

The Effect of Industrial Competition Intensity and Capabilities on Business Strategy and Performance

A Case Study of Internet Service Providers In Indonesia

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Abstract: The business performance within the Internet industry in Indonesia needs to be upgraded. The main objective of this study is to analyze the influence of Industrial Competition Intensity and Capabilities on Business Strategy and Performance within the Internet industry in Indonesia. This study has utilized a representative sample of 70 Internet Service Providers (ISPs) with a web survey sampling technique. The collected data are analyzed using Partial Least Squares Path modeling. The analysis shows that variables such as industrial competition intensity and capabilities have significant positive impacts on business strategies and business performance. Out of the two variables, it is revealed that capabilities provide greater influence.

Keywords: Industrial Competition Intensity, Capabilities, Business Strategy, Performance, Internet Service Providers

I. INTRODUCTION

There has been a significant growth in the Internet industry all over the world. In the second quarter of 2013, 70% (134 out of 193) of the countries in the world have launched a National Broadband Plan (NBP). Countries with NBP will have an approximately 2.5% increase in their level of fixed broadband penetration as well as an approximately 7.4% increase in their level of mobile broadband penetration [1].

The role of Internet in view of the economic values, especially with the broadband services, can be observed from some findings of researches conducted by the World Bank, Booz & Company, Katz et al, GSMA Boston Consulting, and Akamai Technologies [2]. At the global level, according to the World Bank every 10% increase in broadband penetration within a country will raise the country's economic growth up to 1.38%. Whilst according to a research conducted by Booz & Company, an increase of access in broadband for 10% in a year correlates with a 1.5% increase in labor productivity for five years. For Indonesia itself, Katz et al shows the fact that every 1% increase in broadband household- penetration will reduce the unemployment rate by 8.6% point. Another study by GSMA Boston Consulting defines that the establishment of

broadband running at 700 MHz is predicted to increase productivity by 0.4% in service industry and 0.2% in manufacturing industry.

The number of internet users in the world has shown a significant increase as well, from 10% up to 39% in 2013, as many as 2.7 billion users. The number of houses connected to the Internet, on the other hand, has increased up to 41% due to the fact that the selling price of fixed broadband service becomes more reasonable [1].

In spite of the above fact, the number of internet service penetration in Indonesia has not yet reached the expected level. Until the end of 2013, the Internet service penetration for every 100 citizens (tele density) in Indonesia was, generally, still far below the world average penetration number, which is 15.36% [1]. With regards to the aspect of internet speed globally, in 2014 there was an increase reaching the average of 3.6 Mbps, which was faster than the previous year. However, in Indonesia the speed was still at the average point of 1.5 Mbps, lower than the global level [2]. With these problems, it can be seen that the Internet industry in Indonesia does not yet meet the global level. Compared to the global condition, there is still a wide gap both in the aspects of the user penetration and the quality of speed of access.

Currently, operators in the Internet service providing industry in Indonesia have expanded the establishment of infrastructures as well as developed a better cooperation among them in order to improve their services and revenue. However, the efforts done so far to boost the increase in their revenue have not yet met the expectations. With as many as 285 Internet Service Providers in Indonesia, the above condition is presumably due to the high intensity of business competition within the industry [3]. The drawback, apart from the intensity of business competition, may due to the fact that the practice of business strategies and their internal capabilities are not yet optimized. Such conditions, in turn, influence the companies' performance.

Reference [4] states that a company's performance is the output or result of the practice of any business activities, and that the indicator of this performance can be observed from

the company's sales and profitability growth. Business strategies play an important role in putting a company at the right competing position within its industry. This is in line with [5] that business strategy is a decision to focus on competing their products or services within the industry or in the particular market share that is served by the company. The result of research done by Samuel Obino Mokaya, Beatrice Wakhungu, Raphael Mwit Gikunda [6] shows that the attractiveness of industry correlates significantly with the competing power, as it does with the attractiveness of industry and the business strength toward the allocation of resources; whereas the attractiveness of industry and business strength significantly influence the resources allocation.

Based on the information mentioned above, it is assumed that the operators providing Internet service have not paid attention to the external conditions of their industry, especially to the aspect of business competition intensity. Furthermore, they have not yet optimized the company capability, and not yet implemented the right business strategies. These conditions, in the end, block them from reaching the expected growth level of company performance

This research aims at elaborating the effect of Industrial competition intensity and capabilities towards business strategy and performance of Internet service Providers in Indonesia.

II. METHODOLOGY

In this section the conceptual model is discussed and developed. While the sample and the methodology are outlined, the results of the measurement and structural model are presented as well.

A. Conceptual of Internet Business Performance Hypotheses

This study has three hypotheses, i.e.:

H₁: Capability has positive effect on Business Strategy in the Internet industry in Indonesia

H₂: Industrial Competitive Intensity has positive effect on Business Strategy in the Internet industry in Indonesia

H₃: Business Strategy has positive effect on Business Performance in the Internet industry in Indonesia

Related to fig.1 shown above, the mathematic model that will be tested is as follow:

$$\eta_1 = \gamma_{11}\xi_1 + \gamma_{12}\xi_2 + \phi_{12}$$

$$\eta_2 = \beta_{21}\eta_1 + \phi_2$$

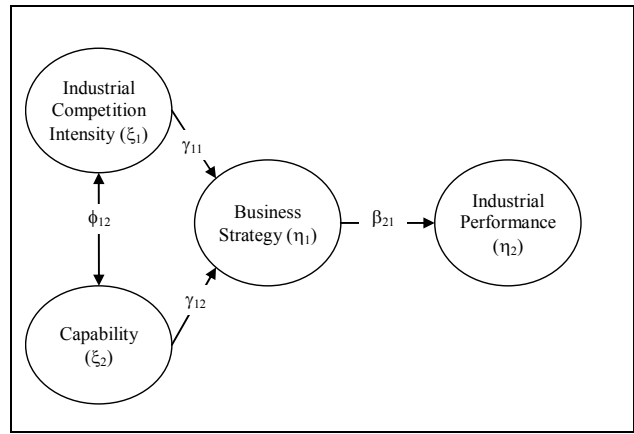


Fig. 1. The Effect of Industrial Competition Intensity and Capabilities to Business Strategy and Performance

B. Measurement Variables

Operationalization of the investigated variables is arranged according to dimensions and indicators. Therefore, the measurement variable model is called second order model. The questionnaire is organized using Likert Scales with intervals ranging from 1 to 5.

TABLE I. OPERATIONALIZATION OF THE VARIABLES

Variable	Dimension	Indicators	Symbol
Competition Intensity	Competition Intensity	The number of competitors in Internet Service Industry	X1.1
		The growth of Internet Service Industry	X1.2
		Industrial demand for Internet Service (new customers)	X1.3
Capability	Marketing Function	Price setting for the Internet service done by the company	X2.1
		Formulation of company promotion program	X2.2
		Positioning the quality of Internet Product of the company	X2.3
	Function of Financial Management	Cash flow Management (Company's liquidity)	X2.4
		Operational cost Control	X2.5
	Function of Human Resources Management	Human Resources Recruitment	X2.6
		Management of employee's remuneration	X2.7
		Employee's Development and Empowerment	X2.8
		Employee's Training	X2.9
Business Strategy	Cost Leadership Strategy	Controlling the operational cost efficiently	Y1
		Setting price lower than competitors	Y2
	Strategy Differentiation	Increase the quality level of product by interesting bundling package which is different from the product available in the market to make customers willing to pay higher from the	Y3

Variable	Dimension	Indicators	Symbol	
	Hybrid Strategy	competitors		
		More responsive and different after-sale service (compared to competitors)	Y4	
		Simultaneously able to set price lower than competitors and increase the quality level of product which is different from product available in the market	Y5	
			Simultaneously able to apply lower price compared to competitors and apply after-sales service which is more responsive and different from competitors	Y6
	Focused Strategy		Efficiently deciding a particular market segment as a target market	Y7
			Providing customer's needs according to the market segment	Y8
		Providing a different market segment with different service	Y9	
		Providing a different market segment with a lower price	Y10	
Company Performance	Financial Perspective	Target Income Achievement	Z1	
		Achievement of target profit-growth	Z2	
	Customer's Perspective	Success in increasing the level of quality and reliability of product	Z3	
		Success in providing after-sales service which is more responsive	Z4	
	Business Perspective	Success in operating efficiently	Z5	
		Ability to increase the number of new customers	Z6	
		Ability to maintain existing customers	Z7	
	Learning and Growth Perspective	Human Resources Development related to the competence in Internet Service Industry	Z8	
		Ability to accommodate information system to keep up with fast-changing technology	Z9	
		Leadership model that motivates employees to get ahead	Z10	

C. Validity and Reliability

Since various items are being employed to measure abstract concepts, these items need to be assessed for reliability and validity. Internal consistency of the data is evaluated by two different measurements: Cronbach's alpha and composite reliability [7]. The research shows that all of the latent variables obtain Cronbach's reliability coefficient higher than the minimum threshold value of 0.65 as suggested

by Lee and Kim [8] or 0.70 as suggested by Nunnally [9]; which indicates satisfactory internal consistency for confirmation purposes. An exception is found in the dimension of the cost of leadership strategy. However, this dimension has a composite high reliability, thus, it can be declared reliable. While Cronbach's alpha presumes that each item carries the same weight, composite reliability relies more on the actual loading score of a construct; therefore, it is considered a better measurement of internal consistency [7]. To provide adequate internal consistency, the value of composite reliability has to be greater than 0.7 [9] as shown in Table 4 and Table 5. The construct validity is examined by assessing the convergent validity. A Confirmatory Factor Analysis (CFA) is utilized. The survey items are confirmed to be sufficiently valid and reliable for further analyses.

There are as many as 285 companies engaged in the Internet service industries in Indonesia, that became the total population covered in this study. Table 2 shows the demographic analysis of data collected from 70 valid respondents. The units of observation are the managers, senior managers, and the general manager who are rated as competent in providing answers to every question items related to the capability of the company, business strategy, as well as the performance of the company. Data have been collected via Internet surveys.

TABLE II. DEMOGRAPHIC ANALYSIS

Category	Freq.	%
Location		
Balikpapan	1	1.43
Bandung	13	18.57
Batam	1	1.43
Depok	1	1.43
Jakarta	49	70.00
Makassar	1	1.43
Medan	1	1.43
Palembang	1	1.43
Yogyakarta	2	2.86
Education		
Bachelor (S1)	25	35.71
Master (S2)	41	58.57
Doctor (S3)	4	5.71
Position		
General Manager	26	37.14
Manager	27	38.57
Senior Manager	17	24.29

From the table above, it appears that the majority of the companies dealing with Internet service-providing industry involved in the research are located in Jakarta, with the percentage reaching up to 70%.

The analysis technique used in this study is partial Least Square Path modeling. It is one of the techniques applied in structural model analysis that is based on component variance [10]. SMARTPLS 3 software has been applied to analyze the data as well.

III. RESULTS AND DISCUSSION

The result of this research is divided into two parts: measurement model and structural model. Measurement model defines the relationship between indicators-dimension-and variables. The structural model, on the other hand, is related to the influence among the variables in line with the hypotheses of the research.

A. Measurement Model

TABLE III. TABLE 3. MEASUREMENT MODEL OF FIRST ORDER

Variable	Dimension	Indicator	Validity coefficient	p-Value
Industrial Competition Intensity	Competition Intensity	X1.1	0.89	0.04
		X1.2	0.88	0.07
		X1.3	0.83	0.08
Capability	Marketing Function	X2.1	0.83	0.04
		X2.2	0.86	0.03
		X2.3	0.83	0.04
	Function of Financial Management	X2.4	0.96	0.01
		X2.5	0.96	0.01
	Function of Human Resources Management	X2.6	0.89	0.02
		X2.7	0.88	0.04
		X2.8	0.92	0.03
		X2.9	0.87	0.04
Business Strategy	Cost of Leadership Strategy	Y1	0.86	0.05
		Y2	0.69	0.12
	Strategy Differentiation	Y3	0.91	0.02
		Y4	0.86	0.05
	Hybrid Strategy	Y5	0.97	0.01
		Y6	0.96	0.02
	Focused Strategy	Y7	0.90	0.02
		Y8	0.90	0.03
		Y9	0.84	0.04
		Y10	0.72	0.07
Company Performance	Financial Perspective	Z1	0.94	0.02
		Z2	0.95	0.01
	Customer's Perspective	Z3	0.93	0.02
		Z4	0.92	0.02
	Business Perspective	Z5	0.84	0.03
		Z6	0.88	0.02
		Z7	0.93	0.01
	Learning and Growth Perspective	Z8	0.86	0.04
		Z9	0.90	0.03
		Z10	0.85	0.03

The analysis shown in Table 3 above indicates that the validity coefficient is higher than 0.50 and the p.value is less than 0.05. Thus, all the indicators can be considered valid.

TABLE IV. MEASUREMENT MODEL OF SECOND ORDER

Variable	Dimension	Validity Coefficient	P Values
Capability	Marketing Function	0.81	0.00
	Function of Financial Management	0.86	0.00
	Function of Human Resources Management	0.88	0.00
Business Strategy	Strategy Differentiation	0.77	0.00
	Focused Strategy	0.84	0.00
	Hybrid Strategy	0.82	0.00
	Cost of Leadership Strategy	0.74	0.00
Company Performance	Financial Perspective	0.84	0.00
	Learning and Growth Perspective	0.85	0.00
	Customer's Perspective	0.91	0.00
	Business Process Perspective	0.93	0.00

The validity analysis of Measurement Model Second Order, as described in Table 4 above, provides the validity coefficient higher than 0.500 as well as the p.value less than 0.05. Thus, all dimensions can be declared valid.

TABLE V. COMPOSITE RELIABILITY

Variable	Dimension	Composite Reliability (CR)
Company Capability [CR = 0.925]	Marketing Function	0.879
	Function of Financial Management	0.957
	Function of Human Resources Management	0.939
Competition Intensity [CR = 0.910]	Competition Intensity	0.910
Company Performance [CR = 0.947]	Financial Perspective	0.947
	Learning and Growth Perspective	0.907
	Customer's Perspective	0.924
	Business Process Perspective	0.916
Business Strategy [CR = 0.905]	Strategy Differentiation	0.884
	Focused Strategy	0.909
	Hybrid Strategy	0.963
	Cost of Leadership Strategy	0.762

Table 5 above indicates that the calculation of reliability coefficient and composite reliability comes to the value of composite reliability higher than 0.700. Therefore, it can be concluded that all dimensions and variables are reliable.

B. Structural Modeling

Table 6 refers to the data analysis done with PLS-PM method and SmartPLS software that provides the results shown in the table below:

TABLE VI. DIRECT IMPACT

Model	Path Coefficient	Standard Error	t-ratio	p-value
Competition Intensity • Business Strategy	0.231	0.116	1.823	0.071
Company Capability • Business Strategy	0.362	0.112	3.358	0.001
Business Strategy • Company Performance	0.516	0.086	6.075	0.000

Based on the calculation of the direct influence of the competition intensity variable on business strategy, there is an influence of 0.231 deviation standard with p.value of 0.07 emerging. It means that at the level of signification 10%, there is a significant direct impact from variable competition intensity towards the business strategy. The business strategy decided to be implemented will succeed if the company providing internet services pays attention to the business competition intensity.

The influence calculation of company capability variable towards the business strategy results in a value of influence 0.362 with p.value 0.001. It indicates that at the signification 5%, capability variable provides significant influence towards the business strategy with an impact value up to 0.362 deviation standard. It means that business strategies developed by Internet Service Providers have to take the factor of company capability into account. Indeed, company capability gives more significant influence compared to the competition intensity variable.

The variable of business strategy supports a direct impact of 0.516 deviation standard with p.value 0.000 towards the company performance variable. The result describes that there is a significant influence at the level of 5% signification from business strategy variable towards the company performance. The success of company performance will depend on the implementation of the right business strategies. Fig. 2 explains the result.

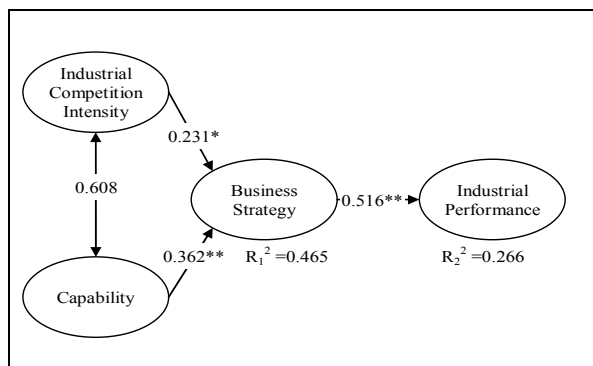


Fig.2. The Effect of Industrial Competition Intensity and Capabilities to Business Strategy and Performance

The variable of competition intensity and company capability gives not only direct influence on the business strategy, but also indirect influence towards the variable of company performance through the business strategy. The calculation of the level of influence and signification analysis is explained below:

TABLE VII. INDIRECT IMPACT

Impact	Direct Impact	Standard Error	z value	p-value
Competition Intensity • Business Strategy • Company Performance	0.110	0.177	0.624	0.266
Company Capability • Business Strategy • Company Performance	0.196	0.175	1.117	0.132

According to Table 7, the calculation of the indirect impact of business competition intensity variable towards the company performance through the business strategy gives a value of impact 0.110 deviation standard with p.value 0.266. It indicates that at 10% signification there is no indirect impact from the variable of business competition intensity towards the company performance through the business strategy.

The same result is obtained for the variable of company capability. The indirect impact of company capability variable towards the company performance through the business strategy reaches the point of 0.196 with p.value 0.132. At the signification level of 10%, the indirect impact is considered insignificant.

IV. CONCLUSION

Based on the calculation and analysis done so far, it is revealed that there is a significant influence from the variable of competition intensity and company capability towards the business strategy, and the business strategy towards the company performance. Company performance can be improved by choosing the right strategies which considers competition intensity and company capability. Although competition intensity and company capability give a significant impact towards the business strategy, and the business strategy decided to be implemented provides a significant influence on the company performance eventually, there is no significant indirect influence from the competition intensity and company capability towards the company performance through competing strategy. It means that the improvement of company performance depends merely on the ability of the company to discover and implement the right competing strategy.

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