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RESEARCH ON THE EFFECT OF EARNINGS MANAGEMENT ON STOCK PRICE INFORMATIVENESS IN VIETNAM

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INTRODUCTION

1. Rational

Stock price is influenced by general market information and firm specific information. Macro information affects all stocks on the market while firm specific information only affects stock price variation of company. Process of collecting, evaluating value relevant firm specific information and trading stock based on those information is called information transformation process into stock price, result in stock price has informativeness (Grossman, 1976; Shleifer & Vishny, 1997). Stock price informativeness reflects that how much value relevant firm specific information is incorporated into stock price. High stock price informativeness implies that stock price contains more firm specific information and less macro market information.

Researches from all over the world demonstrated that capital and other resources are allocated more efficiently when stock price has high informativeness (Wurgler, 2000; Durnev, Morck & Yeung, 2004). Besides, stock price informativeness is a signal which helps managers know market reaction to their decisions, thus stock price informativeness helps them in making better decisions to increase firm value (Durnev, Morck & Yeung, 2004; Chen, Goldstein & Jiang, 2007). Stock price informativeness allows investors to identify quality of managers’ decisions and select companies for investment purpose (Durnev, Morck & Yeung, 2004; Chen, Goldstein & Jiang, 2007). As can be seen, improving stock price informativeness becomes more urgently because stock price informativeness has important meaning for regulators, managers as well as investors.
Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders, about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers (Healy & Wahlen, 1999).

Previous empirical studies showed that earnings management could affect firm information environment in general, quantity and quality of information in specifically. Therefore, earnings management has the possibility of effect on stock price informativeness (Zarowin, 2002; Jin & Myers, 2006; Fernandes & Ferreira, 2009; Hutton, Marcus & Tehranian, 2009; Brockman & Schutte, 2010; Rajgopal & Venkatachalam, 2011; Kim & Shi, 2012). However, the effect (level and direction) of earnings management on stock price informativeness depends on institutional environment and information environment of each country (Ball & cộng sự, 2000; Hope, 2003; Leuz & cộng sự, 2003; Haw & cộng sự, 2004; Bushman & cộng sự, 2004; Durnev & Kim, 2005; Burgstahler & cộng sự, 2006; Bushman & Piotroski, 2006).

This study is to examine the effect of earnings management on stock price informativeness of listed companies in Vietnam stock exchange. This research has important academic and practical implications. Firstly, on academic side, empirical findings will make the relation of earnings management and stock price informativeness clearer in Vietnam and can use in later related researches. Secondly, on practical side, results of thesis provide policy implications for investors in analyzing and contributing portfolio, for firm managers
in enhancing investment efficiency to increase firm value, and for regulators in increasing market efficiency.

2. **Objectives of study**

   Thesis would follow main objective is to examine the effect of earnings management on stock price informativeness of listed companies in Vietnam stock exchange.

3. **Research questions**

   How does the level of earnings management of listed companies on Vietnamese stock market affect to stock price informativeness?

4. **Objects and scope of study:**

   **4.1 Objects of study:**

   + Stock price informativeness and earnings management of listed companies in Vietnam stock exchange.

   + The effect of earnings management on stock price informativeness of listed companies in Vietnam stock exchange.

   **4.2. Scope of study:**

   Thesis studies in data set which is collected of all listed companies in Ho Chi Minh Stock Exchange and Hanoi Stock Exchange in the period from 2007 to 2014.

   Thesis does not analyze the mechanism that earnings management can affect stock price informativeness.

5. **Approach and methodology**

   **5.1. Approach**

   Thesis uses the approach of Morck, Yeung & Yu (2000) and

5.2. Methodology

To analyze the effect of earnings management on stock price informativeness, thesis employed the panel data regression model using pooled OLS.

Independent variables in the model used lagged value to limit reverse causality from stock price informativeness to earnings management. The regression model also included industry fixed effect and year fixed effect to control influence of industry and time to the effect of earnings management on stock price informativeness.

Thesis uses robust standard error to deal with heteroscedasticity and estimates standard error by company clusters to solve auto correlation issue when calculating t-statistics as Petersen (2009) method.

Besides, thesis uses some quantitative techniques to solve endogeneity issues in the panel data regression model for asserting confident level of research results.

6. Research framework of thesis
Literature review of the effect of earnings management on stock price informativeness

Context of Vietnam

Research gap of the effect of earnings management on stock price informativeness

Research hypothesis the effect of earnings management on stock price informativeness

Research model

Earnings management

Stock price informativeness

Firm specific control variables

Discuss research results

Recommendation to related parties
7. Contributions of thesis:

*New contributions on academic side:*

Results from empirical analysis and evaluation will make this relation clearer in Vietnam and can use in later related researches. In addition to, thesis shows that the differences in institutional environment, information environment and protection for investors’ property rights could affect the relation between earnings management and stock price informativeness.

*New contributions on practical side:*

This thesis could be the first research about stock price informativeness in Vietnam. Besides, although there had many studies of earnings management in Vietnam, using panel data with large observations to analyze earnings management is a new contribution of this thesis. Main result of this thesis about the effect of earnings management on stock price informativeness provides policy implication for investors in analyzing and contributing portfolios, for managers in enhancing investment efficiency to increase firm value, for regulators in increasing market efficiency and decreasing system risk of market. Finally, stock market would be an efficient capital flow channel for economy.

8. Structure of thesis

To meet research objectives, thesis content is organized by chapters as following:

Chapter 1: Literature review and theoretical framework of the effect of earnings management on stock price informativeness.

Chapter 2: Research design
CHAPTER 1

LITERATURE REVIEW AND THEORETICAL FRAMEWORK OF THE RELATIONSHIP BETWEEN EARNINGS MANAGEMENT AND STOCK PRICE INFORMATIVENESS

1.1. Overview of stock price informativeness

1.1.1. Conception of stock price informativeness

Stock price informativeness reflects *how much value relevant firm specific information is incorporated into stock price*.

1.1.2. Meaning of stock price informativeness

Researches from all over the world demonstrated that capital and other resources are allocated more efficiently when stock price has high informativeness (Morck, Yeng & Yu, 2000; Durnev, Morck & Yeung, 2004). Besides, stock price informativeness is a signal which helps managers know market reaction to their decisions, thus stock price informativeness helps them in making better decisions to increase firm value. Stock price informativeness allows investors identify quality of managers’ decisions and select companies for investment purpose (Durnev, Morck & Yeung, 2004; Chen, Goldstein & Jiang, 2007).

1.1.3. Stock price informativeness measurement

Firstly, based on the approach of Roll (1988), Morck, Yeung & Yu (2000) and Jin & Myers (2006), stock price informativeness of each company is measured in every year based on $R^2$ of the market model as follows:
\[ r_{i,t} = \alpha + \beta r_{M,t} + \varepsilon_{i,t} \quad (1) \]

\( r_{i,t} \): rate of return of stock \( i \) in week \( t \) each year

\( r_{M,t} \): rate of return of market portfolio in week \( t \) each year

\( R^2 \) of model (1) is value that measures variation level of the rate of return of stock \( i \) caused by market variation \( (r_M) \) (Roll, 1988). Because \( R^2 \) value is limited between 0 and 1, \( R^2 \) is changed into logarit to measure stock price informativeness as follows:

\[ Non_{\text{syn}}_i = \log((1 - R^2)/R^2) \quad (2) \]

\( Non_{\text{syn}}_i \): stock price informativeness of company \( i \)

High value of \( Non_{\text{syn}} \) shows high stock price informativeness and vice versa.

Secondly, another measurement of stock price informativeness is used in previous researches from all over the world is probability of informed trading (Easley, Hvidkjaer & O’Hara, 2002; Chen, Goldstein & Jiang, 2007; Brockman & Yan, 2009; Ferreira, Ferreira & Raposo, 2011).

### 1.1.4. Factors affecting stock price informativeness

1.1.4.1. Macro factors

Morck, Yeung & Yu (2000) is one of first researches that published point of view about the effect of country institutional environment to stock price informativeness. Authors show that stock price has low informativeness in developing countries, in countries that have weak institutional environment or lack of investor right protection compared to developed countries. Jin & Myers (2006) state lack of transparency of information combined with the
weakness of investor’s right protection make stock price informativeness lower. Li et.al (2004) examine the positive relation between capital market openness and stock price informativeness. Li et.al (2004) find that stock price informativeness is low in countries that have low financial and economic integration in the world economy. Fernandes & Ferreira (2009) evaluate the effect of insider trading law enforcement to stock price informativeness. Brockman, Liebenberg & Schutte (2010) find that stock price informativeness decreases in the period of economic retrograde and increase in the period of economic development. Eun, Wang & Xiao (2015) study the effect of country’s culture to stock price informativeness that show stock price has low informativeness in countries which have austere ties of culture and in countries which exalt collectivism.

1.1.4.2. Micro factors

Piotroski & Roustone (2004) examine the effect of financial analysts and insider transactions to stock price informativeness and show that the analysts’s activities have negative effect to stock price informativeness. Fernades & Ferreira (2008) studied the effect of cross-listing to stock price informativeness. The result shows that cross-listing has different effects to stock price informativeness. Brockman & Yan (2009) find that large shareholders help to improve corporate governance and increase the quality of disclosed information, leaded to high stock price informativeness. An & Zhang (2013) provide evidence show that stock price informativeness has positive relation with large ownership who is institutional investors. Gul, Cheng & Leung (2011) reflect the relationship between bonus and stock price informativeness in China market. Kim & Shi (2012) find that stocks of companies which apply International Financial
Reporting Standards have high informativeness. Haggard, Martin & Pereira (2008) provide evidence show that increasing voluntary information disclosure makes stock price informativeness higher.

1.2. Overview of earnings management

1.2.1. Definition of earnings management

“Earnings management occurs then managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders, about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers” (Healy & Wahlen, 1999).

1.2.2. Motivation of earnings management

Summarizing related researches in developed countries shows that following motivations promote managers manage earnings: (1) income of manager; (2) attracting outside fund; (3) avoiding violation of contract; (4) decreasing policy cost; (5) decrease company income tax.

1.2.3. Theories explained earnings management

1.2.3.1. Asymmetric information theory

1.2.3.2. Agency theory

1.2.3.3. Positive Accounting theory

1.2.4. Foundation of earnings management

Earnings management is based on two foundations included in accruals based earnings management and real activities based earnings management.
1.2.5. **Dimensions and techniques of earnings management**

1.2.5.1. Dimensions of earnings management

Earnings management is carried out by three dimensions included in upward earnings management, downward earnings management and income smoothing.

1.2.5.2. Techniques of earnings management

* a. *Classification of earnings management techniques:*

  + Earnings management by selecting accounting policies.
  
  + Earnings management by carrying out accounting estimations.
  
  + Earnings management by deciding the time that carries out transactions.
  
  + Earnings management by applying accounting practices incorrectly.

* b. *Earnings management techniques:*

  * b1. *Earnings management by selecting accounting policies:*

    + Revenue recognition method
    
    + Inventory evaluation method
    
    + Work in process valuation method
    
    + Fixed assets depreciation method
    
    + Capitalized or recorded to expense in period for development expense.
    
    + Classification financial leased fixed assets or normal lease
b2. Earnings management by carrying out accounting estimation

+ Accounting estimation applied once transactions occur.
+ Accounting estimation in each period carried out at the end of period.

b3. Earnings management by deciding the time that carries out transactions

1.2.6. Accruals model measured earnings management

1.2.6.1. Foundation of Accruals model measured earnings management

Accrual is the difference between income after tax and cash flow from operating activities. Accrual includes in two parts: nondiscretionary accrual - NDA and discretionary accrual - DA. Because discretionary accrual cannot observe directly, models estimate value of nondiscretionary accrual, and then calculate discretionary accrual.

1.2.6.2. Earnings management models

- Healy model
- DeAngelo model
- Jones model
- Modified Jones model
- Performance matched model
- Rahman & Sharur (2008)
- Accrual quality model of Dechow and Dichev
• McNichols model
• Dechow et al (2012) model

1.3. Reseaches of the effect of earnings management to stock price informativeness

The first view proves the positive relationship between earnings management and stock price informativeness. Rajgopal & Venkatachlam (2011) shows that increasing level of earnings management could decrease the quality of financial reports. This results in increasing stock price informativeness. Zarowin (2002) finds that income smoothing would raise stock price informativeness.

Another view provides evidence of the negative relation between earnings management and stock price informativeness. Hutton, Marcus & Tehrannian (2009) show that the lack of transparency of financial reports would reduce stock price informativeness. Similarly, Jing (2007) states that stock price informativeness has the positive relation to earning quality. Johnston (2009) examines the relation between accrual quality and stock price informativeness. The result shows that the higher accrual quality, the higher stock price informativeness.

1.4. Conclusions of empirical researches of stock price informativeness and research gap

The differences in institutional environment, investor’s right protection, information environment, corporate governance mechanism among countries could make the relationship between earnings management and stock price informativeness also vary, evenly this relation does not exist in various countries. Until now, there has not been any researches of this issue are official published
in Vietnam. Besides, there exists many opposite point of views on the relationship between earnings management and stock price informativeness in previous researches all over the world (Zarowin, 2002; Huttoon, Marcus & Tehranian, 2006; Jing, 2007; Ferreira & Laux, 2007; Johnston, 2009; Dasgupta, Gan & Gao, 2010; Rajgopal & Venkatachalam, 2011). Therefore, this is research gap that thesis needs to carry out to add theoretical basis and empirical evidence of this issue in Vietnam.

1.5. Conclusion

CHAPTER 2
RESEARCH DESIGN

2.1. Hypothesis of the effect of earnings management and stock price informativeness

The larger level of earnings management, the higher of stock price informativeness.

2.2. Research model

\[ Infor_{i,t} = \gamma + \delta DA_{i,t-1} + \eta Controls_{i,t-1} + \theta_n + \delta_t + \zeta_{i,t} \]

*Infor*: stock price informativeness

*DA*: earnings management is measured by absolute value of discretionary accrual in Modified Jones Model (Dechow, Sloan & Sweeney, 1995)

*Controls*: Firm specific control variables

*\(\theta_n\)*: industry fixed effect

*\(\delta_t\)*: year fixed effect
\( \zeta_{i,t} \): residual

2.3. Research Variables Measurement

2.3.1. Stock price informativeness

Based on approach from Roll (1988), Morck, Yeung & Yu (2000) and Jin & Myers (2006), stock price informativeness of each company is measured in every year based on \( R^2 \) of market model as follows:

\[
    r_{i,t} = \alpha + \beta r_{M,t} + \varepsilon_{i,t}
\]

Stock price informativeness: \( \text{Non}_{\text{syn}}_i = \log((1 - R^2)/R^2) \)

2.3.2. Earnings management

Thesis uses accrual model_Modified Jones model (Dechow, Sloan & Sweeney, 1995) to measure earnings management that is independent variable in the research model.

\[
    \text{NDA}_{it}/A_{it-1} = \alpha_1(1/A_{it-1}) + \alpha_2((\Delta\text{REV}_{it} - \Delta\text{REC}_{it})/A_{it-1}) + \alpha_3(\text{PPE}_{it}/A_{it-1})
\]

\( \text{NDA}_{it} \): nondiscretionary accrual of company \( i \) in year \( t \)
\( A_{it-1} \): Total asset of company \( i \) at the end of year \( t-1 \)
\( \Delta\text{REV}_{it} = \text{Net Revenue}_{it} - \text{Net Revenue}_{it-1} \)
\( \Delta\text{REC}_{it} = \text{Net Account Receivables}_{it} - \text{Net Account Receivable}_{it-1} \)
\( \text{PPE}_{it} \): Cost of tangible fixed asset, financial leased fixed asset, investment real estate at the end of year \( t-1 \)

\( \alpha_1 \alpha_2 \alpha_3 \): parameters of each company

2.3.3. Control variables

Firm specific control variables are based on previous studies such as Chan Piotroski & Roulstone (2004), Chan & Hameed (2006), Fernandes & Ferreira (2008), Dang, Moshirian & Zhang (2015).
Control variables are described as follows:

+ Firm size (MV) is defined by logarit of company market value, in which market value is calculated by total market price of all outstanding common shares at the end of calculated year.

+ Price to book ratio (MB) is defined by logarit of ratio market value on book value of company shares at the end of calculated year.

+ Leverage (LEV) is defined by the rate of long term debt on total asset of company shares at the end of calculated year.

+ Earnings over total asset of company (ROA) is defined by the rate of earnings over total asset of company shares at the end of calculated year.

+ Instability of return (StdRet) is defined by standard deviation of week rate of return of stocks in calculated year.

+ Year return of stocks (Ret12) is defined by the difference of stock price in the last day of calculating year and stock price in the last day of previous year divided stock price in the last day of previous year.

2.4. Research data

Data is used in this thesis consists of information on financial reports and data of stock price of all listed companies in Ho Chi Minh Stock Exchange and Hanoi Stock Exchange in the period from 2007 to 2014. Research data does not include in banks. Data is provided by StoxPlus - a company specializes in collecting and analysing financial data of companies in Vietnam.

2.5. Processing research data

To analyze the effect of earnings management on stock price
informativeness, thesis employed pooled panel data regression. Thesis uses robust standard error to deal with heteroscedasticity and estimates standard error by company clusters to solve auto correlation issue when calculating t-statistics as Petersen (2009) method.

To analyze robust research result, thesis solves endogeneity issue as follows:

+ Firstly, to limit reverse causality from stock price informativeness to earnings management thoroughly, thesis controls lag dependent variable of stock price informativeness in regression model.

+ Secondly, thesis controls Stock exchange fixed effect in regression model.

+ Thirdly, thesis controls firm fixed effect in regression model.

2.6. Conclusion

CHAPTER 3
RESEARCH RESULT AND DISCUSSION

3.1. Result of measurement of stock price informativeness of listed companies in Vietnam stock exchange in the period 2007-2014


Table 3.1 shows that mean value of stock price informativeness is 1.99 in sample period. This value shows that stock price informativeness of listed companies in Vietnam stock exchange is in the value range of developing countries’ stock price informativeness of previous researches over the world (He & cộng sự, 2013).
3.1.2. Analyzing the variation of stock price informativeness of listed companies in Vietnam stock exchange in the period 2007-2014

Overall, Picture 3.1 shows that stock price informativeness of listed companies in Vietnam stock exchange has upward trends in the period from 2007 to 2014. Specifically, stock price informativeness is 1,364 in 2007 and then increases to 2,802 in 2014. As can be seen in Picture 3.2, stock price informativeness of listed companies in Hanoi Stock Exchange has higher value and increased level more stable compared to that of listed companies in Hochiminh Stock Exchange.

Table 3.6 shows that health care industry has the highest stock price informativeness while Gas and Oil industry has the lowest stock price informativeness in all industries in research period.

3.2. Result of measurement of earnings management of listed companies in Vietnam stock exchange in the period 2007-2014

3.2.1. Characteristics of earnings management of listed companies in Vietnam stock exchange in the period 2007-2014

Table 3.7 presents percentiles for discretionary accrual DA which shows that listed companies in Vietnam Stock Exchange managed earnings in research period from 2007 to 2014.

3.2.2. Analyzing the variation of earnings management of listed companies in Vietnam stock exchange in the period 2007-2014

As can be seen in the market, upward earnings management is a main trend of listed companies. However, earnings management level had downward tendencies. When analyzing earnings
management by industry, the quantity of listed companies which managed earnings on uptrend has dominated over most of the industries from 2007 to 2014. In addition to, earnings management level has downtrend on all industries in research period.

When examining earnings management on both Hochiminh Stock Exchange and Hanoi Stock Exchange, earnings management level of both Stock Exchange has decreased in research period from 2007 to 2014 and the quantity of listed companies which managed earnings on uptrend still dominated on both Stock Exchange. Besides, earnings management level of Hochiminh Stock Exchange is more stable than that of Hanoi Stock Exchange.

3.3. Examining the effect of earnings management on stock price informativeness of listed companies in Vietnam stock exchange in the period 2007-2014

3.3.1. Descriptive statistics of research variables in research model of the effect of earnings management on stock price informativeness

3.3.1.1. Descriptive statistics

Table 3.11 shows descriptive statistics of stock price informativeness variable, earnings management variable and control variables. Mean value of stock price informativeness is 1.99 in the sample period. This finding shows that stock price informativeness of listed companies in Vietnam stock exchange is consistent with previous researches in developing countries (He & cộng sự, 2013). Level of earnings management averaged approximately 22.5% over total asset which shows that listed companies in Vietnam Stock Exchange managed earnings in research period from 2007 to 2014.
3.3.1.2. Matrix of coefficient correlation of research variables

As can be seen in Table 3.12, variable measured earnings management - discretionary accrual DA has positive correlation between stock price informativeness variable Non_syn. Overall, the correlation among independent variables is low, therefore, it can reject the ability of multi collinearity phenomenon in the regression model.

3.3.2. The effect of earnings management on stock price informativeness

Table 3.13 shows the effect of earnings management on stock price informativeness. The result presents that earnings management variable has positive effect to stock price informativeness. Specifically, estimated coefficient of earnings management variable is 0.181 (t-statistic= 2.02) with significant level 5%. This result consistent with previous researches of this issue such as Zarowin (2002) và Rajgopal & Venkatachlam (2011). For control variables, coefficient estimation of variables also consistent with the results are recognized in previous researches all over the world (Hutton, Marcus & Tehranian, 2009; Gul, Kim & Qiu, 2010; He & cộng sự, 2013; Dang, Moshirian & Zhang, 2015).

Besides, R² value of the regression model is quite high (31.75%) that shows selected variables in the model explained partly considerable variation of dependent variable in regression.

3.3.3. Robust

Firstly, the ability of reverse causality from stock price informativeness to earnings management could still exist. To solve this problem, thesis controls lagged dependent variable of stock price informativeness in the regression model (*l_Non_syn*). Table 3.14
presents that coefficient estimation of discretionary accrual still do not change in quality and coefficient value still statistical significance.

Secondly, research data of thesis includes all listed companies in Hochiminh Stock Exchange and Hanoi Stock Exchange. To solve this problem, thesis controls Stock exchange fixed effect in the regression model. Result on Table 3.15 is still consistent with findings in main analysis.

Finally, the regression result in Table 3.16 shows that when analyzing firm fixed effect, the result still has the same sign as above analysis, however, discretionary accrual variable has not statistical significance.

In conclusion, analyzing robust research results shows the confidence of the positive effect of earnings management to stock price informativeness and the relation between earnings management and stock price informativeness is not influenced by endogeneity issues.

3.4. Conclusion

CHAPTER 4

RECOMMENDATIONS FOR RELATED PARTIES

4.1. Recommendations for regulators

To enhance efficiency of stock market, besides completing institutional environment to ensure the rights of investors and companies, it is needed to limit the negative sides of earnings management of managers to enhance the transparency of information environment.
4.2. Recommendations for managers

For developing countries case, leaked information and insider trading of insider shareholders are popular. Therefore, enhancing the transparency of information disclosure of listed companies and limiting insider trading are an essential requirement in recent time.

4.3. Recommendations for investors

To make decisions correctly, investors need to have full knowledge of financial reports, logical analysis of constructed factors of financial statements to evaluate earnings more exactly. In addition to, investors need to equip knowledge of earnings management.

4.4. Conclusion

CONCLUSION

- *Stock price informativeness:*

  Stock price informativeness of listed companies in Vietnam Stock Exchange is in the value range of developing countries’ stock price informativeness of previous researches over the world (He & cộng sự, 2013).

  Analyzing variations of stock price informativeness of listed companies in Vietnam Stock Exchange shows that stock price informativeness has up trends in the period from 2007 to 2014. Besides, stock price informativeness of listed companies in Hanoi Stock Exchange has higher value and increased level more stable compared to listed companies in Hochiminh Stock Exchange. Furthermore, movement trend of stock price informativeness in both
Stock Exchange is the same direction and similar to increased trend of all market over the research period.

Result of analyzing stock price informativeness by industry shows that health care industry has the highest stock price informativeness while Gas and Oil industry has the lowest stock price informativeness in all industries in research period.

- **Earnings management:**

Overall, listed companies in Vietnam Stock Exchange managed earnings in research period from 2007 to 2014. As can be seen in the market, increased earnings management is a main trend of listed companies. However, earnings management level had decreased tendencies. When analyzing earnings management by industry, the quantity of listed companies which managed earnings on uptrend has dominated over most of the industries from 2007 to 2014. In addition to, earnings management level has downtrend on all industries in research period.

When examining earnings management on both Hochiminh Stock Exchange and Hanoi Stock Exchange, earnings management level of both Stock Exchange has decreased in research period from 2007 to 2014 and the quantity of listed companies which managed earnings on uptrend still dominated on both Stock Exchange. Besides, earnings management level of Hochiminh Stock Exchange is more stable than its Hanoi Stock Exchange.

- **Effect of earnings management on stock price informativeness:**

Main objective of this thesis is research on the effect of earnings management on stock price informativeness. Using a data
set of firms listed on Hochiminh Stock Exchange and Hanoi Stock Exchange for the 2007-2014 period and panel data regression method, the results show that earnings management has positive effect on stock price informativeness. This finding is explained by asymmetric information theory and suitable with developing countries case in which institutional environment has not yet perfected, information environment is less transparency as well as protection of investor’ rights is not efficient. This proposes requirements for government agencies consider solutions in enhancing the transparency of information environment and policies to complete the law related protection of investor’s rights. Besides, managers need to have responsibility for providing transparent information to market to create the belief for investors. In addition to, investors need to enhance level of reading, understanding and analyzing financial reports to make decisions correctly.

- **Limitations of thesis and future research**

Firstly, when measuring earnings management, thesis only uses accruals model. Besides, previous researches all over the world employed other measurements (Leuz, Nanda & Wysocki, 2003). Secondly, whether discretionary accruals reflect accounting distortions or whether they instead are the result of poorly specified accruals models and include a component that measures fundamental performance Dechow, Ge & Schrand (2010). Thirdly, to solve the reverse causality from stock price informativeness to earnings management completely, it is needed to estimate instrumental variable.

In the future, later researches can use other measurements of stock price informativeness and earnings management when
Vietnamese data is available. Besides, researches can find and use suitable instrumental variable to solve endogeneity issue of panel data regression model. In addition to, future researches can enlarge research scope in consequence of stock price informativeness to cost of capital or event research of effect of earnings management on stock price informativeness before and after applying International Financial Reporting Standards.
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