

SUSTAINABLE GROWTH RATE OF LISTED TELECOMMUNICATIONS TECHNOLOGY ENTERPRISES IN VIETNAM

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Abstract: *The article clarifies the basis for discussion on sustainable growth and models for measuring sustainable growth rate. The article uses Higgins' sustainable growth model to determine the steady growth rate of the Securities Telecommunications technology enterprise in Vietnam. The results were found: Listed telecommunications technology enterprises in Vietnam had an average solid growth rate of -0.04 - 0.078, the highest solid growth rate in 2017 with a value of Quantity value 0.2189, 2021 recorded a return to growth; however, the period from late 2022 to early 2023 saw businesses in the industry gradually decreasing in growth due to weak demand. by the risks of deterioration in world economic exchange and applying detection capabilities. Despite facing complex and large-scale difficulties with benefits from policies to promote digital economic development, the business community in the industry is still able to maintain a steady growth rate and develop strongly in the near future.*

Keywords: *sustainable growth, sustainable growth rate, listed telecommunications technology enterprises, Higgins' sustainable growth model.*

I. Introduction

Vietnam is currently becoming the country with the highest number of internet users in the world. According to the National Strategy for Developing the Digital Economy and Digital Society until 2025, the Orientation to 2030 [1], The Orientation to 2030 shows the Government's drastic Orientation in the process of comprehensive digital transformation of the whole country with

three main pillars: Digital Government, Digital Economy, and Digital Society. Facing these opportunities and challenges, listed businesses in the telecommunications technology industry need to consider the possibility of sustainable growth of telecommunications technology businesses. Within the scope of the study, the author will synthesize theories on the sustainable growth of enterprises, models for measuring sustainable growth capacity,

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evaluate and analyze the sustainable growth rate of listed telecommunications technology enterprises, thereby making comments on the ability to grow sustainably, ensuring the existence and development of telecommunications technology enterprises, contributing to the national digital transformation process.

II. Literature Review

** International studies*

Growth or sustainable growth has received attention from many theorists around the world. The book Resources Policy, the Model Sustainable growth models are financial planning tools that weigh financial goals with operational performance to determine optimal growth for a company. Sustainable growth models are shown to be an effective financial planning tool and a tool to guide policies to stimulate growth in this industry [2].

The study concludes that the topic of sustainability has been successful in gradually increasing. The high strategic agenda in the industry suggests that strategic environmental initiatives have become a long-term or long-term effort [3]. This study uses sustainability performance data collected manually from sustainability reports, annual reports, and financial data extracted from audited financial statements on company websites. The results show that independent sustainability reporting, company age, and type of auditor are key factors in the dissemination of sustainability information in the Russian context [4].

The extended sustainable growth rate model was developed into a dynamic model that jointly optimizes growth rate and rate payment rate. The empirical results support the mean reversion of growth rates and the importance of the covariance between returns and growth rates in determining dividend payments. The across-variance behavior can shed

light on the fact that dividends disappear over decades [5].

** Domestic research*

First, in terms of the State, in 2017, the Prime Minister issued Decision No. 622/QĐ-TTg, “National action plan to implement the 2030 Agenda for sustainable development”, with 17 sustainable development goals and 115 specific targets set for Vietnam in the period from now to 2030 in all economic - social - environmental fields, corresponding to the global sustainable development goals adopted at the United Nations Summit in September 2015 [6].

Along with the Government, scientists and researchers also have many scientific works researching sustainable development or indicators to evaluate sustainable development, such as:

Doctoral thesis: “Sustainable economic development in Vietnam” by author Nguyen Huu So in 2009 affirmed that sustainable economic development is an important component of each country. In the theoretical basis section, the author needs to provide a specific set of criteria but argues that in the absence of a complete system of sustainable development indicators, it is possible to evaluate through a system of some quantitative and qualitative indicators. Therefore, the author has comprehensively and deeply evaluated Vietnam’s sustainable economic development after more than 20 years of renovation (period 1986-2008) [7].

Master’s thesis: “Evaluation and some solutions to ensure sustainable growth of Vietnam’s textile and garment industry in the period 2007-2015” by Bui Minh Son. The sustainability of growth ensures the growth in the scale of the industry to meet the increasing needs of the market and the economy, ensuring the stable and long-term development of the manufacturing industry. Sustainable growth reflects the level of use

of input factors and resources in production and business. Sustainable growth ensures increased output and increasing value, creating stable industry development and ensuring long-term development. Sustainable growth of the industry ensures balance in industry structure, keeps the industry developing stably, and prevents it from falling into recession or even being eliminated [8].

The book “Sustainable Development Textbook” published in 2014 by author Bui Van Dung, considers sustainable development as a subject in the university curriculum. In the central chapter of the book - the Sustainable Development chapter, the authors provide a very complete and coherent theoretical basis for the concept, content, and principles of sustainable development, leading to the conclusion “Development of Sustainable development must be considered on all three aspects: economic, social, environmental, and it is time to expand the connotation of sustainable development by considering the fourth aspect - the cultural aspect and add the physical element—mechanism [9].

III. Theoretical basis

An enterprise is a system consisting of resources and relationships with related parties. On the basis of compliance with the law, businesses are responsible for exercising their rights and obligations, meeting the needs of stakeholders to maintain business operations, increasing competitive advantage to contribute better, and promoting the sustainable development of society through comprehensively addressing economic, environmental and social aspects (Lozano et al., 2015) [10].

Sustainable growth is a development that meets the needs of the present without negatively impacting the ability of future generations to meet their own needs. In

the business sector, sustainable growth is defined as meeting the needs and interests of parties related to the business without harming the interests of future parties. Businesses that want to achieve sustainable growth must develop business strategies and operating policies that meet the economic, social, and environmental requirements.

Dyllick and Hockerts (2002) gave a perspective on sustainable business growth in two aspects: time (present and future) and space (stakeholders). Sustainable business growth is understood as meeting the needs of business stakeholders such as shareholders, employees, customers, and direct and indirect communities without affecting the ability to meet the needs of stakeholders in the future [11].

According to Soppe (2009), sustainable growth of an enterprise is the ability to create long-term value through seizing opportunities and accepting potential risks from environmental changes and economic and social development [12]. Besides, Aras and Crowther (2009) proposed an integrated model that includes four main aspects of sustainability: (1) social impact (social impact on businesses and the impact of related parties on each other); (2) environmental impact (how businesses affect the natural environment); (3) organizational culture (relationships between the enterprise and internal stakeholders, especially employees) and (4) financial (adequate reimbursement for the level of risk that may be incurred) [13].

Brockett and Rezaee’s (2012) integrated approach is considered the most comprehensive approach to corporate sustainable growth today, which is assessed based on five aspects of corporate performance reporting: economic, corporate governance, social, ethical, and environmental [14].

When analyzing the growth situation, analysts have recently paid

attention to the Sustainable Growth Rate: “Sustainable growth rate is the maximum growth rate of assets in accordance with the growth rate. Growth in total net turnover and net cash flow from business activities without exhausting the financial resources of the enterprise.”

Some previous authors have researched and proposed models to measure the sustainable growth ability of businesses as follows:

Higgins’ sustainable growth model (1977, 2001, 2007) [15]

The concept of sustainable growth was developed by Robert C. Higgins in 1977 and includes four specific factors: dividend payout ratio, profit margin, total asset turnover ratio, and asset-to-equity ratio.

$$SGR = \frac{RI}{NPAT} \times \frac{NBPT}{TO} \times \frac{TO}{NA} \times \frac{NA}{E}$$

In there:

NPAT: Profit after tax

NPBT: Net profit before tax

TO: Revenue

RI: Retained earnings

E: Equity

NA: Net assets

Higgins analyzes the change in growth rate from the source of growth itself, the importance of which is the function of return on equity. The retained earnings and retained debts are invested in assets, which will help increase revenue, eventually creating growth in company profits. However, we see that the model still has assumptions that do not consider the lag in profits generated by assets. There are still opinions about the issue of total assets and capital in the formula, whether it is at the beginning or end of the period. On the contrary, Higgins’ model does not clarify the impact of leverage on growth rate.

James C. Van- Horne’s sustainable growth model [16]

VanHorne’s growth model is a quantitative description of changes in income and sales; is a tool to check the consistency between revenue growth goals, operational efficiency, and financial goals.

VanHorne’s model of growth is as follows:

$$SGR = \frac{b (PBIT/TO) * (1 + D/E)}{(A/S) - (b (PBIT/TO) * (1 + D/E))}$$

In there:

D/E: Debt to Equity

A/S: Total assets for sale

PBIT: Profit before interest and taxes

b: Retained profit ratio

Thus, his sustainable growth rate is analyzed based on four factors, such as the Higgins model and the assumption of not raising new equity, but he emphasizes the financial goal. If Higgins proposed a model to increase sales, the VanHorne model aims to be conservative with the financial goal. Besides, the model still has the same assumptions and disadvantages as the Higgins model, which does not analyze the impact of leverage.

Sustainable growth model by Rui Huang & Guiying Liu (2009) [17]

Huang & Liu’s sustainable growth model is inherited and developed from two models, Higgin and Vanhome. This model analyzed the impact of financial leverage (using debt) and operating leverage (using fixed costs). Like Higgins, the article’s growth rate is based on four factors:

$$SG = ((PBIT / TO) * (1 / DFL) (1 - T)) * ((VC / TA) + (FC / TA)) * (1 / DOL)) * (A / Eq) * (1 - (Go back))$$

In there:

VC: Total variable cost

DFL: Degree of financial leverage

TA: Total assets

DOL: Degree of operating leverage

FC: Total fixed costs

Div/E: Dividend payout ratio

A/EQ: Equity ratio

T: Tax rate

The model has disadvantages when it applies to business situations such as increased market competition, rapid expansion of business scale, and rapid increase in investment in fixed assets and debt.

In this study, the author uses Higgins' Sustainable Growth Model to calculate the sustainable growth rate of telecommunications technology enterprises in Vietnam in the period 2014 - 2021, this is one of the tools valuable for long-term financial planning and analyzing company growth because it shows sustained growth from sales already generated without the need for additional capital. It helps managers determine the company's sales growth rate to be consistent with its actual performance and financial policies. Developers have built many models of sustainable growth. Research varies, but in general, these sustainable growth rate models are developed from Higgins's (1977) sustainable growth models, showing that the model is an effective tool for calculating growth rates sustainable growth to determine a business's credibility level. By determining the sustainable growth rate of telecommunications technology enterprises in the period 2014 - 2021, the authors analyzed and evaluated the sustainable growth potential of listed telecommunications technology enterprises in Vietnam.

IV. Analysis and discussion

4.1. Development of listed telecommunications technology enterprises

According to the national strategy for developing the digital economy and society until 2025, the Orientation to

2030 shows the Government's drastic Orientation in the digital transformation process for all people. Vietnam's economy in recent years has had a high growth rate with a large and diverse domestic market, an increasing number of consumers using digital technology, and a young population. According to the development orientation of the Information and Communications industry, the total revenue of the information technology, electronics - and telecommunications industry in 2023 will reach 165 billion USD, increasing to 175 billion USD in 2024 and reaching 185 billion USD in 2025. The contribution rate of digital technology enterprises to GDP in the next three years will be from 6 - 6.5% per year. Telecommunications information technology industry exports will reach 137 billion USD in 2023, increase to 148 billion USD in 2024, and reach 160 billion USD in 2025. The goal is that by 2025, the country will have 80,000 digital technology enterprises registered and operating. Digital technology products and services designed and manufactured domestically will meet over 50% of the needs of state agencies. Along with that, ten digital technology enterprises will be developed to play a leading role, have international competitiveness, and have revenue of over one billion USD.

In 2021, due to the need for digital transformation, the number of ICT (information technology, electronics, and telecommunications) businesses will thrive. Vietnam currently has over 64,000 digital technology businesses, an increase of 5,600 businesses compared to 2020, and nearly 1,000 Vietnamese brand ICT products and services. Among them, 33 firms are listed on HOSE, HNX, and UPCOM exchanges. Within the scope of the research, the author studied 22 businesses listed on the Hanoi Stock Exchange HNX and the Ho Chi Minh City Stock Exchange HOSE.

Table 1: Listed technology and telecommunications enterprises in Vietnam

No	Company's name	Code stock	Floor listed	Year listed
1	FPT Joint Stock Company	FPT	HOSE	2006
2	CMC Technology Group Joint Stock Company	CMG	HOSE	2010
3	SAM HOLDINGS JSC	SAM	HOSE	2000
4	Saigon Telecommunications Technology Joint Stock Company	SGT	HOSE	2008
5	Electronics - Telecommunications Technology Investment and Development Joint Stock Company	ELC	HOSE	2010
6	Postal Equipment Joint Stock Company	POT	HNX	2006
7	Sieu Thanh Joint Stock Company	ST8	HOSE	2007
8	Sara Vietnam Joint Stock Company	SRA	HNX	2008
9	Vien Lien Joint Stock Company	UNI	HNX	2006
10	Tien Phong Technology Joint Stock Company	ITD	HOSE	2011
11	Saigon Far East Technology Joint Stock Company	SVT	HOSE	2011
12	COKYVINA JSC	CKV	HNX	2010
13	Fine Arts and Communications Joint Stock Company	ADC	HNX	2010
14	Sametel Joint Stock Company	SMT	HNX	2010
15	VTC Telecommunications Joint Stock Company	VTC	HNX	2003
16	No. 1 Communications Joint Stock Company	ONE	HNX	2008
17	Telecommunications Technical Services Joint Stock Company	TST	HNX	2007
18	Van Lang Technology Investment and Development Joint Stock Company	VLA	HNX	2010
19	KASATI JSC	KST	HNX	2010
20	Tien Trung Construction Investment and Technology Joint Stock Company	TTZ	HNX	2000
21	VITECO Telecommunications Technology Joint Stock Company	VIE	HNX	2011
22	Van Xuan Telecommunications Joint Stock Company	VAT	HNX	2010

(Source: Compiled by the author)

4.2. Analysis results

* Descriptive statistical analysis

The statistical indicators described include Obs (Observation) – number of

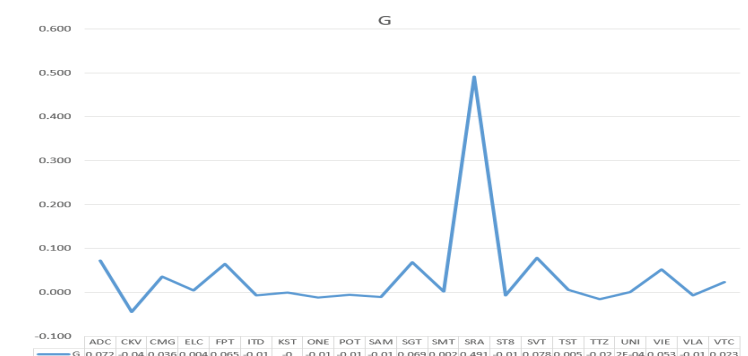
observations; Mean Std. - Average number; Dev. (Standard Deviation) – Standard deviation; Min – Minimum value; Max – The most significant value is shown in the following results table:

Table 2: Descriptive statistics of G growth rate in the period 2014 - 2021

Variable	Obs	Mean	Std.Dev	Min	Max
G	168	0.0376307	.2975528	-.9590335	3.504505

* Average sustainable growth rate of businesses in the period 2014-2021

Figure 1: Average sustainable growth rate of businesses period 2014-2021



Listed telecommunications technology enterprises in Vietnam have an average sustainable growth rate of -0.04 - 0.078. Sara Vietnam Joint Stock Company is considered the enterprise with the best sustainable growth ability in 2014 - 2021 when it had the highest G growth rate value of 0.491; SRA's G-ratio was exceptionally high in 2017 with an ROE value of 77.8%. The reason is that this year, although the parent company's profit is not high, it holds 98% of the shares in all three subsidiaries, Phu Tho Environmental Medical Equipment Production and Trading Joint Stock Company (named Phu Tho). (formerly Phu Tho High-Tech Investment Joint Stock Company), Nha Trang High-Tech Investment Joint Stock Company, Can Tho High-Tech Investment Joint Stock Company, is still causing SRA to report a 'sudden' profit on its 2017 consolidated financial statements.

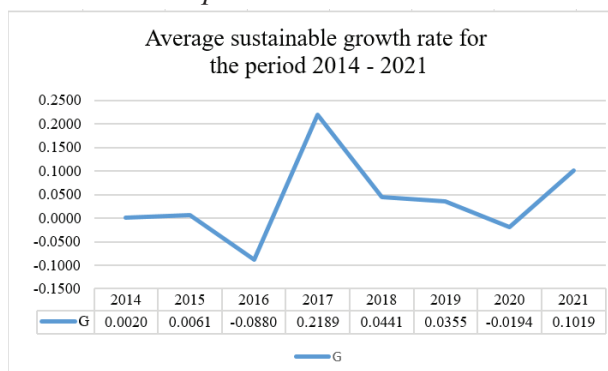
Meanwhile, enterprises belonging to 10 reputable enterprises in the field of telecommunications technology, such as FPT Joint Stock Company and CMC Technology Group, have a sustainable growth rate much lower than SRA at a value of 0.065 and 0.036. For CMG, the business began to encounter severe difficulties in the period 2011-2013 due to expanding distribution and assembly segments but needed to control costs better. To improve the above situation, CMG has proactively restructured its operations and initially recorded positive results, focusing on product development towards leasing access rights to the majority of customers and paying attention to the export market. After a loss in 2016 with an ROE value of -34.38%, the company had improvements in production and business activities in 2017 and 2018 with an increase in ROE value of 10.7% and 11.7%. As for FPT, with primary revenue from telecommunications services, FPT achieved growth with an average annual compound rate of 20.36% in the period 2014-2019. FPT's digital content

revenue comes from online advertising. Due to the difficulty in competing with two major rivals, FPT's revenue and profit growth rate from this segment is relatively modest compared to the industry's growth rate, at 7.94% for revenue and 17.71% for pre-tax profit. The enterprise with the lowest sustainable growth rate is Cokyvina Joint Stock Company, in which in 2016, the ROE value reached the lowest level of -35%; in 2017 and 2018, there was an improvement, but after that, the ROE value decreased in 2019 - 2021 with an average value of 1.5%.

** Average sustainable growth rate in the telecommunications technology industry in the period 2014-2021*

Listed businesses in the telecommunications technology industry achieved the highest sustainable growth rate in 2017, with an average value of 0.2189. In 2017, telecommunications businesses invested heavily in developing infrastructure to ensure sustainable development in the context of increasingly deep international economic integration, in which the event "Simultaneously deployed 4G" has become the industry's representative event this year. In the period 2018 - 2020, the growth situation decreased. In 2019, although the activities of telecommunications technology enterprises boomed, budget contributions increased by nearly 40%. However, this also indicates the substantial shift in the context of traditional telecommunications services being saturated. Also, this year, with high profits, businesses increased dividend payments to shareholders, which caused the retained earnings ratio to decrease, thereby decreasing the sustainable growth rate. In 2020, large companies cut spending on investment costs in Technology - Telecommunications when revenue declined due to the epidemic, affecting large IT - IT-telecommunications contracts of businesses in the industry. The total asset turnover value of businesses all recorded a decrease, affecting the sustainable growth rate during this period.

Figure 2: Average sustainable growth rate in the telecommunications technology industry period 2014-2021



V. Conclusion

The year 2021 recorded the return of growth of telecommunications technology enterprises after the epidemic period. However, from late 2022 to early 2023, businesses in the industry gradually decline in growth due to weak demand due to the risks of world economic recession and inflationary pressures. The slowdown in global economic growth has impacted the economy in general, including the telecommunications technology industry. This deceleration is expected to more or less affect customers' investment budget and spending plans for telecommunications technology next year, and there will be differentiation in the developments of telecommunications technology service segments.

Despite facing difficulties and challenges such as Recruiting and retaining talented people; Lack of clear and consistent policies, regulations, and legal frameworks for products and services developed on new technology platforms; Fierce competition among businesses in the industry; and Limited access to investment capital, but telecommunications technology businesses still receive priority attention to promote development from the Government and are considered a key driving force associated with the progress of the economy. The economy is demonstrated through programs such

as national digital transformation and the “Make in Vietnam” strategy. With advantages from policies to promote digital economic development, considering this a high-priority goal in the Government’s national development strategies, this is a reality, standing side by side with IT and telecommunications businesses. This is a great opportunity and a premise to support the business community in the industry to maintain steady growth and muscular development in the coming time.

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NGHIÊN CỨU TỶ LỆ TĂNG TRƯỞNG BỀN VỮNG CỦA DOANH NGHIỆP NGÀNH CÔNG NGHỆ VIỄN THÔNG NIÊM YẾT TẠI VIỆT NAM

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Tóm tắt: Bài viết làm rõ cơ sở lý luận về tăng trưởng bền vững và các mô hình đo lường chỉ số tốc độ tăng trưởng bền vững. Bài viết sử dụng Mô hình tăng trưởng bền vững của Higgins để xác định tốc độ tăng trưởng bền vững của các doanh nghiệp công nghệ viễn thông niêm yết tại Việt Nam. Kết quả cho thấy: Các doanh nghiệp công nghệ viễn thông niêm yết tại Việt Nam có tỷ lệ tăng trưởng bền vững trung bình ở mức -0,04 – 0,078, tỷ lệ tăng trưởng bền vững cao nhất vào năm 2017 với giá trị bình quân 0,2189, năm 2021 có ghi nhận sự tăng trưởng trở lại tuy nhiên giai đoạn từ cuối năm 2022 đến đầu năm 2023 đã chứng kiến các doanh nghiệp trong ngành dần giảm sút trong tăng trưởng do sức cầu yếu bởi những rủi ro suy thoái kinh tế thế giới và áp lực lạm phát. Mặc dù đối diện những khó khăn thách thức khó khăn, thách thức nhưng với thuận lợi từ những chính sách đẩy mạnh phát triển kinh tế số, cộng đồng doanh nghiệp trong ngành vẫn có khả năng duy trì nhịp tăng trưởng đều đặn, phát triển vững mạnh trong thời gian tới.

Từ khóa: tăng trưởng bền vững, tốc độ tăng trưởng bền vững, doanh nghiệp nhựa, yếu tố.

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