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Financial ratios of telecommunications technology firms in Vietnam

¹Nguyen Thi Huong, ²Do Thu Thuy

¹ Faculty of Accounting, Trade Union University, Vietnam

² Faculty of English, Phenikaa University, Vietnam

Corresponding Author: **Nguyen Thi Huong**

Abstract

The main purpose of this study is to empirically test the financial ratios of telecommunications technology firms listed on the Vietnam stock market. The authors collected secondary data from previous studies, telecommunications technology firms listed on the Vietnam stock market for the period of 2017-2021. For this purpose, in this study we use variable of Basic Earning Power Ratio (BEP) and Earning Per Share ratio (EPS) to measure the financial ratios of telecommunications technology firms. We have performed some descriptive analysis, compared with support by

software Stata to evaluate and measure financial ratios of telecommunications technology firms listed on the Vietnam stock market. The results show that there is a big difference in financial ratios of telecommunications technology firms listed on the Vietnam stock market. The difference of Basic Earning Power (BEP) and Earning Per Share (EPS) between enterprises has the number years posted up is 10 years or higher and the remaining enterprises is not statistically significant.

Keywords: Basic Earning Power (BEP), Earning Per Share (EPS), Telecommunications Technology Firms, Financial Ratios, Accounting

JEL Classification codes: M40, F65, G30

1. Introduction

Currently, the increasing demand for digital transformation of customers in the world and in Vietnam will help telecommunications technology enterprises benefit from software exports. Therefore, telecommunications technology enterprises must assert strong financial capacity.

In addition, to cope with the impact of the Covid-19 epidemic, many firms and organizations have increased the application of information technology in production and business. Therefore, technology bidding packages are expected to be promoted in the coming years. On the other hand, fixed broadband subscriptions and 5G networks will be two factors increasingly used by firms and individuals. Therefore, telecommunications technology enterprises must continuously develop with strong enough financial capacity.

Financial ratios help analysts, enterprise owners, investors and creditors understand the financial health of an enterprise and make it easier for business owners to manage their financial systems. Financial ratios are compared with the ratios of previous periods to evaluate the development trend of an enterprise over time. Financial ratios are also used to compare with ratios of other enterprises in the same industry or with the industry average rate to assess the strengths and weaknesses of the enterprise. In addition, financial indicators are tools to forecast the financial situation of the enterprise in the future.

This study evaluates and measures two (02) basic financial indicators, including Basic Earning Power Ratio (BEP) and Earning Per Share (EPS).

2. Theoretical background and literature review

Basic Earning Power Ratio (BEP)

$BEP = EBIT / Total\ assets$; this ratio reflects the firm's ability to seek a net profit before tax, its financial leverage. This indicator is effective when comparing multiple firms but different in tax and financial leverage.

This index is very meaningful in comparing the performance of enterprises with the general ground of the industry. Enterprises have higher basic profit margins than the industry and good profit margins. The higher the BEP, the better, the business performance of the business.

Earning Per Share (EPS)

EPS is an important financial indicator for stock investment. EPS reflects the profit after tax of a share ($EPS = \text{Profit after tax} / \text{Total number of shares outstanding}$).

EPS is the shortest version of profit after tax.

Basic EPS: $EPS = (\text{Net income} - \text{preferred dividends}) / \text{number of shares outstanding}$.

Diluted EPS is the EPS issued by the enterprise that has issued convertible bonds, preference shares, right to buy shares, ESOP, issued to strategic shareholders, etc. The shares should be diluted. Diluted EPS will be more accurate, as it reflects future events. Experts say that, with a good business rating, the $EPS > 1,500$ VND and maintaining for many years, tends to increase.

Enterprise is stable when EPS is higher than 1,000 VND.

Luu and Vu (2011) ^[1] affirmed that the indicators to evaluate the profitability of enterprises included: (i) Basic Earning Power Ratio (BEP) is also known as the rate earnings before interest and taxes - EBIT. This entry reflects the profitability of assets or business capital regardless of the impact of corporate income tax and business origin; (ii) ROA; (iii) ROE; (iv) ROS and (v) Earnings per share (EPS): reflects how much profit after tax per ordinary share (or ordinary share) is earned during the year.

Inheriting results from previous studies, this study evaluates and measures financial ratios of telecommunications technology firms listed on the Vietnam stock market with 2 indicators as follows:

Code	Scale	Sources
FR1	Earning Per Share (EPS)	Luu & Vu (2011) ^[1] , experts' opinion
FR2	Basic Earning Power Ratio (BEP)	Luu & Vu (2011) ^[1] , experts' opinion

3. Methodology

Qualitative research methods: We used techniques of synthesis, analysis, comparison to evaluate the financial ratios of telecommunications technology firms listed on the Vietnam stock market. In addition to collecting previous studies, we interviewed experts who are leading lecturers in finance and accounting; financial directors in telecommunications technology firms. Qualitative research methods orientated and refined the research results of previous studies; from there, this study inherited and applied.

Quantitative research methods are based on table data, data are aggregated over 5 years, from 2017 to 2021. Rely on reputable websites, such as <http://cafef.vn>;

<https://financevietstock.vn>, etc. and Global Data Service Company (Vietnamese). We collected data on financial indicators of enterprises, such as: BEP and EPS.

The sample of this study is 22 telecommunications technology firms listed on the Vietnam stock market (<https://cophieu68.vn> ^[2]), with 2 financial indicators in 5 years; we collected 110 observations. Then we evaluate and analyze through Stata13 software.

4. Research results

Table 1 shows financial ratios when considering each telecommunications technology enterprise in each year, besides the enterprises with good financial ratios, there are still certain limited financial ratios enterprises (see table 1).

Table 1: The financial ratios of telecommunications technology firms listed on the Vietnam stock market during the period 2017-2021

Stock code	Year	BEP	EPS (thousand VND)	Stock code	Năm	BEP	EPS (thousand VND)
ADC	2017	12.0%	3.08	SMT	2017	9.0%	2.26
ADC	2018	12.0%	3.27	SMT	2018	8.8%	2.31
ADC	2019	12.0%	3.62	SMT	2019	-1.8%	(1.58)
ADC	2020	11.7%	4.04	SMT	2020	3.8%	0.69
ADC	2021	9.6%	3.02	SMT	2021	3.2%	0.40
CKV	2017	3.5%	1.05	SRA	2017	23.3%	5.64
CKV	2018	3.7%	1.20	SRA	2018	83.1%	51.41
CKV	2019	4.0%	1.33	SRA	2019	27.0%	4.73
CKV	2020	0.3%	0.11	SRA	2020	10.3%	1.37
CKV	2021	1.9%	0.51	SRA	2021	12.2%	1.45
CMG	2017	9.1%	2.02	ST8	2017	8.7%	1.08
CMG	2018	9.3%	2.34	ST8	2018	12.4%	1.24
CMG	2019	7.9%	1.75	ST8	2019	7.0%	0.80
CMG	2020	7.6%	0.66	ST8	2020	4.5%	0.60
CMG	2021	2.5%	0.43	ST8	2021	4.1%	0.60
ELC	2017	5.2%	0.93	SVT	2017	2.1%	0.35
ELC	2018	1.5%	0.18	SVT	2018	3.1%	0.40
ELC	2019	3.4%	0.59	SVT	2019	8.2%	0.99
ELC	2020	3.2%	0.63	SVT	2020	17.8%	2.93
ELC	2021	4.8%	0.95	SVT	2021	19.7%	2.94
FPT	2017	17.7%	5.90	TST	2017	2.8%	0.72
FPT	2018	15.4%	4.52	TST	2018	2.5%	0.54
FPT	2019	16.6%	4.80	TST	2019	1.6%	0.14
FPT	2020	15.5%	4.74	TST	2020	1.4%	0.03
FPT	2021	15.7%	5.07	TST	2021	1.0%	(0.06)
ITD	2017	11.8%	1.78	TTZ	2017	1.3%	0.02
ITD	2018	12.0%	1.81	TTZ	2018	0.7%	0.02
ITD	2019	6.9%	0.88	TTZ	2019	-3.3%	(0.45)

ITD	2020	12.3%	1.85	TTZ	2020	-5.8%	(0.78)
ITD	2021	-1.2%	(0.17)	TTZ	2021	-0.1%	(0.02)
KST	2017	6.0%	0.86	UNI	2017	1.0%	0.06
KST	2018	4.8%	0.33	UNI	2018	0.4%	0.01
KST	2019	7.6%	0.76	UNI	2019	0.5%	0.00
KST	2020	6.2%	0.63	UNI	2020	0.1%	0.04
KST	2021	3.5%	0.30	UNI	2021	0.0%	0.00
ONE	2017	6.1%	1.06	VAT	2017	4.7%	0.21
ONE	2018	4.1%	0.75	VAT	2018	3.8%	0.04
ONE	2019	1.9%	0.51	VAT	2019	-0.5%	(0.42)
ONE	2020	2.3%	0.76	VAT	2020	3.7%	0.20
ONE	2021	2.9%	0.86	VAT	2021	4.7%	0.21
POT	2017	4.4%	1.63	VIE	2017	9.8%	1.00
POT	2018	3.8%	1.69	VIE	2018	5.3%	0.56
POT	2019	2.9%	0.93	VIE	2019	1.2%	0.09
POT	2020	2.6%	0.93	VIE	2020	0.8%	0.03
POT	2021	2.3%	0.68	VIE	2021	8.2%	0.90
SAM	2017	7.8%	0.57	VLA	2017	13.5%	1.69
SAM	2018	8.3%	0.41	VLA	2018	6.7%	1.02
SAM	2019	6.7%	0.32	VLA	2019	7.9%	1.06
SAM	2020	1.7%	0.36	VLA	2020	0.2%	0.02
SAM	2021	4.4%	0.46	VLA	2021	34.1%	5.25
SGT	2017	8.8%	1.50	VTC	2017	7.6%	1.98
SGT	2018	10.1%	1.65	VTC	2018	6.7%	1.82
SGT	2019	1.7%	0.15	VTC	2019	5.2%	2.18
SGT	2020	1.9%	0.17	VTC	2020	5.2%	2.22
SGT	2021	3.7%	0.92	VTC	2021	2.2%	0.08

Sources: <https://finance.vietstock.vn/>; <http://cafef.vn>, Global Data Services Company and authors synthesized ^[2]

BEP

Table 2: Average BEP over the years of telecommunications technology firms listed on the Vietnam stock market

Description	2017	2018	2019	2020	2021	Average 2017-2021
BEP (%)	6.3	4.9	5.7	9.9	8.0	7.0

Sources: <https://finance.vietstock.vn/>; <http://cafef.vn>, Global Data Services Company and authors synthesized ^[2]

Table 3: Average BEP over the years (2017-2021) of each telecommunications technology firms listed on the Vietnam stock market

No	BEP<0%		0%<BEP<10%		10%<BEP<20%		BEP>20%	
	Stock code	BEP	Stock code	BEP	Stock code	BEP	Stock code	BEP
1	TTZ	-1.5%	UNI	0.4%	SVT	10.2%	SRA	31.2%
2			TST	1.9%	ADC	11.5%		
3			CKV	2.7%	VLA	12.5%		
4			POT	3.2%	FPT	16.2%		
5			VAT	3.3%				
6			ONE	3.5%				
7			ELC	3.6%				
8			SMT	4.6%				
9			VIE	5.0%				
10			SGT	5.2%				
11			VTC	5.4%				
12			KST	5.6%				
13			SAM	5.8%				
14			CMG	7.3%				
15			ST8	7.3%				
16			ITD	8.4%				

Sources: <https://finance.vietstock.vn/>; <http://cafef.vn>, Global Data Services Company and authors synthesized ^[2]

Experts say that, when evaluating BEP, it is necessary to compare with bank loan interest rates. Currently, banks lend firms with interest rates from 7% to 12% / year, so the BEP of 19 telecommunications technology firms listed on the Vietnam stock market is lower than the interest rate for bank loans, 3 telecommunications technology firms have BEP

which is larger interest rate for bank loans.

EPS

EPS is synthesized and analyzed in detail in Table 4 and Table 5 as follows:

Table 4: Average EPS over the years of telecommunications technology firms listed on the Vietnam stock market

Description	2017	2018	2019	2020	2021	Average 2017-2021
EPS (thousand VND)	1.13	1.01	1.05	3.52	1.61	1.66

Sources: <https://finance.vietstock.vn/>; <http://cafef.vn>, Global Data Services Company and authors synthesized ^[2]

Table 5: Average EPS over the years (2017-2021) of each telecommunications technology firms listed on the Vietnam stock market (unit: thousand VND)

No	EPS<0		0<EPS<1.0		1.0<EPS<1.5		EPS>1.5	
	Stock code	EPS	Stock code	EPS	Stock code	EPS	Stock code	EPS
1	TTZ	-0.14	UNI	0.02	POT	1.17	SVT	1.52
2			VAT	0.05	ITD	1.23	VTC	1.66
3			TST	0.27	CMG	1.44	VLA	1.81
4			SAM	0.42			ADC	3.41
5			VIE	0.52			FPT	5.01
6			KST	0.58			SRA	12.92
7			ELC	0.66				
8			ONE	0.79				
9			SMT	0.82				
10			CKV	0.84				
11			ST8	0.86				
12			SGT	0.88				

Sources: <https://finance.vietstock.vn/>; <http://cafef.vn>, Global Data Services Company and authors synthesized ^[2]

Table 4 shows that the average EPS of the telecommunications technology industry over the years has also had significant fluctuations, decreases trend then increasing gradually. Specifically: In 2017, EPS reached 1.13 thousand VND; in 2018, EPS decreased slightly to 1.01 thousand VND, and continued to increase in 2019 with 1.05 thousand VND, increase to 3.52 thousand VND in 2020 and sharply decreased in 2021 with 1.61 thousand dong.

The results from Table 5 shows that among 22 telecommunications technology firms listed on the Vietnam stock market; 6 firms are evaluated to have good business results when EPS is >1.5 thousand VND; 3 firms with 1.0 <EPS <1.5 thousand VND have relatively stable business

results; 13 firms with EPS <1.0 thousand VND.

Descriptive statistics

Next, Table 6 shows that the financial ratios includes 2 observed variables. Each observed variable is described by 110 observations. Basic indicators such as mean, max, min, standard deviation (sd), variance, skewness, kurtosis, 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 financial ratios of listed telecommunications technology firms.

Table 6: General descriptive statistics and detail descriptive statistics

General descriptive statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
Basic Earning Power (BEP)	110	.0696824	.0952746	-.0581702	.8308792
Earning Per Share (EPS)	110	1.664422	4.997285	-1.575	51.411
Detail descriptive statistics					
stats	Basic Earning Power (BEP)		Earning Per Share (EPS)		
N	110		110		
sum	7.665059		183.0864		
range	.8890494		52.986		
variance	.0090773		24.97286		
cv	1.36727		3.002416		
skewness	5.023771		9.103407		
kurtosis	38.788		90.94417		
p50	.0473164		.7805		

Sources: Authors synthesized and Stata Software 13

Next, we compared the financial ratios status of telecommunications technology firms between firms have the number years posted up (YPU) is 10 years or higher and the rest of firms.

The number years posted up (YPU): The dummy variable is 1 if firms have the number years posted up is 10 years or higher and the rest is zero (0).

Table 7 and table 8 show that, there are 64 times of enterprises have the number years posted up is 10 years or higher.

Enterprises have the number years posted up is 10 years or higher have a higher Basic Earning Power (BEP) than others do. The difference of Basic Earning Power (BEP) between enterprises has the number years posted up is 10 years or higher and the remaining enterprises is not statistically significant (p-value = 0.3901 > 0.05, difference value .0159113).

Enterprises have the number years posted up is 10 years or higher have a higher Earning Per Share (EPS) than others do. The difference of Earning Per Share (EPS) between

enterprises has the number years posted up is 10 years or higher and the remaining enterprises is not statistically

significant ($p\text{-value} = 0.2995 > 0.05$, difference value 1.006567).

Table 7: Comparison Basic Earning Power (BEP) between firms have the number years posted up is 10 years or higher and the rest of firms

Ttest BEP, by (FO)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Intervall]
0	46	.0604249	.0081891	.0555414	.0439311 .0769187
1	64	.0763362	.0144666	.1157328	.047427 .1052453
Combined	110	.0696824	.0090841	.0952746	.051678 .0876867
Diff		-.0159113	.018438		-.0524586 .0206361
diff = mean (0) – mean (1)				t = -0.8630	
Ho: diff = 0				degrees of freedom = 108	
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0	
Pr (T < t) = 0.1950		Pr (T > t) = 0.3901		Pr (T > t) = 0.8050	

Sources: Authors synthesized and Stata Software 13

Table 8: Comparison Earning Per Share (EPS) between firms have the number years posted up is 10 years or higher and the rest of firms

Ttest EPS, by (YPU)

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Intervall]
0	46	1.078783	.1906397	1.292981	.6948145 1.462751
1	64	2.08535	.8060557	6.448446	.4745758 3.696123
Combined	110	1.664422	.4764725	4.997285	.7200687 2.608775
Diff		-1.006567	.9655815		-2.920517 .907383
diff = mean (0) – mean (1)				t = -1.0424	
Ho: diff = 0				degrees of freedom = 108	
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0	
Pr (T < t) = 0.1498		Pr (T > t) = 0.2995		Pr (T > t) = 0.8502	

Sources: Authors synthesized and Stata Software 13

5. Discussion and implications

Enterprises with EPS <1.0 thousand VND need to have many measures to enhance their business results.

The main business lines of telecommunications technology enterprises listed on Vietnam's stock market are trading in electronic products, informatics, equipment and supplies, manufacturing computer software, and providing software services. and software outsourcing, system integration services and information technology services, manufacturing, assembling, distributing computers, telecommunications infrastructure services and some other businesses. Most telecommunications technology enterprises always maintain a list of many member companies. Based on important financial indicators such as: equity, assets, profit before tax, profit after tax, EPS, BEP, etc., it can be affirmed that the financial capacity of telecommunications technology enterprises listed on Vietnam's stock market still has limitations, high financial risks and low firm performance compared to other firms in the other industry.

For the information technology and telecommunications industries, the Covid-19 epidemic creates challenges but also offers opportunities. Enterprises in this industry have quickly grasped to rise up and develop sustainably. The COVID-19 epidemic has accelerated the wave of digital transformation and technology investment in many firms. At the same time, creating sustainable development opportunities for pioneering technology firms providing digital transformation solutions, platforms, services and products.

Information technology enterprises have benefited from the trend of digital transformation in Vietnam and around the world and along with the increase in technology investment packages. That is one of the advantages for these firms to improve their financial ratios, which include BEP and EPS.

Telecommunications technology firms in Vietnam have affirmed their pioneering role in research, development and innovation, mastering technology, making important contributions to the development of Vietnam's digital economy.

6. References

1. Luu TH, Vu DH. Enterprise finance textbook. National Economics University Publishing House [Vietnamese], 2011.
2. Websites: cophieu68.vn; cafef.vn; <https://vietstock.vn>; <https://financevietstock.vn> [Vietnamese].