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READINESS OF INDONESIA TELECOMMUNICATION BUSINESS INCUMBENT IN FACING DISRUPTION ERA

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ABSTRACT

PT. Telkom Indonesia (Telkom) as a long-stand incumbent of telecommunication sector must anticipate disruption phenomenon, as the industry is highly fast-shifting with also threat from direct and indirect competitors. This research aims to analyze the readiness of Telkom in facing this disruption era and what should be their strategy moving forward. Using qualitative method with primary data are interview with representatives of Telkom, while secondary data are literature study such as reports and journals. Data processing and analysis are using several strategic business tools. Currently Telkom offers 4 business segments: Mobile, Enterprise, Consumer, Wholesale and International Business. Based on the analysis result, the most promising business opportunity is the Consumer segment, where penetration is still low that enable high Market Growth and Market Share growth. Telkom should conduct an aggressive strategy in the form of market penetration and market development in this segment to encourage the use of this service.

INTRODUCTION

Currently we are facing the industrial revolution 4.0, which is new phenomenon where many of the work is influenced by cyber physical systems, internet of things and networks. What the world need right now is real time data, suitability, accessibility and how to fulfill the needs of consumers without have to queuing in line or waiting, these changes may make many past business model will become obsolete and no longer demanded. Digitalization, computing power, data analytics has created many breakthroughs in many sectors of our life, on top of that, this changes also lead to disruption in many aspects, thus making many 'previously normal' things is considered obsolete and being left out.

This disruption is potential to improve our economy. However, there are also some risks where this era is becoming attack to industries that could not cope up to capture changes and adapt, which may lead to shifting from incumbent players since new innovation that continue to emerge. Telecommunication sector is one of the industries which constantly demanded to develop and improve according to era. In Indonesia there are some of incumbent players up until this time, for mobile phone sector in example, there are PT. Telkom Tbk (Telkom), PT. Indosat Tbk (Indosat Ooredoo), and PT. XL Axiata Tbk (XL). But now, market competition in this sector is not only how to excel among competitors of its kind, but also must maintain its position in the face of disruptive changes that have the potential to attack, such as free communication applications WhatsApp, LINE, Skype, Facetime, etc. Even applications outside the business sector such as Gojek/GRAB (initially a transportation business but now providing multi-service platform and digital payment technology group) can also threaten the decrease of profit of telecommunication company can have, namely with the built-in chat room feature and also the Go-Food feature that allows customers to order food without having to use telephone / SMS services.

Even though until now the growth of the telecommunications sector is still positive, but these industry players should have taken preventive and responsive steps to respond to the challenges of the disruption era. Moreover, globally the era of digitization disruption will be predicted to eliminate around 1 - 1.5 billion jobs during 2015-2025 due to the replacement of human positions with automatic machines (Gerd Leonhard, Futurist). Therefore, author aims to conduct research on the readiness of Telecommunication Business incumbent in facing this disruption era and what should be their strategy moving forward, with scope limitation to PT. Telkom Indonesia (Telkom), an SOE which has been a long-stand incumbent in this sector. The readiness aspect concerns current company's capacity in the midst of external challenges.

Theoretical Framework/Related Research

Theoretical Framework

Disruptive Innovation (disruptive theory) explains the phenomenon where an innovation changes existing markets or sectors by offering products that are simpler, more convenient, easily accessible, affordable (simplicity, convenience, accessibility, and affordability)**.** Initially, disruptive innovation is usually formed in a limited market (niche market) that seems unattractive or unimportant for industry players who already exist (incumbents). In Christensen's theory, incumbents often underestimate the newcomers who offer alternative with cheaper and different quality, but ultimately this new products or ideas offered bring new preferences from the community and change the everyday setting.

This theory explains the phenomenon where an innovation replaces the old system in a new way, potentially changing the existing order and replacing old players with new ones, because this innovation offers simpler things, more convenience, wider and easier access, more efficient and less costly. The differences between conventional (old world) and disruption (new world) can be seen in table below.

Table 1. Differences Between Conventional and Disruption

Old World (Conventional)	New World (Disruption)
1. Time series and linear	1. Real time dan exponential
2.Owning economy (Have, conquer, integrate)	2. Sharing economy (sharing, access)
3. On the lane economy (queueing / in line)	3.On demand economy (available when needed)
4. Single Supply-demand	4. Network Supply-demand
5. Clear Opponent / Competitor	5. Not obvious opponent / competitor

(**Source:** Kasali, 2017)

Theory on how incumbent got defeated by new disruptive business can be seen in Figure 1 as follow. This diagram contrasts product performance trajectories (red line shows improvement of product and service over time) versus customer demand trajectories. As incumbent companies offering product or service to fulfill the needs of high end market (highest profit), they overshoot the needs of low-end customer and many mainstream customers. This leaves an opening for entrants to play in the segment where being neglected by the incumbent. Entrants on a disruptive trajectory (lower red line) improve their performance and then can move upmarket (where profitability is highest for them), And challenge the dominance of the incumbent (Christensen et al, 2015).

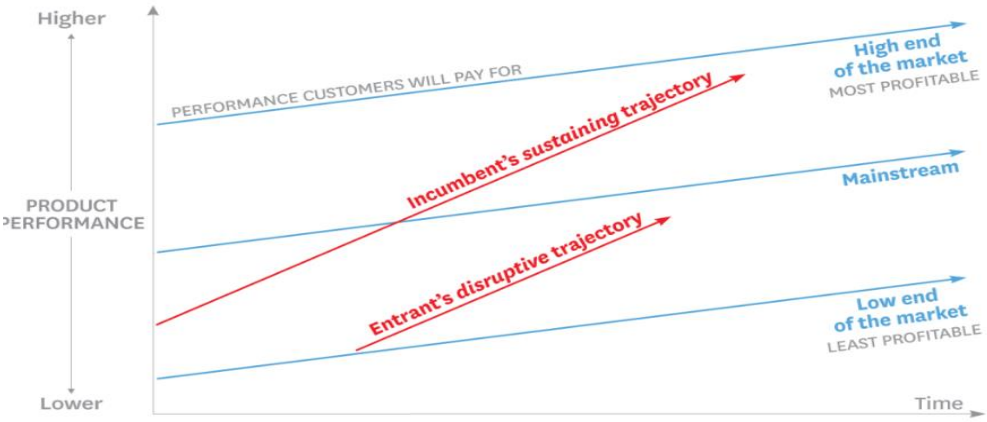

Figure 1. Incumbent Vs. Entrants Trajectory

(**Source:** Christensen et al, 2015)

RELATED RESEARCH

Previous studies have proven the phenomenon of disruption in Indonesia in various sectors. Agus Pribadiono in his research in 2016 studied the competition between online transportation vs non-online (traditional) transportation due to online application, the research concluded that the competition between the two is very real even though they occur in different space, virtual space and face-to-face relation (Agus, 2016). Another study on disruption by Johanis in 2018 concluded that the concept of disruption has helped to identify the actual conditions of the world and society in the era of information technology which is loaded with innovations and creativity (Johanis, 2018). Karman, in his study in 2017 on Internet Technology Disruption and The Print Media Existence concluded that if printing media business did not adapt they will eventually die like many common phenomenon in various countries, due to circulation factor that could not cope up with production, and also decreasing profit (Karman, 2017). Research done by Nurhajati in 2018 concluded that Disruptive innovation cannot be avoided, it will even occur in the future in line with technological developments and increasingly complex community needs (Nurhajati et al, 2018). The industry has to find a way to maintain their business profitability with current business model or with the new one.

As for the telecommunications sector there is no focused research to explore the disruption effect on incumbent players in the telecommunications sector. Thus, the specificity and urgency of this study emphasizes the challenges and opportunities caused by the era of disruption in the telecommunications sector as well as the analysis of strategies carried out by the incumbent in dealing with them.

METHOD

This research is a qualitative research with data sets used by authors are interviews with key informants (primary data) and literature study/document review (secondary data) with scope limitation focusing on PT. Telkom Indonesia (Telkom). Author process and analyze the data sets using several strategic business tools, the approach used is to overlook the internal and external condition of business to analyze its standing position. Then concluding next step recommendation based on the analysis result to improve its performance in order to be a sustain business in the future.

Internal condition analysis is conducted through interviews with key some managers of Telkom using set of questions, and literature review on company's documents (growth and financial report analysis). External condition analysis is conducted with PEST analysis. PEST analysis framework is a macro environmental framework used to understand the impact of the external factors on the organization and how it to be used as a basis consideration in strategic analytical technique. It consists of: (1) Political–legal forces that allocate power and provide constraining and protecting laws and regulations; (2) Economic forces that regulate the exchange of materials, money, energy, and information; (3) Sociocultural forces that regulate the values, mores, and customs of society; and (4) Technological forces that generate problem-solving inventions (Ritson, 2013).

The external condition then to be analysed using Porter's Five Forces.Five forces model is an in-depth examination of key factors within a corporation's task environment (Wheelen, 2012). It emphasizes on the task environment and the industry analysis, which proposed by Michael Porter that determine the profit potential of an industry and shape a firm's competitive strategy (Rothaermel, 2013). The five forces are Rivalry among existing competitor, threat of new entry, Threat of substitutes, bargaining power of supplier, and bargaining power of buyers. Thus, internal and external analysis will resulted a SWOT that consists all of its finding. Then to be mapped in the Boston Consulting Group (BCG) matrix, which is a business tool that use relative market share and industry growth rate factors to evaluate the potential of business brand portfolio and suggest further investment strategies.

Findings and Analysis

Overview of Telkom

Was born in 1882, PT Telekomunikasi Indonesia, Tbk ("Telkom") is a State Owned Enterprise (SOE) company with profile as a telecommunications service provider with the largest network in Indonesia. Telkom has a variety of services offered such as fixed wireline, fixed wireless, mobile and data services, internet and data, broadband, satellite, network and interconnection, etc. Along with transformation, in 2009, Telkom launch The New Telkom which was marked by the replacement of the company identity logo, the tagline 'The world in your hand' and transformation from the company portfolio of Information and Communication to the TIMES company (Telecommunications, Information, Media, Edutainment, Service) by trying maintain legacy businesses and start developing New Wave businesses (such as IT Services, Managed Networks, Managed Applications, IT Managed Services). There are 4 business segments that Telkom currently offers, each segments use specific type of generic strategy based on their profile and customer target, the details are in following table.

Table 2. Telkom Business Segment

	SEGMENT	**Product and Service**	**Generic Strategy**
Mobile	Offering voice, SMS, broad band and digital services The largest cellular network operator in Indonesia	Mobile legacy (voice and SMS) Mobile Broadband Digital Service	Cost Leadership – Best Value
Enterprise	Offers integrated ICT and Smart Enabler solutions for corporate and institutional customers. Market leader serving 1,900 corporate clients, 300.416 SMEs and	Enterprise Connectivity Device and Hardware Data Center and Cloud IT Service BPO Service Professional & Advanced Service	Differentiation Focus

	979 government institutions.		
	Offers high-speed internet, landlines, and IPTV through Indi Home. The largest market share in fixed broadband and IPTV	Fixed Voice Fixed Broadband Video/TV, E-commerce Digital Life & Life Content	Differentiation
Wholesale & International Business	Offers telecommunications tower, infrastructure, data center, cloud services, data platforms for carriers and providers domestic and international	Satellite Tower Infrastructure & Network Wholesale Telecommunication	Differentiation Focus

(**Source:** Telkom Annual Report 2018 and Interview)

External Condition

The external condition of telecommunication business sector is being observed using PEST analysis and Five Forces Porter which can be seen in following table.

Table 3.PEST Approach on Telkom Business

Aspect	**Remarks**
Politic	• Election and Post-Election • Prepaid Card Registration Policy Rules • President mandate: concentration of development on improving the quality of HR and use of data • Draft Ministerial Registration (RPM) concerning Procedures for Establishing Telecommunication Service Tariffs in 2019
Economy	• The 16th economic policy package in November 2019' • The expansion of the tax holiday is intended to encourage investment • Normalization of United States monetary policy • China USA trade wars
Social	• Trend line of increasing mobile phone users, and declining fixed telephone users • Indonesia was ranked 46th out of 139 regarding the

	number of mobile cellular users in 2016
Technology	• Digital adoption in all business segments • The fifth generation of network technology (5G)

Table 4 Porter's Five Forces

Segment	Bargaining Power of Consumer	Bargaining Power of Suppliers	Threat of Substitute	Threat of New Entrants	Competitive Rivalry
Mobile	Med	Low	High	Low	Med
Enterprise	Low	Low	Low	Low	Med
Consumer	Low	Low	Low	Low	Med
Wholesale & International	Med	Low	Low	Low	Med

From the results Five Forces Porter analysis, it can be concluded that the most 'business-friendly' segment class is the Enterprise and Consumer Segment. However, there is a fundamental difference between the two segments, namely the type of strategy positioning used by Telkom for each segment. In the Enterprise segment, it is using the Differentiation Focus strategy, because the services are providing end-to-end ICT solution services to corporate customers, SMEs and government institutions only. Whereas the Consumer Segment uses the Differentiation strategy where the products offered are fixed telephone services, pay TV, and internet data to retail customers (housing, apartments, premium clusters, individuals), so in size, the market being targeted by the Consumer segment is wider and not focused like the Enterprise segment.

Internal Condition

Based on the annual report and document review, growth and financial report analysis of Telkom can be seen in following figure.

Table 5. Growth and Financial Report Trends

Segment	Growth	Total Liabilities	Remarks
Mobile	-4.3%	Rp 55.449 Bio	65,4% of Telkom total income, -4,3% of segment income compared to 2017
Enterprise	10.1%	Rp 37.883 Bio	16,1% of Telkom total income
Consumer	25.1%	Rp 15.531 Bio	10,6% of Telkom total income, Indihome customer growth of 72,2% becoming 5,1 million users

Wholesale & International	35.6%	Rp 20.634 Bio	7,7% of Telkom total income

(**Source:** Telkom Annual Reports 2018)

From this data, mobile segment had a decrease growth of -4.3% compared to last year, even though this is better than other 3 competitors in the same industry which had total average decrease growth of -7,4%. This decrease in revenue was mainly due to a decrease in voice revenue by Rp6,815 billion or 18.3% and SMS revenue decreased by Rp4,007 billion or 30.4% from the previous year. This was also driven by intense competition in the mobile data services triggered by the operators of this segment due to the very intense price war during the prepaid SIM card registration period in 2018. Even mobile segment is still the largest portion of Telkom's total income, this data proves that Telkom's business legacy (SMS, Voice Call) is more and more less demanded by the market as the market has shifted to other digital service and connectivity that is less costly and more accessible.

On the other hand, the top 2 (two) most growing segment is in Wholesale & International Business (35.6%), which then followed by Consumer segment (25.1%). However based on the total liabilities, Consumer segment has fewer liabilities than wholesale & international business even though those two are also the top 2 who has the least liabilities in their business compared to other segments. Moreover, based on the percentage given of Telkom's total income, Consumer segment provided bigger portion of the income for Telkom, where it gave 10,6%, while Wholesale & International Business only provide 7,7% of Telkom's total income.

Internal and External Condition

From internal and external condition observation and interview result, thus resulted current condition of Telkom's SWOT which can be seen in following table.

Table 6. Telkom'S SWOT

Strength	**Weakness**
- The first and largest telecommunication company, a pioneer of cellular telecom - Diversified business portfolio - Widest Network Coverage - Being a sector leader in the Industry (60% of total broadband customers and 70% of total cellular customers) - The largest BTS provider - IndiHome as a market leader in fixed broadband business (80% market share).	- The decline in revenue from the legacy business sector as a major contributor - Large network, maintenance costs are high - Large investment costs - Less regeneration on the operational side - Very large organizational structure, makes the work process less efficient - The decrease in the number of customers was 17% due to the

- Company identity: SOE, strong brand image, Go Public - Indonesian Global Gateway (IGG) submarine cable infrastructure - Will become a Global Digital Hub - Strong financial ability (for investment)	Prepaid card registration program from the government
Opportunity	**Threat**
- The emergence of 5G network technology - Changes in consumer behavior towards data and digital - The penetration of fixed broadband is still relatively low (12%) with low competition level - President's focus in 2019 is to improve the quality of HR and use of data - Completion of the Ministerial Draft (RPM) on Procedures for Determining Telecom Service Tariffs - The President's 16th Economic Package - Growing middle class society - Cooperation between telecom companies - Prepaid SIM card registration allows healthier competition	- Competition between cellular and broadband players which erodes profit margins - The threat to Indonesia's economic growth is due to the ongoing Trade War between America and China - Very fast changes in technological development - Direct competitors (telecommunication s sector players in Indonesia and foreign) as well as indirect competitors (Over- The-Top Services, etc.)

Furthermore, the information then observed and mapped each segment portfolio on the Boston Consulting Group (BCG) Matrix to evaluate the potential of business brand portfolio and suggest further investment strategies. The mapping result can be seen in following figure.

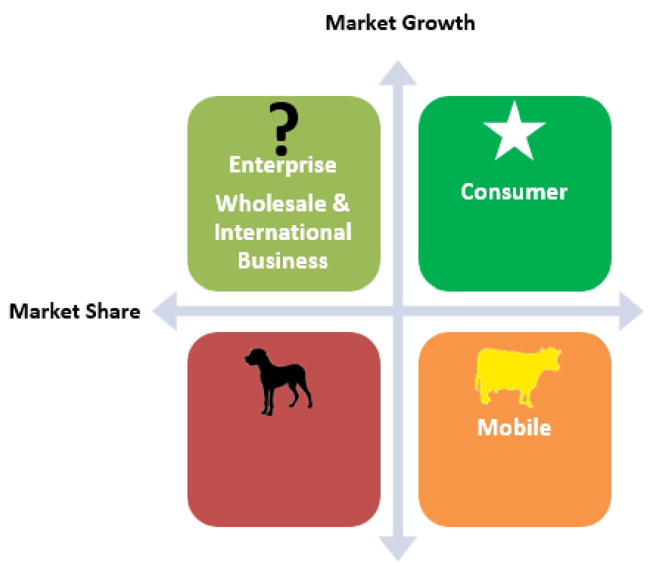

Figure 2.BCG Mapping on Telkom Business Segment

For segment Enterprise and Wholesale & International Business, it is placed on the Question Mark quadrant, since the market growth trends is positive but considered low in market share, as the market itself is niche, what Telkom can do is to analyze if this business can be grown into a star. For mobile segment it is in Cash cow quadrant, Telkom still be the leader in the market share, however the market growth is negative since the shifting to data over voice and text. What Telkom should do about it is milk it, maintain benefits of strong cash flow while keeping resource investment minimum. While for consumer, it is in STAR quadrant, it has high market growth and high market share, which is very promising for Telkom, what they should do is boost growth, add resources and build the business further based on market projections.

Going forward, the increase in services and capacity up until now makes Telkom's consumer segment a market leader with an estimated market share of around 84.5%. This is a very great opportunity as the opportunity for growth in the fixed broadband business in Indonesia is still very large, driven by growth in the population of middle class households and penetration of high-speed internet services, which is estimated to be around 12%. This is still very low when compared to penetration in Malaysia, Vietnam and Thailand, which has reached around 34%, 43% and 44%.

Organization Moving Forward

As to support its talent capacity enhancement and building the spirit of innovation within Telkom, management provides support in the form of the Digital Amoeba Program and the Indigo Program to facilitate digital product innovation activities Digital Amoeba is an employee innovation development program while the Indigo Program, which is carried out twice a year, is an innovation development program involving innovators from outside the company as a form of Telkom's contribution to the development of digital start-ups and Indonesian talent. In the Amoeba Digital Program, every employee is encouraged to contribute to provide the best ideas for digitization and development of digital products. Every employee whose idea was chosen was given the opportunity to realize it using the best innovation methods, namely design sprint, lean & agile methodology and the ability to growth hack to accelerate the innovation process.

To cut down on bureaucracy and the burden of large organizational sizes, Telkom also internalizes digital culture that is applied through the concept of Digital Work Style and Open Space. Digital Work Style has a work pattern with the concept of paperless, wireless, seamless and riskless while Open Space means un-assigned desk, collaboration space and warm ambience to increase collaboration, effectiveness and work efficiency while maintaining the realization of work life integration,

In addition, to maintain the quality of telecommunications services that have been available to date, Telkom has strengthened infrastructure networks that are continuously carried out to provide the best digital experience for customers. Throughout 2018, Telkom has built more than 28,000 new BTS which are all 4G LTE, completion of the Indonesian Global Gateway submarine cable system and the launch of the Red and White Satellite (*Satelit Merah Putih*). For Consumer segment, IndiHome is increasingly enriched through the addition of variations of high-speed internet packages, addition of TV channels, videos, games and various choices interesting minipacks and monetizing digital inventory for digital advertising.

CONCLUSION

Disruption can be an opportunity or a risk, and it is very likely to continuously happen due to rapid development of technology and changes of people's demand. Overall, Telkom need to make proactive efforts to minimize challenges and threats and make optimal use of this opportunities. Telkom is transforming towards a Digital Telecommunications Company. The transformation and expansion carried out by Telkom today shows Telkom's commitment to resisting disruptive competitive growth and becoming one of the largest digital telecommunications companies in the Asia Pacific. To face the era of disruption, Telkom needs to continue to strengthen digital capabilities in terms of services, infrastructure and customer digital experience. In terms of services, Telkom must be able to continuously strengthen and develop digital services according to customer needs while increasing business competitiveness. Enhancement of the capacity of their human resources also need to be done continuously.

On top of that, Telkom need to enhance its portfolio ensuring it is suitable for every market. The most promising business segment is the Consumer segment, where penetration in Indonesia is still low, high Market Growth and Market Share growth for Telkom. Telkom should do aggressive strategy in the form of market penetration and market development in this segment to encourage the use of this service.

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