



IMPACT OF EARNINGS QUALITY ON THE DEBT MATURITY: THE CASE OF VIETNAM



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ABSTRACT

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This study examines the impact of Earnings Quality (EQ) on the Debt Maturity (DM) of firms in Vietnam. The present research measures the EQ according to the cumulative quality of earnings to consider the effect of EQ on DM, and it also considers a number of control variables that affect DM. The study uses regression methods such as REM, FEM and GLS. This study uses data of enterprises listed in the Vietnam Stock Exchange during 2010-2018. The data used for analysis and regression are 3588 observations. The research results of this study identify that EQ is negatively related to DM, besides that, some control variables have a positive effect on DM, and also have statistical significance such as debt ratio, firm size, fixed assets, liquidity and growth rate. The profit is a factor that negatively affects DM, and tax does not affect DM. From the findings it is clear that the research results are useful to help businesses to improve EQ and to determine reasonable DM.

Contribution/ Originality: The present study uses new estimation methodology that is GLS, which finds that Earnings Quality is negatively related to Debt Maturity of firms. The study results are useful to improve the Earning Quality of businesses, and determine reasonable Debt Maturity.

1. INTRODUCTION

Debt Maturity (DM) is an issue related to funding decisions of firms. It has been concerned and researched by scientists around the world recently. This is an important decision of the enterprise to minimize liquidity risks, resolve conflicts in representation issues, increase the flexibility in seeking funds and especially, reduce capital mobilization costs as well as risks. In theory, DM is regarded as a tool to signal the quality of credit, handle agent costs, and take advantage of the benefits of the tax shield.

Bellovary *et al.* (2005) asserted that earnings quality (EQ) is an important aspect of evaluating an entity's financial health, which is often overlooked by investors, creditors, and other users of financial statement. (Chou *et al.*, 2011) The study of Chou *et al.* (2011) reveals another fact that the majority of outside investors uses financial reports to evaluate the performance of a firm. It is under the belief that earnings reported in financial statements represent reliable information in the evaluation of firm performance. Managers, therefore, have an incentive to engage in earnings management to “decorate” their financial statements; such behavior would clearly mislead outside investors, creating false optimism concerning the overall performance of the firm. Therefore, the question arises when enterprises announce high earnings on the financial statements; does that mean that it is operating

really effectively? Are these real numbers or just a picture painted by managers to create an incorrect image of the growth of the enterprise? The “Enron Scandal” and a series of other collapses show that many businesses have reported high profits, but then still face difficulties in business operations and some of them even have met bankrupt. This consequence stems from the fact that the reported profit does not reflect exactly what is actually happening in the production and business activities of the firms. Gupta and Fields (2006) argued that one of the prime motivating factors to manage earnings is the avoidance of liquidity problems resulting from the inability to renew debt that is coming due in the very near future. This distortion of earnings clearly affects the quality of the reported earnings of businesses seriously.

Chou *et al.* (2011) have referred to the results from earlier studies which demonstrated that in order to successfully acquire funds for financing, low-quality firms have an incentive to masquerade themselves as high-quality firms. Although the choice of debt structure depends on other factors related to the strategy of the enterprise, there is also the possibility that managers can adjust the real profit of the business to distort prices. The real value of the enterprise is to make it easier to mobilize outside funding. Even though the incentive behind the financing influences the choice of debt maturity, there is still a possibility that managers may manipulate the earnings of the firm, exaggerating their financial reports in order to mislead outside investors into a distorted evaluation of the true underlying value of the firm. As a result of such distortion, these firms would then be able to acquire financing funds much more easily.

There are many studies on the relationship between EQ and DM in different countries around the world; in Vietnam, there have been several studies related to DM, such as Linh and Hạnh (2015); Liem *et al.* (2018). These studies mainly focus on the influence of factors such as scale, debt ratio, growth rate, etc., on DM. However, there has not been any research studying the effect of EQ on DM, and this is a content of great interest to investors and managers. Therefore, expanding and deeply researching the effects of EQ on DM in a developing economy in Vietnam will make much sense.

2. LITERATURE REVIEW

2.1. Definitions

2.1.1. Earnings Quality

According to Healy and Wahlen (1999), one of the means for managers to convey information of/regarding their business activities to their leading investors is the financial statements. However, it is worth noting that investors often believe that these reports can help them distinguish between businesses that perform well and those that do not. This kind of awareness motivates managers to intervene in the financial statements and only publish information, which is appropriate for their purposes, and this can bring damages to investors. The study of Bellovary *et al.* (2005) argues that EQ refers to the ability of reported earnings to reflect the company's actual earnings, as well as the usefulness of reported earnings to predict future earnings. EQ also refers to the stability and persistence in reported earnings.

EQ is contextual; it means different things to different financial statement users. Regulators view earnings as to be of high quality when they conform to the spirit and the rules identified in GAAP (Generally Accepted Accounting Principles). In contrast, creditors are likely to view earnings to be of high quality when they are readily convertible into cash flows (Dechow and Schrand, 2004). Joos *et al.* (2003) have defined earnings quality as different rates of reported earnings in the income statement with real profits. The study of Schipper and Vincent (2003) has defined EQ as the extent to which the earnings in reports indicate a true representation of earnings.

2.1.2. Debt Maturity (DM)

DM of businesses can be measured by two main methods, in which the “Incremental approach” defines DM as the maturity of new debts (Guedes and Opler, 1996); (Highfield, 2008). According to the balance sheet approach,

DM is defined as the ratio of long-term debt to total corporate debt (Barclay and Smith, 1995); (Johnson, 2003); (Deesomsak *et al.*, 2009). According to the research review, most of the works use the balance sheet approach due to data limitations on DM. According to this definition, long-term DM means businesses have a high ratio of long-term debt to total debt, and short-term DM means that enterprises have a high ratio of short-term debt to total debt. In terms of DM distribution, the lower the percentile, the shorter the DM, the higher the ratio of short-term debt to total debt, while the higher percentile corresponds to the higher the ratio of long-term debt to total debt.

2.1.3. Some Theories

In a perfect capital market under the assumption of Modigliani and Miller (1958) the valuation of a firm is irrelevant to the capital structure of a company. Modigliani and Miller (1963) add an element of imperfection, which is the tax, and that the value of a company will be higher due to the higher price of the tax shield from debt than the non-borrower. Further studies have determined the importance of DM due to its ability to deal with other market imperfections such as agent conflicts (Myers, 1977) information asymmetry (Flannery, 1986); (Kale and Noe, 1990) liquidity risks (Diamond, 1991) and taxes (Bricker *et al.*, 1995); (Lewis, 1990).

3. LITERATURE REVIEW

In recent years, there have been several studies on EQ and DM. (Gupta and Fields, 2006) The study of Gupta and Fields (2006) is one among them, and it deals with debt structure and profit management ability of managers. This study focused on examining EQ's corporates and the relationship between EQ and short term, medium-term and long term debt. The study has found a positive relationship between profit management and debt use. Sercu *et al.* (2006) examined the relationship between profit management and debt management. Interestingly, the results of the study have shown a positive relationship between profit management and financial leverage.

Fung and Goodwin (2013) examined short term debt, supervision and profit management based on accrual accounting. The authors found that short term debt is positively related to profit management. However, when the research was applied to companies with high credit rating, they found a negative association between short term debt and profit distortion (represented by arbitrary accruals), which was consistent with the hypothesis of debt supervision. The findings lead to the conclusion that as regards of firms with a high level of credit, the relationship between short term debt and arbitrary accruals would be stronger than those with low credit. Liu *et al.* (2010) considered whether or not businesses manage profit before issuing bonds to get lower borrowing costs. The evidence has shown that there is a positive and statistically significant relationship between the profit management and the current arbitrary accrual (representing profits management measure). More importantly, the research shows an inverse relationship between observed anomalies and accrued borrowing costs. This means that businesses will get lower-cost debt while managing their profits in an upward direction.

Kim and Qi (2010) examined the relationship between the decisions related to real profit conversion and the bidding on loan terms. The results of their study illustrate a higher level of profit management when loan terms are more tightly bound. They show that: (i) enterprises use profit management to avoid violating loan terms; and (ii) enterprises are more likely to distort profits when the ability to renegotiate between loan terms and profit management occurs before and after the application of the USA's Sarbanes – Oxley. Chou *et al.* (2011) examined the relationship between profit management behavior and short, medium, and long-term DM of firms. It is concluded from the study that firms which perform a lot of corporate governance tend to issue long term debt to avoid external scrutiny and high borrowing costs when businesses use the issue of short term debts.

García-Teruel *et al.* (2010) have conducted a research on accrual quality and debt structure. The results show that there is an inverse and statistically significant relationship between long-term debt and cumulative value. That means businesses with high cumulative quality often borrow debt with a longer-term. This finding is in line with the higher cumulative quality theory that reduces the problem of asymmetric information and issues related to the

reverse choice between businesses and lenders, helping lenders feel secure in providing granting debts with longer maturities. Valipour and Moradbeygi (2011) conducted a review of the relationship between corporate debt financing and EQ. The results show a negative and statistically significant relationship between debt and EQ. More specifically, the authors classify debts into two levels – high and low level. With a low debt level, there is a negative relationship between debt and EQ. This means that businesses which borrow at low rates are less likely to manage profits. Meanwhile, businesses with high debt ratios often record more accruals to manage profits in order to avoid violating the terms of the loan contract and reduce the cost of debt financing.

4. RESEARCH HYPOTHESES

4.1. Earnings Quality (EQ)

Based on the theory of agency costs, the signal theory also reviews the research of the authors (García-Teruel *et al.*, 2010); (Valipour and Moradbeygi, 2011); (Chou *et al.*, 2011). This research provides sufficient evidence that EQ has an impact on DM. The evidence from previous studies has been obviously one of the main motivations for this impact to be studied in the context of Vietnam. Thus, it leads the authors to formulate the following hypothesis:
H: Profit quality has an opposite effect on the debt maturity of enterprises.

4.2. Level of Debt (LV)

Interestingly, the signal theory states that firms tend to increase DM while borrowing more to prevent the probability of liquidity risk and reduce the risk of bankruptcy (Stohs and Mauer, 1996). On the other hand, Myers (1977) argued that agency costs related to underinvestment could be decreased when businesses reduced debt ratio or shorten DM. Therefore, if businesses reduce debt to limit underinvestment, it will not be necessary to shorten DM. Except for the study (Costa *et al.*, 2014) no evidence is found to correlate the debt ratio and DM. The empirical research results of Barclay and Smith (1995); Deesomsak *et al.* (2009); Ha *et al.* (2019) have shown a positive correlation between debt ratio and DM, which supports the signal theory. Based on this, the authors have formulated the following hypothesis:

H: Debt ratio positively affects debt maturity of enterprises.

4.3. Profit (PROF)

Long term debt can help businesses to choose the right time for tax to buy back or reissue more debt (Deesomsak *et al.*, 2009). On the other hand, the signal theory suggests that short term borrowing will help the market recognize the firm's EQ. In fact, only highly profitable businesses can borrow short term debt because it is confident in the ability to refinance in the future (Flannery, 1986). As a result, according to the theory based on taxes, highly profitable businesses use more long term debt. On the contrary, arguments based on signaling theory illustrate that businesses operating well and having profits will use a lot of short term debts. Considering this, the authors have formulated the following hypothesis:

H: Profit has an opposite effect on the debt maturity of enterprises.

4.4. Liquidity (LIQ)

Apparently, high liquidity ratio can reduce the restriction of enhancing enterprises' capability. Non-depreciating or depreciating properties like land are linked to increasing DM. Assets that are not depreciated but are liquid assets, like inventories, do not help increase debt maturity. While buying long term bonds or long term loans, lenders will face the risk because the conditions of enterprises may worsen over time when managers will move to riskier projects before the due payment. Therefore, lenders will impose restrictions on long term lending to control risks. In fact, enterprises with high liquidity will quickly mobilize long term capital. The findings of

Deesomsak *et al.* (2009); Mateus and Terra (2013); Costa *et al.* (2014); Dang *et al.* (2019) have supported this argument. Thus, the following hypothesis has been formulated:

H₅: Liquidity has a positive influence on the debt maturity of enterprises.

4.5. Tangible Assets (TAN)

It is suggested that long term loans should finance long term assets. Through empirical research, Kirch and Terra (2012) found a positive relationship between tangible assets and debt maturity of enterprises. Business with more tangible assets can mortgage better with lower bankruptcy cost. Therefore, they can borrow money for a longer-term. However, in the study of Mateus and Terra (2013) and Costa *et al.* (2014), no evidence has been found to support this relationship. Tangible assets are determined by the ratio of net assets to total assets of the enterprise. Based on this, the following hypothesis has been formulated:

H₆: Liquidity has a positive effect on the debt maturity of enterprises.

4.6. Size of Enterprises (SIZE)

The cost theory represents that in small businesses, the possibility of conflicts between shareholders and creditors is high that is the leading cause of problems like risk transfer or asset replacement. Besides, small businesses provide little information to the public, which makes the market fall in the situation of having asymmetric information seriously. Moreover, investors, as well as the market, will have to pay through the nose to get the information from these businesses. For these reasons, small businesses will confront with many restrictions while accessing the long term loan market. The empirical studies' results of Barclay and Smith (1995); Ozkan (2002); Deesomsak *et al.* (2009); Kirch and Terra (2012); Costa *et al.* (2014); Van Linh *et al.* (2019); Van *et al.* (2019) have found the evidence supporting this argument. Accordingly, the authors have formulated the following hypothesis:

H₇: Enterprise size has a positive influence on the debt maturity of enterprises.

4.7. Growth

According to the representative cost theory, the impact of growth rate on DM is not clear because the debt's representative cost issue in enterprises will be considered from the perspective of underinvestment and overinvestment. In order to minimize agency costs, in the case of underinvestment, businesses with more growth opportunities will use more short term debt (Barnea *et al.*, 1980); (Myers, 1977). In reverse, in the case of overinvestment, agency cost theory hypothesizes that firms with more growth opportunities will use more long term debt. Hart and Moore (1994); Barclay and Smith (1995); Ozkan (2002) have found evidence that businesses with more growth opportunities would tend to use more short-term debt while (Juan García-Teruel and Martínez-Solano, 2007) gives conflicting results. Additionally, there are other studies but do not find any relationship between growth opportunities and debt maturity (Kirch and Terra, 2012). Thus, the authors have formulated the following hypothesis:

H₈: Growth rate has a positive effect on the debt term of enterprises.

4.8. Tax

Apparently, the amount of tax shield benefits from long term corporate loans and does not depend on the value of debt but on the amount of tax deduction factors like depreciation or tax credits. As the value of these factors increases, the taxable income and the tax benefits will decrease. However, the empirical research results are not clear when compared to the studies' results of Ozkan (2002); Mateus and Terra (2013). The studies show that the more benefits gained from tax, the more long-term debts the enterprises use. Nevertheless, the study of Kirch and Terra (2012) has obtained the opposite result. The authors have formulated the hypothesis accordingly:

H₅: Tax has a positive effect on debt term of enterprises.

5. RESEARCH METHODOLOGY

5.1. Research Model

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

$$DM_{it} = \beta_0 + \beta_1 EQ_{it} + \beta_2 LV_{it} + \beta_3 PROF_{it} + \beta_4 LIQ_{it} + \beta_5 TAN_{it} + \beta_6 SIZE_{it} + \beta_7 GROWTH_{it} + \beta_8 TAX_{it} + \varepsilon_{it} \quad (1)$$

The variables in the research model are illustrated in detail in Table 1.

Table-1. Independent variables in the research model.

Name of the variable	Code of the variable	Measure	Expected signs
Dependent variable			
Debt maturity	DM	Long-term debt/(Short-term debt + Long-term debt)	
Independent variable			
Earnings quality	EQ	The absolute value of the model's residual that estimates the cumulative quality multiplied by (-1) $CACC_{it} = \alpha + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \varepsilon_{it}$	-
Control variables			
Level of debt	LV	Liabilities/Total assets	+
Profit	PROF	EBIT/Total asset	-
Liquidity	LIQ	Short-term assets/ Short-term liabilities	+
Tangible asset	TAN	Residual value of tangible fixed assets/total assets	+
Enterprise's size	SIZE	Size of business by Log property (total assets)	+
Growth	GROWTH	Fiscal revenue _t -Revenue of period t-1/ Revenue of period t-1	+
Tax	TAX	Enterprise income tax/Profit before tax	+

5.2. Measure Earnings Quality (EQ)

In order to measure EQ, the study needs to rely on the quality of accruals. Dechow and Dichev (2002) have used the current working capital which has been regressed with operating cash flow of the previous year, this year, and the following year. All of them are divided by total assets at the beginning of the period.

$$\frac{WCA_{it}}{A_{it-1}} = \alpha_1 \frac{CFO_{it-1}}{A_{it-1}} + \alpha_2 \frac{CFO_{it}}{A_{it-1}} + \alpha_3 \frac{CFO_{it+1}}{A_{it-1}} \quad (2)$$

In which, WCA_{it} is the accumulated working capital of enterprise i in year t, calculated by the change in short term assets ((ΔCA) minus the change of cash and cash equivalents (($\Delta Cash$), minus the change in short term debt (ΔCL) and plus the change in short term bank debt ($\Delta Debt$).

Respectively, CFO_{it-1} , CFO_{it} , CFO_{it+1} is the operating cash flow in year t-1, year t and year t +1.

All variables are divided by the total assets at the beginning of the period (A_{it-1} - Total assets). To measure EQ, a variable is created from the remainder of Equation 2 after performing regression. The absolute value of the remainder for each observation is the opposite of the accruals' quality. Hence, the higher residual value represents a lower quality of accruals. To interpret this variable easily, the quality of residual accruals is determined to be a negative value of the remainder's absolute value.

5.3. Research Data

This study uses data collected from the Vietnam Stock Exchange during 2010–2018. However, to identify different variables, the data were taken from 2008–2018. The data were 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 are 3588 observations. To consider and select the appropriate model, the present research has used FEM, REM and GLS regression methods, F test and Hausman test. The authors have tested the autocorrelation phenomenon and the phenomenon related to variance change. The model test results show that the received P- values are equal to $0.000 < \alpha$ (5%). This finding implies the hypothesis H0: “there is no variance change in the rejected models with a significant level at 5%. Therefore, the authors have conducted GLS regression method to overcome the defects and regression model..

6. RESEARCH RESULTS AND DISCUSSION

Statistical data of Table 2 shows that the average DM is 29.1% and the standard deviation is 32.3%. The average EQ has the average value of -0.024, the smallest value is -0.257 and the highest value is 0. The standard deviation is 0.023. The liquidity value accounts for 53.2%, the profit before tax after deducting interest expenses (PROF) is 48%, the liquidity ratio (LIQ) of the average enterprises is 1.812, and the investment rate on tangible fixed assets (TAN) is 20.5%. Furthermore, the size of firms (SIZE) is measured as a logarithm of the average firm’s total assets of 27.184. The growth rate of revenue (GROWTH) is 19.6%, and the corporate income tax rate (TAX) is 19.2%.

Table-2. Descriptive statistics.

Variables	Observation figure	Average	Standard deviation	Minimum	Maximum
DM	3588	0.291	0.323	0	1
EQ	3588	-0.024	0.023	-0.257	0.000
LV	3588	0.532	0.200	0.039	0.913
PROF	3588	0.048	0.085	-0.872	0.991
LIQ	3588	1.812	1.518	0.058	30.739
TAN	3588	0.207	0.201	0	0.962
SIZE	3588	27.184	1.395	23.659	30.944
GROWTH	3588	0.196	0.593	-0.756	6.771
TAX	3588	0.192	0.530	0.02	23.825

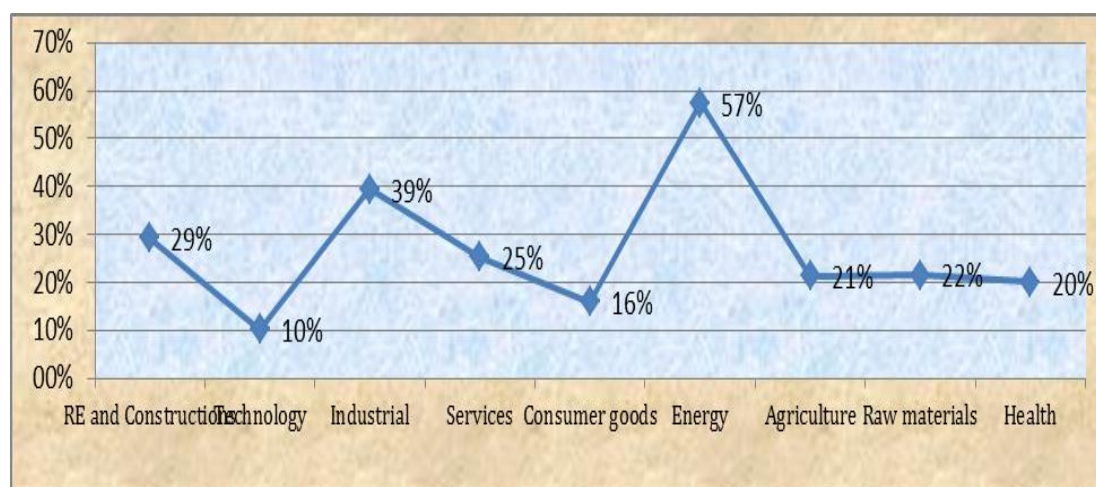


Figure-1. Term debt among industries.

Figure 1 shows that DM has a difference between sectors. The industry with the highest debt maturity is the average energy sector of 57% while the second highest debt is the industry with an average of 39%. The industry with the lowest DM at 10% is the technology industry, followed by the consumer goods industry with 16%.

Table-3. Correlation matrix.

	DM	EQ	LV	Prof.	LIQ	Tan	Size	Growth	Tax
DM	1								
EQ	-0.263	1							
LV	0.0114	-0.01	1						
Prof	-0.005	-0.115	-0.443	1					
LIQ	0.1355	0.045	-0.519	0.2476	1				
TAN	0.3627	-0.325	-0.062	-0.006	-0.18	1			
Size	0.2825	-0.006	0.2372	-0.007	-0.049	0.0018	1		
Growt	0.0693	-0.021	-0.008	0.1035	0.0628	-0.051	0.0667	1	
Tax	0.0139	-0.008	-0.054	-0.01	0.0306	0.0103	-0.008	-0.01	1

Table 3 illustrates the correlation coefficients between the variables. The purpose of examining the close correlation between the independent and dependent variables is to eliminate the factors that may lead to multicollinearity before running the regression model. The correlation coefficient between the independent variable in the model does not have any pair, which is greater than 0.8. As a result, it is less likely to have multi-collinear phenomena while using the regression model of another group with VIF coefficient to test. After performing descriptive statistics and correlation matrix analysis, the authors have estimated the research model by using the estimation methods such as FEM, REM and GLS. From the derivation of Equation 1, Table 4 reveals the results of the methods of FEM, REM GLS, with EQ representation, and it also shows the opposite relationship with DM of enterprises in the sample from 2010 to 2018 at a statistical significance level of 1%. This result shows that the higher the EQ those businesses have, the more DM ratio will decrease. In fact, the research's results are consistent with the original hypothesis that the authors have built.

Table-4. Multivariate regression results.

	VIF	FEM model	REM model	GLS model
EQ	1.18	-0.370*	-0.827***	-2.175***
LV	1.83	0.420***	0.280***	0.148***
PROF	1.31	0.0581	-0.0118	-0.203***
LIQ	1.59	0.0434***	0.0457***	0.0595***
TAN	1.4	0.377***	0.504***	0.593***
SIZE	1.19	0.0114	0.0475***	0.0623***
GROWTH	1.03	0.00323	0.00949	0.0304***
TAX	1	-0.000848	-0.0000348	0.00458
_cons		-0.411	-1.353***	-1.759***
N		3588	3588	3588
R-sq	within	0.0779	0.0703	
	between	0.2257	0.3296	
	overall	0.1982	0.2753	
Kiểm định F. F test		F(8,2951) = 31.16 Prob > F = 0.0000		
Kiểm định LM LM test			Wald chi2(□) = 518.69 Prob > chi2 = 0.0000	Wald chi2(8) = 1497.97 Prob > chi2 = 0.0000
Kiểm định Hausman Hausman Test			chi2(8) = 105.85 Prob > chi2 = 0.0000	
Modified Wald test			chi2 (629) = 5.5e+31 Prob > chi2 = 0.0000	
Wooldridge test			F(1, 482) = □54.938 Prob > F = 0.0000	

t statistics in brackets * p<0.1, ** p<0.05, *** p<0.01.

Regarding the control variables, all of them have an impact on the firm's DM at the significance level of 1%. These control variables are positively related to the DM, except the fact that the profit factor is negatively related to the debt term.

While considering factors affecting DM, EQ is the factor that has the strongest impact on DM and has the opposite effect. This result shows the fact that businesses with low EQ will have longer DM. At the same time, the results are consistent with empirical studies of Barclay and Smith (1995); Ozkan (2002); Deesomsak *et al.* (2009); Kirch and Terra (2012); Mateus and Terra (2013); Costa *et al.* (2014); Hung *et al.* (2018) and provide evidence supporting the argument of signal theory, agency cost theory and tax-based theory.

From the study results, it is evidenced that enterprises' DM in Vietnam is positively affected by factors including liquidity, tangible assets and firm size. In particular, tangible assets have the strongest impact on DM (after the EQ factor, which is the main factor of the study). Enterprises with many tangible assets will tend to use a lot of long term loans because they have many advantages in mortgage of collaterals for bank loans. Next element is the size of businesses.

In fact, larger businesses are more accessible to long term loans. Similar to the research of Kirch and Terra (2012), the authors of the present study have not found any evidence for the impact of profitability on the DM structure of enterprises in Vietnam.

Actually, profit is a factor that has an unclear impact on the firm's DM. In reality, businesses in other countries have to consider DM and the suitability of the assets' maturity to make decisions about the loan related to DM. Undoubtedly, long term loans are used to invest in fixed assets and long term assets. In Vietnam, businesses do not pay much attention to the suitability of the term of assets and DM. Nonetheless, they focus on tangible assets and often use those assets as collaterals and mortgages for long term debt.

7. CONCLUSION AND RECOMMENDATIONS

In order to study the effect of EQ on enterprises' DM in Vietnam, the authors have implemented regression with appropriate methods based on the panel data, which was collected from the observation towards 3,588 enterprises over the period of 2010-2018. Based on the research results, the present study proposes the following recommendations:

With the above results, the study has made useful contributions to subjects using financial statements considering EQ. For credit institutions, determining EQ is related to DM, partly in considering the ability to create money for effectively implementing low contracts and potential risks in the operations of enterprises. When EQ is appreciated, it means that the cash flow component of the reported profit accounts for a large proportion, which can be interpreted that the enterprise can generate money to meet loan conditions. The research results also provide investors with a useful tool to assess the financial health of business, which helps the investors to invest more accurately and reasonably based on the available data. In fact, business size and growth rate definitely have an impact on DM.

Hence, in order to limit the cost incurred due to representation issues, businesses need to consider their size and growth rate in the future to make a decision related to DM debt reasonably. Moreover, large scale enterprises with many growth opportunities will implement long term debt policy, which accounts for a large proportion of the total debt. Undoubtedly, liquidity has a positive influence on DM. This factor shows the characteristics related to the businesses' financial situation.

Apparently, enterprises that demonstrate good financial situation will implement debt policy with a longer-term whereas businesses with poor financial situation should use many short term debts. By carrying out this activity, it will be easier for businesses to access loans. Actually, short term lending rates are often lower than a long term loan. Hence, businesses can reduce borrowing costs.

While building DM, businesses should pay attention to the current value of their fixed assets, and also maintain the appropriate level between the maturity of assets and the maturity of debt. The value of fixed assets is closely related to the value of mortgage and the value of loan. Therefore, if businesses have more fixed assets, they will be more likely to take long term loan and vice versa. Inevitably, enterprises meeting this feature's requirement need to implement long term debt policy. Moreover, regarding the assets with prolonged use, the enterprise should stimulate with a long term loan.

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