JRSSEM 2023, Vol. 03, No. 03, 770 – 797
E-ISSN: 2807 - 6311, P-ISSN: 2807 - 6494

THE EFFECT OF EXCHANGE RATE TOWARDS ON STOCK RETURNS MEDIATED BY FUNDAMENTAL FACTORS (STUDY ON STOCKS OF TELECOMMUNICATIONS SUB-SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE)

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Abstract: This study aims to analyze the effect of the exchange rate on stock returns (SR) mediated by fundamental factors, which are represented by return on assets (ROA), debt equity ratio (DER) and earnings per share (EPS), in listed telecommunications sub-sector industrial companies. on the Indonesian Stock Exchange for the 2015-2022 period. This thesis is also to see how financial signals can influence investor perceptions and their impact on SR. The data used is secondary data obtained from the Indonesia Stock Exchange for telecommunications sub-sector companies for the period 2015-2022 and Bank Indonesia data for the IDR-USD exchange rate. This study uses the exchange rate as the dependent variable, stock returns as the independent variable, and ROA, DER and EPS as mediating variables. The analysis technique using the Structural Equation Model (SEM) approach using Partial Least Square (PLS) software, namely Smart PLS software. The results of the study proved that ROA had a not significant positive effect on SR, DER had a significant positive effect on SR, EPS had a significant positive effect on SR, ER had an insignificant positive effect on ROA, ER had an insignificant negative effect on DER, ER had an insignificant negative effect on EPS and ER has a significant negative effect on SR. Furthermore, ER has no significant positive effect on SR mediated by ROA, ER has no significant negative effect on SR mediated by DER, ER has no significant negative effect on SR mediated by EPS.

Keywords: Return On Assets, Debt Equity Ratio, Earnings Per Share, Exchange Rate, Stock Return.

INTRODUCTION

The development of the capital market in Indonesia continues to increase, this happened after the government made regulations in the financial and banking sectors. The investor invests in the hope of getting a return on his investment and maintaining the value of his investment. Currently, the capital market is still considered an effective means to encourage the development of a country because it can attract long-term public funds for the movement of the productive sector. For the investor community, the capital market can be an investment opportunity to consider.

Shares are securities that represent the ownership of a company and are issued to investors. Stock prices in the capital market change at any time, even faster and repeat in a day. This means that stock prices are determined by the concept of supply and demand and market microstructure (Santosa & Puspitasari, 2019). There is no system or method that can accurately predict stock price movements in the capital market. In the capital market, investors need basic information and also technical information (Jogiyanto, 2017). In this case, there are several factors that can affect stock returns, both internal and external to the company. Internal factors include liquidity, efficiency, profitability, and solvency, which can be measured by current metrics, total revenue, return on equity (ROA), earnings per share (EPS), and debt-to-equity ratio (DER) (Mahdaleta et al., 2016). External factors can be macro risk indicators which include economic growth, exchange rates, inflation, government regulations, technology, socio-political situations and natural conditions (Jogiyanto, 2017).

In the telecommunications sector, the demand for convergence of data and services has steadily increased in recent years. Mainly due to the increasing use of the internet, the introduction of smartphones and digital applications. Telecommunications companies that are able to meet this demand and offer high-quality data services can earn significant revenues. In 2018, the growth of the information and communication sector increased by 7.09%, then the growth continued in the 2019-2022 period (Figure 1).

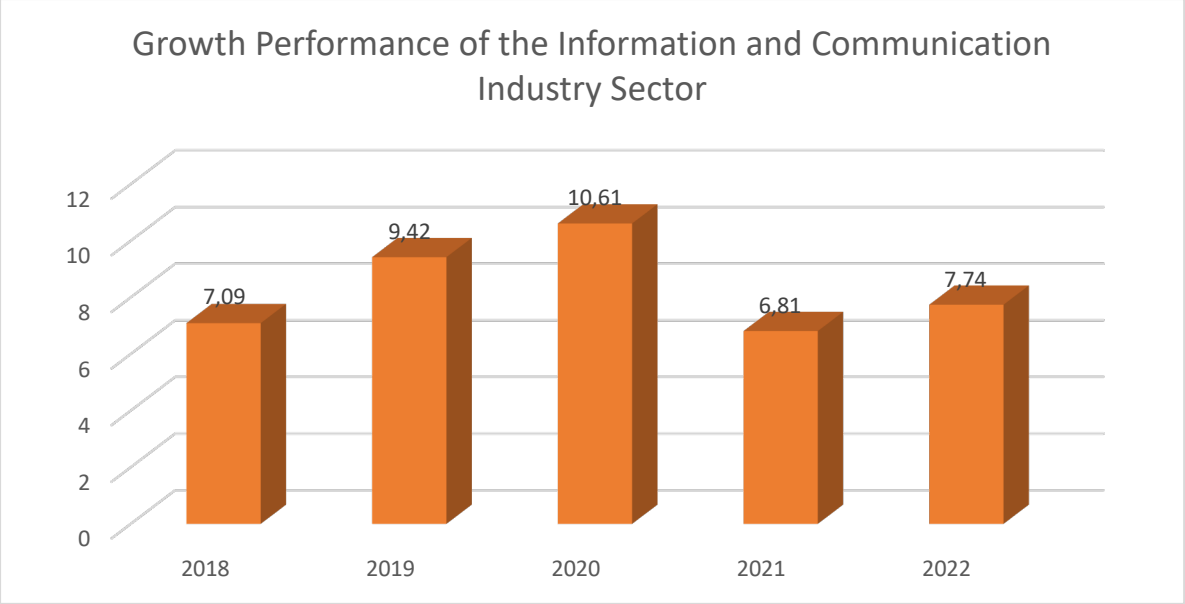

Figure 1. Bar chart of information and communication industry sector growth (2018 – 2022)
Source: BPS.go.id

Technological innovations in the telecommunications industry, such as the development of 5G networks, artificial intelligence (Artificial Intelligence) and the Internet of Things (IoT) can play an important role in the stock performance of telecommunications companies (Lawrencya & Dewi, 2021). The financial performance of telecommunications companies, including revenue, net income, and subscriber growth, is an important factor in stock returns.

Bank Indonesia Decree No. 18/10/PBI/2016 concerning the implementation of Foreign Exchange Trading in Rupiah in the State Market, Indonesia applies a floating exchange rates system, which means that the rupiah exchange rate will be determined by demand and supply factors in the foreign exchange market. Telecommunications companies may have revenues and expenses associated with international transactions, such as exporting services or importing equipment. If the local currency appreciates, the foreign currency yield may decrease if converted to the local currency. Vice versa, if the local currency weakens, foreign currency yields can increase when converted to local currency. These changes can affect a company's profits and earnings, which in turn can affect stock returns. The reference for the valuation of the country's currency, including Indonesia, is the US dollar, because it is one of the widely used international currencies. In figure 2 it can be seen that stock returns are not always directly proportional and linear to the exchange rate, this is possible because of other factors that can affect stock returns such as market factors, economic conditions, regulations, inflation and fundamental factors of the company.

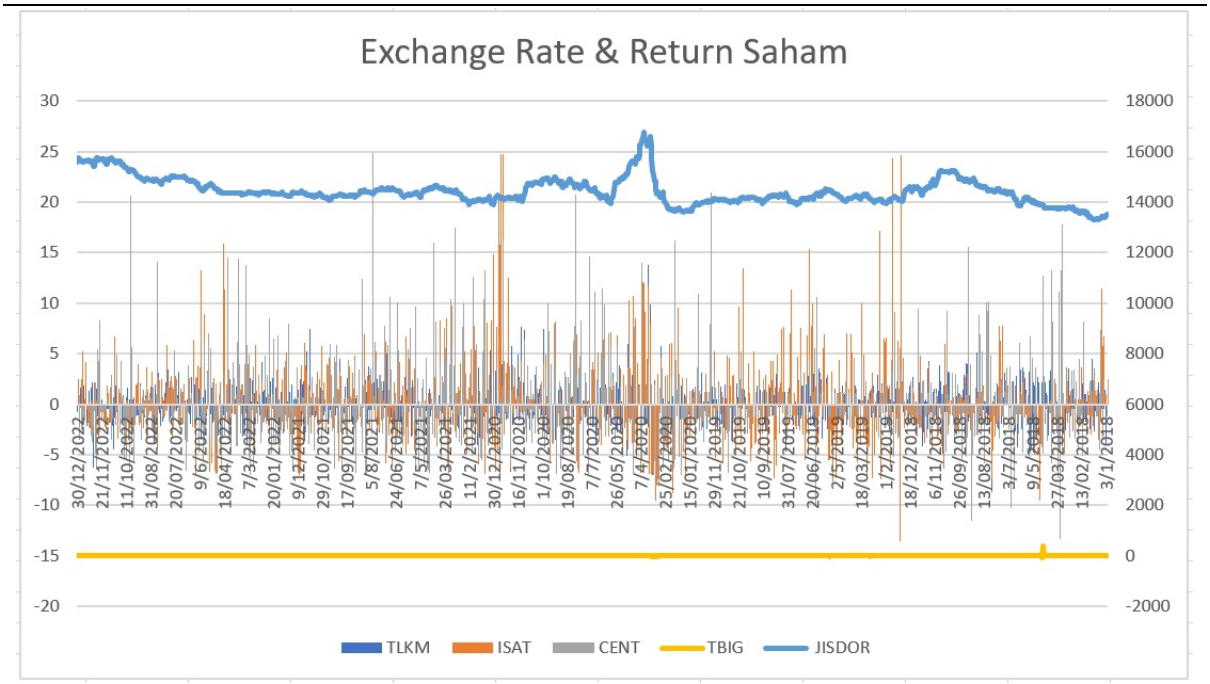

Figure 2. JISDOR Chart and Stock Return (2018 – 2022)
Source: The data processed by researchers (2023)

According to Gitman & Zutter 2015, there is usually a positive correlation between return on equity (ROA) and stock return (SR). A high ROA indicates the company's ability to earn profitable profits from the assets it owns. This can strengthen investor confidence and, ultimately, potent (Gitman & Zutter, 2015). Companies that have a high ROA can be considered to have strong earnings performance and also have greater growth potential. These factors can be a consideration for investors who want to buy shares of the company, in the hope that the company has a good chance of providing a favorable return on investment for them. However, keep in mind that the impact of ROA on stock returns is not always linear or direct. There are other factors that can affect stock returns, such as market conditions, economic situation, regulations, currency exchange rates, inflation rates, and other factors.

According to Gitman & Reece 2018, the effect of DER (Debt Equity Ratio) on shareholder return can vary depending on the situation and circumstances of the company. In general, a high DER can also mean positive returns on stocks, especially in the short term (Gitman, 2018). This is because the use of debt can increase the potential return for shareholders, especially if the return from the use of the asset exceeds the cost of servicing the debt. However, the effect of DER on stock returns is not always positive. Too high a DER ratio can also increase a company's financial risk from an investor's point of view. When a company has too high a DER, especially when it cannot properly repay its debts or when market or financial conditions change significantly, it can result in higher interest costs, limited liquidity or even the risk of

bankruptcy. In this case, a high DER can negatively impact stock returns as investors value companies with sound and sustainable capital structures. In some situations, DER (Debt to Equity Ratio) data may not have a significant impact on stock returns. This can happen when other factors such as operational performance, market conditions, and company policies have a greater influence than DER data in influencing stock performance.

According to Gitman & Reece 2018, the effect of Earnings per Share (EPS) on stock returns tends to have a positive relationship. This is due to the fact that a high EPS indicates a strong financial performance of the company and signals that the company is capable of generating greater profits for shareholders. Companies with high EPS are often more attractive to investors because they have the potential to provide greater dividends or greater capital growth potential through rising share prices. Investors are generally interested in owning shares of companies that generate high returns per share (Gitman, 2018).

The results of research by Asikin 2021 show that there is a positive influence between financial factors such as ROA and DER with stock return. While CR has a negative influence on stock returns (Asikin et al., 2021). Furthermore, Dwi Anggraini & Wijayanto's 2021 research found that return on assets (ROA) has a positive and significant influence on stock returns, while debt equity ratio (DER) has a positive but not significant influence on stock returns. The results of this study also show that moderation by the rupiah exchange rate (Exchange Rate) changing the DER has a positive and significant influence on stock returns and the current ratio has a negative and significant influence on stock returns (Anggraini & Wijayanto, 2021).

The next research Jihadi 2021 found that the rupiah exchange rate has a negative and significant effect on stock returns, the inflation rate has a positive and insignificant effect on stock returns, interest rates have a negative and significant effect on stock returns (Jihadi et al., 2021).

In research conducted Anjani & Syarif 2019, it was found that DER and EPS have a positive and significant influence on stock returns (Anjani & Syarif, 2019). Ruhani &; Mat Junoh 2022 obtained research results that EPS and price earnings ratio have a positive and significant effect on stock returns (Ruhani & Junoh, 2022). In research conducted by Kai & Rahman (2018), research results found that EPS and ROA have a positive and significant effect on stock returns. Meanwhile, in the research of Hertina et al., (2019) obtained research results that ROA &; ROE have a positive and insignificant effect on stock returns, while DER and EPS have a positive and significant effect on stock returns.

Chandra 2019 profitability has a positive and significant effect on stock returns (Chandra et al., 2019). Muhammad &; Gohar obtained the results of ROA and EPS research that have a positive and significant effect on stock returns (Muhammad & Ali, 2018). Here Ayu obtained research results that ROA has a positive and significant effect on stock returns (Nadyayani & Suarjaya, 2021).

In Yeboah & Takacs research 2019 exchange rate has a positive effect and on ROA. Meanwhile (Yeboah & Takacs, 2019).

in the research of Shim 2020 exchange rate has a positive effect in part on leverage (Shim et al., 2020). Zhang & Ouyang 2018 found that exchange rate has a positive effect on profitability (Zhang & Ouyang, 2018). Boadi 2018 found that earnings per share has a positive effect on stock returns (Boadi, 2018).

This study aims to analyze the influence of several factors on the financial performance of a company. The factors analyzed include Return on Assets (ROA), Debt to Equity Ratio (DER), Earnings per Share (EPS), and exchange rate. The results of the study are expected to present a better understanding of the relationship between ROA, DER, EPS, exchange rates, and stock returns. In addition, this study also explores the effect of exchange rates on ROA, DER, and EPS, as well as their impact on stock returns, either directly or through mediation by ROA, DER, or EPS.

This research aims to provide solutions to existing problems in research, with different benefits for academics, practitioners, and regulators. For academics, this research can be used as a reference for their research on the relationship between exchange rates, fundamental factors, and stock returns in telecommunications companies. The findings are expected to fill information gaps from previous studies. For practitioners, this research provides an understanding of the effect of exchange rates on stock returns mediated by fundamental factors. Practitioners can identify risks related to changes in exchange rates and certain factors, and implement appropriate risk management strategies. These findings can also be used to develop more effective business strategies. For regulators, the study provides insight into the factors that influence telecom companies' stock returns, assisting in designing policies to promote industry stability and growth. In addition, the general public can utilize the results of this research as a source of information to understand capital market dynamics and make smarter investment decisions.

MATERIALS AND METHODS

A. Data Sources and Research Data

In this study, the research method carried out is a quantitative method where the analysis used is descriptive statistics and hypothesis testing with partial least square (PLS). Quantitative methods are research methods based on the philosophy of positivism and are used to examine certain populations or samples. This analysis is a multivariate statistical analysis that estimates the influence between variables simultaneously with the aim of predictive studies, exploration or structural model development (Hair et al., 2019). The study was conducted using SEM PLS. The reason this study uses SEM PLS is because this analysis does not assume that the data is normally distributed and can estimate the effect simultaneously by involving mediation variables. The estimation process is done through bootstrapping. Since the data process uses secondary data and each variable is measured directly, the evaluation process involves

only the evaluation of the structural model and the evaluation of the goodness and fit of the model

B. Data Collection Techniques

Sampling technique is a way to determine the number of samples and the selection of prospective sample members, so that each sample selected in the study can represent its population (representative) both in terms of number and from aspects of characteristics owned by the population.

There are two sample techniques, namely probability sampling and non-probability sampling (Pardede & Haryadi, 2017):

1) Probability Sampling: is a sampling technique that provides equal opportunities for each element (member) of the population to be selected as a member of the sample
2) Non-Probability Sampling: is a sampling technique that does not provide equal opportunities for each element (member) of the population to be selected as a member of the sample.

In this study, the technique of taking data sources by means of non-probability sampling with the purposive sampling method, because sampling in this case is limited to several criteria determined by the researcher, namely:

1) Companies in the telecommunications sub-sector registered in the period 2015-2022.
2) Telecommunications sub-sector companies that have published audited annual financial statements for the period 2015-2022
3) Have complete information in accordance with the 3 mediation variables applied.

C. Validity of Examination Data

There are several ways to collect data, including surveys, observations, interviews, literature studies, secondary data, and experiments (Sekaran & Bougie, 2016). This research uses secondary data, namely data obtained from government institutions, namely: Indonesia Stock Exchange for ROA, DER, EPS, stock return and Bank Indonesia for exchange rate (JISDOR exchange rate).

D. Data analysis techniques

In this study, to find the results, data analysis was carried out with a structural equation modeling (SEM) approach using partial least square (PLS) software, namely smart PLS software. Because the data process uses secondary data (in panel data; annual) and each variable is measured directly, the evaluation process involves only the evaluation of the structural model and the evaluation of the goodness and fit of the model.

RESULTS AND DISCUSSION

A. Descriptive Statistical Analysis

1. Partial Least Square

Structural Equation Modeling Partial Least square (SEM PLS) analysis is a multivariate statistic to examine the influence between variables simultaneously with the purpose of prediction studies (Hair et al., 2019). The reason for using SEM PLS analysis in this study is that SEM PLS can estimate the influence between variables simultaneously by involving

mediation variables. The estimation of SEM PLS in this study is only on the influence between variables (inner model) because the research variability is not measured by a number of indicators but is measured by the variables themselves, namely ROA, DER, EPS, Stock Return (SR) and Exchange Rate (ER). Evaluation is carried out in stages.

Table 1 Ratio, Stock Return and IDR-USD Exchange Rate

KODE	ROA	DER	EPS	SR	ER
BALI	0.10	0.84	34.85	0.53	13,795
BALI	0.02	0.92	7.52	0.15	13,436
BALI	0.03	0.85	16.93	0.32	13,548
BALI	0.01	0.85	13.84	0.02	14,572
BALI	0.01	0.95	11.88	-0.3	13,901
BALI	0.02	0.93	21.45	-0.27	14,105
BALI	0.04	0.97	47.92	0.09	14,278
BALI	0.04	0.99	53.93	-0.03	15,592
BTEL	-3.58	-1.19	-282.53	0	13,795
BTEL	-0.89	-1.11	-45.54	0	13,436
BTEL	-2.08	-1.05	-40.74	0	13,548
BTEL	-1.01	-1.01	-19.64	0	14,572
BTEL	0.65	-1	0.25	0	13,901
BTEL	-33.11	-1	-2.94	0	14,105
BTEL	4.58	-1	-2.76	0	14,278
BTEL	-3.47	-1.01	-3.28	0	15,592
CENT	-0.02	0.17	-6.37	-0.58	13,795
CENT	-0.02	0.27	-2.47	0.16	13,436
CENT	-0.03	0.51	-3.9	-0.49	13,548
CENT	0.01	0.71	1.15	0.08	

					14,572
CENT	0	0.9	0.29	-0.15	13,901
CENT	-0.07	2.09	-16.33	0.95	14,105
CENT	-0.02	2.47	-10.08	0.63	14,278
CENT	-0.11	-34.93	-68.83	-0.52	15,592
EXCL	0	0.02	-3.12	-0.33	13,795
EXCL	0.01	0.01	38.23	-0.56	13,436
EXCL	0.01	0.01	35.44	0.22	13,548
EXCL	-0.06	0.01	-308.23	-0.33	14,572
EXCL	0.01	0.01	67.11	0.59	13,901
EXCL	0.01	0.01	35.21	-0.13	14,105
EXCL	0.02	0.01	121.22	0.16	14,278
EXCL	0.01	0.01	105.32	-0.32	15,592
FREN	-0.08	2.02	-14.06	-0.78	13,795
FREN	-0.09	2.89	-17.63	0.04	13,436
FREN	-0.13	1.61	-19.77	-0.06	13,548
FREN	-0.14	1.03	-16.41	0.56	14,572
FREN	-0.08	1.17	-7.07	0.77	13,901
FREN	-0.04	2.13	-4.92	-0.51	14,105
FREN	0	2.43	-1.4	0.3	14,278
FREN	0.02	1.95	3.36	-0.24	15,592
GOLD	-0.05	0.22	-15.17	-0.03	13,795
GOLD	-0.01	0.67	-4.31	0.4	13,436
GOLD	0	0.92	-2.86	-0.85	13,548
GOLD	-0.03	1.54	-25.69	-0.04	14,572
GOLD	0.02	0.11	9.38	-0.15	13,901

GOLD	0.04	0.09	10.3	0.04	14,105
GOLD	0.04	0.11	11.43	0.74	14,278
GOLD	0.04	0.09	12.54	-0.2	15,592
IBST	0.08	0.4	234	-0.58	13,795
IBST	0.02	0.57	93	-0.03	13,436
IBST	0.04	0.47	194	0.77	13,548
IBST	0.02	0.48	108	0.02	14,572
IBST	0.01	0.55	95	-0.21	13,901
IBST	0.01	0.68	50	0.11	14,105
IBST	0.01	0.45	47	-0.2	14,278
IBST	0	0.6	31	-0.01	15,592
ISAT	-0.02	2.11	-241.11	0.26	13,795
ISAT	0.02	1.71	203.41	0.15	13,436
ISAT	0.02	1.42	209	-0.34	13,548
ISAT	-0.05	1.85	-442.42	-0.65	14,572
ISAT	0.03	1.63	288.7	0.73	13,901
ISAT	-0.01	1.16	-131.93	0.74	14,105
ISAT	0.11	1.33	1242.4	0.23	14,278
ISAT	0.04	0.46	587.43	0	15,592
KBLV	-0.11	0.62	-359	-0.38	13,795
KBLV	-0.12	0.77	-456	-0.54	13,436
KBLV	-0.12	1.13	-632	-1.84	13,548
KBLV	-0.6	4.54	-2088	0.64	14,572
KBLV	-0.04	6.59	-147	-0.61	13,901
KBLV	0	6.14	0	0.5	

					14,105
KBLV	-0.28	149.87	-799	0.39	14,278
KBLV	-0.22	-4.13	-156	-0.83	15,592
LINK	0.14	-0.06	210.1	-0.23	13,795
LINK	0.16	-0.09	272.21	0.22	13,436
LINK	0.17	-0.14	341.11	0.06	13,548
LINK	0.13	-0.11	269.32	-0.11	14,572
LINK	0.14	0.13	311.21	-0.19	13,901
LINK	0.12	0.3	340.32	-0.39	14,105
LINK	0.09	0.59	322.41	0.66	14,278
LINK	0.02	1.04	87.35	-0.35	15,592
SUPR	0.01	1.61	122.42	0.08	13,795
SUPR	0.02	1.7	274.67	-0.2	13,436
SUPR	0.03	1.91	290	-0.03	13,548
SUPR	-0.11	2.55	-1076.11	0	14,572
SUPR	-0.02	2.43	201.21	-0.52	13,901
SUPR	0.02	3.85	167	0.25	14,105
SUPR	-0.01	1.63	-61.22	2.77	14,278
SUPR	0.1	0.73	936.91	1.2	15,592
TBIG	0.02	13.31	304.71	-0.65	13,795
TBIG	0.03	14.11	157.95	-0.18	13,436
TBIG	0.09	7.31	520.8	-2.91	13,548
TBIG	0.03	7.55	31.26	-0.44	14,572
TBIG	0.03	5.14	39.26	0.71	13,901
TBIG	0.03	3.13	48.45	0.33	14,105
TBIG	0.04	3.54	74.32	0.81	14,278

TBIG	0.04	3.03	73.43	-0.22	15,592
TLKM	0.14	0.37	157.78	0.08	13,795
TLKM	0.16	0.3	196.19	0.22	13,436
TLKM	0.17	0.32	223.55	0.1	13,548
TLKM	0.13	0.38	182.04	-0.16	14,572
TLKM	0.13	0.44	188.47	0.06	13,901
TLKM	0.12	0.54	210.02	-0.17	14,105
TLKM	0.12	0.48	249.95	0.22	14,278
TLKM	0.1	0.42	209.5	-0.07	15,592
TOWR	0.08	1.91	124	0.13	13,795
TOWR	0.11	1.2	209.21	-5.63	13,436
TOWR	0.11	1	206.11	0.11	13,548
TOWR	0.1	1.31	43.54	-0.14	14,572
TOWR	0.09	1.71	46.36	0.17	13,901
TOWR	0.08	1.61	57.32	0.19	14,105
TOWR	0.05	3.31	69.71	0.17	14,278
TOWR	0.05	2.91	69.53	-0.02	15,592

2. Normality Test

The test of data normality can be performed with statistics Kolmogorov Smirnov. Data processing is carried out in SPSS 26 software.

Table 2 Normality Test

One-Sample Kolmogorov-Smirnov Test

		ROA	DER	EPS	EXC	RS
N		112	112	112	112	112
Normal Parameters[a,b]	Mean	-,2790	2,1225	39,7860	-,0437	14193,0866
	Std. Deviation	3,01082	13,78408	310,27885	,75279	651,51208

Most Extreme Differences	Absolute	,447	,389	,283	,171	,180
	Positive	,416	,380	,158	,145	,180
	Negative	-,447	-,389	-,283	-,171	-,123
Test Statistic		,447	,389	,283	,171	,180
Asymp. Sig. (2-tailed)		,000[c]	,000[c]	,000[c]	,000[c]	,000[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

The results of the normality test show that the distribution of ROA, DER, EPS, ER and SR research variables is not a normal distribution. This is shown by the p-value of Smirnov's kolmogorov test < 0.05. However, PLS SEM analysis can be used even if the data is not normally distributed because PLS SEM includes non-paramteric statistical analysis that does not assume that the data is certain distributed (normal distribution), (Hair et al., 2019). PLS SEM analysis has a testing system with bootstrapping The bias-corrected and accelerated (BCa) method which is more recommended for correcting data abnormalities (Hair et al., 2019).

3. Multicollinearity Test

Multicollinary tests are important to perform so that the estimated parameters of the PLS SEM model are not biased. Muktikolinier is a high correlation between exogenous variables that affect endogenous variables. SR variables are affected by ER, ROA, DER and EPS. Therefore, ER, ROA, DER and EPS should not be highly correlated. This examination in SEM PLS is seen from the inner VIF (variance Inflated Factor). Here are the results of data processing.

Table 3. Inner VIF

	DER	EPS	ER	ROA	SR
DER					1.058
EPS					1.058
ER	1.000	1.000		1.000	1.003
ROA					1.003

The processing results show that the inner VIF value of variables that affect SR is less than 5, so there is no multicollination between variables. ER, ROA, DER and EPS are not highly correlated so they do not cause multicollination.

4. Outlier Data Check

According to Joseph F 2021, in addition to being multicollinary, examination of outlier data needs to be done because outliers can affect the

estimated results of model parameters (Hair et al., 2019). Outliers can cause parameter estimates to be biased, causing variables in the model to be insignificant. Outlier data check can be done in 2 (two) ways:

1) In theory, the company has not experienced changes in stock return (SR) in the period 2015-2022. In Joseph F 2021, the analysis of causality of influence between variables can be seen from variations in variable changes that can cause changes in other variables. If the company does not experience variations / changes in SR, it can cause the results of estimates of SR to be biased. In this case, the BTEL company is eliminated in the model because the SR value has not changed from 2015-2022 (Hair et al., 2019).
2) Statistically to detect outliers can be used is studentized residual, (Prasad Dhakal & Sapkota Armila Rajbhandari Assoc Gopi Chandra Kaphle,. Residual studentized scores above -2 or 2 are referred to as data outliers. The release of outlier data is carried out gradually considering the limitations of the research sample (Dhakal, 2017).

The next step is to eliminate BTEL data because BTEL's SR value has not changed from 2015 - 2022 which means that the variation in BTEL's SR data is rated 0. Because SmartPLS 3.29 analysis does not provide outlier data analysis, model estimation analysis is carried out by progressing between ER, ROA, DER, EPS variables against SR with SPSS 26 Software.

Table 4. Outlier Data with Studentized Residuals

Kode	ROA	DER	EPS	EXC	RS	Studentized Residual
TOWR	0,110	1,200	209,210	13436	-5,630	-7,053
TBIG	0,090	7,310	520,800	13548	-2,910	-3,621
KBLV	-0,120	1,130	-632,000	13548	-1,840	-2,269
GOLD	0.000	0.920	-2.860	13548	-0.850	-2.080
CENT	-0,070	2,090	-16,330	14105	0,950	2,184
SUPR	-0,010	1,630	-61,220	14278	2,770	3,590

From the initial data of 112 data and then eliminated 8 BTEL company data because BTEL's SR variables did not change from 2015-2022 and then through the studentized residual process, 6 data were eliminated as

outlier data because the residual studentized value was above -2 or 2.

5. Simultaneously Test

Furthermore, estimating the PLS SEM model by eliminating 14 warning data that have the potential to be outliers. The 14 data were omitted because they had residual studentized scores above 2 or -2. Next, the process of estimation and testing of the model is carried out.

Table 5. F Test

	R square	Statistik F	Tabel F	Keterangan
ER → ROA	0,021	0,289	3,940	Tidak signifikan
ER → DER	0,003	0,192	3,940	Tidak signifikan
ER → EPS	0,002	2,059	3,940	Tidak signifikan
(ER, ROA, DER dan EPS) → SR	0,150	4,103	2,466	Signifikan

Based on data processing, F statistical results were obtained for the effect of ER ROA ER DER and ER EPS is not significant as indicated by the statistical values F < F table. The F value of the table 3.940 is obtained from the F table (0.05; 1; 98-1-1). While the joint influence (ER, ROA, DER and EPS) > SR is accepted where F statistics 4.103 > 2.466 or F count > F table, therefore it simultaneously shows there is an influence of ER, ROA, DER and EPS on SR. The F value of the table 2.466 is obtained from the F table (0.05; 98-4-1). After that, it is followed by a partial test with a t test.

6. Partial Test

Table 6. t Test

Hipotesis	Pernyataan Hipotesis	Path Coefficient	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Description
H1	ROA -> SR	0.087	0.157	0.143	0.613	0.265	Tidak Signifikan
H2	DER -> SR	0.265	0.246	0.158	1.671	0.047	Signifikan
H3	EPS -> SR	0.243	0.183	0.143	1.701	0.045	Signifikan
H4	ER -> ROA	0.146	0.095	0.160	0.914	0.180	Tidak Signifikan
H5	ER -> DER	-0.052	-0.100	0.114	0.456	0.324	Tidak Signifikan

H6	ER -> EPS	-0.043	-0.047	0.079	0.544	0.293	Tidak Signifikan
H7	ER -> SR	-0.218	-0.208	0.079	2.769	0.003	Signifikan

Based on the results of processing, it is known as follows:

1) The first hypothesis (H1) of ROA has a significant positive effect on SR. Based on table 4.5, the result of the cofficient path is (0.087) and the statistical t is 0.613 and the p-value is 0.265, it is stated that H1 is not qualified. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So the results of the study are ROA has a positive but not significant effect on SR, or any change in the company's ROA has a positive but not significant effect on increasing SR.
2) The second hypothesis (H2) is that DER has a significant positive effect on SR. Based on table 4.5, the result of the path cofficient is (0.265) and the statistical t is 1.671 and the p-value is 0.047, it is stated that H2 qualifies. This is because the statistical t is more than 1.645 and the p-value is smaller than 0.05. So the results of the study are that DER has a significant positive effect on SR, or any change in company DER has a significant positive effect on increasing SR.
3) The third hypothesis (H3) is that EPS has a significant positive effect on SR. Based on table 4.5, the result of the path cofficient is (0.243) and the statistical t is 1.701 and the p-value is 0.045, it is stated that H3 qualifies. This is because the statistical t is more than 1.645 and the p-value is smaller than 0.05. So the results of the study are that EPS has a significant positive effect on SR, or any significant change in company EPS has a positive effect on increasing SR.
4) The fourth hypothesis (H4) is that ER has a significant positive effect on ROA. Based on table 4.5, the result of the cofficient path is (0.146) and the statistical t is 0.914 and the p-value is 0.180, it is stated that H4 is not qualified. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So the results of the study are that the ER has a positive effect not significantly on ROA, or any change in the company's ER has a positive but not significant effect on increasing ROA.
5) The fifth hypothesis (H5) is that ER has a significant positive effect on DER. Based on table 4.5, the result of the cofficient path (-0.052) and the statistical t 0.456 and p-value 0.324, it is stated that H5 does not qualify. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So the results of the study are that ER has a negative but not significant effect on DER, or any change in ER will reduce DER insignificantly.

6) The sixth hypothesis (H6) is that ER has a significant positive effect on EPS. Based on table 4.5, the result of the cofficient path (-0.043) and the statistical t 0.544 and the p-value 0.293, it is stated that H6 is not qualified. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So the results of the study are that ER has a negative but not significant effect on EPS, or any change in ER will decrease EPS but not significantly.
7) The seventh hypothesis (H7) is that ER has a significant positive effect on SR. Based on table 4.5, the result of the cofficient path (-0.218) and statistical t is 2.769 and the p-value is 0.003. it is stated that H7 does not qualify. This is because the statistical t is more than 1.645, the p-value is smaller than 0.05 and the path cofficient value is negative. So the results of the study are that ER has a significant negative effect on SR, or any change in ER will significantly have a negative effect on decreasing SR.

Table 7. t Mediating Test

Hipotesis	Pernyataan Hipotesis	Path Coefficient Mediasi	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Keterangan
H8	ER -> ROA -> SR	0.013	-0.003	0.031	0.407	0.342	Tidak Signifikan
H9	ER -> DER -> SR	-0.014	-0.015	0.019	0.728	0.233	Tidak Signifikan
H10	ER -> EPS -> SR	-0.010	-0.006	0.019	0.545	0.293	Tidak Signifikan

Based on the results of processing, it is known as follows:

1) The eighth hypothesis (H8) is that ER has a significant positive effect on SR by ROA-mediated. Based on table 4.6, the result of path cofficient mediation (0.013) and the statistical t 0.407 or p-value 0.342, it is stated that H8 does not qualify. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So that the results of the study are that ER has a positive but not significant effect on SR with ROA mediation
2) The ninth hypothesis (H9) is that ER has a significant positive effect on SR by DER mediation. Based on table 4.6, the result of path cofficient mediation is (-0.014) and the statistical t is 0.728 and the p-value is 0.293, it is stated that H9 does not qualify. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So that the results of the study are that ER has a negative but not significant effect on SR with DER mediation
3) The tenth hypothesis (H10) is that ER has a significant positive effect on SR by EPS-mediated. Based on table 4.6, the result of path

cofficient mediation is (-0.010) and the statistical t is 0.545 or p-value 0.293, it is stated that H10 does not qualify. This is because the statistical t is less than 1.645 and the p-value is greater than 0.05. So that the results of the study are that ER has a negative but not significant effect on SR with EPS mediation.

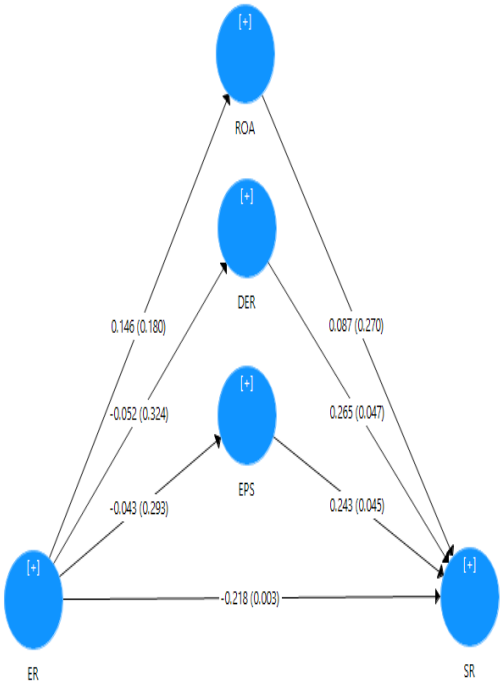

Figure 3. Estimation Model (Path Coefficient and p-value)

Based on the processing results, ER is not significant to ROA, DER and EPS but ER significantly negatively lowers SR. Any increase in ER will decrease SR. ROA has a positive effect that is not significant on increasing SR, but DR and EPS have a significant positive effect on increasing SR

7. R Square

SEM PLS is a structural equation modeling analysis with the aim of predictive studies. Therefore, the PLS SEM algorithm is to estimate the value of R square, Hair et al (2021). The measure used to support the evaluation of the goodness of the PLS model is R square.

Table 8. R Square

	R Square
ROA	0.021
DER	0.003
EPS	0.002
SR	0.150

Based on the R square value above, it can be seen that the magnitude of the influence of ER on ROA is 2.1%, the magnitude of the influence of ER on DER is 0.3%, the magnitude of the influence of ER on EPS is 0.2% and the joint influence of ROA, DER, EPS and ER on SR is 15%.

8. Q Square

Q square is a form of validation of PLS SEM models to see the accuracy of model predictions. This measure is called predictive relevance when the value of Q square is above 0. According to Ghazali Imam (2010) the value of Q square can be calculated as follows.

Q square = 1 – (1 – R12) (1 – R22)... (1-Rn2)

Q square = 1 – (1 – 0,021) (1 – 0,002) (1 – 0,003) (1 – 0,150)

Q square = 1 – (0,828)

Q square = 0,172

The value of Q square calculated is

0.172 > 0, so it shows that the model has predictive relevance, where the model used can explain the information in the research data by 17.20%.

B. Discussion

1. The Effect of ROA on Stock Return

The results of the ROA study had a positive but not significant effect on SR or in other words, the first hypothesis of the study was rejected. This condition can illustrate that even though the average profit of the company increases, if investors have higher expectations or if the company's results are considered less impressive than those expectations, then the increase in ROA may not be enough to meet these expectations, so the effect of ROA on SR becomes insignificant. Or in other words, the increase in ROA has not been able to provide a signal for investors or analysts to buy company shares. A company's capital structure, including the use of debt and equity, can affect the relationship between ROA and stock gains. If the company relies on debt to increase ROA, then high interest costs might reduce the profits available to shareholders. Bad news or negative sentiment surrounding a company, regardless of its operational performance, can also affect the stock price. Conversely, good news or positive sentiment can also result in an increase in stock prices.

Companies that are able to generate high profits relative to their total assets and in line with market expectations, can give positive signals to investors that the company is efficient in utilizing its assets and vice versa low ROA, can show a lack of efficiency in the use of assets, which can result in a lack of investor confidence in the company's performance. However, the relationship between ROA and SR is not always linear or direct due to the complex factors that exist.

The results of previous research conducted by Asikin et al., (2021), Dwi Anggraini &; Wijayanto, (2021), Ayu et al., (2021) and Muhammad & Gohar, (2021) prove that ROA has a positive and significant effect on SR.

9. The Effect of DER on Stock Return

The results showed that DER had a significant positive effect on SR or in other words, the hypothesis of both studies was accepted. The higher the DER, the lower the company's funding provided by shareholders. Judging from the ability to pay long-term obligations, the lower the DER, the better the company's ability to pay its long-term obligations. This certainly can attract investors to buy shares of the company because it is considered to have good performance.

In another perspective, companies that have a higher DER may indicate that they have a more efficient capital structure. This gives them the flexibility to allocate capital more effectively, including to make potentially profitable expansions or acquisitions. Therefore, an increase in DER could also be seen by investors as a sign that the company has a strong growth plan and that management has confidence in its prospects. This can increase positive sentiment in the market towards the company's shares.

When companies make sufficient profits, they are expected to pay off borrowed debts, and the remaining debt payments will contribute to the company's capital. This can be an attraction for investors because it shows that the company has a good performance. And finally, this can push up the stock price. The effect of DER on SR cannot be explained simply as positive, negative, significant, or absolutely insignificant. This largely depends on the company's particular situation, how the debt is used, the level of risk associated with the debt, and external factors such as market and economic conditions. In the context of Signaling Theory, companies choose DERs that fit their business strategy and their ability to manage risk. They can use DER as a signal to communicate information about their financial structure to investors.

The results of this study are in line with previous research conducted by Asikin et al., 2021, (Dwi Anggraini &; Wijayanto (2021), Hertina et al., (2019), Muhammad & Gohar (2021) which showed that DER has a positive and significant effect on SR (Asikin et al., 2021) (Anggraini & Wijayanto, 2021) (Jihadi et al., 2021).

10. The Effect of EPS on Stock Return

The results showed that EPS had a significant positive effect on SR or in other words, the third hypothesis of the study was accepted. EPS is one of several key indicators used to assess a company's financial performance. An increase in EPS could reflect that the company managed to generate more profit for each share held by its shareholders. This is often taken by investors as a sign that the company is experiencing growth and delivering profitable results. Investors often pay great attention to EPS when they are making investment decisions. If a company is able to generate stable EPS and experience consistent growth in operational performance, this can increase investor confidence and make them more interested in buying and continuing to store shares of the company in their investment portfolio.

The effect of EPS on SR can vary, and this does not always result in an immediate positive or negative impact. A high EPS level could indicate an increase in profits, which in turn could increase the potential dividends that investors will receive. When the number of investors interested in buying shares increases, this can drive up the share price, which will contribute to an increase in SR. However, the opposite is also possible if the company does not meet the EPS expectations that the market has anticipated. In this case, it may lead to a decrease in SR as investors may feel disappointed or worried about the company's performance. Investors often compare actual EPS figures with EPS estimates made by analysts to gauge whether a company has met or even exceeded market expectations. Conformity with these forecasts can have an impact on how the market assesses a company's performance and, ultimately, on that

company's SR. In the context of Signaling Theory, EPS is used by companies as a communication tool to provide signals about their performance and prospects to stakeholders, particularly investors and analysts.

The results of this study are in line with the research of Hertina et al., (2019), Boadi (2018), Ruhani & Mat Junoh (2022), Kai & Rahman (2018) and Muhammad & Gohar (2021) which show that EPS has a positive and significant effect on SR.

11. Effect of ER on ROA

The results showed that ER had a positive but not significant effect on ROA or in other words, the fourth hypothesis of the study was rejected. The effect of ER on ROA depends largely on the extent to which the company has foreign currency exposure. Companies that have revenues or expenses denominated in foreign currencies, currency exchange rate fluctuations can affect revenues and expenses, but from the results of current research such influences may not be significant enough to affect overall ROA in the telecommunications industry.

The effect of currency exchange rates (ER) can vary greatly between companies operating in different industries and different geographic locations. This is due to a variety of factors, and not all companies have the same exposure to currency exchange rate fluctuations, depending on the nature of their business operations. Companies that are more involved in activities such as exporting, importing, or having international operations tend to have higher exposure to currency exchange rate fluctuations. In this case, changes in the ER can have a significant impact on their financial performance.

However, it is important to remember that the effect of ER on ROA cannot be explained by simple words such as "positive," "negative," "significant," or "insignificant." This largely depends on the specific situation of each company, their characteristics (such as revenue and cost structure), and the risk management strategies they employ to deal with ER risk.

Some strategies that can be used by companies to manage ER risk include the use of financial instruments such as futures contracts or currency options. Using these tools, companies can work to protect their ROA from currency fluctuations that can be detrimental. Such strategies help reduce the uncertainty that ER changes may bring and allow companies to still maintain the stability of their financial performance.

The results of this study are not in line with Yeboah & Takacs' research 2019 which shows that ER has a negative and significant effect on ROA, where the study was conducted in South Africa in 2019 for 49 companies listed on the South African Stock Exchange (Yeboah & Takacs, 2019).

12. Effect of ER on DER

The results showed that ER had a negative but not significant effect on DER or in other words, the fifth

hypothesis of the study was rejected. The effect of the currency exchange rate (ER) on the Debt to Equity Ratio (DER) can have a significant impact on a company's capital structure, especially if the company has a larger amount of debt denominated in foreign currencies compared to local currencies. On the other hand, companies that have relatively small amounts of debt denominated in foreign currencies may not be significantly affected by currency exchange rate fluctuations. The importance of prudent currency risk management and a good understanding of foreign currency exposure becomes very important in maintaining the stability of a company's capital structure and financial performance, especially when exchange rate changes are likely to occur. With proper risk management measures, companies can reduce the potential negative impact that currency exchange rate fluctuations have on their capital structure and maintain their financial stability.

One method that can be applied by companies is to implement a hedging policy to reduce risk due to changes in currency exchange rates (ER). By using hedging tools such as forward contracts or currency options, companies can protect themselves from the negative impact of currency exchange rate fluctuations on their Debt to Equity Ratio (DER). Such hedging policies can help reduce potential losses that may arise due to changes in exchange rates and maintain the stability of the company's capital structure.

The results of this study are not in line with the research of Shim et al., (2020) which shows ER has a negative and significant effect on DER.

13. Effect of ER on EPS

The results showed that ER had a negative but not significant effect on EPS or in other words, the sixth hypothesis of the study was rejected. The effect of currency exchange rates on earnings per share (EPS) can vary greatly depending on the extent to which a company has exposure to foreign currencies and the direction in which those exchange rates change.

If the domestic currency depreciates against the foreign currency, companies that have revenues denominated in foreign currencies may experience an increase in revenue when converted to a stronger domestic currency. This can contribute positively to EPS as higher earnings will be converted into domestic currencies that have higher purchasing power. Conversely, if the domestic currency strengthens against a foreign currency, the revenue and profit generated in the foreign currency will have a lower value when converted to the domestic currency. This may result in a decrease in EPS as lower revenues and profits will be converted into a stronger domestic currency. If a company has foreign-denominated debt, domestic currency appreciation can increase interest expense and

domestic currency debt costs, which can also negatively impact EPS.

To that end, prudent currency risk management and a solid understanding of the impact of exchange rates on financial statements are essential in maintaining a company's profitability in the face of possible exchange rate fluctuations. With the right risk management strategy, companies can minimize negative impacts and capitalize on the potential positive impact of currency exchange rate changes on their EPS

The results of this study are not in line with the research of Zhang & Ouyang 2018 which shows ER has a positive and significant effect on EPS (Zhang & Ouyang, 2018).

14. Effect of ER on SR

The results showed that ER had a significant negative effect on SR or in other words, the seventh hypothesis of the study was rejected. Fluctuations in currency exchange rates can have a significant impact on a company's competitiveness in international trade. As the domestic currency strengthens, the company's export products become more expensive for international customers, potentially reducing revenue earned from exports. On the other hand, if the domestic currency weakens, this can increase the competitiveness of export products, but it can also lead to an increase in import costs. If a company has significant exposure to foreign currency through export and import activities, exchange rate fluctuations can have a major impact on their financial performance and, ultimately, on their share price.

Companies operating in international markets often have to convert their profits from foreign currency to domestic currency for the purpose of financial reporting and distribution to shareholders. Exchange rate fluctuations can affect the amount of profit translated into domestic currency. When the domestic exchange rate strengthens, that profit conversion can result in a lower amount, which in turn can reduce the profits made to shareholders in the form of dividends or profit growth.

Changes in currency exchange rates often reflect the broader macroeconomic situation and geopolitical factors. If the market responds to exchange rate fluctuations with concerns about global economic conditions, this could trigger a decline in overall market sentiment. This drop in sentiment can have a negative impact on overall stock prices. Changes in currency exchange rates can also affect the cost of importing raw materials and product components, which can affect a company's profit margins. In addition, exchange rate fluctuations can affect interest rate policy and inflation, which can also affect stock values.

In the context of signaling theory, changes in exchange rate are one of the factors that can give signals about a company's prospects in the global market. How a company responds to changes in exchange rates can affect investor perceptions and

subsequently SRs. For example, companies that are able to manage currency risk well can give positive signals to investors about their ability to deal with global economic uncertainty.

The results of this study are in line with the research of Jihadi et al., (2021) which shows that ER has a negative and significant effect on SR.

15. Effect of ER on ROA-mediated SR

The results showed that ER had a positive but not significant effect on SR with ROA mediation or in other words, the eighth hypothesis of the study was rejected. The effect of Exchange Rate (ER) on Stock Return (SR), mediated by Return on Assets (ROA), is a complex dynamic and involves several factors. ROA mediation in this context refers to how ROA can act as a liaison or intermediary in the relationship between ER and SR changes.

If the domestic currency depreciates against the foreign currency, companies that have revenue in foreign currency may experience an increase in revenue in the domestic currency. This can increase ROA in the domestic currency. Conversely, if the domestic currency strengthens, revenue generated in foreign currency will probably have a lower value in the domestic currency, which can reduce ROA in the domestic currency.

Thus, the impact of ER on SR mediated by ROA can vary depending on the extent to which the company has exposure to foreign currencies, the direction of exchange rate changes, risk management policies on foreign exchange transactions, hedging strategies and other factors such as market sentiment, micro and macroeconomic conditions.

Research results of Yeboah &; Takacs, (2019) (Yeboah & Takacs, 2019). which shows ER has a negative and significant effect on ROA. The results of research conducted by Hertina 2019 (Hertina & Saudi, 2019). Rana Sausan 2020 showed that ROA had a negative and insignificant effect on SR (Sausan et al., 2020). Meanwhile, research conducted by Asikin 2021, Dwi Anggraini &; Wijayanto, 2021, Ayu 2021 and Muhammad &; Gohar, 2021 proves that ROA has a positive and significant effect on SR.

16. Effect of ER on DER-mediated SR

The results showed that ER had a negative but not significant effect on SR with the mediation of debt to equity ratio or in other words, the ninth hypothesis of the study was rejected. The effect of exchange rates on stock returns, mediated by the debt-to-equity ratio, also involves complex dynamics. Debt to equity ratio mediation in this context refers to how the debt to equity ratio can act as a liaison or intermediary in the relationship between changes in exchange rates and stock returns. The debt to equity ratio is one factor that can affect stock returns, and a high level of debt to equity ratio can have consequences for stock returns.

A high debt-to-equity ratio can increase a company's financial risk and

make it more vulnerable to external fluctuations, such as changes in currency exchange rates. This can have a negative impact on stock prices and stock returns if investors feel the company has a high level of debt and perceive it as a risk. If the domestic currency depreciates against a foreign currency, foreign-denominated debt may have a lower value in the domestic currency. This may result in a decrease in DER as debt becomes lower in value in a stronger domestic currency. Conversely, if the domestic currency strengthens against a foreign currency, foreign-denominated debt can have a higher value in the domestic currency. This may result in an increase in the debt-to-equity ratio as debt becomes more expensive in a stronger domestic currency.

The results of previous studies conducted by Asikin 2021, Dwi Anggraini & Wijayanto 2021, Hertina 2019, Muhammad & Gohar 2021 showed that DER had a positive and significant effect on SR. while in the research of Shim 2020 showed that ER had a negative and significant effect on DER.

17. Effect of ER on EPS-mediated SR

The results showed that the exchange rate had a negative but not significant effect on stock return with EPS mediation or in other words, the tenth hypothesis of the study was rejected. The effect of exchange rate on stock return, mediated by earnings per share, involves several complex factors. Earnings per share mediation in this relationship refers to how a company's earnings per share can serve as a liaison or intermediary in the relationship between changes in exchange rates and stock returns. Earnings per share is one of the most important financial performance indicators and is often used by investors to assess a company's profitability.

Increased earnings per share is often associated with healthy growth and profitability, which can increase investor interest in investing in company stock and, ultimately, can increase stock returns. When the domestic currency depreciates against the foreign currency, companies that have earnings denominated in foreign currencies may experience increased earnings per share in the domestic currency. Conversely, if the domestic currency strengthens against a foreign currency, income in foreign currency will have a lower value in the domestic currency, which can reduce earnings per share in the domestic currency. If a company has foreign-denominated debt, domestic currency appreciation can increase interest expense and domestic currency debt costs, which can also have a negative impact on earnings per share. The effect of exchange rate on stock return mediated by earnings per share can be very complex and vary depending on many factors. It involves a company's foreign currency exposure, the direction of exchange rate changes, the use of foreign-denominated debt, and external factors such as market and economic conditions. Thus, the effect of exchange rate on stock return mediated

by earnings per share involves the complex relationship between a company's currency exchange rate, earnings, profits, and earnings per share.

The results of research by Hertina 2019, Boadi 2018, Ruhani & Mat Junoh 2022, Kai & Rahman 2018 and Muhammad & Gohar 2021 show earnings per share have a positive and significant effect on stock return. In research conducted by Rana Sausan 2020 proved that earnings per share has a positive and insignificant effect on stock return. while the results of Zhang & Ouyang's research, 2018 show that exchange rates have a positive and significant effect on earnings per share.

CONCLUSIONS

The results of this study conclude several main findings related to the influence of financial indicators on the stock performance of telecommunications companies. First, Return on Assets (ROA) has a positive, though not statistically significant, effect on Stock Return (SR). Although ROA reflects a company's operational efficiency, fluctuations in stock performance are more influenced by external factors such as regulation, technology, and competition. Second, the Debt to Equity Ratio (DER) has a positive and significant effect on SR, indicating that the company's capital structure plays an important role in stock performance. However, the risks inherent in high DER must be managed wisely. Third, Earnings per Share (EPS) has a positive and significant influence on SR, reflecting that earnings per share contribute to stock performance. Fourth, the Exchange Rate (ER) has a positive, but not significant, effect on ROA, suggesting that currency fluctuations can affect a company's operational performance, but other factors also play a role. Fifth, the ER has a negative, though insignificant, effect on the DER, suggesting that currency fluctuations do not necessarily create significant changes in capital structure. Sixth, ER has a negative, but not significant, effect on EPS, indicating that currency fluctuations do not always have a major impact on earnings per share. Seventh, ER has a negative and significant effect on SR, indicating that changes in currency exchange rates can have a real impact on stock performance. Lastly, the mediation of ROA, DER, and EPS in the relationship between ER and SR suggests that currency-related risk management and a deeper understanding of the impact of ER on stock performance are important in telco companies' business decision-making.

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