American Journal of Economics 2015, 5(2): 135-138
DOI: 10.5923/c.economics.201501.14

The Impact of Increasing CAPEX on Customer Number, Profit, and ROI in Indonesia Telecommunication Industry

Anisah Firli[1,*], Ina Primiana[2], Umi Kaltum[2]

[1]Department of Management and Business, Faculty of Economics Padjajaran University, Bandung- Indonesia, Economics and Business Faculty, Telkom University, Bandung, Indonesia
[2]Department of Management and Business, Faculty of Economics Padjajaran University, Bandung, Indonesia

Abstract Telecommunication industry has unique characteristics in spending its Capital Expenditure. Some studies examine that CAPEX in telecommunication industry is driven by technology and concluded that their CAPEX give small amount of ROI. Different with any other previous researches, this research examines the impact of CAPEX in Customer Number, Profit and Return On Investment (ROI) by quantitative analysis. This research uses regression analysis with secondary data of the big three operator in Indonesia telecommunication industry in the last five years. Research findings conclude that even ROI from the CAPEX is very small; increasing in CAPEX has positive significant impact on Customer Number, Profit and also ROI. This research find that holding company perform better than single company in profit and also ROI. Finally this research suggests for the future research to examine the impact by comparing big company and small company which is small company prefers spending in Operating Expenditure (OPEX) to CAPEX.

Keywords CAPEX, Customer Number, Profit, ROI, Telecommunication

1. Introduction

There are many challenges faced by Telecom Industry globally; pierce of competition among operators, decrease in telecommunication price that impact to ARPU [1] and also high in capital expenditure (CAPEX) with low ROCAPEX in telecommunication industry increases rapidly from just only US $50 billion to about US $ 325 billion over the past 30 years. In fact, this investment didn't give high ROI (Return on Investment). In the past decade, the average long-term return on investment has only 6%. In other word, telecom industry spent lots of money in investment but didn't give high returns.

Most telecom executives admit deeply frustration in managing capital. Thus it becomes challenge in telecommunication industry nowadays (PWC Analysis, 2013). This research focuses on explaining the CAPEX trend in Indonesia Telecom Industry and also examines the impact of CAPEX on Customer Number, Profit, and ROI by the empirical study in big three telecom operator in Indonesia.

2. Literature Review and Hypothesis

2.1. CAPEX

Capital expenditure is a function of current and past sales change, current and past profits and depreciation charges. Increases in demand are likely to be increases in sales and input. Change in demand will be felt first in utilization of existing capital. Capital expenditure also depends of the need to replace the portions of existing capital and the measure may be found in depreciation charges. Profitability of investment may be capture in current and past profits. The full role of sales changes involves also their positive relation with profits and also positive relation with capital expenditure [2].

There are some types of capital expenditure; equipment replacement, expansion to meet growth in existing to product, expansion generated by new products, and projected mandated by law [3].

Capital expenditure management includes additions, disposition, modification and replacement of fixed assets. Capital expenditure decision has its effect over a long time span and inevitability affect the company's future cost structure. Capital expenditure decisions are of considerable significance as the future success and growth of the firms depends heavily on them. There are some difficulties: the benefits from the investment are received in some future period and the future is uncertain and element of risk is involved and at least need 15 year forecast. A failure makes a big error that only give expense. The future revenue should be consideration things based on market product or expected share for the company and also the time value of money

* Corresponding author:
firli297@yahoo.co.id (Anisah Firli)
Published online at http://journal.sapub.org/economics

when the cash inflow come from the long future. It's very difficult to calculate the benefit related to the cost. Investing decision can be two types; those which expand revenues and whose reduce costs. Expand revenue means give additional revenue for the company. Investment decisions reducing costs, which is company should take decision whether continue with the existing assets or replace them to the new one by consideration that new machine give less expanse than the existing assets [4].

2.2. CAPEX in Telecommunication Industry

In the telecommunication industry, nearly two-thirds executive argue that CAPEX planning is driven by technology, not business objectives (PWC Analysis, 2013). Changing in Item of capital expenditure reflects the changing of the technology, which is technology, grows so fast. In the fixed line era, capital expenditure of the operator focuses in the building fixed network. In the cellular era, capital expenditure focuses in building coverage network. In 2008, Indonesia's largest mobile phone operator Telkomsel at least spent USD 1,7 billion in capital expenditure which is 40% of the CAPEX being allocated to network coverage expansion [5]. In 2011, ABI Research said Radio Access Network equipment is still driving a respectable percentage of operators' CAPEX. 56 percent of global operator CAPEX came from base station deployments, upgrades and swap-outs. Many operators are leaning towards small cell deployments (microcells, picocells and femtocells) to fill dead zones and boost coverage inside buildings. However operators are also still investing in improving the downlink and uplink performance of their networks, not just on LTE but also HSPA+. CDMA2000 networks are similarly continuing to upgrade. Core network spending also continues to increase. In 2011, core network expenditure is likely to approach $12 billion. Spending on core network equipment is expanding on a number of fronts. As a number of countries are still very much building out their 3G coverage and services. Overtime, we anticipate greater investment in 4G-capable gateway architecture [6]. Those spending conclude that CAPEX driven by its technology. Technology goes so fast and makes uncertainty from the high investment in CAPEX, it calls CAPEX dilemma in Telecommunication Industry.

In 2013, there are nine operators in Indonesia, which are PT Telekomunikasi Indonesia, PT Telkomsel, PT XL Axiata (before PT Excelcomindo Pratama), PT Indosat (before PT Satelite Corporation), PT Hutchison 3 Indonesia, PT Smartfren Telecom (merger between Smart Telekom and PT Mobile 8 Telecom), PT Sampoerna Telekomunikasi Indonesia, PT Axis Telekom Indonesia (before PT Natrindo Telepon Seluler), and PT Bakrie Telecom. At the middle of 2014, PT Axis.

Telekom is acquired by PT XL Axiata, so the total operator in 2014 becomes eight operator. From secondary data, incumbent operator or big operators prefer to spend much in CAPEX, while small company or start-up company prefers to spend in OPEX. Small company hasn't financial as big as the bigger operators, so they prefer to minimize CAPEX due to their uncertainty in investment.

Table 1. Operator's Capital Expenditure

Year	Capital Expenditure (in billion rupiah)		
	PT Telkom include PT Telkomsel	PT Indosat	PT XL Axiata
2013	24,898.00	9,322.40	7,394.00
2012	17,272.00	8,407.50	10,176.00
2011	14,603.00	6,519.00	6,522.00
2010	12,651.00	5,986.00	4,848.00
2009	19,161.00	11,584.50	5,283.00

Source: Annual Report (2009-2013)

From 2009 to 2010, all operators' CAPEX decreases. From 2010 until 2013, the operators CAPEX increase every year in the general. For Telkom, CAPEX increases around 19% in the last three years. Indosat' CAPEX Increases around 13%, and 7,9% for XL Axiata. In general, the average CAPEX increases around 13 % for big three operator in Indonesia Telecommunication Industry.

2.3. CAPEX in Telecommunication Industry

Customer number tends to increase every year for all the operators. Profit tends to increase only for telkom, but for the others company tends to be lower. And for ROI, the biggest operators are 15% in average, but for the other operator has very small ROI; only 0,35% for Indosat, and 7,26 for XL Axiata. Table 2 shows Customer Number, Profit, and ROI each operator for last five years. We found that Telkom such a holding company perform better in profit and ROI.

Table 2. Operator's Capital Expenditure

Year	PT Telkom include PT Telkomsel			PT Indosat			PT XL Axiata		
	Customer Number *	Profit **	ROI	Customer Number*	Profit **	ROI	Customer Number*	Profit **	ROI
2013	175.470	20,290.00	15.86 %	59.600	-2,666.46	-4.89 %	60.549	1,033.00	2.56%
2012	171.106	18,362.00	16.49%	58.500	487.42	0.88%	45.750	2,765.00	7.80%
2011	129.800	15,470.00	15.01%	51.700	968.65	1.82%	46.359	2,830.00	9.08%
2010	120.400	15,870.00	15.79%	44.300	647.00	1.22%	40.351	2,891.00	10.61%
2009	105.000	16,043.00	16.38%	33.136	1,498.20	2.72%	31.438	1,709.00	6.24%

* (in millions), ** (in billions)
Source: Annual report (2009-2013)

The objective of all operators allocate the increase of the capital expenditure is to reach more the customer number, it's always mention on their strategic planning. From secondary data we can see from Table 2 the increasing in capital expenditure leads to increase in customer number. We assumed that CAPEX has positive significant impact on Customer Number.

Hypothesis 1: CAPEX has positive significant impact on Customer Number

One of business objective is making profit. To make profit, company should operate the business. To operate the business, company needs assets. Those assets through capital expenditure are used by the company to create their profit. [7] explains that assets usually called by the earning power, which is profit power for the company. Liargivas and Skandalis explain that investment on the capital of a firm is crucial because the useful life of existing capital diminished over time. The amount of that investment compared to such things as revenue will differ between the industries and business depending on how capital intensive the business is. Spending in CAPEX is expected give profit to the company [8]. There is a research that conclude the impact of CAPEX on Profit in manufacturing industry. The research also conducts that the higher CAPEX spending by the company, the lower future profit that they get. There is relationship between firm size and profitability [9-16]. We assume that CAPEX has positive significant impact on Profit.

Hypothesis 2: CAPEX has positive significant impact on Profit

Owner's objective of creating company is making profit to increase their own wealth. Manager should make profit so company can pay the debt to the creditor and return to the owners. Manager should generate a much higher return in doing business. Creditor and owners see return on investment of the company. The relationship between profit and investment that generates profit is one of most widely used measures of company performance. As qualitative measure of investment and result, ROI provides a company's management with a simple tool for examining performance. By determining ROI, management can reduce the factors of intuition and judgement to an interpretable mathematical calculation and compare alter native uses of invested capital. For example: should we increase inventory or pay off some of our debt? Profit is generally created only when a company operates effectively. Management's operating effectiveness is proven if the company can prosper, obtain funding, and reward suppliers of its funds. ROI is the principal tool used to evaluate how well management performs. ROI is used by creditors and owners to Assess the company's ability to earn an adequate rate of return. Creditors and owners can compare the ROI of company to those other companies and to industry benchmarks or norm. ROI provides information about a company' financial health. Alone or in combination with other measures, ROI is the most commonly used management indicator of company profit and performance. ROI is a comprehensive tool that normalized dissimilar activities of different sizes, and allows them to be compared. ROI has its faults and its advantages. It is sometimes ticklish to use if you don't understand it completely. Financial reports of the companies in different industries demonstrate the phenomenon of equivalent ROI arrived at by using different strategies. Operating income is thought to be a better measure of the earning to net income, which is affected by unusual gains and losses or by changes in debt and interest expense [17].

Return On Investment is financial metric used to gauge the relative performance of an investment. It is basically the percentage or the original investment that has been returned to the investor as profit. ROI defined as net profit divided by investment. ROI is often related with CAPEX. Size investment explains the return of the company. We assumed that CAPEX has positive significant impact on ROI.

Hypothesis 3: CAPEX has positive significant impact on ROI

Return On Investment is financial metric used to gauge the relative performance of an investment. It is basically the percentage or the original investment that has been returned to the investor as profit. ROI defined as net profit divided by investment.

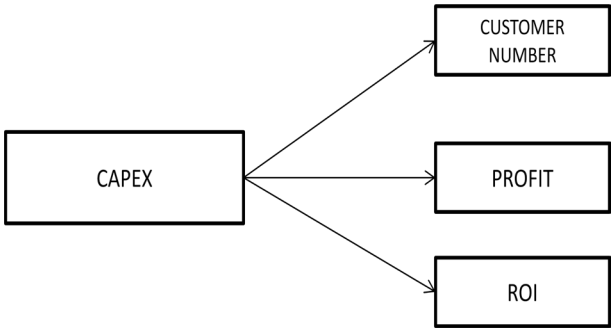

Figure 1. Research Framework

3. Research Methods

This research uses the big three operator telecommunication in Indonesia as sample. To examine the impact of CAPEX (X) on Customer Number (Y1), Profit (Y2), and ROI (Y3), we collate secondary data from annual report and financial statement of each company and analyze with simple regression by using SPSS Software.

4. Empirical Result

This research examines three regression models: Impact CAPEX (X) on Customer Number (Y1), Impact CAPEX (X) on Profit (Y2) and Impact CAPEX (X) on ROI (Y3). The empirical results using SPSS shown at Table 3.

From the table, all of b coefficient is positive. It means increasing in X make positive increases in Y for all regression models. All of P is lower than 0,05 (decided significance level), it means all hypotheses are received; CAPEX has positive significant impact on Customer

Number, CAPEX has positive significant impact on Profit, and CAPEX has positive significant impact on ROI.

Table 3. Operator's Capital Expenditure

Regresion Model	a	b	R	R^2	P
Impact CAPEX (X) on Customer Number (Y_1)	-2,475	0,007	0,870	0,757	0,000
Impact CAPEX (X) on Profit (Y_2)	-6478,905	1,187	0,865	0,747	0,000
Impact CAPEX (X) on ROI (Y_3)	-0,876	0,001	0,662	0,438	0,007

5. Conclusions

Using data from the big three operator in Indonesia, this paper concluded that even ROI from the CAPEX is very small, the increasing on CAPEX has positive significant impact on increasing Customer Number, Profit, and ROI in Indonesia Telecommunication Industry. For make customer number, profit and ROI more increasingly, it should be supported not only by the increasing CAPEX in fast technology era but also making efficient operational, improving marketing program, maintaining customer value, etc. In rapid technology lifecycle, operator should maintain their ROI through their CAPEX, lengthening the technology changing covers the initial outlay. For future research, comparative study is needed between big operator and small operator that have different strategy and behaviour in CAPEX and OPEX spending.

REFERENCES

[1] Firli, Anisah. 2014. Tower Sharing Approach: Towards Sustainable Business Practices in Telecommunication Industry. Proceedings of GARCOMBS, International Conference.

[2] Eisner, Robert. 1978. Change in sales and profit in investment function. Factors in Business Investment

[3] Saphiro, Alan. 2004. Capital Budgeting and Investment Analisys. First Edition. ISBN-13: 978-0130660909.

[4] Khan & Jain. 2007. Financial Management. Mc Graw Hill.

[5] Celular news. 2008. Lastest Update from Cellular News. Available at: www.cellular-news.com/tags/capex.

[6] ABI Research. 2011. Updates on Mobile Operator CAPEX. Available at http://search.proquest.com/docview/871503395?accountid=38628.

[7] Lukman, Syamsudin (2004). Manajemen Keuangan Perusahaan Konsep Aplikasi dalam Perencanaan, Pengawasan dan Pengambilan Keputusan. Jakarta: PT Raja Grafindo Persada.

[8] Mulyadi. (2001). Sistem Akuntansi. Third Edition. Jakarta: Salemba Empat.

[9] Alexander, S.S., (1949). The Effect of size of manufacturing corporation on the distribution of rate of return", Review of Economics and Statistics, August 229-235.

[10] Stekler, H.O., (1964). The variability of profitability with size of firm. Journal of the American Statistical Association, 1183-1193.

[11] Hall, Marshall & Leomnard Weiss (1967). Firm Size and Profitability. Review of Economics and Statistics, August, 319-331.

[12] Scheher, F.M (1973). The Determinants of plant sizes in six nations. Review if Economics and Statistic. May, 135-145.

[13] Porterm, M.E. (1979). The Structure within industries and companies performance. Review of Economics and Statistics, May, 214-227.

[14] Shepherd, W.G., (1972). The Elements of market structure". Review of Economics and Statistics, February, 25-27.

[15] Marcus, M. (1969). Profitability and Size of the firm", Review of Economics and Statistics, February, 104-108.

[16] Amato, Louis H., Burson, Thimothy E. (2007). The Affect of Firm Size on Profit Rates in Financial Services. Journal of Economics and Economic Education Research. The Dream Catcher Group. ISSN: 1533-3604.

[17] George T Friedlob, Franklin J Plewa. (1996). Understanding return on investment. United states of America: John Wiley & Sons, Inc.

[18] Telkom, Indosat, XL. Annual Report 2009-2014.