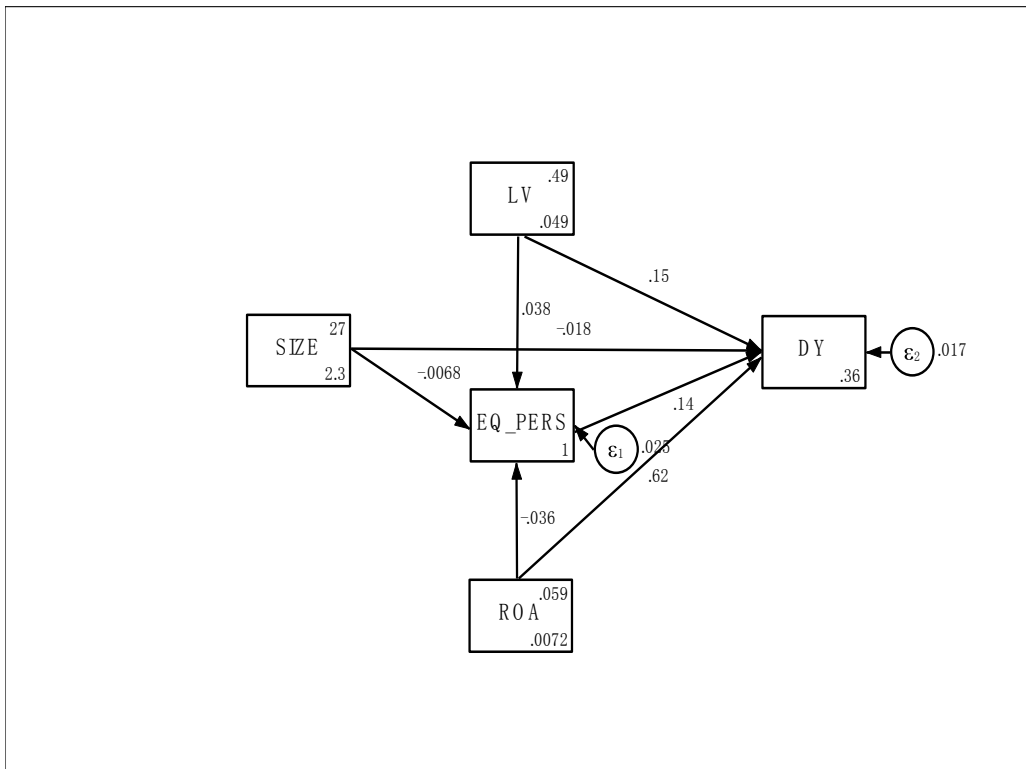
Appendix 1. The estimated result with the dependent variable is EQ\_AQ



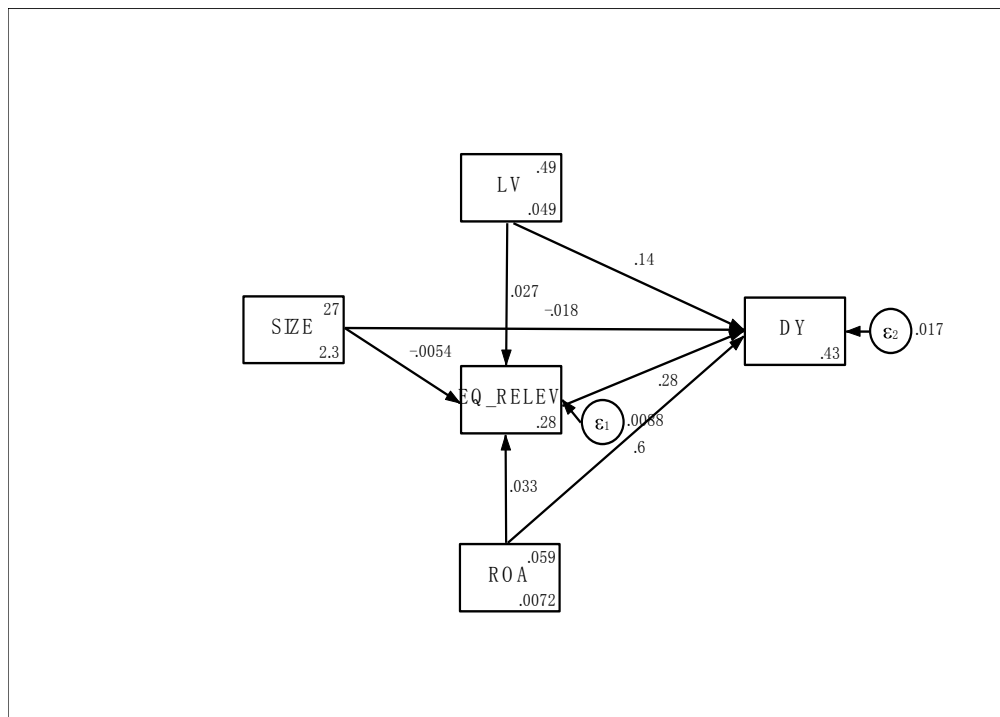
Appendix 2. The estimated result with the dependent variable is EQ\_SMOOTH



Appendix 3. The estimated result with the dependent variable is EQ\_PERS



Appendix 4. The estimated result with the dependent variable is EQ\_RELEV



Appendix 5. The estimated result with the dependent variable is EQ\_TIMEL

