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Conference Paper

Analysis of the Determinants Competition Oligopoly Market Telecommunication Industry in Indonesia

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Abstract

The purpose of this research was to gather some empirical evidence and to analyze the management determinants among the relation of corruption, accountability, and performance of Indonesia oil and gas industry. Due to its strategic role in government revenue and Indonesian development, oil and gas should be managed efficiently, effectively, and in an accountable manner. Past implementation has witnessed that oil and gas industry faced many problems such as corruption, lack of accountability, and nonperforming. The scope of the research is focused on production sharing contract between government and commercial oil and gas companies. Beside agency cost, information asymmetry and contracting theory in the industry could decrease government income from oil and gas sector. The research object is accounting choice, controlling, corruption, accountability, and performance variables.

Keywords: Customers, Promotion, Employees, Network

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1. Introduction

A development of technology 'communication is increasing. Mobile phones (mobile phones) are not rated as expensive goods [20]. This means that consumers use mobile phones not only to fulfill their lifestyles or to pursue prestige but as a means of communication that is genuinely considered essential and necessary. (The Indonesian Cellular Telephone Association / ATSI, 2002), from 25 trillion Indonesian telecom operators revenue in 2001 40 percent or Rp. 10.5 trillion, contributed to the sale of mobile operators. The number of customers each year continues to swell. In fact, the number of subscribers of total mobile operators will be able to compete with the number of subscribers of fixed-line phone subscribers in 2002. Currently, the number of cellular subscribers is still below a fixed line, now recorded 6.73 million fixed-line subscribers in Indonesia. [1].

In 2004 and 2005, revenues from the cellular telecommunication industry in Indonesia were US $ 2.5 billion and US $ 2.8 billion, respectively, which grew by 1.4% during 2004 and 2005. The mobile phone industry has grown rapidly in Indonesia since 15 last year, this is seen from the number of mobile phone subscribers that continue to increase from year to year. Indonesia was ranked fourth in Asia after South Korea, China and Japan. The rapid growth of the cellular business attracted foreign investors into Indonesia, some operators from Asia such as Singapore Telecommunication Ltd (SingTel), Axiata Group Berhad (formerly Telekom Malaysia) and Maxis Communication Bhd from Malaysia have planted their business to Indonesia to buy shares of mobile operators in Domestic Telkomsel and XL Axiata (formerly Excelcomindo). Even Indosat, previously a privately owned state-owned telecommunication company, is currently majority-owned by Qatar Telecom Group of 65% by purchasing 41% of STT (Singapore Telecommunication Technologies), while the rest of the market is through a tender offer, while the Indonesian government only has 15%. (www.IndonesianCommercialNewsletter.co.id, 2011)

In the face of intense competition, Nowadays all cellular operators are starting to abandon the competitive tariff strategy; now cellular operators rely more on data services and customers as the main source of income. (www.Indonesian-Commercial-Newsletter.co.id 2011)

The issue of tariffs is a sensitive issue in today's telecommunication business. It is sensitive because it has a direct impact on consumers and is a tool for operators to capture customers through marketing strategies. But different positions between regulators and market participants are politically significant in giving significant influence to the market structure. (khaerulhtanjung blogspot.co.id/2008/02)

One of the strategies used by mobile operators to attract consumers as much as possible is to produce a starter card in bulk with a low selling price level (below the price of regular pulse refill). This strategy is used by almost all cellular operators in an effort to improve their customers.

In the case of an increase in the number of customers making the company compete to race to provide attractive rates that are expected to affect in the increasing number of customers. A growing number of subscribers will contribute substantially to increasing the company's revenue because the company's goal is to increase taxes for its business. Product competition in telecom market is very tight, where the operators keep pace with the strategy to win the hearts of customers. In the market struggle, the company not only focus on increasing revenue from voice tariff (voice) but also must improve the appearance of multimedia-based service features. One of the

TABLE 1: Comparison Price of Telkomsel, Indosat and XL Year 2013 - 2015.

Prices	Matrix	Halo	Xl
Telepon	Rp. 900/minute (all indosat)	Rp.1.600/minute (all telkomsel)	Rp. 1000/menit (all operator)
	Rp. 1.200/minute (all operator)	Rp. 1.260/menit (all operator)	
SMS	Rp. 150/sms	Rp. 200 / sms (all telkomsel)	Rp. 200/sms (all operator)
		rp. 210/sms (all operator)	
Data	Rp. 200/100KB	Rp. 6/KB	Rp. 2000/5MB
			Rp. 30.000/75MB

Sources: www.indosatooredoo.co.id

more current trends is MMS (Multimedia Mobile Service), SMS (Short Message Service) Browsing or the Internet and the latest 4G services.

TABLE 2: Comparison Number of subscribers, number of networks, number of population to Revenue Year 2011-2015.

Name Of Providers	years	Total Unit Network	Total Consumens	Populations Indonesia	Total Incomes (juta rupiah)
Indosat	2011	19,253.00	51,700.00	244,808.2	19253
	2012	21,930.00	58,500.00	248,037.8	21930
	2013	24,280.00	59,600.00	252,864.0	24280
	2014	40,229.00	63,200.00	254,500.0	40229
	2015	50,687.00	69,700.00	254,900.0	50687
Telkomsel	2011	42,622.00	107,017.00	244,808.2	42622
	2012	54,297.00	125,146.00	248,037.8	54297
	2013	69,864.00	131,513.00	252,864.0	69864
	2014	85,420.00	140,585.00	254,500.0	85420
	2015	96,915.00	144,600.00	254,900.0	96915
Xl Axiata	2011	28,273.00	46,359.00	244,808.2	28273
	2012	39,452.00	45,750.00	248,037.8	39452
	2013	44,946.00	60,549.00	252,864.0	44946
	2014	52,012.00	59,643.00	254,500.0	52012
	2015	58,879.00	42,100.00	254,900.0	58879

Sources: www.indosat.co.id, www.telkomsel.co.id, www.xlaxiata.co.id.

The table above can be seen as a comparison of 3 large telecommunication companies in Indonesia. Data above is the ratio of the number of subscribers and the amount of revenue. Telkomsel as many as 144 million people in nearly 50% of the total population of Indonesia in 2015 amounted to 254 million people. Then followed by Indosat and then xl axiata. From this table can be seen like as telecommunications not only as a luxury or new goods, but communication is an essential requirement.

Almost all residents of elementary school children up to an adult has a mobile phone as a means of communication. Meanwhile, from the state revenue received from the telecommunications industry of 3.17%. (2014 CPC). This means that the world of telecommunications contributed to the State 3.17%. Therefore, it is expected that the government will be more severe in monitoring the policies taken by each company.

2. Literature Review

Mudrajad Kuntjoro, (2005.86) Competition is a condition where Organizations fight or race to achieve the results or goals to be gained. Such as the consumer, market share, survey rating, or resources required. Sitepu, (2005) Every company, whether engaged in services and non-service, in conducting business activities requires a strategy that can put the company in the best position, ready to compete and continue to grow by optimizing all the potential resources owned. Porter (1993) states that "competition is the essence of success." To win any competition. Competitive advantage is a position where a company controls a business competition (Porter, 1998).

Shepperd (1997).competition is a dynamic process conducted between companies or sellers to win competition and expansion. The industry is part of the production process, where part of that process does not take direct materials from nature which then process it to become a valuable item for society (Bintarto, 1987). The industry is an attempt to produce finished goods with raw materials or raw materials through an extensive production process so that the products can be obtained at the lowest possible price but with the highest quality (I Made Sandi, 1985: 148).

Telcomunication industry is included in the oligopoly competition market because, basically the competition climate faced by mobile phone operators in Indonesia is now close to the situation that is oligopoly. There are three key characteristics attached to the oligopoly market situation, namely: (1) industrial movement is dominated by the gait of several operators with large scale; (2) each operator sells or offers products that are identical or have relatively limited distinctions; and (3) the industry has a significant barrier to entry in size so it is not easy for new entrants to enter into the industry in question.

The oligopoly theory has a long history. The term oligopoly was first used by Sir Thomas Moore in his work in 1916, the "Utopia" 11. In the work it was said that the price should not be at the level of competition when the company is in the market more than one. Oligopoly was first formalized by Augustin Cournot in 1838 through his work "Researches sur les priciples mathematiques de la theorie des richesses".

Fifty years later, the theory is denied by Bertrand The oligopoly market is a form of demand and supply interaction, in which there are several sellers / producers who control all the market demand. Examples of oligopoly markets include markets for motorcycle industry, steel industry, cigarette industry, and bath soap industry. The Oligopoly Market has the following characteristics:

a. There are several sellers / producers who dominate the market.

b. The goods traded can be homogeneous and can also be different shades

c. There is a strong entry barrier for companies outside the market to enter the market

The goodness of the oligopoly market is as follows.

- The oligopoly industries can innovate and apply the most rapid new technologies,

- Driven to compete with the discovery of new production processes and lower production costs,

- Better able to provide funding for development and research.

The disadvantages are as follows.

- The possibility of excess profit being enjoyed by the producers.

- No production efficiency because each manufacturer does not operate at a minimum average cost.

- The possibility of exploitation of consumers and laborers.

There is an increase in price (inflation) that is detrimental to the community on a macro basis

3. Methodology Research

Research is defined by many authors as a systematic process. (Kerlinger, 1990: 17) defines scientific research as a systematic, controlled, empirical and critical investigation of social phenomena guided by theories and hypotheses about allegations relating to social phenomena guided by theories and hypotheses about allegations related to the phenomenon.

The purpose of this study is to obtain evidence on the determinant of variable Price / Tariff, Number of Customers, Network / BTS, Labor and Promotion Costs Against Competition of Telecommunication Industry in Indonesia.

This research uses a quantitative approach, where the approach has been predetermined using secondary data and numerical data. Connecting variables in the problem and quantitative data. Secondary data with time series type (time series) in the period 2000 to 2015. Data collection methods in this study is the collection of secondary data obtained from PT. Indosat, Tbk, PT. Telkomsel and PT. Excelkomindo, internet, BPS (Central Bureau of Statistics) as well as library techniques that is by collecting data from books, journals, and research results as well as sources of reading or writing materials relevant to this reswarch.

Based on theories and research hypotheses, the variables used in this study are as follows.

1. Dependent or dependent variable

   Is a variable that is affected or become a result because of the independent variables (Sugiyono, 2007). Competition is implemented as a combined income PT. Indosat, Tbk, PT. Telkomsel, PT. Excelkomindo is the dependent variable in this study.

2. Independent or independent variables

   Is a variable that affects or becomes the cause of change or the incidence of dependent variable (Sugiyono, 2007). In this study that became the independent variable Tariff / Price, Number of Customers, Promotion Cost.

According to Ghozali (2001), the accuracy of the sample regression function in estimating the actual value can be measured from its goodness of fit. Statistically measured from the amount of coefficient of determination (R^2), F statistic value (model feasibility test) and statistical value t (analysis of individual parameter significance).

3.1. Coefficient of determination (R2)

The ratio of determination (R^2) essentially measures the extent of the model's ability to explain the variation of the dependent variable. The value of the rate of resolution is between zero and one. The small amount of R^2 means the capabilities of the independent variables in explaining the variation of the dependent variable is very limited. One says the independent variables provide almost all the information needed to predict the change of the dependent variable (Ghozali, 2001).

3.2. Model feasibility test (Test statistic F)

Model feasibility test is used to test whether all independent variables affect the dependent variable that is underpricing. If P-value <0.05 then the relationship of independent variables change underpricing, it means that the model used is fit (fit), (Ghozali, 2001).

3.3. Significant test individual parameters (Test statistic t)

A considerable test of individual parameters shows how far the influence of a single explanatory/independent variable in explaining the variation of the dependent variable. That is whether the variable is a significant explanation or not to the dependent variable. In t-test, the t-count value will be compared with the t-table value, if the t-count value is higher than the t-table value then Ha is accepted, and vice versa. It can also be done by comparing the level of significance. If the resulting level of importance is less than 5%, then Ha is accepted, and vice versa (Ghozali, 2001).

4. Results and Discussion of Telecommunication Industry (Telkomsel, Indosat, XL) Using Eviews & Multiple Regression

4.1. Test F

Test F Model is used to test whether all independent variables affect the dependent variable. If P Value <0.05 then the relationship of independent variables affect the dependent variable. This means that the model used is feasible / fit (Ghozali, 2001). Can be seen Fsig is at 0.000 means Fsig <0.05 and means tariff variables, Number of subscribers, number of employees, number of networks and promotions affect income. And it means this model is feasible

4.2. Coefficient of determination R2

The coefficient of determination or R2 is the amount of contribution or contribution of all independent variables to the dependent variable. The higher the coefficient value, the better the ability of independent variables can explain the dependent variable.In the table can be seen the amount of keofisien of 0.931.dimana is a joint variable rate„

the number of employees, the number of networks and promotions are able to explain variatively to the telecommunication company's income while the remaining 0.0691 is explained by other variables that are not accompanied by the estimation model

TABLE 3: Value Eviews from Telkomsel, Indosat dan XL.

Variabel	Telkomsel		Indosat		XL		Combines	
	Coefisien	tsig	Coefisien	tsig	Coefisien	tsig	Coefisien	tsig
α	-6768072.9	0.237	-3388832.8	0.453	-3055167.1	0.009	2135373.2	0.46
Total Staff (X1)	12602.7	0	521.87	0.365	2647.2	0.008	-16.2	0.97
Total Costumers (X2)	137.06	0.015	151.1	0.009	102.2	0.001	406.6	0
Promotion Buget (X3)	-8.1	0.027	6.5	0.022	2.9	0.009	1.2	0.55
Total network (X4)	384.8	0	41.6	0.658	216.2	0	13.01	0.88
Prices (X5)	-7276.7	0.527	7213.6	0.174	2170.8	0.019	-14349.5	0.006

$$Y= 2135373.2 \, \alpha - 16.2 \, X_1 + 406.6 \, X_2 + 1.2 \, X_3 + 13.02 \, X_4 - 14349.5 \, X_5 + e$$
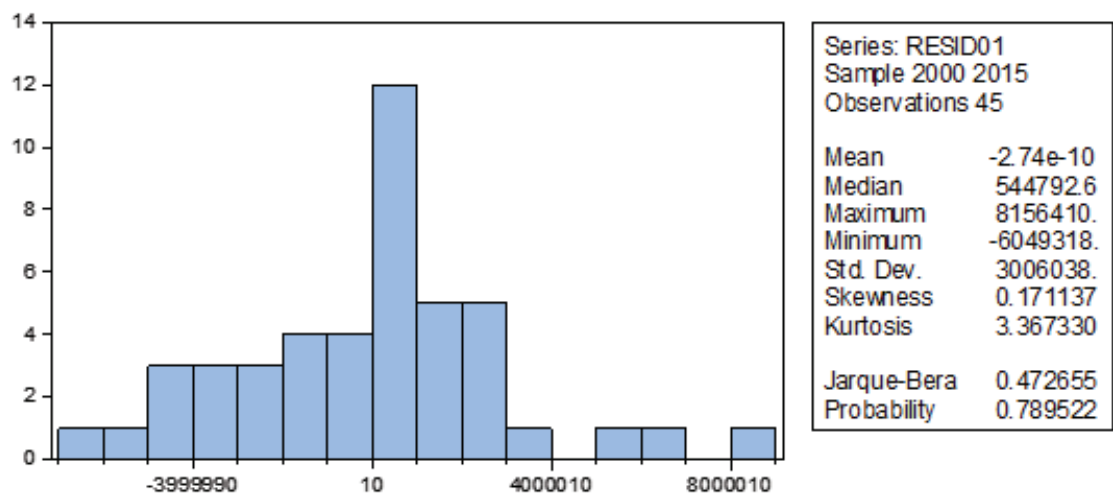

Figure 1: Value Testing Normalitas.

4.3. Testing Multikolineritas

5. Conclusions

1. From the results of regrets can be concluded an overall number of Employees have an adverse and insignificant effect. This means that employees are not too influential on telecommunications business revenues and not in accordance with previous research Jaka Pratama and Muhammad Muzaki (2012). Oligopoly market

TABLE 4: Value Testing Multikolineritas.

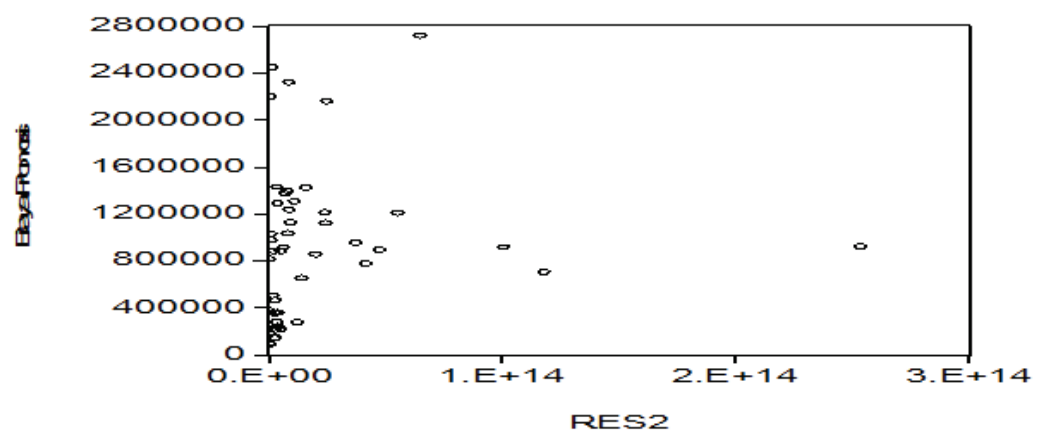| Variabel	R^2
Amount Promotion (X3)	0.88
Total Network (X4)	0.87
Total Staff (X1)	0.3
Total Consumens (X2)	0.91
Fees(X5)	0.3
Incomes(Y)	0.93

Figure 2: Grafik Heteroskedastisitas.

is a very tight competition so that technology and other facilities are considered very influential in introducing the company's products. Ads number of employees regarded as a heavy burden for corporate finance.

2. The number of customers as a whole has a positive and significant impact on income. In accordance with previous research Jaka Pratama and Muhammad Muzaki (2012). The significance of the company's pulse depends on the customer. So the company must improve the service, quality, and maintenance NYC for the customer to keep active and loyal. Against the company

3. The overall promotion has a positive and insignificant effect. In accordance with previous research Sese Fitriani (2013) This means that if promotion increases then income also increases. Development is a facilitator that serves as an extension of information from the company to customers or prospective customers to find out the latest news from the company. Although it does not significantly affect revenue, the company continues to do so as a service to improve the quality of the company

4. The network as a whole has a positive and insignificant effect. In accordance with previous research Welimince Haertati (2011). If the network connection increases then the income will also increase. Just as promotion, the network is one form of supporting facilities provided the company to customers in order to meet customer needs.Because in the world of communication network connection is the leading capital in competing. Generally customers feel satisfied if the company can provide a clean network connection and available anywhere

5. Viewed from the combined three companies Rates have an adverse and significant effect. In accordance with previous research Yane Noviki Hermawati (2013) This means that the rate is very influential on corporate earnings. If the company lowers the tariffs then the revenue will go up. Usually occurs in a very competitive competition. From the overall conclusion can be drawn a red line for additional companies new base stations only focus on network quality improvement, competitive strategy to follow market prices, and focus on customers.

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