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Evaluation of Enterprise Value of Securities Firms Listed on the Vietnam's Stock Market

Nguyen Hoan

Hanoi University of Natural Resources and Environment, Vietnam

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Corresponding Author: **Nguyen Hoan**

ABSTRACT

Enterprise value is the total value of all assets under the current ownership of the enterprise. Earnings before Interest and Taxes (EBIT) is the profits from business activities. Earnings before interest, taxes, depreciation and amortization (EBITDA) is a financial ratio that illustrates the business's profits before deducting interests, depreciation and income taxes.

The main purpose of this study is to empirically test financial indicators of securities firms listed on the Vietnam's stock market. For this purpose, in this study we evaluate two (2) financial indicators of securities firms listed on the Vietnam's stock market, including (i) Enterprise value to Earnings before interests and taxes (EV/EBIT); and (ii) Enterprise value to Earnings before interest, taxes, depreciation and amortization (EV/EBITDA). The results of the research show that financial indicators of securities firms listed on the Vietnam's stock market have many significant differences. Therefore, managers may enhance the firm performance of their firms by specific measures and securities firms need to focus on measures to improve profit to raise enterprise value. This study will benefit the securities firms listed on the Vietnam's stock market in the improvement of their firm performance.

KEYWORDS: Enterprise value, accounting, finance

JEL codes: M41, F65

1. INTRODUCTION

In the last 20 year since it first went into operation, Vietnam's stock exchange market has witnessed many fluctuations, the exponential growth of the stock exchange market in 2006 and 2007 created favorable conditions for many enterprises on the Vietnamese stock market to mobilize capital from selling stocks. Securities firms are growing in both quality, quantity and variety, which offers investors and traders more convenience and induces the further development of stock trading services. Securities firms play an important role in accelerating the momentum of the economy in general and the stock market in particular.

Enterprise value is the total value of all assets under the current ownership of the enterprise. Enterprise value is determined by the market's perception of the business's sustainability, and is expressed as the market price of outstanding shares (Brigham, 1990).

Economists suggest that every enterprise holds its unique value, which benefits its investors. To elaborate, enterprise value comprises both existing and potential benefits that the enterprise can generate, and is calculable value with suitable valuation methods and models.

Earnings before Interest and Taxes (EBIT) is the profits from business activities. EBIT consists of all profits generated before deducting interest payments and income taxes. Therefore, investors find EBIT useful in assessing profitability of the enterprise, and comparing different enterprise. .

Earnings before interest, taxes, depreciation and amortization (EBITDA) is a financial ratio that illustrates the business's profits before deducting interests, depreciation and income taxes. This ratio allows business managers and investors to accurately evaluate the profitability of the enterprise, which helps make better and correct estimation of the business's potential in the future.

Firms with low capacities or suffered too much loss would be dissolved or merged. Hence, only resourceful securities firms which can provide the best services to meet customers demand could remain to compete. So, it is necessary for securities firms to evaluate their enterprise value. This research intends to evaluate enterprise's value through 2 criteria: (i) Enterprise value to Earnings before interests and taxes (EV/EBIT); and (ii) Enterprise value to Earnings before interest, taxes, depreciation and amortization (EV/EBITDA).

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

Currently, there are several indicators that represent enterprise value. For examples; Nieh et al. (2008); Cheng et al. (2010); Huan et al. (2014) choose return on equity (ROE). Nieh et al. (2008); Cheng et al. (2010) choose earning per share (EPS). These indicators are calculated from the financial statement data of the enterprise, which makes them meaningful in terms of financial accounting value and business performance. However, they do not comprehensively represent the value of an enterprise.

Rajhans et al. (2013) use the market capitalization of common stocks to represent enterprise value.

Lin and Chang (2011); Karaca and Savsar (2012); Vy et al. (2013); Drăniceanu and Ciobanu (2013); Huan et al. (2014); Vinh et al. (2014); Farooq et al. (2016); Ater (2017) used the Tobin's Q index to measure the enterprise value. In addition to contributing to reflect the business performance, Tobin's Q index also reflects investors' expectations. Tobin's Q is calculated as follows:

Tobin's Q Index	=	Market capitalization of common stock + market value of debt + market value of preferred shares
		Book value of total assets

Sources: *Tobin (1969); Chung and Pruitt (1994); Damodaran (2006); Hsiung et al. (2012); Drăniceanu and Ciobanu (2013), Farooq et al. (2016)*

However, it is difficult to accurately determine the market value of debt. Besides, enterprise value is mainly influenced by the market capitalization of common stock; thus the market value of debt can be substituted by the book value of debt (Tobin et al., 1969). Huan et al. (2014); Vinh et al. (2014) also share a similar viewpoint on this matter.

Besides, there are other viewpoints on enterprise value: Christiawan and Tarin (2014) suggested that intrinsic value would best represent the concept of enterprise value; however, intrinsic value is also hard to determine because it is strictly correlated to the identification of meaningful variables to the enterprise's profitability. These variables are different for different enterprises. Therefore, market value is more prefered for the ease of data collection. Lan (2017) claimed enterprise value is both intrinsic and market value.

3. METHODOLOGY

Securities firms listed on the Vietnam's stock market are the sample of this study. Up to now, there are 22 securities firms listed on the Vietnam's stock market. We collected data on EV/EBIT and EV/EBITDA indicators of 22 securities firms by accessing websize directly, such as https://finance.vietstock.vn/, cafef.vn, cophieu68.vn.

The data is entered into the computer via Excel software. We calculated the average index for the period 2017-2020 of each enterprise and the average annual index of securities firms listed on the Vietnam's stock market.

Quantitative research methods are based on table data, data are aggregated over 4 years, from 2017 to 2020. With 2 financial indicators for 4 years, we collected 88 observations. Then we evaluate and analyze via Stata 13 solfware.

4. RESULTS

4.1. Status of enterprise value of securities firms listed on the Vietnam's stock market

Table 1: Enterprise value to Earnings before interests and taxes (EV/EBIT) of securities firms listed on the Vietnam's stock market

Unit: Time

Stock code	2017	2018	2019	2020	Average
AGR	13.06	8.14	7.55	13.96	10.68
APG	5.26	11.16	10.96	12.96	10.09
BSI	5.91	3.18	8.57	9.65	6.83
CTS	11.51	6.32	7.93	16.83	10.65
FTS	5.34	3.27	6.64	10.63	6.47
HCM	12.06	7.45	11.98	18.57	12.52
SSI	12.78	12.78	12.44	16.72	13.68
TVB	11.63	11.95	8.97	2.80	8.84
TVS	5.49	9.67	13.05	9.58	9.45
VCI	10.50	4.30	5.40	10.33	7.63
VDS	3.68	8.58	14.38	2.90	7.39
VIX	5.15	2.81	3.66	6.86	4.62
VND	10.48	10.45	9.77	11.98	10.67
APS	9.20	56.72	(1.03)	1.92	16.70

BVS	9.31	4.77	6.44	12.39	8.23
HBS	(36.34)	(37.28)	(6.38)	(8.32)	(22.08)
IVS	846.67	197.58	(11.98)	54.76	271.76
MBS	10.42	4.28	4.69	9.21	7.15
PSI	10.94	25.06	7.88	13.74	14.41
SHS	5.13	1.72	2.83	4.70	3.60
VIG	63.23	30.02	(1.59)	(24.77)	16.72
WSS	6.00	3.10	(0.75)	17.14	6.37
Average	**47.16**	**17.55**	**5.52**	**10.21**	**20.11**

Sources: *https://finance.vietstock.vn/ and Authors synthesized*

From table 1, enterprise value to Earnings before interest and taxes (EV/EBIT) increased from 5.52 times in 2019 to 10.21 times in 2020. However, enterprise value to earnings before interest and taxes (EV/EBIT) showed fluctuations during the period. To be specific, 2018 witnessed a substantial reduce in comparison to 2017, as the ratio reduced from 47.16 times to 17.55 times (due to economic instability in 2018, investors were generally disinterested in the stock market, which resulted in a fall in price of securities companies' stock, and consequently resulted in low enterprises value). Then the ratio reduced sharply in 2019 as a result of reducing expectations from investors. However, the expectations were not long-lasting. Stock price declined significantly, making the ratio dropped to 5.52 in 2019, albeit government's support to stabilize market sentiment and boost enterprises' market expansion in the context of decreasing domestic demand and economic crisis, some of which were: interest rate support packages, development support for the stock markets, trade promotion policies,etc.

Table 2: Enterprise value to Earnings before interest, taxes, depreciation and amortization (EV/EBITDA) of securities firms listed on the Vietnam's stock market

Unit: Time

Stock code	**2017**	**2018**	**2019**	**2020**	**Average**
AGR	13.96	13.96	13.96	13.44	13.83
APG	5.10	5.10	10.91	12.42	8.38
BSI	5.86	3.14	3.14	3.14	3.82
CTS	11.21	6.08	7.48	16.03	10.20
FTS	5.09	3.21	6.32	10.08	6.18
HCM	11.92	7.30	11.55	17.99	12.19
SSI	16.72	10.82	12.17	12.17	12.97
TVB	11.35	11.74	8.67	2.76	8.63
TVS	5.39	9.07	12.77	8.78	9.00
VCI	10.39	4.26	5.33	10.24	7.56
VDS	3.52	7.97	12.55	2.80	6.71
VIX	5.06	2.77	3.61	6.84	4.57
VND	10.23	10.15	9.55	11.78	10.43
APS	8.55	38.39	(1.05)	1.91	11.95
BVS	9.13	4.62	6.16	12.39	8.08
HBS	(33.29)	(26.09)	(5.53)	(5.78)	(17.67)
IVS	53.07	109.97	(12.21)	47.87	49.68
MBS	10.14	4.19	4.58	8.96	6.97
PSI	10.63	23.53	7.39	12.44	13.50
SHS	5.12	1.72	2.82	4.69	3.59
VIG	55.74	23.39	(1.63)	(30.17)	11.83
WSS	5.89	3.08	(0.75)	16.89	6.28
Average	**10.94**	**12.65**	**5.35**	**8.99**	**9.48**

Sources: *https://finance.vietstock.vn/ and Authors synthesized*

From table 2, Enterprise value to Earnings before interest, taxes, depreciation and amortization (EV/EBITDA) increased from 5.35 times in 2019 to 8.99 times in 2020. Enterprise value to Earnings before interest, taxes,

depreciation and amortization (EV/EBITDA) showed of reducing fluctuations during the period from 2017 to 2019.

4.2. Descriptive statistic

Table 3 shows that enterprise value includes 2 observed variables. Each observed variable is described by 88 observations. Basic indicators such as mean, max, min, standard deviation (sd), variance, skewness coefficient of variation, sum of variables, range, coefficient of variation (p50), coefficient of variation of each observed variable (cv) has been identified and these basic indices accurately reflect the current state of enterprise value of listed securities firms.

Table 3: General descriptive statistics and detail descriptive statistics

General descriptive statistics					
Variable	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
Enterprise value/Earnings Before Interest and Taxes (EV/EBIT)	88	20.1067	92.36418	-37.28	846.67
Enterprise value/Earning before interest, taxes, depreciation and amortization (EV/EBITDA)	88	9.484205	16.63489	-33.29	109.97

Detail descriptive statistics		
stats	**Enterprise value/Earnings Before Interest and Taxes (EV/EBIT)**	**Enterprise value/Earning before interest, taxes, depreciation and amortization (EV/EBITDA)**
N	88	88
sum	1769.39	834.61
range	883.95	143.26
variance	8531.143	276.7196
cv	4.593701	1.753957
skewness	8.358883	2.695149
kurtosis	74.72921	18.36011
p50	8.775	8.26

Sources: *Authors synthesized and Stata Sofware 13*

Next, we compared enterprise value status of securities firms between foreign ownership (FO) firms of 10% or more and the rest of firms.

Foreign ownership (FO): The dummy variable is 1 if firms with 10% or more of the foreign ownership or more and the rest is zero (0).

Table 4 and table 5 show that, there are 32 times of enterprises (8 securities firms) with the foreign ownership were 10% or more.

Enterprises with 10% or above of the foreign ownership have a larger Enterprise value/Earnings before Interest and Taxes (EV/EBIT) than others do. The difference of EV/EBIT between over 10% the foreign ownership enterprises and the remaining enterprises is not statistically significant (p-value = 0.0745 > 0.05, difference value 36.48147).

Enterprises with 10% or above of the foreign ownership have a larger Enterprise value/Earning before interest, taxes, depreciation and amortization (EV/EBITDA) than others do. The difference of EV/EBITDA between over 10% the foreign ownership enterprises and the remaining enterprises is statistically significant (p-value = 0.0142 < 0.05, difference value -8.960848).

Table 4: Comparison EV/EBIT between firms with 10% or more of the foreign ownership and the rest of firms

Ttest EV/EBIT, by (FO)

Two-sample t test with equal variances

Group	**Obs**	**Mean**	**Std. Err.**	**Std. Dev.**	**[95% Conf.**	**Intervall]**
0	56	6.840714	2.005014	15.00415	2.822576	10.85885
1	32	43.32219	26.61565	150.5608	-10.96079	97.60516
Combined	88	20.1067	9.846055	92.36418	.5366038	39.67681
Diff		-36.48147	.2372664		-76.6523	3.689354
diff = mean (0) – mean (1)					t = -1.8054	
Ho: diff = 0					degrees of freedom = 86	
Ha: diff < 0			Ha: diff ! = 0		Ha: diff > 0	
Pr (T < t) = 0.0373			Pr (|T| > |t|) = 0.0745		Pr (T > t) = 0.9627	

Sources: *Authors synthesized and Stata Sofware 13*

Table 5: Comparison EV/EBITDA between firms with 10% or more of the foreign ownership and the rest of firms

Ttest EV/EBITDA, by(FO)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Intervall]
0	56	6.225714	1.711468	12.80745	2.795857	9.655572
1	32	15.18656	3.677769	20.8046	7.685703	22.68742
Combined	88	9.484205	1.773285	16.63489	5.959608	13.0088
Diff		-8.960848	3.579558		-16.07677	-1.844922
diff = mean (0) – mean (1)					t = -2.5033	
Ho: diff = 0					degrees of freedom = 86	
Ha: diff < 0			Ha: diff ! = 0		Ha: diff > 0	
Pr (T < t) = 0.0071			Pr (|T| > |t|) = 0.0142		Pr (T > t) = 0.9929	

Sources: *Authors synthesized and Stata Sofware 13*

4.3. Correlation analysis results

Table 6: Correlation analysis results of variables

	EV/EBIT	EV/EBITDA
EV/EBIT	1.0000	
EV/EBITDA	0.5156	1.0000

Sources: *Authors synthesized and Stata Sofware 13*

Table 6 shows the results of correlation analysis, also known as multicollinearity analysis. The results show that the absolute value of each correlation coefficient between 2 variables is less than 0.8; therefore, no multicollinearity occurs (Bryman & Cramer, 2001).

5. DISCUSSION AND IMPLICATIONS

Enterprise value is a perplexing task, as different methods result in different values. Thus, it is necessary to employ a suitable method considering the enterprise's situation, field, financial supports, dividend policies, administrator's goals, etc.

To improve enterprise value, securities firms need to take appropriate measures, such as:

Issuing more shares to mobilize capital for investing in fixed assets (machineries and equipment, warehouses and factories construction and renovation) so that labor productivity and product quality can be further improved. Besides, enterprises may also utilize mobilized capital from issuing shares to cover pressing debts. Myers and Majluf (1984) suggests that managers tend to issue shares when the enterprise is overvalued, while borrowing when it's undervalued. Enterprises also tend to raise external equity capital when the cost of financial distress is high, and conversely, enterprises will borrow when the cost of financial distress is low. In addition, Eckbo(1986), Sunder and Myers (1999) states that enterprises can issue debt or equity to finance new investments, provided that the debt must be secured by assets and profits. Therefore, investors in debt are less exposed to errors in enterprise valuation, and the disclosure of debt is more likely to have a negative impact on the stock price compared to the disclosure of equity.

Securities firms need to have capital mobilization strategies and a suitable capital structure with the business and the development orientation of the firm; make reasonable adjustments to the capital structure in accordance with the current payment status of the firm in the short term and development goals in the long term.

Securities firms also need to improve business productivity. They need to devise suitable development strategies for different periods, which also requires specific financial planning in accordance with development orientation and characteristics of the enterprise. Financial plans need to incorporate projected financial statements, from which financial entries can be calculated. Besides, enterprises managers need to reinforce management measures, strictly control expenses, and review costs on a regular basis.

For state management agencies: Securities firms' business activities have influence on investors. As the quantity of securities firms are expanding, their business activities' scope and nature is growing, becoming more diversified and multi-functional. Inevitably, fierce competition means some securities firms may encounter extreme risk that potentially results in bankruptcy. Therefore, to ensure market safety and protect investors as well as fairness in the securities market, it is necessary that there are specialized state management agencies to inspect and supervise securities enterprises on the stock market. Adequate legal documents need to be issued to regulate the securities market and accounting in securities firms;and the State Security Commission needs to strengthen its supervision over risks, regulation compliance and transactions.

In addition to supporting domestic securities firms, the government should also include policies to attract foreign enterprises to invest in Vietnamese securities firms. Foreign

enterprises can provide domestic securities firms with market, management qualities, etc, and most importantly capitals, which help domestic securities firms improve their competitive edges and boost enterprise value.

For the state bank: Nowadays, capital needs of enterprises rely too considerably on banks, which is why the state bank should stabilize interest rate (reducing lending interest rate or maintain interest rate) and make credit capital more accessible to enterprises. Besides, it is important for the state bank to stricten control over foreign currency transactions to stabilize the exchange rate and avoid speculation in foreign currency.

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