Financial Determinants of Tax Avoidance: Insight from the Telecom Sector with Profitability Moderation

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Abstract
Understanding the financial determinants for tax avoidance in the telecommunications sector is crucial, particularly as profitability can affect how companies manage their taxes. Therefore, this research study aims to explore the relationship between financial drivers such as capital intensity (CI), sales growth (SG), and leverage (LEV) on tax avoidance (TA), as well as examining the moderating role of profitability (PRO). The dependent variable, tax avoidance, is determined by the effective tax rate. Capital intensity, sales growth, and leverage are the independent variables. The study uses return on assets (ROA) as a moderating variable that represents profitability. The study used quantitative secondary data that was gathered from the 2010–2023 annual reports of four telecom firms that were listed on Bursa Malaysia. A purposive sampling technique was used to collect data from the company's annual reports. OLS regression was used in the study in addition to the fixed effect method (FEM). The study findings revealed that capital intensity and leverage are important factors in determining tax avoidance. Similarly, profitability strongly moderates the association between capital intensity and tax avoidance based on the findings for the moderation effect. Agency theory, which indicates that there exist conflicts of interest between the government (principal) and businesses or taxpayers (agents), validates the findings of this study. The findings of this study can help companies make decisions about improved policies related to corporate tax avoidance and also help the firms to determine important factors that help in reducing their tax burden.
Keywords: Tax Avoidance, Capital Intensity, Regression, Sales Growth, Leverage, Profitability

Introduction
Tax is one of the essential elements for any government because it is one of the important sources of revenue. The government operations are significantly impacted by taxes. The government constantly looks to maximize tax income because it is one of the main sources of funding for them (Suciarti et al., 2020). The government does tax planning in order to meet its required targets (Monika & Noviari, 2021). Taxes are utilized to pay a variety of

development projects by funding human expenses. The creation of infrastructure, such as building roads, bridges, schools, hospitals, or health centers, among many other things (Annisa et al., 2023). Since taxes account for the largest portion of the state budget and the greatest possible source of state revenue, they are a crucial source of funding for an economy (Kalbuana et al., 2020). In addition, taxes are utilized to finance the provision of security to all societal levels. Every person benefits from government programs and services, all of which are paid for by tax revenue. Taxes are used to settle governmental debts as well as to support products that people genuinely need (Annisa et al., 2023).

The issue with taxes, however, is that annual tax revenue falls short of the predetermined level (Wahab et al., 2017). The question of whether taxpayers minimize their taxes or whether tax collection has not been carried out optimally is raised by the inability to meet the tax revenue target (Wiguna & Jati, 2017). Revenue from taxes is a significant source of funding for both ongoing and capital expenses. Companies view taxes as a cost or burden that can lower their net profits, as opposed to the state (Alsaadi, 2020). In order to reduce the tax burden, management may be influenced by taxes to use different tax planning strategies (Monika & Noviari, 2021).

Tax avoidance refers to actions taken to evade taxes; on the other hand, tax avoidance is a legitimate type of tax management by businesses. Corporate taxpayers typically engage in tax avoidance as a means of reducing their tax liability in an effort to increase cash flow and PRO (Kalbuana et al., 2020). To reduce their tax liability, many businesses engage in TA. There are several methods for avoiding taxes (Utami & Supriadi, 2023). State spending is largely financed by tax receipts from the business sector. TA activities have prevented the government from achieving its goal of tax revenue optimization (Darsani & Sukartha, 2021). One of the most important topics in the field of taxes is tax aggression. To reduce their tax liability, many businesses engage in tax planning (Sugeng et al., 2020). Through the use of current regulations to maximize profit after taxes, tax planning operations aim to minimize tax burdens, which in turn contributes to the growth of a company's value (Ichsani & Susanti, 2019).

The management of the corporation may be influenced by a number of factors, including CI, sales growth, LEV, and PRO, to avoid paying taxes. The company's investment in fixed assets is reflected in CI (Sumantri et al., 2022). Businesses have the chance to reduce their tax burden by investing in fixed assets (Sugeng & Zaman, 2020). This happens as a result of the fixed asset depreciation expense, which is subtracted from the tax amount. The amount of taxes that the business must pay decreases with increasing depreciation expense. Businesses with high levels of CI will have low effective tax rates, which suggests that they have engaged in TA. Tarmidi (2021), posits that a rise in CI may lead to a corresponding increase in depreciation expense. This, in turn, may diminish the firm's tax payment value and suggest that the corporation is engaging in TA through fixed assets.

A growth ratio, according to Kasmir (2016), is a ratio that illustrates how well a business can continue to operate in the face of both economic growth and changes in its industry. Houston and Brigham (2017), define firm growth as a shift in the total assets that the company owns, either up or down. Profits are often higher when a company experiences a periodic boost in sales. The management of the company is more likely to engage in TA the more profit

it makes (Sumantri et al., 2022). Changes in the company's total assets over time can be used to measure growth because they can indicate whether the business is expanding or not. A business that is expanding well is anticipated to provide investors with a higher rate of return on their investment (Kholifah, 2023). Sales growth, according to Fahmi (2014), is calculated as the ratio of sales from this year divided by sales from the previous year. Growth in sales might demonstrate the company's capacity to occasionally raise its sales level. One way to define sales growth is a rise in sales from year to year or from time to time (Kennedy, 2013). A company's product sales and marketing strategy is successful when it shows a higher sales growth rate (Krishnan et al., 2023).

LEV, or the capacity of a business to meet its financial obligations, is one measure of a company's performance (Kholifah, 2023). LEV, in the opinion of Kalbuana et al. (2020), represents the use of debt to finance investments or fixed assets of the organization. LEV is a measure of how well a corporation manages its money and assets to fund its debts. The interest expenditure increases with the amount of LEV that is generated. The interest expense component can lower the profit before taxes, which lowers the amount of interest the business needs pay (Widyastuti et al., 2021). The interest cost will increase with debt levels. One benefit of the company's tax reduction is the interest expenditure. Due to the tax advantages on interest expenses that corporations receive in order to lower their tax burden, companies with significant LEV often engage in TA (Kholifah, 2023).

Profitability denotes a company's capacity to produce money or profits from its operations within a specified timeframe. It quantifies a company's efficiency in converting revenues into profits, reflecting its financial health and performance (Ud Din et al., 2024; Nawaz et al., 2022; Saleem et al., 2022). The ratio used to assess a business's potential for profit-making is called the PRO ratio (Kholifah, 2023; Saleem, 2018; Sehrish et al., 2012; Khan et al., 2024; Nazeer et al., 2024). The net profit on the usage of corporate assets can be calculated using the ROA ratio. The productivity of the assets the company uses to generate net profits is higher when the ratio is higher. Higher PRO for the business will result in higher taxes paid, which will increase the amount of TA the business engages in (Sumantri et al., 2022). Almira and Wiagustini (2020), claim that ROA gauges how well a business uses its resources. The more resources the business uses to make money, the higher the ROA value.

There are two goals for the investigation. First, the study looks at how some Malaysian telecom companies' TA is impacted by financial factors like capital intensity, sales growth, and LEV. Second, the study looks into how PRO moderates' certain financial factors and TA, respectively. The remainder of the document is arranged as follows: The theoretical framework, literature review, and hypothesis are described in Section 2. The third section discusses methodology. Information on data analysis and result interpretation is provided in Section 4. The conclusion, restrictions, and next steps are outlined in the last section.

Literature Review
Theoretical Framework
The link between the shareholders and the managers is explained by agency theory (Jensen & Meckling, 1927; Elen et al., 2024). Agency theory, according to Darsani and Sukartha (2021), presupposes that every person is only driven by his or her own interests, which puts the agent and the principal in a conflict of interest. The government's (principal) and the company's

(agent) divergent objectives will cause taxpayers' or the management's noncompliance, which will influence the company to engage in TA. Since the business views taxes as a hardship, it seeks to pay the state as little money as possible in taxes. Thus, in an attempt to optimize profits, the manager will control the amount of taxes that the company is required to pay. Conversely, the government or the principal seeks to maximize tax collection from every individual taxpayer (Widyastuti et al., 2022).

Hypothesis Development
Capital Intensity and Tax Avoidance

According to Suciri et al (2020), CI measures how much of a company's assets are invested in fixed assets and inventory. Companies can lower their taxes by depreciating fixed assets (Rodríguez & Arias, 2012). Using the company's excess cash, management will purchase fixed assets in order to benefit from depreciation expenses that can be written off as tax (Dharma & Noviari, 2017). According to Rodriguez and Arias (2012), businesses possessing several fixed assets will have a reduced tax liability due to annual depreciation from these assets.

Suciarti et al (2020), determine the simultaneous and partial effects of CI and TA in the automotive subsector enterprises. The study's findings suggest that CI has a negative, somewhat significant impact on TA. Darsani and Sukartha (2021), gathered actual data regarding the impact of the CI ratio on TA. From 2015 to 2019, this study was carried out at mining-related companies. Based on the study's findings, CI ratios are beneficial when it comes to TA. Sumantri et al (2022), investigate how CI affects TA. Manufacturing enterprises in the food and beverage subsector comprise the research sample. The study's findings demonstrate that CI characteristics have an impact on TA. Sugeng et al (2020), investigate the connection between tax aggressiveness and CI. This work integrated the tax aggression element into a single model from several viewpoints. Purposive sampling was employed in this study using manufacturing companies that were listed between 2015 and 2017 on the Indonesia Stock Exchange (ISE). The outcome demonstrates that CI and tax aggression have a substantial relationship. Bivianti and Yuniarsih (2022), investigate how CI affects TA. The total fixed asset divided by the total asset value yields the CI. The total population of the study includes 310 companies in the primary consumption sector from 2016 to 2020. The outcome demonstrates that CI has a favorable impact on TA. Kalbuana et al (2020), investigate how CI affects TA. The companies included in the Jakarta Islamic Index (JII) for the years 2015–2019 are the subject of this study. Multiple linear analysis results indicate that there is positive relationship between CI and TA.

Setyaningsih et al (2023), locate and examine the theory mentioning CI's impact on TA. The methodology for this study is a literature review. Agency theory and exchange theory serve as the theoretical foundation for this study. No consensus has been achieved because these results show that CI and TA have different relationships. Putra and Kirana (2023) examined how the cash effective tax rate (CETR) specifically assesses the impact of CI on TA. According to the analysis, there is no statistically significant correlation between CI and CETR. Nugrahadi and Rinaldi (2021), ascertain if CI and inventory intensity have a substantial impact on preventing TA in businesses in the food and beverage subsector between 2014 and 2018. The analysis's conclusion indicated that TA is unaffected by CI. The impact of CI on TA in real estate companies listed on the ISE for the years 2017–2019 is investigated by (Nailufaroh et al., 2022). Multiple linear regression analysis is the method utilized in this investigation. The

findings demonstrated that CI has no discernible impact on TA. Monika and Noviari (2021), use the cash-effective tax rate (CETR) as a proxy to study the impact of CI on TA. 47 mining businesses that were listed between 2015 and 2019 on the ISE made up the study's population. The findings demonstrate that CI is irrelevant to TA. Uzliawat and Afrianti (2022), ascertain how CI affects TA, using independent commissioners as moderating factors. Manufacturing enterprises that were listed on the ISE between 2017 and 2020 make up the study's population. The study's findings show that CI has little bearing on TA.

H1: Capital intensity has a significant effect on tax avoidance among telecom companies.

Sales Growth and Tax Avoidance

The degree to which the business has worked to raise sales in relation to overall sales is referred to as sales growth. Growth in sales has an impact on the business's capacity to turn a profit and keep it there long enough to pay for future investments. It can be inferred that there is rather good sales growth if the sales growth ratio is higher. On the other hand, a lesser sales growth ratio suggests that the company's sales are declining (Sumantri et al., 2022).

Sumantri et al (2022), investigate how TA is affected by sales growth. Manufacturing enterprises in the food and beverage subsector that are listed on the ISE comprise the research sample. The study's findings demonstrate that TA is impacted by sales growth. Afrianti and Uzliawat (2022), use independent commissioners as moderating variables to assess the impact of sales growth on TA. Manufacturing enterprises that were listed on the ISE between 2017 and 2020 make up the study's population. Purposive sampling was the technique employed, and 53 businesses were chosen from a sample of 212 research data. The study's findings suggest that an increase in sales deters TA. Kholifah (2023) examines how TA in automakers is impacted by sales growth. The research employs a quantitative methodology. The study's findings suggest that TA is impacted by sales growth. Annisa et al. (2023), investigate how TA in automakers is impacted by sales growth. Purposive sampling was utilized in the sampling process, and the sample of manufacturing enterprises in the automotive sector from 2020 to 2022 was selected. The findings demonstrate that TA is unaffected by sales growth.

H2: Sales growth has a significant effect on tax avoidance among telecom companies.

Leverage and Tax Avoidance

A ratio called LEV indicates how much of the company's financing comes from debt (Suciarti et al., 2020). LEV, to put it briefly, is the process of using loans or debt from third parties to boost returns on investments or commercial ventures. Interest expenses could be incurred if money from third-party debt is used. The corporation may be able to reduce its tax liability by deducting the interest expense from its income (Sumantri et al., 2022).

Utami and Supriadi (2023) ascertain how business LEV affects TA. The author uses secondary data from the oil and gas corporations as part of his data collection techniques. According to this study, LEV significantly and favorably affects TA. Widyastuti et al. (2022) examined the impact of LEV on TA. Companies in the mining and agriculture sectors for the years 2015–2019 make up the research population. The test's findings demonstrate that LEV reduces TA. Putra and Kirana (2023), examine how the cash effective tax rate (CETR) specifically assesses the impact of LEV on TA. The enterprises in the energy industry were the subject of the current study, which was conducted between 2016 and 2019. A panel data

regression analysis method was applied. LEV had a notably positive impact on CETR, according to the study. Afrianti and Uzliawat (2022), use independent commissioners as moderating factors to examine the impact of LEV on TA. Purposive sampling was the technique employed, and 53 businesses were chosen from a sample of 212 research data. Based on the study's findings, TA is positively impacted by LEV. Aprianti et al. (2024) looked at how LEV affects TA. Quantitative approaches were employed in the investigation. LEV and TA are correlated, according to the results of the LEV test on TA. Elen et al (2024), examine how LEV affects tax aggression. Between 2018 and 2021, data from 26 manufacturing businesses meeting specific criteria in the food and beverage subsector were gathered for the study. The findings demonstrated that LEV significantly and favorably affected tax aggressiveness.

Setyaningsih et al (2023), analyze the theory that is related to LEV and TA. The methodology for this study is a literature review. Agency theory and exchange theory serve as the theoretical foundation for this study. No consensus has been achieved because these studies show that the link between LEV and TA is different. Kalbuana et al (2020), investigate how LEV affects TA. The analysis's findings demonstrate that LEV has a detrimental impact on TA. Suciarti et al (2020), ascertain how LEV affects TA. This study was carried out at mining industry businesses. The study's findings show that LEV has little bearing on TA. Nailufaroh et al (2022), investigate how LEV affects real estate companies' TA. Multiple regression study results indicated that LEV had no discernible impact on TA. Sumantri et al (2022), investigate how LEV affects TA. Manufacturing enterprises in the food and beverage subsector that are listed on the ISE comprise the research sample. The study's findings demonstrate that LEV has little bearing on TA.
H3: Leverage has a significant effect on tax avoidance among telecom companies.

Profitability and Tax Avoidance
Widyastuti et al (2022), examined the impact of PRO on TA. Companies in the mining and agriculture sectors for the years 2015–2019 make up the research population. Multiple linear regression analysis was employed in the process. The test findings demonstrate that TA is positively impacted by the variable PRO. Haloho and Rahmadhani (2024), examine how tax planning is affected by PRO. Seventy-three businesses in the basic and chemical industries sectors make up the study's overall population. A logistic regression test was the data analysis method utilized to examine this investigation. The findings demonstrate that tax planning benefits from PRO. Elen et al (2024), examine how tax aggression is impacted by PRO. Between 2018 and 2021, data from 26 manufacturing businesses in the food and beverage subsector were gathered for the study using the purposive sample technique. The findings demonstrated that tax aggression was positively and significantly impacted by PRO. Sumantri et al (2022), examined the relationship between CI, sales growth, and LEV with TA along with investigating the moderating role of PRO. Manufacturing enterprises in the food and beverage subsector that are listed on the ISE comprise the research sample. The study's findings also demonstrate that return on assets serves as a stand-in for PRO in order to mitigate the impact of LEV on TA. However, the impact of CI and sales growth on TA cannot be mitigated by PRO as measured by return on assets. Setyaningsih et al (2023), studied the impact of PRO on TA. The methodology for this study is a literature review. Agency theory and exchange theory serve as the theoretical foundation for this study. No consensus has been achieved because these findings indicate that the relationship between PRO and TA is different. Aprianti et al (2024), looked at how PRO affected TA. Quantitative approaches were employed in the

investigation. The findings of studies on the relationship between PRO and TA indicate that there is no such relationship.

H4: Profitability moderates the relationship between capital intensity and tax avoidance in the telecom sector.

H5: Profitability moderates the relationship between sales growth and tax avoidance in the telecom sector.

H6: Profitability moderates the relationship between leverage and tax avoidance in the telecom sector.

Methodology
Sampling, Data and Variables

Techniques for quantitative data analysis are used in the study. Purposive sampling was employed in the study to gather secondary data from the companies' published annual reports. The study chose the four Bursa Malaysia-listed telecoms businesses (Table 1) based on data availability. The data set spans 14 years, from 2010 to 2023.

Table 1
List of companies

Company Name
Telekom Malaysia (TM)
Maxis Berhad (Maxis)
Celcom Axiata Berhad (Celcom)
Digi Telecommunication Sdn Bhd (Digi)

Panel data is the combination of cross-sectional and time series data—led to the implementation of a panel regression model in this study. The multicollinearity and heteroscedasticity tests are the traditional assumption tests used in panel data regression. Stata software was used in the investigation. The list of factors used in this investigation is displayed in Table 2.

Table 2
Variables and their Measurements

Dependent Variable	Measurement	Justification
Tax Avoidance (TA)	Measured by the current effective tax rate (ETR), the formula is current tax expenses divided by income before tax.	Suciarti et al., (2020), Sumantri et al. (2022), Darsani and Sukartha (2021), Kirana and Mahaputra (2023), Kalbuana et al. (2020)
Capital Intensity (CI)	Measured by the ratio of total fixed assets to total assets.	Suciarti et al., (2020), Darsani and Sukartha (2021), Sumantri et al. (2022), Kirana and Mahaputra (2023), Kalbuana et al. (2020), Bivianti and Yuniarsih (2022)
Sales Growth (SG)	Measured by the percentage increase in sales revenue year-over-year.	Sumantri et al. (2022), Kholifah, (2023), Annisa et al. (2023)

Leverage (LEV)	The leverage ratio is the debt-to-asset ratio and is calculated by dividing total debt by total assets.	Suciarti et al., (2020), Kirana and Mahaputra (2023), Kalbuana et al. (2020), Kholifah, (2023)
Profitability	Measured by Return on assets (ROA)	Sumantri et al. (2022), Aprianti et al. (2024), Darsani and Sukartha (2021), Widyastuti et al. (2022)
Firm Size	Measured by the natural logarithm of fixed assets.	Kalbuana et al. (2020), Kholifah, (2023)

Econometric Models

Two models were created by the study. Equation (1) illustrates the fundamental relationship between the dependent variable, tax avoidance, and several well-chosen independent variables, such as capital intensity, sales growth, and leverage, in the first model. Similarly, the model shown in equation (2) shows how profitability modifies other factors, and the research combined profitability with capital intensity, sales growth, and leverage interaction terms. Firm size was employed in the study as a control variable in both models.

$$TA_{it} = \alpha_0 + \beta_1 CI_{it} + \beta_2 SG_{it} + \beta_3 LEV_{it} + \beta_4 PRO_{it} + \beta_5 FS_{it} + \in_{it} \qquad (1)$$

$$TA_{it} = \alpha_0 + \beta_1 CI_{it} + \beta_2 SG_{it} + \beta_3 LEV_{it} + \beta_4 PRO_{it} + \beta_5 FS_{it} + \beta_6 CI * PRO_{it} + \beta_7 SG * PRO_{it} + \beta_8 LEV * PRO_{it} + \beta_9 FS_{it} + \in_{it} \qquad (2)$$

TA = Effective tax rate
CI = Tax Avoidance
SG = Sales Growth
LEV = Leverage
PRO = Profitability
FS = Firm Size
CI*PRO = interaction term between capital intensity and profitability
SG*PRO = interaction term between sales growth and profitability
LEV*PRO = interaction term between leverage and profitability
α_0 = Constant
$\beta_1 - \beta_2$ = Regression Coefficient
$\in_{it}$ = Standard Error

Results

Descriptive Statistics

The telecom businesses listed on Bursa Malaysia from 2010 to 2023 serve as the sample. Purposive sampling was the method of sampling used in this investigation. Table 3 shows the result of descriptive statistics.

Table 3
Descriptive Statistics

	Obs	Mean	Std. Dev	Min	Max
TA	56	0.2805	0.0628	0.2029	0.3996
CI	56	0.4344	0.1629	0.1682	0.8933
SG	56	0.0255	0.1898	-0.9989	0.8724
LEV	56	0.6863	0.1302	0.4481	0.9349
PROF	56	0.1028	0.1091	-0.0110	0.4720
FS	56	13.4849	3.2844	8.5015	17.3406

The aforementioned descriptive statistic's minimum and maximum values for TA are 0.2029 and 0.3996, respectively. The data is homogeneous since the mean value of TA is bigger than the standard deviation, which is 0.0628 compared to 0.2805 for the mean value. CI has a mean value of 0.4344. It is 0.1629 for the standard deviation CI. 0.0255 is the mean SG value. With SG, the standard deviation is 0.1898. The LEV's standard deviation is 0.1302 and its mean value is 0.6863. PROF has a mean value of 0.1028. There is a 0.1091% standard deviation. The FS value is 13.4849 on average. Given that FS's standard deviation is 3.2844 and its mean value is higher than its standard deviation. The data is homogenous because the mean value is higher than the standard deviation, as indicated by the FS standard deviation of 3.2844.

Multicollinearity Test

To find out if independent variables are similar to others, a multicollinearity test is required. If the correlation value between all independent variables tested less than 0.9, there would be no provision for multicollinearity (Sarwono, 2016). The multicollinearity test findings are displayed in Table 4, and the data from the test indicates that there is less than a 0.9 correlation between all of the independent variables examined. Thus, it can be said that there were no multicollinearity issues with this investigation.

Table 4
Multicollinearity Test

	TA	CI	SG	LEV	ROA	FS
TA	1					
CI	-0.0261	1				
SG	0.0710	0.0154	1			
LEV	-0.0705	0.1208	-0.1579	1		
ROA	-0.4666	0.0706	-0.0371	0.5628	1	
FS	0.1203	-0.2610	0.2231	-0.1737	0.1924	1

It is possible to determine the multicollinearity in the regression model by examining the variance inflation factor (VIF) and tolerance (1/VIF) values. If the VIF value is low or does not

exceed 10, and the tolerance value is high or surpasses 0.10, the regression model can be free of multicollinearity, and vice versa (Ghozali, 2018). Table 5 illustrates the results of the multicollinearity test, which indicated that there was no correlation between the data for each independent variable employed.

Table 5
VIF

Variable	VIF	1/VIF
CI	1.1	0.9092
SG	1.08	0.9279
LEV	1.68	0.5954
ROA	1.69	0.5902
FS	1.33	0.7534
Mean VIF	1.38	

Heteroscedasticity Test

To determine whether the residual variance of one observation period differs from that of another, a heteroscedasticity test is run. We can conclude that either the data are not heteroscedastic or that heteroscedasticity does not occur based on Table 6, which displays the results of the heteroscedasticity test with a probability value > 0.05.

Table 6
Heteroskedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of TA	
chi2(1)	1.79
Prob > chi2	0.1815

Discussion of Results

The findings of the OLS and fixed effect models are displayed in Table 7. Using FEM at the 10% significance level, the results demonstrate a substantial positive weak association between CI and TA. In telecom sector enterprises, the TA value increases with the CI ratio. Because depreciation and other asset-related tax deductions are available to businesses with higher CI, it is anticipated that these businesses will engage in more TA. As a result, the study's first hypothesis (H1) is accepted. The outcomes agree with those of a few earlier investigations. Sumantri et al (2022), Darsani and Sukartha (2021). Using both approaches, the association between sales growth and TA is negligible. As a result, the study's second hypothesis (H2) is rejected. The outcomes agree with a few earlier research projects conducted by Annisa et al. (2023). LEV also exhibits a strong positive correlation with TA. As a result, the study's third hypothesis (H3) is accepted. This association can arise from the fact that telcom companies are usually capital-intensive, i.e., they need significant infrastructure investments. These investments frequently require large amounts of borrowing, or debt, in order to fund growth and operations. If the returns on these investments outweigh the cost of borrowing, telecom companies may benefit from more LEV, or more debt. The outcomes agree with some earlier research by Widyastuti et al (2022), and Utami and Supriadi (2023).

Likewise, both OLS and FEM data point to a negative correlation between PRO and TA. As a result, the study's fourth hypothesis (H4) is accepted. The explanation could be because telecom businesses with higher PRO typically utilize less debt and rely more on internal funding. Higher-profit telecom companies might decide against taking on new debt in favor of reinvesting their earnings. This is consistent with the pecking order idea, according to which businesses, if feasible, choose internal funding over debt. Because firm size is utilized as a control variable, OLS regression alone revealed a positive association between this variable and TA. The explanation could be that larger telecom businesses tend to be more stable and less reliant on outside funding since they have more established networks, a higher market share, and a more diverse range of revenue sources. The dependent variable TA in the telecom firms may be explained by these variables by 37.62%, according to the OLS method's R square value, while other variables account for the remaining 62.38%. Similarly, the FEM's r square value is 0.346, meaning that the independent variables account for 34.6% of the variance, respectively.

Table 7
OLS and Fixed Effect Technique Results

	OLS Regression		Fixed Effect Method	
TA	Coef.	P-value	Coef.	P-value
CI	0.0269	0.554	0.1823*	0.059
SG	0.0095	0.804	0.0595	0.194
LEV	0.2051**	0.005	0.2888**	0.001
PROF	-0.4477***	0.000	-0.4265***	0.000
FS	0.0068**	0.008	0.0024	0.575
Con	0.0822	0.225	0.0131	0.896
R-squared	0.3762		0.346	
No. of Obs.	56		56	
*, **, *** 10%, 5% and 1% significance				

The moderating variable's result is displayed in Table 8. The goal of the study is to determine how PRO, as measured by ROA, influences the relationship between CI, SG, and LEV with TA. The results of the moderation effect showed that PRO alone modifies the link between CI and TA, suggesting that combining PRO with CI improves performance. This association might be explained by the fact that telecom businesses with high CI can use their profits to fund performance-enhancing investments in new technology and infrastructure. This finding implies that profitable telecom companies can convert their capital inputs into long-term competitive advantages, even when CI alone might not improve performance. These companies may finance the expansion of their infrastructure with the revenues they make, which will enhance service quality, network coverage, and overall business performance. This exchange emphasizes how crucial strategic capital investment and PRO are to the success of telecom businesses. Furthermore, the OLS model's r-squared value of 0.4722 indicates that these independent factors account for around 47.2% of the variation in the dependent variable. Similarly, in FEM, the r-squared of 0.4844 indicates that the independent factors account for approximately 48.4% of the variation in the dependent variable.

Table 8
Moderation Effect

	OLS Regression		Fixed Effect Method	
TA	Coef.	P-value	Coef.	P-value
CI	-0.1346*	0.072	-0.1484	0.283
SG	-0.0605	0.515	-0.1075	0.377
LEV	0.1231	0.387	0.0490	0.764
ROA	-2.3265***	0.007	-4.1524***	0.002
FS	0.0061**	0.023	0.0131**	0.013
CI*ROA	2.0808**	0.036	3.8850***	0.004
SG*ROA	0.7210	0.542	1.2137	0.359
LEV*ROA	0.9464	0.396	1.8792	0.121
Con	0.2422	0.053	0.2368	0.117
R-squared	0.4722		0.4844	
No. of Obs.	56		56	
*, **, *** 10%, 5% and 1% significance				

Conclusion

The aim of this research is to gather empirical data regarding the impact of financial factors including CI, sales growth, and LEV on TA. Furthermore, the goal of this research is to demonstrate if PRO, measured as a proxy for ROA, might moderate the impact of CI, sales growth, and LEV on TA. The analysis and discussion's conclusions indicate that CI sales growth, and LEV all significantly impact TA. Effective tax rates are negatively impacted by CI. On the other hand, TA is positively correlated with sales growth and LEV. Similarly, PRO alone moderates the impact of LEV and CI.

The study has certain limitations. First off, the study's findings cannot be applied to other kinds of businesses because the sample consists solely of telecom companies and the chosen companies represent the population. Second, because the research period is relatively short (13 years, from 2010 to 2023), it might be necessary to reevaluate how consistent the findings are. Thirdly, there are just three independent variables and four corporate data points available so this sample size is very small.

This study has certain ramifications. Because businesses that prioritize CI also seek to minimize taxes, it is anticipated that the study's findings will be of greater help to management with high overall CI. The findings of this study, which show how CI influences TA, support this. Based on the study's findings, firm management is advised to refer to them when making decisions that do not contravene relevant tax laws, particularly when it comes to taxation aspects that permit TA activities.

There are some further directions for this investigation. Initially, academics in the future might employ additional corporate data to compare one industry to another or to compare different countries. The sample size and duration of the study may be expanded by a subsequent researcher. In order to ascertain whether TA occurs, future researchers may employ or incorporate other independent factors. Future studies on TA might employ different proxies.

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