# The Influence of Capital Structure and Working Capital Turnover on Profitability

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## ABSTRACT

Telecommunication industry in Indonesia has been growing rapidly since 15 years ago. PT. Telkom Tbk (TLKM) for years has become the leader of the market. Now the situation has changed as many competitors came to compete with the market leader starting from PT. Indosat Tbk (ISAT) and PT. XL Axiata Tbl (EXCL) as the main competitors until PT. Bakrie Telecom (BTEL), PT. Smartfren Telecom Tbk (FREN), and PT. Inovisi Infracom (INVS). The competition among companies in telecommunication industry has made the profitability among them under question. From 2007 until 2011, profitability in telecommunication industry had decreased significantly.

The objective of this research is to investigate the effect of capital structure and working capital turnover on profitability in telecommunication industry from 2007 until 2011. This research used four regression model: 1st model is to investigate the effect of capital structure factors on capital structure ; 2nd is to investigate the effect of capital structure and working capital turnover on profitability.

Population of this research is telecomunication companies listed in Indonesia Stock Exchange. The sampling method used in this research is purposive sampling and there are 5 companies which are suitable according to the criteria of the sample and two stage least squares (2 SLS) as the analysis method

The result of the 1st Model, all independent variables have no significant effect on dependant variable either silmutaneously or partially ; 2nd model, silmutaneously there is no effect on proftability but working capital turnover affect profitability partially.

Keywords: Capital Structure, Working Capital Turnover, Profitability

## INTRODUCTION

The mobile industry is growing rapidly in Indonesia since 15 years ago, it is evident from the number of mobile phone subscribers increased from year to year. Indonesia placed the fourth in Asia after South Korea, China, and Japan, in terms of the industry. Average growth rate of mobile users in Indonesia is 31.9%. The number of mobile phone users in Indonesia reached 211 million, 95% of which is dominated by the GSM market and the rest by the CDMA, in year 2011.

For years, PT. Telkom Tbk (TLKM) through its subsidiary company, Telkomsel, set most of the market share as the leader of telecom operator without any significant competitors. However, as the development of technology , Telkomsel throne as the king of telecommunications operators begin to stir by its growing competitors such as, PT. Indosat Tbk (ISAT) and PT. XL Axiata Tbk (EXCL). Even PT. Bakrie Telecom Tbk (BTEL), PT. Smartfren Telecom (FREN), and PT. Inovisi Infracom (INVS) as a small telecom operators have started to shake TLKM as the market leader . The ability to create profit becomes the focus of telecommunications operator in the middle of a very tight competition. Once a company off guard, then their market will be taken by competitors. Even the telecom sector issuers analyst, Ekokapital Securities's Ridwanullah Cece said that in the year 2010 many telecom sector expend funds for operating costs, especially to improve their service quality. The better the quality of services provided to ensure the telecom companies to maintain or even increase its profitability level.

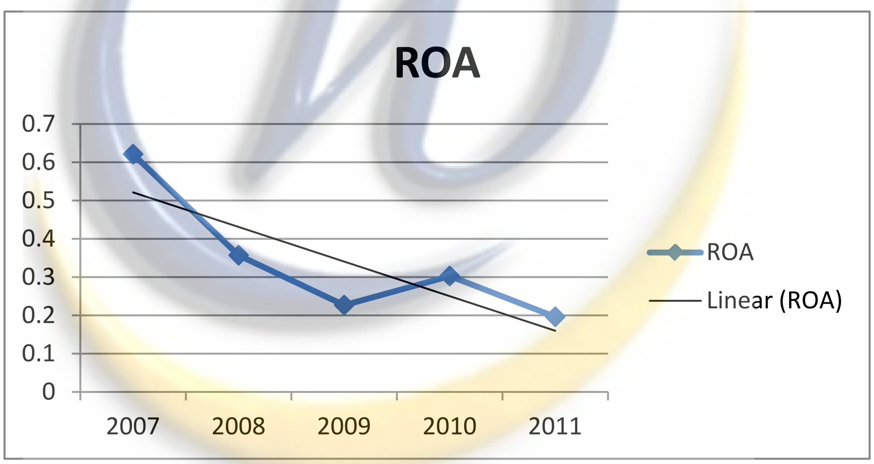


**Figure 1 ROA Growth**

Based on the chart 1.1, we can see that the level of competition in the telecommunications sector has increased in intensity, causing the drop in the telecom profitability level. The company's ability to generate profits for a certain period can be measured by the company's ability and success to use its assets productively. Because of working capital as a component of the asset must be managed effectively and productively to improve the company's profitability. (Nur Azlina, 2009)

Analysis for telecommunications issuers from Securities Ekokapital adding that the 40% of the telecommunications companies's operating costs is used to add service features in purpose increasing the sales. That is because consumers are increasingly critical to the services.

Referring to the chart 1, we can see that the telecom companies have not been using the working capital to the maximum as their operating expense, in order developing their features. This resulted telecommunications companies can not increase their sales and reduce their profit.

Other variables that can affect the profitability is capital structure. Capital structure decisions within the company is an essential thing. The importance of capital structure is due to the choice between the need to maximize returns (minimizing the cost of capital) to the company's ability to face the competition. (David Kodrat, 2009) Capital structure is a balance between the amount of permanently short-term debt, long-term debt, preferred stock and common stock. (Agus Riyanto, 2001:225)

In general, companies can choose a variety of alternative capital sources either from its own capital, a large debt and a small debt. Determination of the optimal capital structure can help companies minimize the cost of capital and therefore contributes to the profitability of the company. Despite the fact that the financial management researchers have not found the optimal capital structure. The research was done by using several control variables or exogenous variables that have an influence on the capital structure. There are three control variables that can affect the capital structure, they are : sales growth, operating leverage, and asset structure.

## LITERATURE REVIEW

### Effect of Sales Growth On Capital Structure

Rate of sales growth is an ability possessed by the company to earn immaterial profit, set by a certain target. Companies with high sales and earnings have higher tendencies to use debt as a source of external funding than the companies that have a relatively low rate of sales growth. Brigham and Houston (2001, in Meyulinda 2010) says that companies with relatively stable sales can more safely obtain more loans and a higher burden than firms whose sales are unstable. Results of research conducted by Meyulinda (2010) show that sales growth has a positive and significant impact on the capital structure. From the explanation above, the author took the hypothesis as follows:

H1: <u>sales growth affects the capital structure</u>

### Effect Of Operating Leverage On Capital Structure

Operating leverage arises when a company using assets that have fixed operating costs. Operating leverage reflects the influence of the amount of fixed costs on corporate profits. In this case a small change in fixed costs will result in a sizeable change in earnings. With the use of a low fixed costs will result in big profits, this allows firms to finance most of the internal financing need. The higher the profit earned, meaning the lower the need for external funds (debt), so the capital structure is also lower. Operating leverage is also one of the factors affecting business risk. The greater operating leverage, the greater the variation in profits due to changes in the company's sales and exacerbate the company’s business risks. At a high level of risk, capital structure should be maintained, and/ or reduced the use of a larger debt. Conversely, a company with a small fixed cost are ableto use a larger debt. (Mayangsari, 2001)

H2: operating leverage effect on the capital structure

**Effect Of Asset Structure on Capital Structure**

Structure of assets are classified into two main sections, the first current assets (including cash, short-term investments, notes receivable, accounts receivable, inventory, accounts receivable income and perskot). Second is non-current assets (including long-term investments, fixed assets, intangible fixed assets). Most of the industrial enterprises, whose capital embedded in assets typically prioritize capital needs to be taken from the permanent capital or equity capital, while foreign capital is only used as a complement. It can be connected with a conservative financial structure, which is using its own capital to cover at least the amount of fixed assets plus other assets. Structure of Assets also may affect the company's flexibility in determining alternative external funding because they considered have lower levels of bankruptcy risk than the company with lower fixed assets ratio. (Joni, 2010)

Results of research conducted by Mudrika (2006) showed that the structure of the asset has negative and significant impact on the capital structure.

H3: asset structure affect capital structure

**Capital Structure Effect On Profitability**

The capital structure is a composition, using its own capital and debt as a source of corporate financing. The amount of own capital profitability besides influenced by economic profitability is also affected by the capital structure in this case the ratio of long-term debt and own debt. (Azlina, 2009).

Research conducted by Azlina (2009) show that capital structure has an influence on profitability.

H4: Capital Structure effect profitability

**Effect of working capital turnover on profitability**

With a high turnover of working capital means sales levels will be higher too. High sales level course will provide greater benefits also could affecting the profitability of the company. Results of research conducted by Azlina (2009) showed that the rate of turnover of working capital has an influence on profitability.

H5: Working capital turnover rate affects the profitability.

## Research Methods

### Population and Sample

The population in this study is a telecommunications company that has gone public and listed on the Indonesia Stock Exchange in the period of 2007-2011. The sampling method is done using purposive sampling with sampling criteria the company are :

1. companies listed on the Stock Exchange since 2007 and still active in 2011, and
2. submit financial statements summary form which can be downloaded via www.idx.com.

Based on these criteria then there are 5 companies that TLKM, ISAT, BTEL, EXCL, and FREN.

### Research variables

This study consists of three main variables :

1. Profitability
2. Capital Structure
3. Working Capital Turnover

While other variables that act as a control variable are:

1. Sales Growth
2. Operating Leverage
3. Asset Structure

| Variabel | Definition | Calculation |
|---|---|---|
| Profitability | Measurement of the firm's ability to generate profits using the total assets owned by the company | $\frac{Earning\ After\ Tax}{Total\ Asset}$ |
| Capital Structure | Balancing the amount of short-term debt Long-term debt, preferred stock, and common stock | $\frac{Total\ Debt}{Total\ Equity}$ |

| | | |
|---|---|---|
| Working Capital Turnover Rate | Turnover rate of funds that should be available to finance the company's day-to-day operations | $\frac{Sales}{(Current\ Asset - Current\ Liabilities)}$ |
| Sales Growth | The growth rate in sales of the company | $\frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$ |
| Operating Leverage | The amount of fixed operating costs | $\frac{\Delta\ EBIT / EBIT}{\Delta\ Sales / Sales}$ |
| Asset Structure | The composition of the company's assets consist of current assets and fixed assets | $\frac{Fixed\ Asset}{Total\ Asset}$ |

**Analysis Method**

Research methodology in this study is *hypothesis testing empirical study*, means testing hypotheses from empirical studies that have been done. Either consistent or inconsistent with the findings of the empirical results, primarily related to the effect of the independent variables are not independent variables and on the ex post facto. The method of analysis used is multiple stages with multiple linear regression using 2SLS (Two-Stage Least Square), where the equations in model 1 regressed back in model 2.

**Model 1**

Capital Structure : : $b_{10}$ + $b_{11}$ SALES + $b_{12}$ DOL + $b_{13}$ASSET + $e_1$

**Model 2**

Profitability : $b_{20}$ + $b_{21}$ **E_DER** + $b_{22}$ WORK +$e_2$

**Result Analysis**

Before the regression analysis performed, first is to test four models of the classical assumptions as the main requirement analysis using parametric statistical. Testing includes linearity, normality, autocorrelation, multicollinearity, and heteroscedasticity. The test results showed that the linear model of this study, possed normal distribution, free of symptoms and heteroskedastis autocorrelation, and multicollinearity did not happen.

**Model I Testing**

| Variabel Endogenus : Struktur Modal | | |
|---|---|---|
| Exogenus Variabel | Coefficients | Sig.***t*** |
| Constant | 0.225 | 0.538 |
| Sales Growth | -0.002 | 0.978 |
| Operating Leverage | 0.005 | 0.080 |
| Asset Structure | 0.530 | 0.259 |
| R = 0.159 | | |
| Adj R Square = 0.039 | | |
| Sig. F = 0.294 | | |

**Source: Results of SPSS Processing**

Based on the SPSS test results above, we can conclude from the first model that Sales Growth, Operating Leverage and Asset Structure does not affect either partially or simultaneously to Capital Structure.

**Model II Testing**

| Variabel Endogenus : Profitabilitas | | |
|---|---|---|
| Exogenus Variabel | Coefficients | Sig.***t*** |
| Constant | 0.038 | 0.186 |
| Capital Strucure | 0.000 | 0.999 |
| Working Capital Turnover | -0.003 | 0.031 |
| R = 0.197 | | |
| Adj R Square = 0.124 | | |
| Sig. F = 0.090 | | |

**Source: Results of SPSS Processing**

Based on the above test results, we can conclude that the capital structure and working capital turnover has no simultaneous effect on the profitability. Partially, only the variable working capital alone that has an influence on profitability. The amount of the adjusted R-square is 0.124 which means that only 12.4% of profitability variables can be explained by the variable capital structure and working capital turnover variables, while the remaining 87.6% is explained by variables outside the model study.

## Discussion

### Effect of rate of sales growth, operating leverage, and asset structure on the capital structure

Hypothesis one was rejected. ***t*** significant value to the sales growth of the capital structure for 0,978 is greater than the significance level (α = 0.05). This indicates that the growth in sales has no impact on the capital structure. This is in contrasts with a study conducted by Meyulinda (2010), which shows the influence of the growth rate of sales to capital structure. In general, the stable level of sales, which means even more stable profits, the bigger chance the company is able to meet its fixed obligations. Thus the company can finance its activities with a greater proportion of debt. However, other research shows that sales growth turned out to have no effect on the capital structure.

Hypothesis two was rejected. ***t*** significant value to operating leverage on capital structure is at 0,080 where the result is greater than the significance level (α = 0.05). This indicates that operating leverage has no effect on the capital structure. This indicates that the change in the value of the operating leverage will not much affect the changes in the capital structure.

Hypothesis three was rejected. ***t*** significant value to the asset structure is the capital structure of 0,259 where the result is greater than the degree of significance (α = 0.05), with a positive coefficient indicates there is a tendency that asset structure and capital structure move in the same direction although there is no significant effect. The results of this study are consistent with the results of research conducted by Seftianne and Ruth (2011) which states that the asset structure has no influence on the capital structure. However, management does not fully ignore the structure of assets because asset structure here will determine the level of liquidity.

### The effect of capital structure and working capital turnover on profitability

Hypothesis four was rejected. T significant value to the capital structure on profitability is at 0.999 where the result is greater than the significance level (α = 0.05),with a positive coefficient indicates there is a tendency that proftabilitas and capital structure moving in the same direction, but there was no significant effect of capital structure on profitability. This indicates that the capital cost derived from the company's capital structure will not affect much on the level of profit that will be obtained by the company, so that it will not affect the company's management in selecting a good capital structure. These results contradict the results of research conducted by Kodrat (2009) and Azlina (2009).

Hypothesis five accepted. T significance values for working capital turnover on profitability is at 0.031 where the outcome is less than the significance level (α = 0.05), with a negative coefficient indicates that the level of working capital turnover and profitability moving in the opposite direction and has a significant effect. The results are consistent with research conducted by Azlina (2009) which showed that the rate of turnover of working capital had a significant effect on profitability.

## Closing

Based on the results of research and discussion, it can be concluded: the results of the first model, both partial and simultaneous there was no effect from sales growth, operating leverage, asset structure and capital structure**.** The second model, only the working capital turnover has partial effect while simultaneously there is no influence of the capital structure and working capital turnover on profitability. Based on the conclusion of the study above, can be given suggestions that are donated from the results of this study as follows:

1. Investors should pay attention to other factors that may affect the profitability of the company because there are other factors that can affect the profitability of companies that are not addressed in this study. Hopefully with this study, investors can carefully selecting investments objects.
2. For researchers who want to study further this research, it is advisable to conduct further research, as this study there are limitations both on the variables of the study, observation unit, as well as research instruments. Researchers can make observations on larger industrial or research variables are more diverse.


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## REFERENCES


Arikunto, S., 2006, **Prosedur Penelitian Suatu Pemdekatan Praktik Edisi Revisi VI,** Jakarta: Rineka Cipta

Atmaja,L.S., 2008, **Teori & Praktik Manajemen Keuangan,** Yogyakarta: ANDI

Azlina, N., 2009, **Tingkat Perputaran Modal Kerja, Struktur Modal, dan Skala Perusahaan Terhadap Profitabilitas,** Pekbis Jurnal Vol.1 No.2, 107-114

Hadianto dan Tayana, 2010, **Pengaruh Risiko Sistematik, Struktur Aktiva, Profitabilitas, dan Jenis Perusahaan Terhadap Struktur Modal Emiten Sektor Pertambangan: Pengujian Hipotesis *Static-Trade Off*,** Jurnal Akuntansi Vol.2 No.1, 15-39

Hanafi, M,M.B.A., 2009, **Analisis Laporan Keuangan Edisi Keempat**, Yogyakarta: UPP STIM YKPN

Joni dan Lina, 2010, **Faktor-Faktor Yang Mempengaruhi Struktur Modal,** Jurnal Bisnis dan Akuntansi Vol.12 No.2, 81-96

Kodrat, D.S., 2009, **Pengaruh Struktur Modal terhadap Profitabilitas,** Jurnal Eksekutif I, 143-154

Mayangsari, S., 2001, **Analisis Faktor-Faktor Yang Mempengaruhi Keputusan Pendanaan perusahaan: Pengujian Pecking Order Hypothesis,** Metode Riset Akuntansi, Auditing, dan Informasi Vol.1 No,3, 1-26

Meyulinda, Yusfarita, 2010, **Pengarus Struktur Aktiva, Tingkat Pertumbuhan Penjualan, Return on Assets Terhadap Struktur Modal Pada Perusahaan Manufaktur Di Bursa Efek Jakarta,** EFEKTIF Jurnal Bisnis dan Ekonomi Vol.1 No.1, 88-103

Mudrika, 2006, **Analisis Faktor-Faktor Yang Mempengaruhi Struktur Modaln(Studi Pada Perusahaan Yang Terdaftar di bursa Efek Jakarta),** Jurnal Tepak ManajerialMagister Manajemen UNRI Vol.6 No.6,

Purbayu, Ashari, 2005, **Analisis Statistik dengan Microsoft Excel & SPSS**, Yogyakarta: ANDI

Rista dan Bambang, 2011, **Menentukan Struktur Modal PerusahaanManufaktur Di Bursa Efek Indonesia,** Dinamika Keuangan dan Perbankan Vol.3 No.2, 172-182

Riyanto, B., 2008, **Dasar-Dasar Pembelanjaan Perusahaan Edisi 4,** Yogyakarta: BPFE

Sartono, Agus, M.B.A., 2001, **Manajemen Keuangan Teori dan Aplikasi**, Yogyakarta: BPFE