

# CHAPTER I INTRODUCTION

## 1.1. Indonesian Telecommunication Industry

### 1.1.1. The Market Growth

The current telecommunications regulation in Indonesia operates in accordance with Telecommunication Law No. 36 year 1999, on Telecommunications, of which is based on the principle of antimonopoly. Before this law was issued, the telecommunication business was monopolized by PT. Telkom and PT. Indosat, both are state owned companies. PT. Telkom controlled all of domestic telecommunication business, while PT. Indosat controlled for international business.

Since the law was issued in 1999, the telecommunication industry has growth fast. It is demonstrated in the figure below:

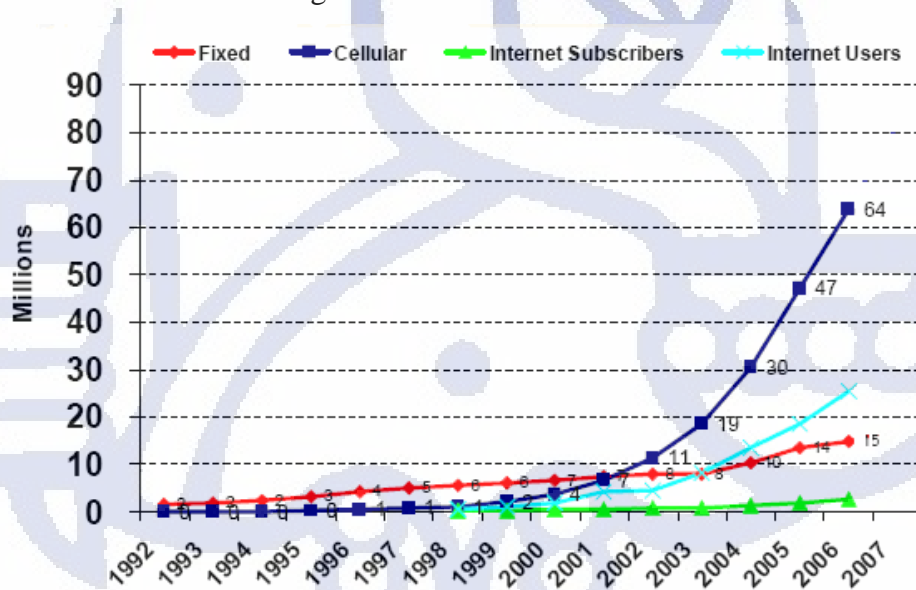


Figure 1.1. Cellular, Fixed and Internet growth Indonesia Market

Source: Directorate General Post and Telecommunication. 2008. *Indonesian Country Status Report*. Ministry of Communication and Information Technology

From the figure 1.1, it can be seen that the growth of cellular telephone network<sup>1</sup>, fixed line network<sup>2</sup> and internet<sup>3</sup> is relatively small before the telecommunication law no 36, was introduced in 1999. Since then the telecommunication business has been booming and the growth has increased significantly. The introduction of law 36 has proven to give positive effect on telecommunication industry in Indonesia. First position is cellular telephone, the amount of cellular telephones in use is highest than fixed line network and internet. In the beginning of 2000, cellular telephones were only owned by “high income business executive or celebrities”, but at the end of 2007 cellular phone becomes ordinary means of telecommunication that could be owned by most people. In the second position is the number of internet user. In the information technology era, internet has become necessity to most people. In the “internet world” information is almost without limit and the users can do many things that were time consuming in the past. The third position is fixed phone, this is the oldest model of communication used but due to its limited flexibility, people changed their communication device with cellular. In the last fourth position is internet subscriber.

Generally, telecommunication industry market is divided into four segments, as below:

1. Fixed line or Fixed Phone
2. Cellular telephone or Mobile Phone
3. Internet
4. Broadband

The discussions of telecommunication industry market and its growth are below:

#### 1. Fixed line or Fixed phone

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<sup>1</sup> Cellular telephone network is a type of short-wave analog or digital telecommunication in which a subscriber has a wireless connection from a mobile telephone to a relatively nearby transmitter.

<sup>2</sup> A fixed-line network is a telephone line which travels through a solid medium, either metal wire or optical fiber.

<sup>3</sup> Internet is a worldwide network of computers and computer networks that can communicate with each other using the Internet Protocol.

By the end of 2007, the number of fixed line in use was 12.2 million lines with tele-density<sup>4</sup> line of 5.73.

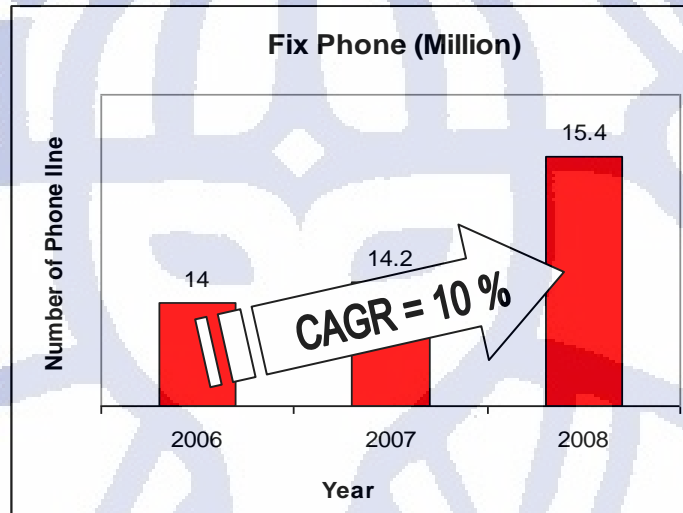


Figure 1.2. The growth of fixed phone line

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Figure 1.2. demonstrated that the growth of fixed phone lines is 10 %, and the installed fixed phone lines in 2008 reached 15.4 millions units. The incremental of fixed phone lines only achieved 10 % because this type of telecommunication is the first type that was used by user and they are no longer keen to use this of telecommunication media because of it's limitation in flexibility or almost "out of date".

## 2. Cellular telephone or Mobile phone

By the end of 2007, the installed of mobile cellular phone in use are 58.8 millions units with tele-density of 21.06.

<sup>4</sup> Teledensity is the number of telephone line in use for every 100 individuals living within an area.

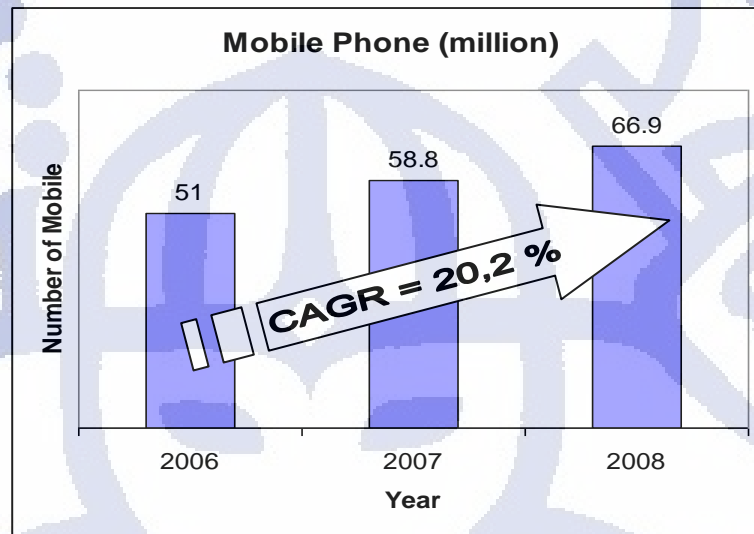


Figure 1.3. The growth of mobile phone in use

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Figure 1.3. demonstrated that the growth of mobile phone in use is 20.2 %, and on 2008 the number of mobile phone in use had achieved 66.9 millions units. Mobile phone becomes a trend in telecommunication which has developed in to primary necessity on daily communication. Within the next few years mobile phone users will probably reached half of Indonesia population and it is estimated by than the mobile phone users numbers will slow down.

### 3. Internet

By the end of 2007, the number of internet subscribers was equal to 1.5 million and with internet users of 31.5 million. The tele-density of internet was 718.

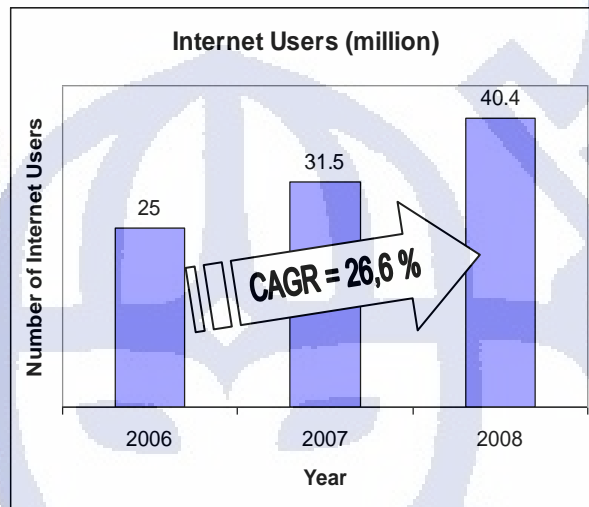


Figure 1.4. The growth of internet user

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Figure 1.4. demonstrated that the growth of internet user is 23.6 %, and on 2008 the number of mobile phone in use achieved 40.4 millions users. Many people interested in using internet because they can do many activities on the internet. The growth of internet use is also supported by the fast growing of information technology to support its infrastructures.

#### 4. Broadband<sup>5</sup>

At the end of 2007, the number of broadband subscriber was equal to 0.5 million with tele-density of 0.05.

<sup>5</sup> Broadband refers to telecommunication in which a wide band of frequencies is available to transmit information. Because a wide band of frequencies is available, information can be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time (much as more lanes on a highway allow more cars to travel on it at the same time)

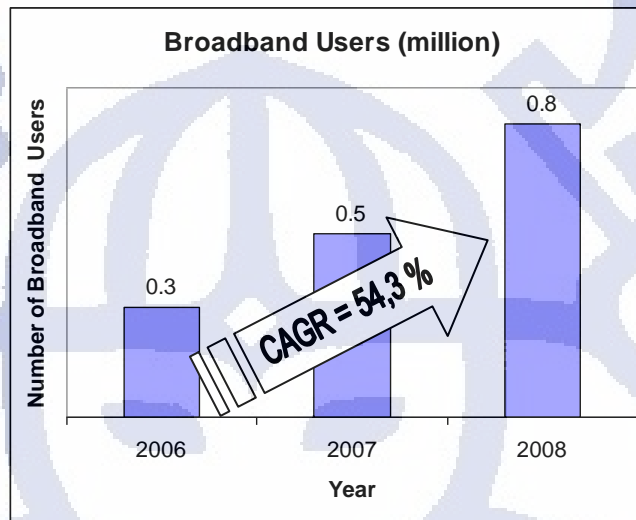


Figure 1.5. The growth of broad band user

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Figure 1.5. demonstrated it can be seen that the growth of broadband users are 54.3 %, and on 2008 the number of broadband subscribers achieved 0.8 millions subscribers. The increasing of broadband user is the highest of the other, though the amount of user is less than the other.

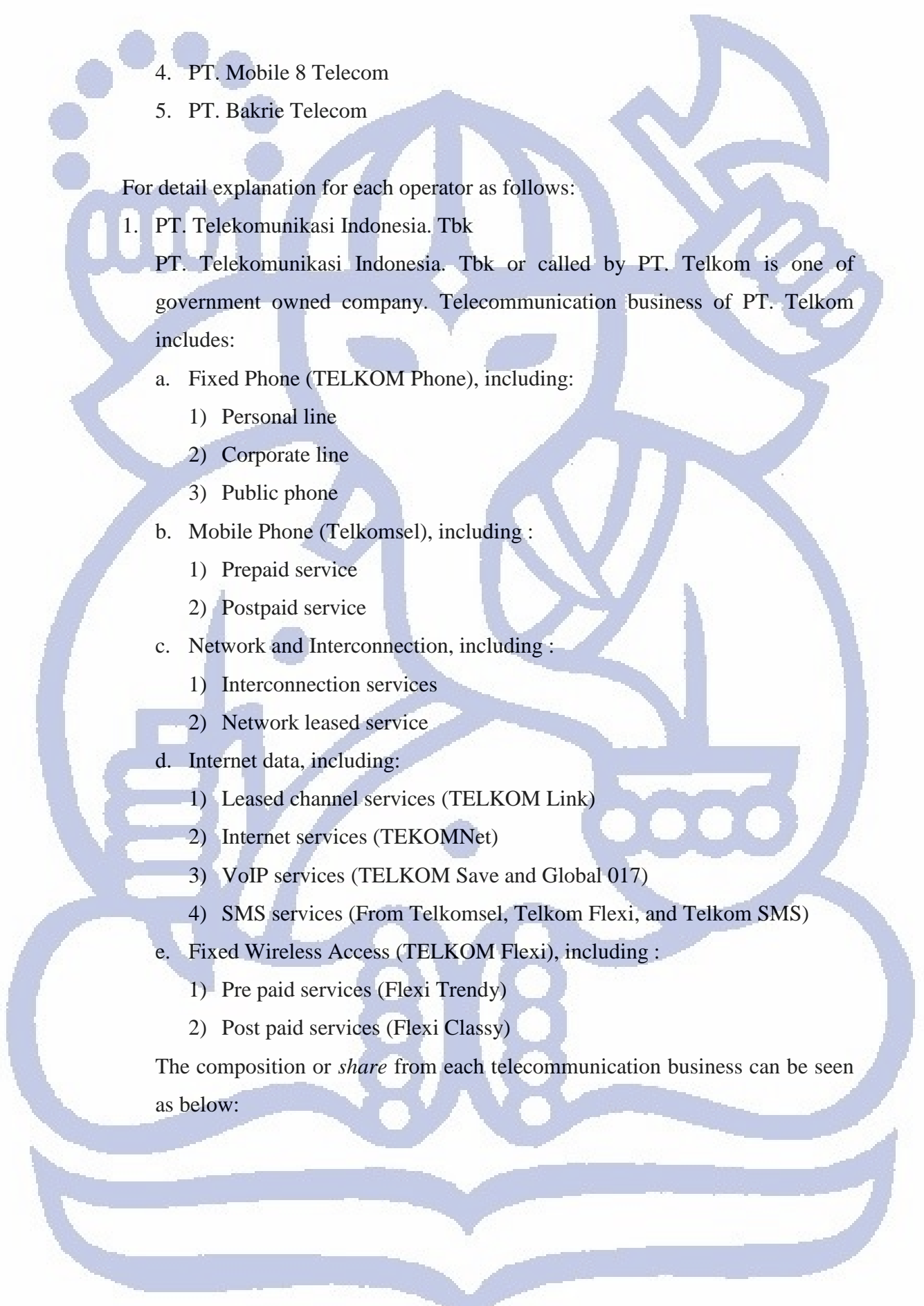
### ***1.1.2. The Big Five Player of Telecommunication Business***

Until February 2008, there are 11 telecommunications operators in Indonesia. The number of cellular operator creates very high competitions. President Director Telkom Rinaldi Firmansyah said in an interview with detikcom as bellow:

*“the number of cellular operators in Indonesia has made Indonesia become country with the biggest number of telecommunication operators. Compare with the other country, in India, there are 6 cellular operators, in Malaysia there are 3 cellular operator and in China only 2 cellular operator”* (Aliya, 2008).

From 11 telecommunication operators, 5 operators are considered as the biggest in Indonesia and dominated the telecommunication industry. They are:

1. PT. Telekomunikasi Indonesia, Tbk
2. PT. Indosat, Tbk
3. PT. Excelcomindo Pratama, Tbk

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4. PT. Mobile 8 Telecom
  5. PT. Bakrie Telecom

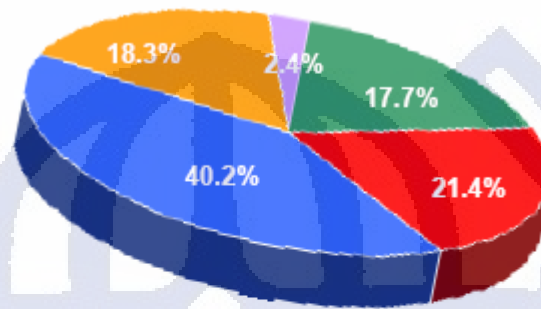
For detail explanation for each operator as follows:

1. PT. Telekomunikasi Indonesia. Tbk

PT. Telekomunikasi Indonesia. Tbk or called by PT. Telkom is one of government owned company. Telecommunication business of PT. Telkom includes:

- a. Fixed Phone (TELKOM Phone), including:
  - 1) Personal line
  - 2) Corporate line
  - 3) Public phone
- b. Mobile Phone (Telkomsel), including :
  - 1) Prepaid service
  - 2) Postpaid service
- c. Network and Interconnection, including :
  - 1) Interconnection services
  - 2) Network leased service
- d. Internet data, including:
  - 1) Leased channel services (TELKOM Link)
  - 2) Internet services (TEKOMNet)
  - 3) VoIP services (TELKOM Save and Global 017)
  - 4) SMS services (From Telkomsel, Telkom Flexi, and Telkom SMS)
- e. Fixed Wireless Access (TELKOM Flexi), including :
  - 1) Pre paid services (Flexi Trendy)
  - 2) Post paid services (Flexi Classy)

The composition or *share* from each telecommunication business can be seen as below:



- Data & Internet
- Fixed Phone
- Mobile Phone
- Network & Interconnection
- Others

Figure 1.6. The composition of Telkom Telecommunication Business

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

From the figure above it can be seen that mobile phone dominates the Telkom Business, with 40.2 % of business share. The second is Fixed Phone with 21.4 % of business share. Total revenue achieved from the business was Rp. 51.294 Billion.

## 2. PT. Indosat. Tbk

PT. Indosat was established as foreign investment company to provide international telecommunication services. In 1999, telecommunication industry reform begins and as the result, duopoly of TELKOM and Indosat was gradually eliminated to encourage fair competition. The composition of PT. Indosat Telecommunication Business can be seen as below:

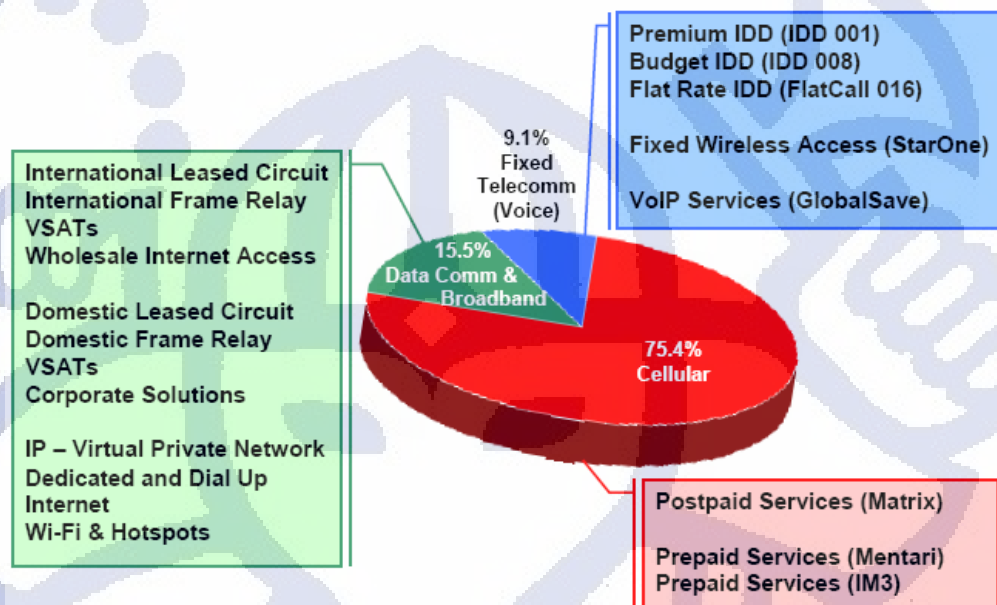


Figure 1.7. The composition of Indosat Telecommunication Business

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

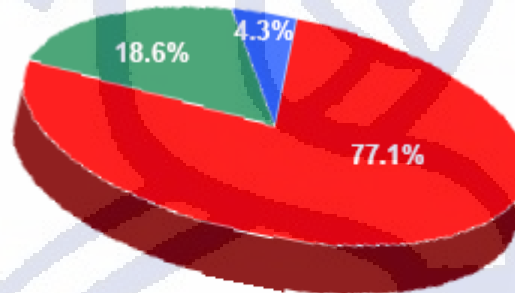
From the business, the total revenue achieved by PT. Indosat was Rp. 12.239 billion and the biggest contribution is coming from cellular business.

### 3. PT. Excelcomindo Pratama. Tbk

PT. Excelcomindo Pratama. Tbk or also known by XL, is the first private company to provide mobile telephony services in Indonesia. In September 2005, XL became the subsidiary of the TM Group Malaysia. The composition of its business including:

- a. Consumer solution, including:
  - 1) Prepaid services (Bebas, Jempol, and Jimat)
  - 2) Postpaid services (Xplor)
- b. Corporate solutions (Business solution)
  - 1) Fixed communication services, including:
    - a) Domestic and international leased line and MPLS
    - b) Broadband internet access, VoIP, Collocation
  - 2) Mobile communication services

- a) Corporate user group, data (GPRS, 3G)
- b) Corporate SMS broadcast
- c) Push mail (Xpand, Blackberry)
- d) Mobile application
- 3) Convergence communication services
  - a) Office zone and instant office
  - b) GSM PBX integration and hosted PBX
  - c) Machine to machine (Wireless ATM, Wireless EDC)
  - d) Wi Fi over Picocell, vehicle tracking system (XLocate)
- c. International roaming
  - 1) Visiting Indonesia
  - 2) Traveling out of Indonesia
  - 3) XL international roaming program



■ Telecommunication  
■ Interconnection  
■ Other

Figure 1.8. The composition of XL's Telecommunication Business

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Form the figure above it can be seen that the business of XL is dominated by Telecommunication with 77.1 % of sharing and the second is Interconnection with 18.6 % of sharing and the last is other business. The total revenue achieved at the end of 2007 was Rp. 6.466 billion.

#### 4. PT. Mobile 8 Telecom

Mobile 8 was established in December 2002 by acquiring three licensed mobile cellular analog AMPS-based operators which are Metrosel, Komselindo, and Telesera. In May 2007, those three companies were officially merged into Mobile 8. Their coverage is almost for the whole Indonesia areas; however, mobile 8 progressively phase out the AMPS<sup>6</sup> system and replace it with the present CDMA 2000<sup>7</sup>-1x system. In December 2003, Mobile 8 launched the prepaid service using the brand name Fren (Fast Reliable Enjoyable Network). The Mobile 8 business includes:

- a. Mobile services, including:
  - 1) Prepaid service
  - 2) Postpaid services
- b. Fren Mobile internet
- c. Corporate services
  - 1) Mobile access hunting
  - 2) Mobile virtual private network
- d. Value added services
  - 1) TV Mobi
  - 2) Fren RingGo
  - 3) Fren SLI#168
  - 4) Fren e-Banking Channel

While the sharing of each business can be seen at figure below:

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<sup>6</sup> Advanced Mobile Phone System (AMPS) was an analog mobile phone system standard developed by Bell Labs, and officially introduced in the Americas in 1983 and Australia in 1987. AMPS was a first-generation cellular technology that uses separate frequencies, or "channels", for each conversation. It therefore required considerable bandwidth for a large number of users.

<sup>7</sup> CDMA2000 is a family of 3G-mobile technology standards, which use CDMA channel access, to send voice, data, and signaling data between mobile phones and cell sites. Code division multiple access (CDMA) is a channel access method utilized by various radio communication technologies

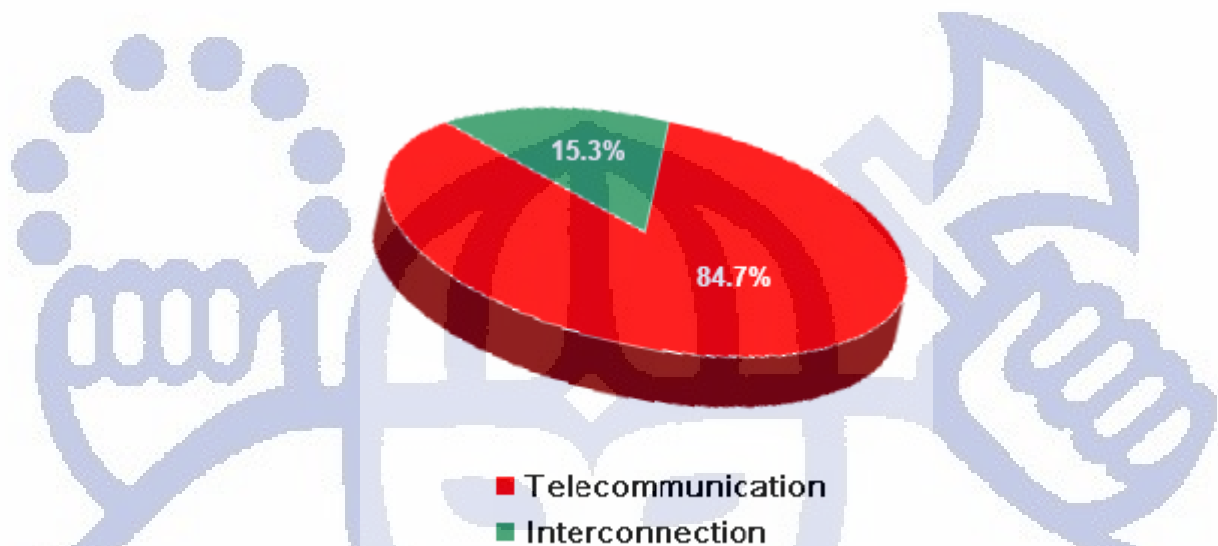


Figure 1.9. The composition of Mobile-8 Telecommunication Business

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Form the figure above it can be seen that the business of Mobile 8 dominated by Telecommunication with 84.7 % of sharing and the second is Interconnection with 15.3 % of sharing. The total revenue achieved by the end 2007 was Rp. 0.522 billion.

#### 5. PT. Bakrie Telecom

PT. Radio Telepon Indonesia (Ratelindo) was established in 1993, and ten years later the company changed its name to PT. Bakrie Telecom. In 1996, Ratelindo launched the first product, a Fixed Wireless service using E-TDMA technology. After changed its name, Bakrie Telecom launched a new limited wireless telephony services using CDMA 2000-1x technology under the brand called "Esia".

The telecommunication services that provided by Bakrie Telecom including:

- a. Esia, including :
  - 1) Prepaid service
  - 2) Postpaid service
  - 3) Esia-tel, that is prepaid wireless public phone
- b. Wifone

- 1) Prepaid
- 2) Postpaid
- c. Vimode Mobile Internet
- d. Value Added Service, including :
  - 1) Ring back tone
  - 2) Featured artist
  - 3) Greeting messaging service
  - 4) Music jukebox

The composition of its service can be seen as below:

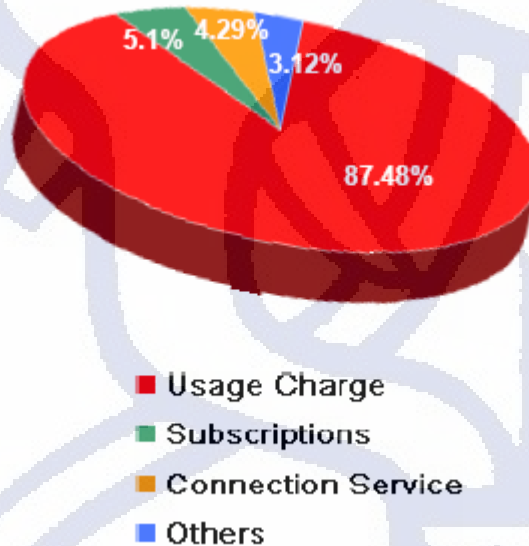


Figure 1.10. The composition of Bakrie Telecom Telecommunication Business

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Form the figure above it can be seen that the revenue of Bakrie Telephone is dominated by Usage services with 87.48 % of sharing, then Subscription with 5.1 % of sharing, then Connection service with 4.29 % of sharing and the last is Others with 3.12 % of sharing. The total revenue achieved by the end of 2007 was Rp. 829.4 Million.

From the explanation above, it can be seen that Telkom dominates the cellular and fixed wireless services. However, the new modern licensing and the law of

telecommunication have promoted better environment for fair competition. The growth of CDMA network used in fixed wireless access has reached almost 10 % of total mobile subscriber. This fast growing due to the lower TCO<sup>8</sup> incurred by adopting CDMA 2000-1x technology. This technology allows operator to charge lower fees to subscribers.

The market share among top four telecommunication operators are described in the figure below:

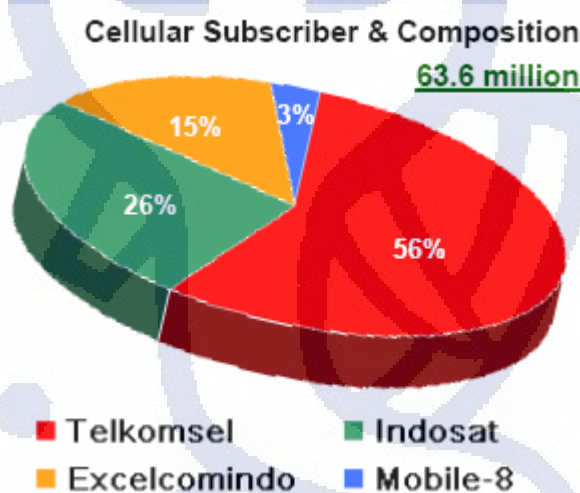


Figure 1.11. Competition in cellular subscriber

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Form the figure above, it can be seen that Telkomsel dominates the cellular market share with 56% from market of top four cellular operators (Telkomsel, Indosat, Excelmindoo and Mobile-8, equal to 63, 6 million subscribers). In the second position is Indosat with 26% of sharing. In the third positon is Excelmindoo with 15% of sharing and the last is Mobile-8 with 3 % of sharing.

<sup>8</sup> Total cost of ownership (TCO) is a financial estimate. Its purpose is to help consumers and enterprise managers determine direct and indirect costs of a product or system. It is a management accounting concept that can be used in full cost accounting or even ecological economics where it includes social costs. A TCO analysis includes total cost of acquisition and operating costs.

Table 1.1. Launch date of cellular card

Cellular	Telkomsel	Indosat	XL	Mobile-8
Launch Date	May 1995	November 1994	October 1996	December 2003
Technology	GSM 900/1800	GSM 900/1800	GSM 900/1800	CDMA 2000-1x EV-DO
Subscribers (mil)	35.6	16.7	9.5	1.8

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Indosat product was the first cellular product that launched in the market. This product was launched in November 1994. In the second position is Telkomsel, which product was launched in May 1995. In the third position is XL, which product was launched in October 1996 and in the last position is Mobile-8, which product was launched in December 2003.

While for the FWA, the market share among the Top Three telecommunication operators can be seen as below:

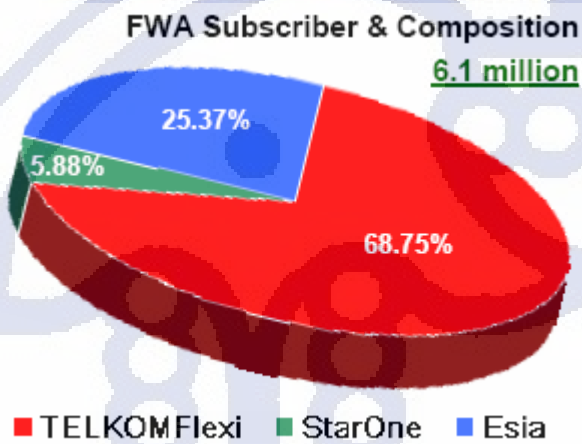


Figure 1.12. Competition in FWA subscriber

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

Form the figure above, it can be seen that Telkom Flexi, product of Telkomsel dominates the FWA market share with 68.75 %. In the second position is Esia, product of Bakrie Telecom with 25.37 %. In the last position is Star One, product of Indosat with 5.88 %. To complete the profile and competition among the telecommunication operators, data is given below:

Table 1.2. Launch date of FWA card

<b>FWA</b>	<b>TELKOMFlexi</b>	<b>StarOne</b>	<b>Esia</b>
Launch Date	December 2002	May 2004	September 2003
Technology	CDMA 2000-1x	CDMA 2000-1x EV-DO	CDMA 2000-1x EV-DO
Subscribers (mil)	4.2	0.359	1.55

Source: Winata, 2007. Telecommunication industry report. Telecommunication industry report volume 1

Telkom flexi is the first FWA product that launched in the market. This product was launched in December 2002. In the second position is Star One, product of Indosat which was launched in May 2004 and in the last position is Esia, product of Bakrie Telecom which was launched in September 2003.

## **1.2. Competition in Indonesian Telecommunication Industry**

### ***1.2.1. Churn-rate in Telecom operator***

Form the discussion above, we can see that the competition in telecommunication industry is very hard. The competition also can be seen from the advertising that present in television on February 2009.

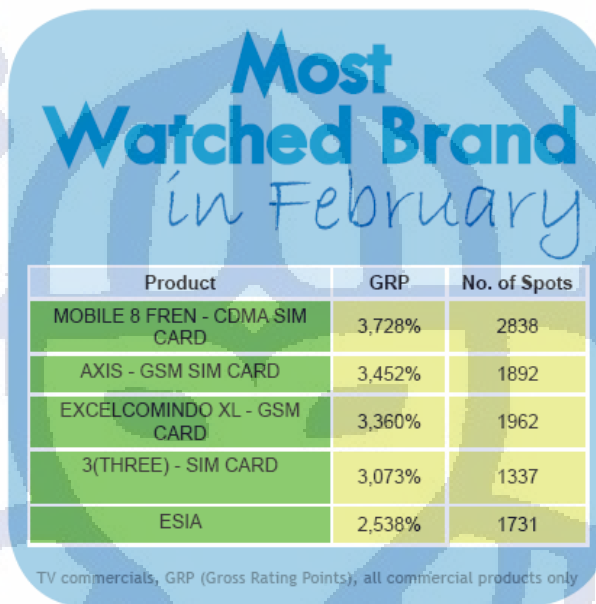


Figure 1.13. Most watched brand in February 2009

Source: AGB Nielsen Indonesia. March 2009. Newsletter. AGB Nielsen Media Research

The competition of telecommunication industry can be described by the data above. All “Most watched brand in February” 2009 are come from telecommunication industry. In the first position is Fren, product of Mobile-8. In the second position is Axis, product of PT. Natrindo Telepon Seluler, and in the last top five most watched brands in February is Esia, product of Bakrie Cellular.

Beside by advertising, the strategy used by Telecommunication cellular is to produce new SIM card<sup>9</sup> with lower price, if compared with the reload card. Because of this, sometimes the customer prefers to buy a new card and dispose the old card. Based on the survey conducted by Indonesia Development Monitoring Research (IDM) in early month of July 2007 shows that “Indonesians

<sup>9</sup> A subscriber identity module (SIM) on a removable SIM card securely stores the service-subscriber key (IMSI) used to identify a subscriber on mobile telephony devices (such as mobile phones). The SIM card allows users to change phones by simply removing the SIM card from one mobile phone and inserting it into another mobile phone or broadband telephony device

churn rate<sup>10</sup> achieves around 26% in year”, compare within “ASEAN country the churn rate average is around 15%” (Widyastuti, 2008). The high value of Churn rate shows that competition in Indonesian telecommunication industry is very tight.

### **1.2.2. Price War and Declining of ARPU**

To win the competition, or at least to retain the old customer, or even to attract the new customer, the telecommunication operator cut down the tariff, especially for cellular and FWA. Because almost all of telecommunication operator cut down the tariff, it creates “Tariff War” phenomena. The tariff war was started by PT Excelcomindo Pratama (XL) in the middle of January 2008. Tariff for calling is only Rp 0.1 per second to all operators.

After XL promoted its lower price, Indosat followed it and try to became lower than the tariff that offered by XL. The new tariff of Indosat is Rp0.01 for IM3 user for calling after 90 second. This strategy was reacted by XL again with fantastic tariff which was Rp0.000001 per second. Indosat showed its reaction again after XL offer that fantastic tariff. The new tariff of IM3 was Rp0.0000000001 per second. That was a very fantastic tariff. The other telecommunication operator also did the same thing. They also cut down the prices to retain their old customer and to attract the new customer and then tariff war can not be avoided.

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<sup>10</sup> Churn rate is also sometimes called attrition rate. It is one of two primary factors that determine the steady-state level of customers a business will support. In its broadest sense, churn rate is a measure of the number of individuals or items moving into or out of a collection over a specific period of time.

Before the tariff war began, the condition of Average Revenue per User (ARPU)<sup>11</sup> is decline. It can be seen in the figure below.

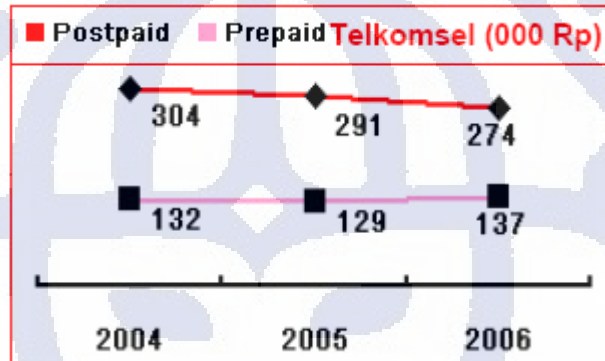


Figure 1.14. The declining of ARPU for Telkomsel

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

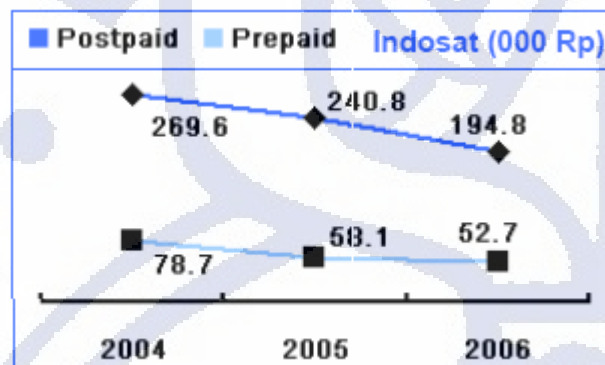


Figure 1.15. The declining of ARPU for Indosat

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

<sup>11</sup> Average revenue per user (sometimes average revenue per unit) usually abbreviated to ARPU is a measure used primarily by consumer communications and networking companies, it is the total revenue divided by the number of subscribers.

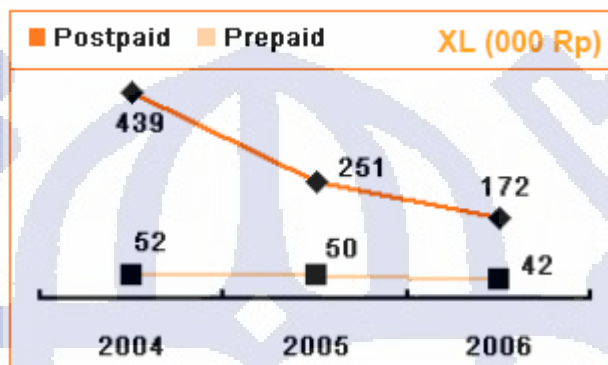


Figure 1.16. The declining of ARPU for XL

Source: Winata. 2007. Telecommunication industry report. Telecommunication industry report volume 1

From figure 1.14, 1.15 and 1.16, it can be seen that the ARPU for 2004, 2005 and 2006 is declining. The condition become worse since tariff war was begin in Telecommunication industry. Johnny Sjam, Indosat president director said in an interview with The Jakarta Post as bellow:

*“That the company's average revenue per user (ARPU) would decline by 25 percent from last year, forcing the company to revise downward this year's revenue targe.”* ( Krismantari, 2008).

While in the 2009, the condition is more serious than in 2008. *“The ARPU of Indosat (average revenue per user) is decline 27% if compare with 2007”* (Pitoyo, 2009). This condition also happened to the others telecommunication operator.

### 1.3. Telecommunication Industry Analysis

Michael Porter’s five force analyses are used to analyze the condition of telecommunication industry. The five forces model analyses can be described as figure below:



Figure 1.17. The five porter model analyses

The discussion about this industry is below:

1. Competition between Similar Companies

The competition between similar companies in telecommunication industry is very high. The competition has created tariff war that causes decline of ARPU (Average Revenue per User). At this time, there are 11 players that active run the business in telecommunication industry in Indonesia.

2. Possible Entry of New Competitors

The possibility for new competitor to enter this business is relatively small, because the capital that needed to run this kind of business in very big and the resource to run this business is variously and relatively expensive, such the human resource, technology resource, etc.

3. Potential Development of Substitute Products

Up until this time there is nothing can substitute any benefit as provided by telecommunication products.

4. Bargaining Power of Suppliers

There are many suppliers in telecommunication industry, so the bargaining power of supplier is relatively small. Each of suppliers has to give excellent products and services to get and maintain the customer.

## 5. Bargaining Power of Buyers

There are 11 (eleven) players in telecommunication industry and every player produce many products. The customer will be selective in choosing product that will be used, depend on their need and capability.

While SWOT analysis for Telecommunication Industry is below:

### **Strength:**

1. Average telecommunications companies have strong capital, because to survive in the telecommunications business requires a strong capital
2. To be able to run a business with good, quality human resource needed to run the company's activities. Most telecom companies have qualified human resources
3. Most telecom companies have quality and network coverage quality connection because in order to provide good service to customers, both aspects are much needed.
4. Almost all operators are able to provide cheaper services to customers

### **Weakness**

1. Existing due to competition, telecommunications businesses are required to be able to improve the quality of service provided to customers, one by extending the reach and this requires huge additional capital
2. Strict competition in the telecommunications industry triggered a price war that caused revenues decreased
3. Demands to provide excellent service to customers requires the company to recruit professionals with big salaries

### **Opportunities:**

1. Indonesian telecommunications market continues to grow, because the telecommunications penetration rate is still relatively low
2. High population growth also makes the telecommunications market will be prospective for the next few years
3. Variety of telecommunications services needed more and more, so that the line services can be provided by telecommunications companies are also increasingly

**Threat:**

1. Level of increased competition in the telecommunications industry, since each operator continues to offer diverse services at cheap prices
2. Consumers increasingly critical in evaluating every service provided by telecom companies

After learning strengths, weaknesses, opportunities and threats that exist to telecommunication Industry, then a SWOT matrix can be made to the strategy recommendations that can be done by Telecommunication Company.

	<b>Internal Analysis</b>	<b>Strength</b>	<b>Weakness</b>
<b>External Analysis</b>		<ol style="list-style-type: none"><li>1. Average telecommunications companies have strong capital, because to survive in the telecommunications business requires a strong capital</li><li>2. To be able to run a business with good, quality human resource needed to run the company's activities. Most telecom companies have qualified human resources</li><li>3. Most telecom companies have quality and network coverage quality connection because in order to provide good service to customers, both aspects are much needed.</li><li>4. Almost all operators are able to provide cheaper services to customers</li></ol>	<ol style="list-style-type: none"><li>1. Existing due to competition, telecommunications businesses are required to be able to improve the quality of service provided to customers, one by extending the reach and this requires huge additional capital</li><li>2. Strict competition in the telecommunications industry triggered a price war that caused revenues decreased</li><li>3. Demands to provide excellent service to customers requires the company to recruit professionals with big salaries</li></ol>

<b>Oppotunity</b>	<b>S-O</b>	<b>W-O</b>
<p>1. Indonesian telecommunications market continues to grow, because the telecommunications penetration rate is still relatively low</p> <p>2. High population growth also makes the telecommunications market will be prospective for the next few years</p> <p>3. Variety of telecommunications services needed more and more, so that the line services can be provided by telecommunications companies are also increasingly</p>	<p>1. Using all the resource that own by the company, both in terms of capital resources, human resources, coverage and cheaper service to reach the market and expand the coverage (S1, S2, S3, S4, O1, O2)</p> <p>2. Using all the resource that own by the company to develop a variety of quality services to customers (S1, S2, S3, S4, O3)</p>	<p>1. Using the existing conditions of competition as a spur companies to continuously improve the quality of service that is owned so the market could reach as much as possible (W1, O1, O2)</p> <p>2. The decline in revenue that occur must be balanced with the acquisition market to customers that more and more so the company can remain stable (W2, O1, O2)</p> <p>3. Skilled employees with large salaries are used optimally to create and enhance a variety of services (W3, O3)</p>
	<b>S-O</b>	<b>W-T</b>
<p>1. Level of competition in the telecommunications industry increased, since each operator continues to offer diverse services at cheap prices</p> <p>2. Consumers increasingly critical in evaluating every service provided by telecom companies</p>	<p>1. Using the resources owned by the company to continue to maintain service quality has even improved (S1, S2, S3, S4, T2)</p>	<p>1. Using professionals who are owned companies to create excellent service (W3, T2)</p>

## **1.4. Increasing Network Coverage**

### ***1.4.1. The Reason of Network coverage***

Analysts have predicted that the growth of the cellular business in the country will not last much longer, with a downturn expected to hit the market in the next two or three years, as it will have become a saturated market, because at this time, the number of cellular customer will reach 116 million and *“Indonesia is in 6<sup>th</sup> position in the number of cellular customer after China (585 million), India (291 million), USA (259 million), Russia (172 million), and Brazil (134 million)”* (Suryadhi ,2008). But another analysis said that there is opportunity in the cellular business, but the growth will decline by the year.

In three or four more years the market will be saturated, but there is another opportunity yet to be fully explored. That is the internet business and broadband services. The development is still relatively small. The growing of multimedia, internet data communication is about 35%, a number which shows big potential to grow further in the coming years. To get benefit from this opportunity, the telecommunication operators need to expand their network coverage, so they can get the opportunity as much as possible.

The necessary to expand the network is aligning with the government planning. The government objective relate to the telecommunication is *“Create National Wide Network Integrated, to support high speed telecommunication, Information Technologies, by the end will increase national economical stages”*. While the condition of Indonesians network coverage can be seen in the figure below.

*Create National Wide Network Integrated, to support high speed telecommunication, Information Technologies, by the end will increase national economical stages*

### CURRENT OPTICAL NETWORK STATUS

#### WEST AREA

Most capital cities have been connected by fiber network.  
All infrastructures are built by each individual operators

- High CAPEX and OPEX
- Most of the configuration, only utilize 2 cores fibers – **NOT OPTIMUM**

#### EAST AREA

• Most of the areas are isolated, and only supported by VSAT as the transport system to carry telecommunication and information technology.

- Bandwidth Limitation
- *High OPEX for Satellite BW leasing*
- Slow in term of Telecommunication and Information Technology penetration

Figure 1.18. Network status in Indonesia

Source : Depkominfo. Indonesia Country Status Report. 2008

Most of capital cities in the west, such as east java, central java, west java and some cities in Sumatra are already connected by optical fiber<sup>12</sup> network. The networks are developed by each operator. But some rural area, such village or outlying place are not yet reached by network.

While in the east area such as Sulawesi, Nusa Tenggara, Molusca and Irian Jaya, most of areas are isolated and the telecommunication only supported by VSAT<sup>13</sup>

<sup>12</sup> An optical fiber is made up of the core (carrying the light pulses), the cladding (reflecting the light pulses back into the core) and the buffer coating (protecting the core and cladding from moisture, damage, etc). Optical fiber can be used as a medium for telecommunication and networking because it is flexible and can be bundled as cables. It is especially advantageous for long-distance communications, because light propagates through the fiber with little attenuation compared to electrical cables.

<sup>13</sup> A Very Small Aperture Terminal (VSAT), is a two-way satellite ground station with a dish antenna that is smaller than 3 meters.

and the quality of telecommunication that supported by the satellite is not as good as quality of telecommunication that supported by optic cable.

Coverage becomes crucial factor in developing telecommunication industry because with the large coverage, the telecommunication industry can reach their potential customer and will be able to give services to them. If the telecommunication operator wants to grow, to catch more potential customer, there is no choice, except to expand their coverage and also increase the quality of the coverage. And the target of network development is for rural area in west area and almost all of area in east area in order to give the better service for customer and the end is to increase the company's revenue.

#### ***1.4.2. Operator company need Easy Payment System in Increasing Network Coverage***

When telecommunication operators want to expand the network, there are several things that have to be done, such are:

1. Prepare the infrastructure

Infrastructure is the first step in network development and the cost for infrastructure is relatively high.

2. Adopt the new technology in order to obtain the efficiency

The growing of telecommunication technology is rapid and usually the new technology will give better efficiency.

3. Prepare the people to give the services

It can't be forgotten when expanding the network coverage, the company has to prepare the people who's carrying the product and service to consumer. They have to be trained so they can give the best service.

4. Resource management to marketing action

Marketing is the key success of company business. When the company has prepare the infrastructures and the people to provide the service to consumer, the company must prepare marketing plan, so the information of services will reach the consumer and the consumer will be attracted to consume the product and service that provided by telecommunication operator

## 5. Other expenses

Beside the four major points above, there are some expenses that have to be fulfilled by the company in the expanding network coverage.

When the Average Revenue per User (ARPU) decline, the revenue of the company will decline except they can increase the number of the customer. To increase the number of customer, they have to increase their coverage so they service can reach some new potential place for adding customer.

When the company revenue decline, it will be difficult to make investment to increase the coverage of services. So, in this condition, they need supplier, especially in the infrastructure that gives easy payment system that makes the investment possible to be realized. The main issue that will be discussed in this paper is about payment system that applicable and suitable for increasing network coverage according to the condition of telecommunication industry in Indonesia.

### **1.5. The Objective of Thesis**

The purpose of this thesis is to be able to provide an Innovative Financing Scheme Using Structured Payment Longer Term to provide Easy Payment System Model for Operator Telecommunication so They Can Increase Their Network Coverage.

### **1.6. Methodology**

Type of research is the kind of market research with qualitative method. The characteristic of this procedure are:

*“that the research takes place in natural setting, employs multiple methods of data collection, is emergent rather than prefigured, is based on the interpretations of the researcher, is viewed holistically, is reflective, uses both inductive and deductive reasoning processes, and employs a strategy of inquiry.”* (Creswell, JW, n.d, p 205).

Where the case is network telecommunication building in Sumatera Island project. This project including BSC (Base Station Controller) building, BTS (Base Transceiver Station), Microwave Transmission, Site Acquisition, Tower

(including Civil, Mechanical, Electrical (CME)) and also networking maintenance for 3 years long.

Total amount of BTS is 444 units, where 115 are new tower and 329 are old tower that ever used. 12 months is needed to build the telecommunication networking and the vendor proposes finance payment term for 7 years.

Types of data that collected in this research is secondary data, such the company profile data, company financial data, project data that handled by PT. XYZ Indonesia and telecommunication network building project in Sumatra Island project data, also the market research based on data that available in the public such in the internet and from the newspaper.

After all the necessary data is collected, then the author will make an Innovative Financing Structured Payment Scheme Longer Term system for telecommunication network-building project in Sumatra Island.

### **1.7. Systematic**

- Chapter 1 : Introduction
- Chapter 2 : Business Issue Exploration
- Chapter 3 : Business Solution
- Chapter 4 : Implementation Plan
- Chapter 5 : Conclusion and Recommendation