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Factors affecting earnings persistence: research in emerging markets

Factores que afectan la persistencia de las ganancias: investigación en mercados emergentes

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Abstract

The paper examines the influence of business characteristics on earnings persistence in Vietnam because earnings persistence is also one of the earnings quality assessment factors that attract the attention of investors and financial analysts. The study used regression methods of OLS, REM, FEM, and GLS, and research data at enterprises listed on the stock market in Vietnam from 2010 to 2018, with 3 677 observations. The results have identified factors such as firm size, revenue growth rate, accruals and dividend policy that positively affect earnings persistence while the financial structure has the opposite effect on the persistence of earnings. Besides, the liquidity only has an unclear influence on the persistence of earnings. The results of this study help businesses identify, improve earnings persistence and transparency of financial statements, accurately reflect business reality, and build the trust of shareholders.

JEL Code: G32, M40, M41
Keywords: Earnings persistence; Quality of earnings; Business size; Growth; Accumulated amounts; Dividend policy

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Resumen

El documento examina la influencia de las características comerciales en la persistencia de las ganancias en Vietnam porque la persistencia de las ganancias es también uno de los factores de evaluación de la calidad de las ganancias que atraen la atención de los inversores y analistas financieros. El estudio utilizó métodos de regresión de OLS, REM, FEM y GLS, y datos de investigación en empresas que cotizan en la bolsa de valores de Vietnam de 2010 a 2018, con 3677 observaciones. Los resultados han identificado factores como el tamaño de la empresa, la tasa de crecimiento de los ingresos, las acumulaciones y la política de dividendos que afectan positivamente la persistencia de las ganancias, mientras que la estructura financiera tiene el efecto opuesto sobre la persistencia de las ganancias. Además, la liquidez solo tiene una influencia poco clara sobre la persistencia de las ganancias. Los resultados de este estudio ayudan a las empresas a identificar, mejorar la persistencia de las ganancias y la transparencia de los estados financieros, reflejar con precisión la realidad empresarial y generar la confianza de los accionistas.

Código JEL: G10, M42, M41
Palabras clave: Persistencia de ganancias; Calidad de ganancias; Tamaño de la empresa; Crecimiento; Cantidades acumuladas; Política de dividendos

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Introduction

Earnings are an overall quality indicator that is extremely important in assessing the quality of a business's operations. Earnings affect all aspects of the business such as ensuring a solid financial situation, creating conditions to improve the lives of employees, increase investment accumulation in production and business. The persistence of earnings and the growth of earnings are the leading economic goals of businesses in the market economy. Businesses can now respond to market changes, which is called the creative process of doing business. In such an environment, the market will create more profitable businesses, so high-profit industries/sectors will attract many new investors. This will result in lower profits over time, restoring them to normal. Therefore, businesses will not be able to maintain high earnings, however, in reality, businesses always want to maintain high earnings, that is, want sustainable earnings. This ability of the business is related to the speed adjustment coefficient, the coefficient that reflects the process of persistence and the overall competitiveness of a unit's industry (Klapper, Laeven, & Rajan, 2006).

In Vietnam, in recent years, along with the development of the economy, the stock market has been in the process of continuous development. One of the important factors that attract the attention of investors is earnings, thereby evaluating the business performance and growth prospects of the company. Investors often tend to invest in companies with economic efficiency and high growth prospects. However, in the long run, the persistence of high earnings is the target that investors want because this helps their decisions more accurately. Deriving from the role of earnings and the need to understand the factors that affect the persistence of businesses' earnings for users of financial information, in particular, to provide a basic decision making for investors as well as interested individuals, so the consideration and determination of the factors that affect the persistence of earnings make a lot of sense for Vietnam, an emerging market.

Theories

Concept

Regarding the persistence of earnings in enterprises, many scientists have come up with different definitions according to their views or perspectives. (Stigler, 1963) states that: "Earnings persistence is defined as a coefficient that reflects the correlation of earnings at the two distinct times t and t + 1". The high correlation coefficient indicates high persistence. According to (Kozlenko, 2015), “Persistence of earnings is the nature of the earnings that may be above average or maintained at an average level, it tends to continue to arise in the long term and is influenced by the impact of factors such as innovation, innovation, changing tastes, changes of the market, changes of business characteristics, the impact of past earnings ... ". Although the wording and presentation are not entirely identical, the definition of earnings persistence (Stigler, 1963, (Kozlenko, 2015), as well as other studies all, show the nature of the earnings is continuing to arise in the future, maintaining a persistent correlation between earnings at two specified points.

Measure the persistence of earnings

Using the rate of return of assets (ROA), (Freeman, Ohlson, & Penman, 1982) proposed the formula to measure the persistence of earnings as follows:

$$ROA_{t+1} = \alpha_0 + \alpha_1 ROA_t + \lambda \tag{1}$$

In formula (1), if the coefficient of α1 reaches 0, that means the earnings of the firm are lower, the earnings in year t + 1 are less affected by earnings in year t. Conversely, if the coefficient α1 reaches 1, meaning the greater the persistence of earnings, the earnings of year t greatly affect the earnings of year t + 1. Equation (1) has also been widely used in many subsequent studies, such as (Hili & Affess, 2012), (Sinha & Sharma, 2016), etc. Referring to measuring earnings in financial analysis main, we see scientists using different methods of measurement depending on each person's perspective. Normally, ROA, ROS and ROE are the three most used indicators in studies to measure earnings, many other studies also use ROA to measure corporate earnings such as (L. Amato & Wilder, 1985), (Glancey, 1998), (Asimakopoulos, Samitas, & Papadogonas, 2009) and colleagues because they think that ROA is a financial indicator that most accurately and accurately reflects the position of business when compared with other businesses. The ROA indicates the performance of the firm's assets or the earnings of its assets. The effect of converting investment assets into earnings is reflected in ROA, the higher the ROA, the better because businesses are making more money on less invested assets.

The role of the persistence of earnings

Earnings are a measure of the long-term evolution of the earnings chain. This coefficient has valuation effects both theoretically (Miller & Rock, 1985), and empirically (Kormendi & Lipe, 1987), (Lipe, 1990). As we all know, one of the main goals of accounting is to capture the business activities of the business, thereby providing useful information to those who are interested in decision making. In the process of researching financial indicators on reports and accounting books, researchers and investors are very interested in forecasting future earnings from the indicators and accounting figures published on the company's current financial statements system. However, forecasting future earnings and making decisions based only on short-term earnings often bring risks to investors. (Baber, Kang, & Kumar, 1998) have shown that the relationship between investor behavior and earnings depends very much on persistence rather than on current returns. Accordingly, the forecast of future earnings of an enterprise is very closely related to persistence, in particular, the higher the earnings persistence, the more convincing and accurate the forecast of earnings. This will help minimize the risks of investment while encouraging managers to have a vision for the management of earnings, to minimize the wrong decisions. Information on earnings persistence is useful for investors to forecast future earnings as well as to predict the expected cash flows of businesses to make appropriate investment decisions, or support accounting students and accounting researchers, economic experts in financial analysis and business performance evaluation. In infield survey studies, the persistence of earnings is considered as the most important indicator of earnings quality such as research by (Dichev, Graham, Harvey, & Rajgopal, 2013), (Nakashima, 2019).

Besides, earnings persistence is also one of the factors that evaluate the quality of earnings and attract the attention of investors and financial analysts. The higher the persistence of earnings also means that the higher the earnings quality of the business. The reason is that when the persistence of earnings is high, businesses must have a higher capacity to maintain the current earnings, this is said, the higher the earnings quality of the business. Earningsability reflects the earnings quality of the business and helps investors evaluate the earnings and cash flow of the business in the future.

The next meaning of earnings persistence is that this is considered a measure of business performance in the long term. One of the reasons for investor misconduct is the lack of information related to long-term business performance (Jacobson & Aaker, 1993). This information mismatch can be minimized if the accounting earnings chain reaches a sustainable level. Firms with sustainable earnings often achieve high performance, on the contrary, those businesses that are considered unstable, the business is also inefficient. (Cheng, Subramanyam, & Zhang, 2005) also emphasize the role of earnings persistence that, if not properly understood, the factors of earnings persistence can cause investors to inaccurately value securities.

Usually, earnings persistence is a time series coefficient that measures the effect of the current earnings changes on expected future earnings. This coefficient helps explain the relationship between earnings and firm valuation (Kormendi & Lipe, 1987), (Ohlson, 1995). According to many researchers, earnings persistence is useful in forecasting earnings (Frankel & Litov, 2009), and forecasts of stock prices (Collins & Kothari, 1989). An increasingly evolving enterprise valuation model in which the earnings persistence factor plays an important role in enterprise value prediction. According to the Residual income valuation model (RIV model), the value of the business is affected by abnormal earnings, so the abnormal earnings occur according to a self-regression process. in which the persistence coefficient indicates the sensitivity of the enterprise value to the earnings achieved (Ohlson, 1995). In this regard, (P. Dechow, Ge, & Schrand, 2010) suggest that firms with higher persistence have more sustainable earnings or more sustainable cash flows, which is why earnings persistence provides useful input for the business valuation model.

Earnings is a measure of the impact of current earnings movements on expected future earnings, which helps explain the relationship between earnings and corporate valuation (Kormendi & Lipe, 1987), (Lipe, 1990). Sustainable earnings have been recognized as valuable in predicting corporate value. For example, (Kormendi & Lipe, 1987), (Lipe, 1990) argued that earnings persistence might explain the effect of earnings volatility on stock returns. (Lipe, 1990) provided more evidence on the role of earnings persistence in valuation by showing that the effects of stock returns on returns are increasing in the persistence of returns by the time.

The analysis of the persistence of earnings is important and meaningful for financial information users because the research results are closely related to the policy measures. Although in most cases, not all policy measures are taken directly through the results of scientific research, however, results from different studies may partly help. Like the competitive situation in a country, continent, and the international market. Findings on earnings persistence can also be used by policymakers to adjust policies issued, track the effectiveness of existing policies, or plan key policies. New books, for example, in the studies of (Baltagi & Hashem Pesaran, 2007).

Literature reviews

So far, there have been many scientists studying the persistence of earnings and the factors that affect it, this comes from the fact that there is a contradiction between the earnings of enterprises in reality (Ranasinghe, Mather, & Young, 2020). According to economic principles, in a competitive market, corporate earnings will decrease over time (especially in cases of higher than average earnings). Most of the world's persistence studies are based on self-regression models and table data analysis. (Mueller, 1977) is one of the first studies on earnings persistence, he pointed out three reasons: (1) Enterprises that maintain high earnings may face risks. more risk in its operation; (2) Mistakes in sample selection or study duration; The sample was selected from a large group of largest companies in the US, including some proprietary companies; (3) Enterprises with high earnings for many consecutive years have high management capacity.

Following the work of (Mueller, 1977) many researchers have investigated the persistence of earnings in different types of businesses or compared the persistence of earnings across industries, between countries. To find out the objective and subjective factors affecting the persistence of earnings in enterprises. (Schmalensee, 1985) is one of them. The research objective of (Schmalensee, 1985) is to clarify the relationship between factors belonging to enterprises, factors of industry, market share and earnings persistence. The research results show that: (1) Persistence of earnings is not affected by subjective factors belonging to enterprises; (2) Earnings is influenced by objective factors of the industry and the process of this influence is very important, the level of the impact of the objective factors on the fluctuation of fertility rate. the lowest asset yield is estimated at 75%; (3) Market share affects earnings persistence, but the impact is negligible; (4) Industry and market factors are negatively related to earnings persistence.

(Odagiri & Yamawaki, 1986) collected data from 294 major Japanese manufacturing corporations using the time series method of earnings margin between 1964-1980. At first, the authors thought that the model of (Mueller, 1977) was not suitable and proposed alternatives to estimating long-term earnings rates with partial adjustment models (Partial Adjustment Model - PAM). The main findings are: (1) enterprises with high initial earnings margins tend to maintain in the long term; (2) The model of (Odagiri & Yamawaki, 1986), and the model of (Mueller, 1977)have essentially the same meaning; (3) The volatility of the rate of return in the model of (Odagiri & Yamawaki, 1986) is clearer, but the study does not explain this in detail and detail.

Another study conducted by (Maruyama & Odagiri, 2002), inheriting the results of (Odagiri & Yamawaki, 1986), using existing data on earnings margins during 1964-1980, complements Additional data for the 15 years 1983-1997. With this work, despite the longer study period, the conclusions of (Maruyama & Odagiri, 2002) are completely consistent with the results of (Odagiri & Yamawaki, 1986). After testing hypotheses, the conclusions drawn are: (1) Market share has a significant positive effect on earnings persistence, (2) With a sample of 357 companies, research shows that market share has a positive effect on earnings persistence and this level of influence was significant during 1983-1997. Thus, relative revenue is a basic measure of market share, which can also be a measure of economic efficiency by scale and scope (Maruyama & Odagiri, 2002)

The influence of the industry on the process of earnings formation of businesses, in particular, British businesses was first mentioned in (Cubbin & Geroski, 1987). The author's test results show that nearly half of the companies affected by industry fluctuations have solid evidence that about two-thirds of the companies in the research industries in the sample are profitable. not equal, even in the long run. (Geroski & Jacquemin, 1988), studying earnings persistence for some large European companies. The research results show that, in contrast to France and West Germany, the UK is a country with a relatively high number of companies achieving standard earnings, so the earnings of companies in the United Kingdom are easy to predict. (Geroski & Jacquemin, 1988), also show that it is difficult to find factors that are related to the persistence or predictability of earnings.

(Liao & Chen, 2020), analyses the impact of independent director interlocks on firms' earnings persistence in China, an emerging market from 2007 to 2017. This article investigates the association between independent director interlocks and earnings persistence, and the roles of firms outside director interlocks and firms' inside internal control playing in earnings persistence. Besides, other factors such as board structure, socially responsible firms are also studied (Ranasinghe, Mather, & Young, 2020; Yahya & Hidayat, 2020).Thus, in recent years, there have been studies on the persistence of earnings in countries with developed stock markets, but the study of this topic in emerging markets, and additional aspects In addition to how the characteristics of the business affect the persistence of earnings, it should be considered and researched for a more comprehensive and insightful view.

Hypotheses

Business size is one of the important factors affecting business activities as well as the earnings situation of businesses. In terms of the effect of firm size on earnings persistence, in previous studies, the direction of influence could be positive or opposite. A large business can reach its present size because it has maintained high business performance for a long time. However, there are also cases when the size of the business increases not commensurate with other important conditions such as product quality or management quality, which makes earnings unstable. According to the research (Onaolapo & Kajola, 2010), the size of the business has a positive impact on earnings. Research (Kozlenko, 2015), (Hall & Weiss, 1967), (Amidu & Harvey, 2016), also show similar results. In contrast, (Goddard, Tavakoli, & Wilson, 2005) assert that firm size has a negative effect on earnings. Other studies (L. H. Amato & Amato, 2004), (Aggrey, Eliab, & Joseph, 2010) show that size affects both positively and negatively on firm earnings. However, (Yurtoglu, 2004), (Gschwandtner, 2005) suggest that firm size does not have a significant relationship to earnings persistence. The research team built the hypothesis:

H1: The size of the business has a positive effect on the persistence of earnings

The effect of revenue growth on earnings is unclear but generally evaluated as positive. (Yurtoglu, 2004) points out the positive effect of revenue growth on long-term earnings persistence, although the statistical significance is only 10%. (Kozlenko, 2015) also, show that high-turnover businesses tend to have more stable earnings. The inverse relationship between the persistence of earnings and the growth of assets is mentioned in theory as well as in many empirical studies. Studies (Cochrane, 1991) show that the growth rate of assets has a negative impact on the persistence of earnings. Research (Cooper, Gulen, & Schill, 2008) also supports this view. The research team built the hypothesis:

H2: Sales growth rate has a positive effect on earnings persistence

(Fairfield, Whisenant, & Yohn, 2003) show that the increase in long-term assets leads to unsustainable earnings. While (Richardson, Sloan, Soliman, & Tuna, 2005) detailed analysis of changes in long-term and short-term financial assets and pointed out that assets and liabilities are measured with low confidence. The ratio of self-financing reflects the proportion of equity to the total assets of the enterprise. A high self-financing ratio proves the financial autonomy of enterprises, but also shows that businesses have not taken advantage of financial leverage much. Empirical studies of (Bourke, 1989), (Demirgüç-Kunt & Huizinga, 1999), (Goddard, Molyneux, & Wilson, 2004) show that banks have higher earnings persistence with higher rates. High self-financing. According to these studies, the rate of self-financing acts as a buffer to bear any shock or risk of the economy, so the higher this rate, the more businesses avoid the disadvantages, help stabilize business operations, earnings are maintained. The research team built the hypothesis:

H3: Financial structure has an adverse effect on earnings persistence

In enterprises, the high liquidity shows the flexibility and safety of investment capital, the more active and efficient the market operates, the higher the liquidity of trading securities. (Saleem & Rehman, 2011), collecting data from 2004 to 2009 on the financial statements and other annual reports of 26 gas and petroleum enterprises listed on the Karachi stock market (Pakistan), through which to conduct research. Research on the relationship between liquidity and earnings persistence. Earnings in research include ROA, ROE, and ROI. The liquidity ratios used by the author are instant payment, quick ratio, and short-term payout ratio. Research shows that ROA has a positive relationship with the short-term payout ratio at the significant 5%, and is not affected by the remaining two payment rates. ROE is not affected by any rate of payment. The ROI is negatively affected by the current ratio, the same direction of the quick ratio and short-term payout ratio, the significance level is at 5% (Padachi, 2006), (Goddard et al., 2005), also suggest that the effect of liquidity on corporate earnings is positive. The research team built the hypothesis:

H4: Liquidity has a positive effect on earnings persistence

(Sloan, 1996) looks for current information related to accruals as well as cash flows and examines the impact of this information through stock price movements. His research indicates that high accruals have a positive effect on the persistence of earnings. Some other studies (Bradshaw, Richardson, & Sloan, 2001), (Pincus, Rajgopal, & Venkatachalam, 2007) also provide the same opinion. (Hanlon, 2005) studied the causes of earnings and pointed out one of the causes of this phenomenon is the difference between accounting earnings and taxable income. The research team built the hypothesis:

H5: Accumulation has a positive effect on earnings persistence

Dividends often show 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 earnings figure. Therefore, managers will not decide to increase dividends unless they believe dividends can be maintained at a new level. Instead, they tend to smooth out 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 the 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, Sloan, & Sweeney, 1996), so this is not sustainable earnings. Therefore, companies that do not cheat will be less likely to make decisions to increase dividends. The research team built the hypothesis:

H6: Dividends have a positive effect on earnings persistence

Research method

Research models

From the research overview and the established hypotheses, the research team built a research model as follows:

$$EP_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 GROWT_{it} + \beta_3 LV_{it} + \beta_4 LIQ_{it} + \beta_5 ACCR_{it} + \beta_6 DY_{it} + \varepsilon_{it} \quad (2)$$

The basis for measuring persistence in research is the formula (1) (Freeman et al., 1982). The variables in the model are detailed in Table 1.

Table 1
Summary of measurement variables and hypotheses in the research model

Variables	Name of variables	Measure	Expectations
EP	Earnings persistence	Residuals of the model: $ROA_{t+1} = \alpha_0 + \alpha_1 ROA_t + \lambda$ (1)	
SIZE	Firm size	Log (Total assets)	+
GROWT	Growth	(Revenue of this period - Revenue of previous period) / Revenue of previous period	+
LV	Financial structure	Liabilities / Total assets	-
LIQ	Liquidity	Short-term assets / Short-term debts	+
ACCR	Accurals	(Earnings after tax - Cash flow from operating activities) / Total assets	+
DY	Dividend	Dividend per share / Market price per share	+

Research data

This paper uses data collected from the Vietnam Stock Exchange from 2010 to 2018. Data was collected from audited financial statements of listed companies after eliminating enterprises in banking, securities, and insurance. After determining the indicators, the data used for analysis and regression were 3 677 observations.

Research results and discussion

Statistical data (Table 2) shows that the earnings persistence (EP) has an average value of 0.0003, the smallest is -0.1395 and the highest is 0.1517. The size of the business (SIZE) by asset value after the logarithm has an average value of 27.1074, the growth rate of revenue (GROWT) is 63.74%, the financial structure of the business (LV) is measured. Measured as the ratio of debt to total assets accounted for 49.87%, the average level of corporate liquidity (LIQ) is 0.1391, the average cumulative enterprise (ACCR) variable is 0.0933, and the dividend rate is 10.28%.

Table 2
Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
EP	3 677	0.0003	0.0410	-0.1395	0.1517
SIZE	3 677	27.1074	1.5103	23.3304	33.2939
GROWT	3 677	0.6374	29.7346	-0.9929	203.0400
LV	3 677	0.4987	0.2196	0.0061	0.9929
LIQ	3 677	0.1391	0.1485	0.0001	0.9437
ACCR	3 677	0.0933	0.1734	-2.0271	1.6672
DY	3 677	0.1028	0.1410	0.0000	1.8638

Source: author calculated from Stata 14.0

Table 3, showing the correlation coefficients between the variables, the purpose of examining the close correlation between the independent and dependent variables to eliminate factors that may lead to multicollinearity before running the regression model. 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 when using the regression model of the authors' group VIF.

Table 3
Correlation matrix

	EP	SIZE	GROWT	LV	LIQ	ACCR	DY
EP	1						
SIZE	-0.0044	1					
GROWT	0.177	0.0653	1				
LV	-0.1854	0.3029	0.0139	1			
LIQ	0.1906	-0.0746	-0.0253	-0.3784	1		
ACCR	0.4104	-0.0295	0.0329	-0.2892	0.3532	1	
DY	0.146	-0.1254	0.0001	0.0448	0.1067	0.1649	1

t statistics in brackets * $p<0.05$
Source: author calculated from Stata 14.0

To consider and select the appropriate model, the research team used the regression methods OLS, FEM, REM, and GLS, using the F test and Hausman test. We tested the autocorrelation phenomenon, testing the variance change phenomenon, the model test results showed that the P-value

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values received were equal to 0.000 <α (5%), which implies the hypothesis H0 is that there is no variance change in the rejected models with a 5% significance level. Therefore, the author conducted to overcome defects of the regression model by the GLS regression method. The results of multivariate regression analysis showed that in 6 independent variables a total of 5 variables (SIZE, GROWT, LV, ACCR, DY) are significant, reaching a significance level of 1%, 5%, and 1 remaining variable LIQ have a 10% significance level.

According to the regression analysis results shown in Table 4, the firm size variable (SIZE) has a significant positive relationship with earnings persistence at a statistically significant 5% level. Large firms will have higher earnings persistence than small businesses. The results of the study are consistent with those of (Onaolapo & Kajola, 2010), (Kozlenko, 2015), (Hall & Weiss, 1967), but not consistent with the research of (Goddard et al., 2004). Hypothesis H1 is accepted. The positive effect of firm size on earnings persistence can be explained by the most fundamental argument that is the economics of scale or ladder economy. According to the principle of economies of scale, businesses will have many advantages when expanding and increasing output. Specifically, large-scale enterprises often buy more inputs with longer-term contracts, so they have the advantage of negotiating not only in terms of raw material prices but also in terms of payment terms and services, thereby saving costs and increasing earnings. On the other hand, most large-scale enterprises often have stable input sources, high quality and have the ability to coordinate well internal resources, so large enterprises will be able to cope with risks, even with big risks, so their performance is also higher. Meanwhile, small-scale businesses do not have economies of scale, often have difficulty accessing credit and lack resources, especially high-quality resources, so earnings are often unsustainable. Another feature of small businesses that affects earnings and earnings persistence is the governance of the executive. As we know, small businesses often have operating policies in production and business activities which are greatly influenced by the personal style of the highest management. The operation of an organization depends too much on the management's style, making business operations prone to bias, subjectivity, and lack of comprehensiveness in decision making. Meanwhile, large-scale businesses are less prone to this drawback because the operating policy is not dependent on the style, subjective will of a certain manager, but comes from long-term strategies and overview. Therefore, the bigger the business scale, the higher the earnings and the more sustainable it is.

Table 4
Multivariate regression results

	VIF	OLS	FEM	REM	GLS
SIZE	1.14	0.000985**	0.00582**	0.000985**	0.000985**
GROWT	1.04	0.00977***	0.0115***	0.00977***	0.00977***
LV	1.37	-0.0168***	-0.0602***	-0.0168***	-0.0168***
LIQ	1.28	0.00774*	-0.0150*	0.00774*	0.00774*
ACCR	1.38	0.0888***	0.0785***	0.0888***	0.0888***
DY	1.09	0.0300***	0.0165**	0.0300***	0.0300***
_cons		-0.0320***	-0.136**	-0.0320***	-0.0320***
N		3 677	3 677	3 677	3 677
R-sq	within	0.1315	0.1437	0.1315	
	between	0.4705	0.2723	0.4705	
	overall	0.2103	0.1661	0.2103	
F test			F(6,3032)= 84.82 Prob > F = 0.0000		
LM test		Wald chi2(6)=977.09 Prob > chi2 = 0.0000		Wald chi2(6) = 977.09 Prob > chi2 = 0.0000	Wald chi2(6) = 978.95 Prob > chi2 = 0.0000
Hausman test		chi2(6) = 76.80 Prob>chi2 = 0.0000			
Modified Wald test		chi2 (639) = 3.9e+31 Prob>chi2 = 0.0000			
Wooldridge test		F(1, 529) = 0.112 Prob > F = 0.7383			

t statistics in brackets * p<0.1, ** p<0.05, *** p<0.01
Source: author calculated from Stata 14.0

According to the regression results, the GROWT variable is statistically significantly less than 1%, which shows that revenue growth has an impact on earnings persistence at a statistical significance level of 1%. The coefficient β2 bearing a positive sign (+) reflects the positive relationship between revenue growth rate and earnings persistence of listed companies on Vietnam's stock market, that is, when the growth rate If the revenue increases, the earnings of the earnings increases, whereas the revenue growth rate decreases, the earnings decreases. This result is consistent with those of (Yurtoglu, 2004), (Kozlenko, 2015) but contrary to the findings of (Cochrane, 1991), (Cooper et al., 2008). The positive effect of revenue growth on earnings persistence can be explained as follows: the increase in revenue in this period of the enterprise compared to the previous period may be due to the enterprise being in the process of scaling up business activities, implementing new business plans means that businesses do well.

The financial structure factor (LV) is defined as the debt ratio to the total assets of an inverse relationship that affects the persistence of earnings at the 1% significance level. The coefficient β3 with negative oil (-) (β3 = -0.0168) indicates that there is an inverse relationship between financial structure and earnings persistence, in which enterprises have a high debt-to-total assets ratio. The higher the earnings, the lower the earnings, and in contrast to businesses with a low debt-to-total assets ratio, the earnings persistence is high. The results are consistent with those of (Kozlenko, 2015), (Onaolapo & Kajola, 2010), (Margaritis & Psillaki, 2010). Hypothesis H3 is accepted.

The ratio of debt to total assets has a negative (-) effect on earnings persistence, which may stem from the following reason: according to the theory of capital structure, the ratio of debt to total assets increases earnings. The company earnings by benefiting from the tax shield. However, using the ratio of debt to total assets to increase earnings as well as a "double-edged sword", debt is leverage for businesses to increase revenue, thereby increasing earnings, but at the same time if used Ineffective debt is also very easy to put businesses in danger. Specifically, when the enterprise has a high debt-to-assets ratio, but the total assets are not able to generate an earnings ratio large enough to offset the interest expenses, the earnings will decrease. Earnings generated by total assets must be used to offset the shortage of payable loan interests. Therefore, earnings persistence is reduced.

For the factor accrual (ACCR), the research results show that accruals have a positive relationship to the persistence of earnings with a 1% significance level. The outcome of this study is consistent with that of (Bradshaw et al., 2001), (Pincus et al., 2007), (Hanlon, 2005), so the hypothesis H5 is most accepted.

Dividend factor (DY), is an important factor, the research results show that dividends have a positive relationship to the maintenance stability of earnings with a significance level of 1%, this research result is in agreement with the study of (Brav et al., 2005), (P. M. Dechow et al., 1996), therefore, the hypothesis H6 accepts.

Conclusions and recommendations

With empirical research results, the author has used table data with 3677 observations. at companies listed on Vietnam's stock market from 2010-2018, using regression analysis methods OLS, FEM, REM, GLS. Research results show that all factors affect earnings persistence. From the above research results, the team made some recommendations as follows:

Normally, investors and creditors always have priority for large-scale businesses because they think that these businesses easily generate high earnings, and the earnings stream over time also. more stable than smaller businesses. The earnings of large-scale businesses tend to be more sustainable than smaller ones, and the investors and creditors' future earnings predictions for those large-scale businesses are also more accurate. Business size is an important factor that needs to be considered by investors and creditors before making their economic decisions. However, assessing the size of the business to decide whether or not to invest by the investor or whether to lend or not of creditors should be accompanied by an assessment of the quality of corporate management, its future research, and development policy.

Investors and creditors need to consider the revenue growth rate because of the higher the revenue growth rate, the higher the profit sustainability. When assessing whether the revenue growth rate of a business is high or low, increase or decrease, investors and creditors should pay attention to the relationship between revenue growth rate and other related factors such as sources of assets, assets, the growth rate of liabilities, changes in revenue structure,…

Accumulated amounts are defined as income or expenses incurred in an accounting period that has not been recorded and has an overall impact on the income statement of the enterprise. High accrual values can result from the application of appropriate accounting principles in accounting, and the appropriate principles enhance the persistence of earnings. Enterprises need to apply appropriate domestic and international accounting principles and standards to improve the persistence of earnings.

Limitations

In addition to the obtained results, the study also has some limitations: Firstly, the factors affecting the sustainability of profit quality can be influenced by endogenous variables. This was not mentioned in the study. Second, the new study stops to look at financial-specific factors that affect profitability sustainability. Finally, the explanatory level in the model is low.

For future studies, we will consider the influence of corporate governance mechanism on the sustainability of profits.

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References

Aggrey, N., Eliab, L., & Joseph, S. (2010). Firm size and technical efficiency in East African manufacturing firms. Current research journal of Economic theory, 2(2), 69-75.

Amato, L., & Wilder, R. P. (1985). The effects of firm size on earnings rates in US manufacturing. Southern Economic Journal, 52(1), 181-190.

Amato, L. H., & Amato, C. H. (2004). Firm size, strategic advantage, and earnings rates in US retailing. Journal of Retailing and Consumer Services, 11(3), 181-193. doi: https://doi.org/10.1016/S0969-6989(03)00036-5

Amidu, M., & Harvey, S. K. (2016). The persistence of earnings of banks in Africa. Review of Quantitative Finance and Accounting, 47(1), 83-108.

Asimakopoulos, I., Samitas, A., & Papadogonas, T. (2009). Firm-specific and economy wide determinants of firm earnings: Greek evidence using panel data. Managerial finance, 35(11), 930-939.

Baber, W. R., Kang, S.-H., & Kumar, K. R. (1998). Accounting earnings and executive compensation:: The role of earnings persistence. Journal of accounting and economics, 25(2), 169-193. doi: https://doi.org/10.1016/S0165-4101(98)00021-4

Baltagi, B. H., & Hashem Pesaran, M. (2007). Heterogeneity and cross section dependence in panel data models: theory and applications introduction. Journal of Applied Econometrics, 22(2), 229-232. doi: https://doi.org/10.1002/jae.955

Bourke, P. (1989). Concentration and other determinants of bank earnings in Europe, North America and Australia. Journal of Banking & Finance, 13(1), 65-79.

Bradshaw, M. T., Richardson, S. A., & Sloan, R. G. (2001). Do analysts and auditors use information in accruals? Journal of accounting research, 39(1), 45-74. doi: https://doi.org/10.1111/1475-679X.00003

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. Journal of financial economics, 77(3), 483-527. doi: https://doi.org/10.1016/j.jfineco.2004.07.004

Cochrane, J. H. (1991). Production-based asset pricing and the link between stock returns and economic fluctuations. The journal of finance, 46(1), 209-237. doi: https://doi.org/10.1111/j.1540-6261.1991.tb03750.x

Collins, D. W., & Kothari, S. (1989). An analysis of intertemporal and cross-sectional determinants of earnings response coefficients. Journal of accounting and economics, 11(2-3), 143-181.

Cooper, M. J., Gulen, H., & Schill, M. J. (2008). Asset growth and the cross-section of stock returns. The journal of finance, 63(4), 1609-1651. doi: https://doi.org/10.1111/j.1540-6261.2008.01370.x

Cubbin, J., & Geroski, P. (1987). The convergence of earnings in the long run: inter-firm and inter-industry comparisons. The journal of industrial economics, 35(4), 427-442. doi: DOI: 10.2307/2098581

Cheng, M., Subramanyam, K., & Zhang, Y. (2005). Earnings guidance and managerial myopia. Available at SSRN 851545. Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. Journal of accounting and economics, 50(2-3), 344-401. doi: https://doi.org/10.1016/j.jacceco.2010.09.001

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. Contemporary Accounting Research, 13(1), 1-36.

Demirgüç-Kunt, A., & Huizinga, H. (1999). Determinants of commercial bank interest margins and earnings: some international evidence. The World Bank Economic Review, 13(2), 379-408. doi: https://doi.org/10.1093/wber/13.2.379

Dichev, I. D., Graham, J. R., Harvey, C. R., & Rajgopal, S. (2013). Earnings quality: Evidence from the field. Journal of accounting and economics, 56(2), 1-33.

Fairfield, P. M., Whisenant, J. S., & Yohn, T. L. (2003). Accrued earnings and growth: Implications for future earnings and market mispricing. The Accounting Review, 78(1), 353-371. doi: https://doi.org/10.2308/accr.2003.78.1.353

Frankel, R., & Litov, L. (2009). Earnings persistence. Journal of accounting and economics, 47(1-2), 182-190. doi: https://doi.org/10.1016/j.jacceco.2008.11.008

Freeman, R. N., Ohlson, J. A., & Penman, S. H. (1982). Book rate-of-return and prediction of earnings changes: An empirical investigation. Journal of accounting research, 20(2), 639-653. doi: 10.2307/2490890

Geroski, P. A., & Jacquemin, A. (1988). The persistence of earnings: a European comparison. The economic journal, 98(391), 375-389. doi: https://doi.org/10.2307/2233373

Glancey, K. (1998). Determinants of growth and earnings in small entrepreneurial firms. International Journal of Entrepreneurial Behavior & Research, 4(1), 18-27.

Goddard, J., Molyneux, P., & Wilson, J. O. (2004). The earnings of European banks: a cross-sectional and dynamic panel analysis. The Manchester School, 72(3), 363-381. doi: https://doi.org/10.1111/j.1467-9957.2004.00397.x

Goddard, J., Tavakoli, M., & Wilson, J. O. (2005). Determinants of earnings in European manufacturing and services: evidence from a dynamic panel model. Applied financial economics, 15(18), 1269-1282. doi: https://doi.org/10.1080/09603100500387139

Gschwandtner, A. (2005). Earnings persistence in the 'very'long run: evidence from survivors and exiters. Applied Economics, 37(7), 793-806. doi: https://doi.org/10.1080/0003684042000337406

Hall, M., & Weiss, L. (1967). Firm size and earnings. The review of Economics and Statistics, 49(3), 319-331. doi: DOI: 10.2307/1926642

Hanlon, M. (2005). The persistence and pricing of earnings, accruals, and cash flows when firms have large book-tax differences. The Accounting Review, 80(1), 137-166. doi: https://doi.org/10.2308/accr.2005.80.1.137

Hili, W., & Affess, H. (2012). Corporate boards gender diversity and earnings persistence: The case of French listed firms. Global Journal of Management And Business Research, 12(22), 50-59.

Jacobson, R., & Aaker, D. (1993). Myopic management behavior with efficient, but imperfect, financial markets: A comparison of information asymmetries in the US and Japan. Journal of accounting and economics, 16(4), 383-405. doi: https://doi.org/10.1016/0165-4101(93)90033-C

Klapper, L., Laeven, L., & Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. Journal of financial economics, 82(3), 591-629. doi: https://doi.org/10.1016/j.jfineco.2005.09.006

Kormendi, R., & Lipe, R. (1987). Earnings innovations, earnings persistence, and stock returns. Journal of business, 60(3), 323-345. doi: https://www.jstor.org/stable/2352874

Kozlenko, I. (2015). Analysis of earnings persistence in the Spanish Food Industry. Universitat Politècnica de Catalunya, Barcelona, Spain.

Liao, F.-N., & Chen, F.-W. (2020). Independent director interlocks: effects and boundary on the earnings persistence of the firm. Economic Research-Ekonomska Istraživanja, 1-27.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. The American economic review, 46(2), 97-113.

Lipe, R. (1990). The relation between stock returns and accounting earnings given alternative information. Accounting review, 65(1), 49-71. doi: https://www.jstor.org/stable/247876

Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. Journal of Banking and Finance, 34(3), 621-632. doi: 10.1016/j.jbankfin.2009.08.023

Maruyama, N., & Odagiri, H. (2002). Does the 'persistence of earnings' persist?: a study of company earnings in Japan, 1964–97. International Journal of Industrial Organization, 20(10), 1513-1533. doi: https://doi.org/10.1016/S0167-7187(01)00093-5

Miller, M. H., & Rock, K. (1985). Dividend policy under asymmetric information. The journal of finance, 40(4), 1031-1051.

Mueller, D. C. (1977). The persistence of earnings above the norm. Economica, 44(176), 369-380. doi: DOI: 10.2307/2553570

Nakashima, M. (2019). Survey Research on Earnings Quality: Evidence from Japan. In B. Charles Richard (Ed.), Research on Professional Responsibility and Ethics in Accounting (Vol. 22, pp. 99-131): Emerald Publishing Limited.

Odagiri, H., & Yamawaki, H. (1986). A study of company earnings-rate time series: Japan and the United States. International Journal of Industrial Organization, 4(1), 1-23. doi: https://doi.org/10.1016/0167-7187(86)90044-5

Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. Contemporary Accounting Research, 11(2), 661-687.

Onaolapo, A. A., & Kajola, S. O. (2010). Capital structure and firm performance: Evidence from Nigeria. European Journal of Economics, Finance and Administrative Sciences, 25(1), 70-82.

Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. International review of business research papers, 2(2), 45-58.

Pincus, M., Rajgopal, S., & Venkatachalam, M. (2007). The accrual anomaly: International evidence. The Accounting Review, 82(1), 169-203. doi: https://doi.org/10.2308/accr.2007.82.1.169

Ranasinghe, D., Mather, P., & Young, S. (2020). Board structure and earnings persistence: The mediation effect of board processes. Australian Journal of Management, 45(2), 266-293.

Richardson, S. A., Sloan, R. G., Soliman, M. T., & Tuna, I. (2005). Accrual reliability, earnings persistence and stock prices. Journal of accounting and economics, 39(3), 437-485. doi: https://doi.org/10.1016/j.jacceco.2005.04.005

Suk, I., Lee, S., & Kross, W. (2021). CEO turnover and accounting earnings: The role of earnings persistence. Management science, 67(5), 3195-3218.

Saleem, Q., & Rehman, R. U. (2011). Impacts of liquidity ratios on earnings. Interdisciplinary journal of research in business, 1(7), 95-98.

Schmalensee, R. (1985). Do markets differ much? The American economic review, 75(3), 341-351.

Sinha, P., & Sharma, S. (2016). Determinants of bank earnings and its persistence in Indian Banks: a study in a dynamic panel data framework. International Journal of System Assurance Engineering and Management, 7(1), 35-46.

Sloan, R. G. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? Accounting review, 71(3), 289-315. doi: http://www.jstor.org/stable/248290 .

Stigler. (1963). Capital Rates of Return in Manufacturing Industries: Princeton: Princeton University Press.

Yahya, A., & Hidayat, S. (2020). The Determinant On Earnings Persistence In Automotive Companies In Indonesia. Riset, 2(1), 252-263.

Yurtoglu, B. B. (2004). Persistence of firm-level earnings in Turkey. Applied Economics, 36(6), 615-625. doi: https://doi.org/10.1080/0003684042000217652