SELF-DISRUPTION IS THE SOLUTION TO GROW BUSINESS PERFORMANCE

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ABSTRACT

The existence of digital technology in business world is like two sides of a coin. One side ruins the business of an established company, but on the other side opens opportunities for new players to replace the established companies. The same thing happened to the Telco's industry in Indonesia. Some researchers have suggested that the company which is affected by disruptive innovation to be a disruptor. Another study has suggested finding a business model first before performing a disruptor. This journal intends to report the results of research related to the choices to become a disruptor to grow company's business. The research also examines whether the implementation of business model on the disruptor, will be more effective to grow the company's business or directly becoming disruptor without going through the business model. The research method is performed quantitatively, through spreading questionnaire to the management function units of TELKOM INDONESIA. The results show that companies which implement disruptive innovation either directly or also implementing the business model both will grow business performance. Self-disruption is the solution to grow business performance, and the use of business model, will be far more effective to grow the company's business.

Keywords: Digital Business; Self-Disruption; Business Growth.

INTRODUCTION

PT. TELKOM INDONESIA is the biggest Telco's company in Indonesia. TELKOM provides services in the form of Telecommunications, Information, Media and

Edutainment, also Telecommunication Infrastructure. TELKOM was established since 1856, up to now remains survived and still becoming the largest one in Indonesia. TELKOM's business performance for telecommunication services is voice and will be delivered on table-1: TELKOM's revenue from voice services.

Table-1: TELKOM's revenue from voice services

Year	TELKOM's revenue from voice services *)	Growth
2009	14286	-
2010	12940	-9.42%
2011	11619	-10.21%
2012	10662	-8.24%
2013	9701	-9.01%
2014	8881	-8.45%
2015	7833	-11.80%

*) Bn IDR

Source : annual report of PT. TELKOM INDONESIA

It is obviously seen on table-1 that since the year of 2009 the growth of voice services from year to year was never positively grow. At that period of time around the year of 2010, digital technology for voice service in the form of VOIP technology (Voice over Intern Protocol) has shaken the Telco's operators in the world, including TELKOM in Indonesia.

TELKOM then transformed the business and started to enter the digital business by developing the business arena. This new business is Telco business arena, run and managed by subsidiaries. Products and services which are developed by TELKOM's subsidiaries (based on TELKOM's annual report 2016) are as follow:
   (1) PT. Telkomsel manages all cellular phone business, either personal or corporate, and mobile based digital business.
   (2) PT Telkom Access (Telkom Access) provides construction and management services for fixed-broadband access network infrastructure.
   (3) Multimedia Nusantara (Telkom Metra) manages the network and multimedia business such as: data communication system services, portal services, online transaction services.

(4) PT Patra Telekomunikasi (Patrakom) manages broadband satellite business in the business segments of Maritime, Energy, Telecommunication, Plantation, Banking and Government.

(5) PT Graha Sarana Duta (GSD) which has four types of businesses, by the name of property management, property development, property lease and property facilities.

(6) PT Dayamitra Telekomunikasi (Mitratel) manages the infrastructure of telecommunication towers.

(7) PT Infrastruktur Telekomunikasi Indonesia (Telkom Infra) manages the business: Network Managed Services, Service Solutions, Power & Engineering Solutions and Submarine Cable.

(8) PT Telekomunikasi Indonesia International (Telin) operates in international telecommunications informatics services;

(9) PT Jalin Pembayaran Nusantara (Jalin) manages the business of a non-cash payment system that supports the national payment gateway.

(10) PT PINS Indonesia (PINS) manages the business portfolio of mobility services, CPE services, and IoT services / M2M solution

(11) PT Metranet (Metranet) manages mobile business and online media.

Efforts that have been made through business transformation, as well as entering the digital business can be seen from the trend of TELKOM revenue in table-2.

Tabel-2: Revenue of PT. TELKOM Consolidation

Year	TELKOM	
	Revenue*	Growth
2013	82,967	-
2014	89,696	8.1%
2015	102,470	14.2%
2016	116,333	13.5%

*) Bn IDR

Source : annual report

LITERATURE REVIEW

In 2013 Clayton M Christensen (2013) has presented the concept of sustainable innovation and disruptive innovation. This concept mentioned that established companies are more likely to use sustainable innovation strategies to improve their business performance. On the contrary, new players enter the business with disruptive innovation. The characteristic of disruptive innovation is undermining the order of business models developed by established companies. Disruptive innovation offers a business model that has never been previously thought by the established company. The new business models generally offer similar products that are available, but are offered in very low prices, even under the price cost of production in an established company.

What is happening in the world also happens in Indonesia. TELKOM has been experiencing worst impact from disruptive innovation. Voice service revenue has been continuously declining since 2010 (table-1).

Other researcher, McGrath, R. G. (2013) has offered the concept of transient competitive advantage. This concept recommends that company should develop new business in the business arena that they are involved in. The development of this business arena will be effective because of the encouragement of innovation. For company that want to remain exist in a rapidly changing environment, the innovation function becomes significant as the company power to increase business performance through entering new business (Ramdani et al 2017). With the concept of transient competitive advantage and innovation as its engine, TELKOM tries to create new business arena.

TELKOM strives to grow the company's business. TELKOM developed the business arena with its subsidiaries as recommended by Mc Grath, R.G. (2013). TELKOM's business performance in consolidation with all subsidiaries, since 2013 tends to increase as shown in table-2: Revenue of TELKOM's consolidation.

However, The Digital Vortex studies which is delivered by Wade, M., Bradley, J., Loucks, J., Macaulay, J., & Noronha, A. (2015) becomes a serious concern. The study of Wade, M. et al (2015) puts the telecommunications industry close to the digital whirlpool (no. 5 of the vortex center). See figure-1: Digital Vortex. Any industry that is at the center of this vortex will lead to bankruptcy.
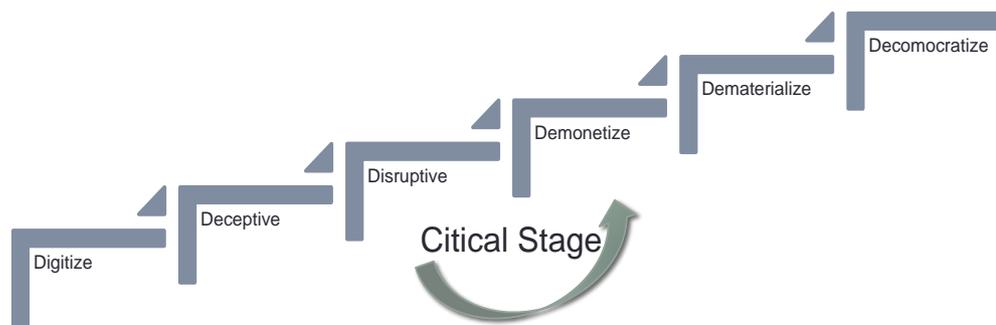
Figure-1: Digital Vortex

Source: Global Center for Digital Business Transformation, 2017

Diamandis, P. H., & Kotler, S. (2015) has described how the stages of digital economy is happening, as being delivered on figure-2: The (Exponential) Stages of Digital Economy

Figure-2: The (Exponential) Stages of Digital Economy

Nowadays TELKOM is already at a disruptive stage. In TELKOM's annual report of 2015, The CEO of TELKOM has launched a disruptive spirit to all TELKOM employees. According to the CEO of TELKOM in the annual report of 2015 that "SMART ENOUGH IS NOT ENOUGH ... DISRUPTIVE IS A MUST!" Then in the annual report of 2016, TELKOM puts disruption as part of TELKOM's corporate strategy. For TELKOM, the stage of disruptive to demonetize is a critical stage because TELKOM is worried that the stages from disruptive to demonetize will decrease TELKOM's business performance.

Hwang, J., & Christensen, C. M. (2008) delivered the concept related to disruptive innovation with business model. Disruptive innovation will successfully give benefit to the user, if only the disruptive innovation is in accordance with the business model that will be used. This concept suggests that not all-disruptive innovation will give benefit to the company. Disruptive innovation that is suitable to the business model, which will provide benefits to the company.

The study is conducted based on this background. This study will test whether disruptive innovation is capable of growing business performance. Will disruption needs the business model as a medium to grow business performance or not.

This Research paradigm refers to the study of Diamandis, P. H., & Kotler, S. (2015) as exponential stage of digital economy as seen on figure-2, that each stage will still grow business performance. Hwang, J., & Christensen, C. M. (2008) believe that the advantageous disruptive innovation must be in accordance with the business model that will be used. From these two studies, the research paradigm to be tested is as seen on Figure-3: The Research Paradigm.

Figure-3: The Research Paradigm
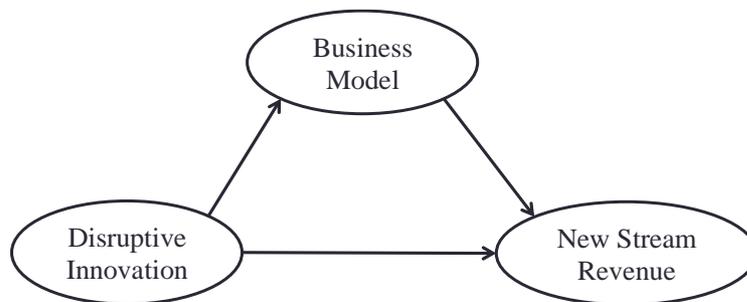
With the research paradigm as seen on Figure-3 above, then the interrelation between these variables can be formulated as follow:

NEW_ STREAM_REVENUE = k1 DISRUPTIVE_INNOVATION + k2 BUSINESS_MODEL + error (1)

Formulation (1) gives two statistical hypotheses and two alternatives hypotheses as follow:

For the path of Disruptive Innovation $\rightarrow$ New Stream revenue

Ho1 :   The Effectiveness of Disruptive Innovation does not influence the growth of new stream revenue.

H1 :   The Effectiveness of Disruptive Innovation influences the growth of new stream revenue.

For the path of Disruptive Innovation $\rightarrow$ Business Model $\rightarrow$ New Stream revenue

Ho2 :   The Effectiveness of Disruptive Innovation through business model does not influence the growth of new stream revenue.

H2 :   The Effectiveness of Disruptive Innovation through business model influences the growth of new stream revenue.

The measurement model of variables for Digital Disruptive Inovation, Business Innovation, and New Stream Revenue is concluded as seen on figure-4: The Measurement Model of Variables.

Figure-4 : The Measurement Model of Variables
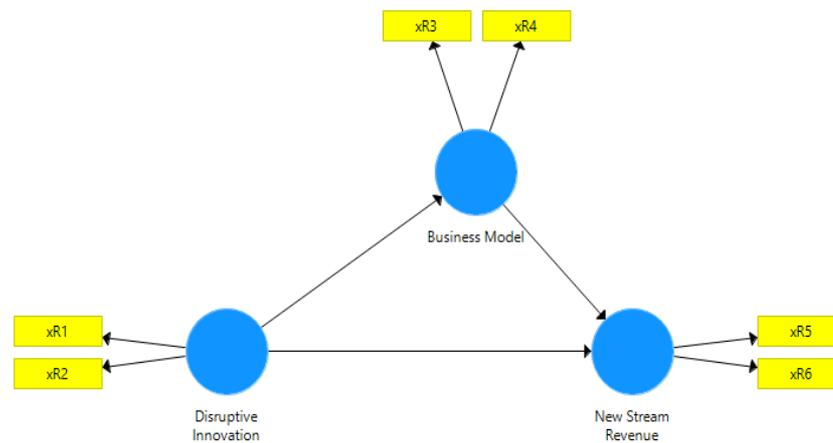
The dimension of xR1, xR2, xR3, xR4, xR5, and xR6 is reviewed on table-1: Dimension of Variables

Table-1 : Dimension of Variables

No.	Variables	Dimension
1	Disruptive Innovation	xR1 = digital impact
		xR2 = Free Services or low cost leadership
2	Model business	xR3 : e commerce business partnership of TELKOM
		xR4 : transaction value of TELKOM's e-commerce
3	New Stream Revenue	xR5 : Creating new revenue
		xR6 : Closing the deficiency of revenue

Dimensions of xR1 and xR2 measure the variable of Disruptive Innovation. xR1 dimension indicates the influence of digital business on the existence of TELKOM's business portfolio. While dimension of xR2 questions whether the policy service of TELKOM's business portfolio that is free of charges or low cost leadership will harm TELKOM's business.

Business model variable is measured by xR3 and xR4 dimensions. Dimension xR3 questions about business model which is developed by TELKOM. The business model to be developed is strengthening e-commerce business by multiplying business partners. While the xR4 dimension indicates whether there is a need for a policy to raise transaction value of TELKOM's e-commerce that is considered reasonable by the customer.

New stream revenue variable is measured by xR5 and xR6 dimensions. The xR5 dimension indicates TELKOM's belief that the disruptive innovation policy will create new revenue. While the xR6 dimension indicates a belief in TELKOM that disruptive innovation can also close the deficiency of revenue from a certain product service that may experience deficiencies.

METHODOLOGY

This research method will use quantitative method. Each dimension on each variable will use 7 Likert scales, ranging from strongly disagree (1) to strongly agree (7). All variables and dimensions are packed in a questionnaire.

The used statistical method is statistical PLS method. The parameters of PLS statistical method results that will become a concern of this research are: Loading Factor,

R square (R2) and f square (f2). The loading factor is used to validate the results measurement of research's variables that is represented by their dimensions. Parameter R square (R2) is needed to validate the fit or absence of linkage structure of all variables of this study. While the f square (f2) parameter is required as a basis to select the best option from several possible alternative options.

The advantage of this PLS statistical method is able to predict the interrelation between variables with the number of samples is under 200 respondents. In this study, there are 3 pieces numbers of variables, and the lines that are connected among variables are 3 lines. Therefore, the needed samples are at least 30 respondents. In this study the number of samples is 31 managers.

The number of respondents which are 31 people if it is compared to 24 thousands employees of TELKOM is about 0.1%. This number may be considered not representing TELKOM. However, if the 31 persons represent the management functions that TELKOM operates, then we can expect that their views can represent all the management functions of TELKOM. In this research, TELKOM's management functions that become respondents are: Human Resource, Operational, IT, Logistics, business performance, and marketing.

RESULTS

The result of PLS statistical measurement in this research is delivered as seen on figure-5: The Inner Model. Fit of structure model research is shown with Table-2: R square (R^2). Reliability and validity of data can be shown with Table-3: Construct Realibility and Validity. The level of confidence results can be shown in Tabel-4: Path coefficient and Tabel-5: Indirect Path. Coeficient k1 and k2 of formula (1) can be shown as Table-6 : Coeficient Total Effect.

Figure-5: The Inner Model
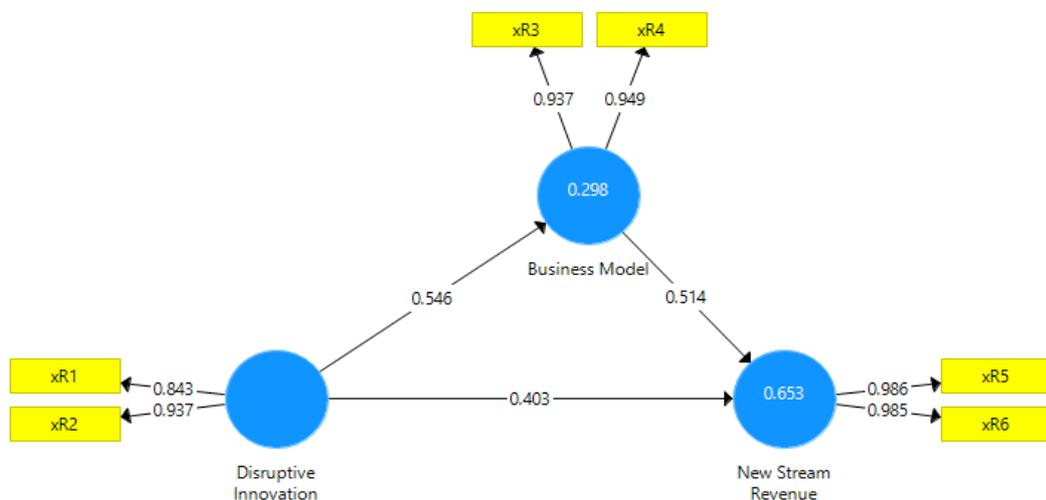
The loading factor in every dimension on variable that it represents has a value above 0.7. According to Gozali, I. (2008) the loading factor with the value above 0.7 indicates that the dimension measurement in this study is extremely valid, can represent the variable that is measured.

Fit of structure model research that is represented by the Inner model structure has value of R square (R^2) as follows.

Table-2: R square (R^2)

R Square

	R Square	R Square Adjusted
Business Model	0.298	0.274
New Stream Revenue	0.653	0.628

In accordance to table-2: R square (R2), the value of R square (R2) of this research structure is 0.653. According to Gozali, I. (2008) this value that is below 0.67 (which means strong relation), but above 0.33 (means medium). So R square (R2) of 0.653 can be interpreted that the interrelations between variables is strong enough.

Realibilty and Validity of data analysis (respondents' answers) quite good as the following Table-3: Construct Realibity and Validity.

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Business Model	0.875	0.881	0.941	0.889
Disruptive Innovation	0.752	0.850	0.885	0.794
New Stream Revenue	0.970	0.972	0.985	0.971

Tabel-3 : Cosntruct Realibility and Validity

The level of confidence of interrelations between variables and hypotheses can shown as Table-4: Path coefficient and Table-5: Indirect Path

Tabel-4: Path coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Business Model -> New Stream Revenue	0.514	0.526	0.150	3.431	0.001
Disruptive Innovation -> Business Model	0.546	0.558	0.129	4.244	0.000
Disruptive Innovation -> New Stream Revenue	0.403	0.391	0.176	2.295	0.022

Tabel-5: Indirect Path

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Disruptive Innovation -> Business Model -> New Stream Revenue	0.281	0.296	0.123	2.284	0.023

Tabel-6 : Coeficient Total Effect

	Business Model	Disruptive Innovation	New Stream Revenue
Business Model			0.514
Disruptive Innovation	0.546		0.684
New Stream Revenue			

Equation (1) using Table-6: Coeficient Total Effects is as follow:

NEW_ STREAM_REVENUE= 0.684 DISRUPTIVE_INNOVATION + 0.514 BUSINESS_MODEL + error

By using Table-4, so

Pvalue Disruptive Innovation → New Stream revenue = 0.022

The amount of Pvalue $= 0.022 < 0.05$, so hypothesis Ho1 is rejected and hypothesis H1 is accepted , that is :

H1 : The effectiveness of Disruptive Innovation influences the growth of new stream revenue.

By using Table-5, so

Pvalue Disruptive Innovation $\rightarrow$ Business Model $\rightarrow$ New Stream revenu = 0.023

The amount of Pvalue = 0.023 < 0.05, so hypothesis Ho2 is rejected, and hyphothesis H2 is accepted, that is:

> H2 : The effectiveness of Disruptive Innovation through business model will influence the growth of new stream revenue.

This test indicates that those two hypotheses are accepted. We want to identify which one of these hyphotesis is stronger. This hypothesis also guarantee when implemented will be a business's growth. This problem can be answer by analyzing the f square (f^2) parameter as on table-7: f square (f^2) Parameter.

Table-7: f square (f^2) Parameter

f Square

	Business Model	Disruptive Innovation	New Stream Revenue
Business Model			0.534
Disruptive Innovation	0.425		0.328
New Stream Revenue			

By using Table-7, the f square (f2) value of Business Model = 0.534 and Value f square (f2) disruptive Innovation = 0.328. According to Gozali, I. (2008) the value of f square (f2) is greater than 0.35, so the influence is strong. Thus, the path of Disruptive Innovation $\rightarrow$ Business Model $\rightarrow$ New Stream revenue **is stronger** than the path of Disruptive Innovation $\rightarrow$ New Stream revenue. These entire paths are becoming the business growth.

MANAGERIAL IMPLICATION

The result of this study concludes that Disruptive Innovation through business model will create new stream. Although the structure between research's variables gives statistical parameters of R^2 is 0.653, which means the given conclusion is quite strong, but we need more assurance that it is valid. The validity can referring to the study of Hwang, J., & Christensen, C. M. (2008) which stated that disruptive innovation must be in accordance with the business model that is developed to gain benefit for both customers and companies.

Managerial implication from understanding that disruptive innovation with develop business model more effect to create business growth can be explained by tracing thoughts as follows. Acording to Christensen, C., & Raynor, M. (2013) in the review of The Innovator's solution: *Creating and sustaining successful growth*, therefore the

company that wants business growth is suggested to become a disruptor. According to Kasali, R. (2017) before becoming a disruptor, the first thing to do is self- disruption.

What does self-disruption do, in order for the company to grow its business?

1) The improvement of company's ability to adapt itself to the character of digital business (Adaptive Capability). The improvement of company's ability to anticipate business environment (regulation, advanced technology, competitor) which may give influence to the company (Absorptive Capability). The improvement of company's innovation capability (Innovative Capability). Also the ability to cultivate new things that becomes the added value for the company (new capability). All of these efforts refer to the concept of dynamic capability developed by Teece, D. J., Pisano, G., & Shuen, A. (1997). Then the company's capabilities: Adaptive Capability, Absorptive Capability, and Innovative capability are part of the dynamic capability developed by Wang, C. L., & Ahmed, P. K. (2007). While new capability developed by Winter, S.G. (2003), which is also part of dynamic capability.

2) Performed, as the company's backbone to provide products and services to the customers, is the supply chain management system. According to Cohen, S., & Roussel (2004) to increase business performance, it is recommended to perform 5 pillars. If these 5 pillars are referred to digital transformation, the 5 pillars are as follow: (1) aligning supply chain management with the company's digital business strategy, (2) Digitalizing the design process of end to end, (3) Building collaboration with business partners (4) Operating a reliable supply chain management organization, (5) Using relevant key performance indicators to improve supply chain management performance.

3) Improving company's efficiency by conducting collaborative strategy with the competent parties in the digital business. Parties who become partners of the company should be more efficient than the company's internal resources.

4) Implementing competitive strategy as suggested by McGrath (2013), which is a new business by developing business arena. This strategy will create a new market as *Blue Ocean*. In this blue ocean a company can apply comparative value strategy.

After the company strengthens the dynamic capability, supply chain management in order to conduct self-disruption, then the company defines the product and serice as well as the business model that will be offered to customers. Companies can do a collaborative strategy to get more efficient partners. Then the company does a competitive strategy by showing the comparative value of a company that is better than a competitor.

CONCLUSION

The companies that performed disruptive innovation directly or by implementing business model, then both will grow business performance. A Disruptive Innovation by using business models will be far more effective for companies to grow their business.

Disruptive innovation initiated by doing *self-disruption.* Self-disruption conducted such as the strengthening of dynamic capability and the strengthening of supply chain management to provide product and serice with business relevant models. The companies should do collaborative strategy with work partners to gain efficiency and competitive strategy by highlighting comparative value of more than competitors.

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