BUSINESS ENVIRONMENT AND INNOVATION STRATEGY IN IMPROVING BUSINESS PERFORMANCE OF BUSINESS UNITS OF FIXED BROADBAND BASED MULTIPLAY PROVIDER IN INDONESIA

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Abstract - The penetration of mobile broadband in Indonesia outperforms fixed broadband. Since 2012 mobile broadband services have shown an increasing trend, nevertheless fixed broadband has declined since 2011. It shows that Fixed Broadband has not been able to attract customers compared to mobile broadband. There are several aspects that are expected to affect the condition, including innovation strategy and business environment. So this study aims to examine the influence of business environment and innovation strategy on business performance of business units of fixed broadband based on multiplay provider in Indonesia. This research uses explanatory quantitative method. Observation using time horizon that is cross section / one shot in 2017. The unit of analysis is business units of fixed broadband based multiplay provider in Indonesia, focus on internet and television service with observation unit is leader of each Business Unit. Altogether there are 64 business units as a population of national analysis units. Given the small size of the population, it will be taken all members of the population to be examined (census).The results show that the business environment and innovation strategy play a role in developing business performance, where innovation strategy have a greater impact than business environment. The findings of this study have implications for the management of business units of fixed broadband based mutiplay provider in Indonesia, that the effort to improve the superior business performance needs to be supported by the development of innovation strategy supported by the development of business environment adaptation..

Keyword - Business Environment, Innovation Strategy, Business Performance, Multiplay.

I. INTRODUCTION

1.1 Research Background

Based on data from the Association of Internet Service Providers Indonesia (APJII), the number of Internet users in 2013 reached 82 million or an increase of 13% compared to the year 2012 which reached about 63 million users. Penetration of internet users continues to increase, which in 2014 reached 28% of the total population of Indonesia. Internet usage in Indonesia, supported by mobile broadband and fixed broadband networks, as shown by the following figure:

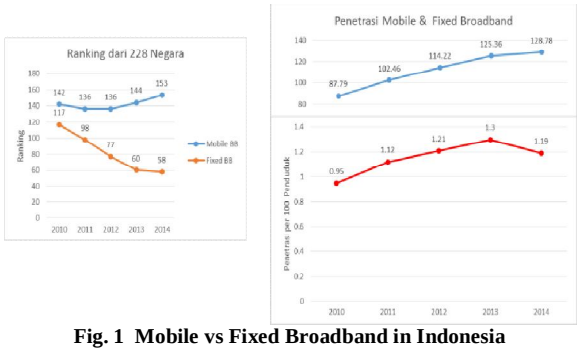


Fig. 1 Mobile vs Fixed Broadband in Indonesia

It appears that the penetration of mobile broadband in Indonesia surpass fixed broadband. Since 2012, mobile broadband services have shown an increasing trend, while fixed broadband has declined even since 2011. It shows that Fixed Broadband has not been able to attract customers compared to mobile broadband.

While on the market side, available the convergence services (multi-play and multi-screen) for the consumer mobility and enterprise mobility services for the business or enterprise customer segment. In other words, the use of data services increasingly shifts basic call services such as voice and SMS, which is supported by the high population of smartphones. This is marked as an increase in data traffic from three mobile operators that jumped from 79,050 terabytes in 2012 to 163,614 terabytes in 2013. It is in line with the increase in data service users from 106.9 million in 2012 to 120.8 million in the year 2013 (mediadata.co.id, 2014).

Utilization of technology (multiplay / multiservice / multiscreen) is also one of PT Telkom's strategic initiatives which called cost transformation, in order to run the company's strategy. Given that PT Telkom is the largest market share holder dominant in the telecommunication industry, the multiplay service industry performance picture can be represented by PT Telkom's performance with indications that multiplay service business growth is more dominated by mobile broadband based services than fixed broadband based services. However, the business units of multiplay operators based on fixed broadband performance is not yet optimal. This is based on the sales growth achieved by fixed broadband multiplayer business units that are still lower than those based on mobile broadband. While sales growth is one indicator of business performance[1].. Some of the financial ratios used to evaluate strategy consist of:

Return on Investment (ROI), Return on Equity (ROE), Profit Margin, Market Share, Debt to Equity, Earnings per share, Sales growth, Assets growth[2].

This conditions, allegedly due to the problem in running innovation strategy by business units of multiplay provider based on fixed broadband. Core issues in the field of innovation include the innovation itself and the synergy between technological and non-technological elements (strategy, culture, organization, and innovation institutions)[3].There are four dimensions (4P) of innovations that include: Product innovation - changes in the products or services the organization offers; Process innovation - changes in how to create and deliver products / services; Position innovation - change in context of product / service introduction; Paradigm innovation - a change in the mental model[4]. Meanwhile, based on the observation result, it is known that the implementation of innovation strategy has not been optimal yet with the indication that the multiplay provider still has weakness in identifying the customer benefit according to customer's point of view. In addition, the company also seems to have difficulties in identifying the consumer segment that has not been served as an opportunity to seize market share.

Another thing that is suspected with regard to these conditions, is the adaptation of the business environment in the multiplay industry. The external environment consists of a macro external environment and a micro environment that is essentially a force that can not be controlled by the company if it can, is very limited. The micro-environment includes stakeholder companies that have control over suppliers, customers, retailers, and competitors. While the macro environment is political, economic, social, and technological[5]. Meanwhile, based on the results of observations obtained the picture that the business units of multiplay provider currently still face problems in anticipating both the macro environment and micro environment.

1.2 Research Objective

Based on the research background, this study aims to examine the influence of business environment and innovation strategy on business units of fixed broadband based multiplay provider performance in Indonesia.

II. LITERATURE REVIEW

2.1 Business Environment, Innovation Strategy, and Business Performance

Company has a business environment with different characteristics that include legal status, taxation, competition, and the presence of foreign markets[6].The environment is a key factor in determining the level of resource availability and the ease of the organization to run its activities[7].The external environment consists of a macro external environment and a micro environment that is essentially a force that can not be controlled by the company if it can, is very limited. The micro-environment includes stakeholder companies that have control over suppliers, customers, retailers, and competitors. While the macro environment is political, economic, social, and technological [5]. The business environment is an environment that can lower the company's boundaries to business partners and customers because of the upgrading of information technology and secure service infrastructure infrastructure and flexible[8]. posit that the business environment consists of internal and external factors related to the company's competitive advantage [9].

Based on the description of the business environment concept, then in this study the business environment is measured by three dimensions including macro environment, industrial environment, and technological environment. Innovation strategies examined using three key parameters: scope (from technological work performed), localization (involved in enterprise), and source of technology (internal or external)[10]. Besides, there are several components of innovation management techniques to support an open innovation strategy[11] :

a. The strategy of innovation. Managing the strategy ofinnovation requires comprehensionof what, why, andwhen of innovation activity. This means developing,reviewing, and updating an innovation policy andstrategy consistent with the organization’s mission andsetting goals for innovation.
b. Portfolio management. R&D managers must balanceportfolios of technology, products, and projects, decidingwhich ones are worth pursuing (the valuation problem)and choosing a group, or portfolio, of them that bestmeets the needs of the organization (the balance problem).
c. Project management. Successful implementation ofan innovation strategy starts with good projectmanagement.
d. Leadership and organizational culture. Leadersmust promote innovation and an entrepreneurial cultureacross the organization by being personally involvedin establishing and implementing clear and relevantways to support innovation
e. Human resources. Attracting, recruiting, motivating,rewarding, and developing individuals are the backboneof effective innovation management.
f. External relations. Fostering innovation meansnurturing networks, exchanging ideas, and sharingknowledge outside of the company as well as within.Innovation networks, such as links to

suppliers andtechnical institutes, are increasingly important toorganizational innovation efforts.

g. Organizational design. Organizational design forinnovation is dependent on the strategy-structure profileof the company and the innovation strategy chosen. The pursuit of innovation may require redesigning theorganization, putting people capable of developing newchallenges in charge of new products or services,business units, and companies.
h. Innovation processes. The development of innovationis managed and enhanced by ensuring a clear process,using a structured step-by-step logic to steer and manageinnovation, enabling efficient teamwork, eliminatinginnovation bottlenecks and optimizing time to market,adopting and adapting methods and techniques to supportinnovation, establishing mechanisms to resolve interfaceissues, improving the innovation process, and improvingall processes by building on innovation.
i. Performance measures. As with any other aspect ofmanagement, innovation management requires appropriatemeasurement systems to allow managers tomeasure the impact of innovation management activitieson the performance of the company.
j. Marketing. Marketing has a key role to play ingenerating ideas for innovation.
k. Resources. Limited resources for the implementationof innovation projects need to be carefully assigned.
l. Knowledge and intellectual property management.The contribution of knowledge to innovation must bemanaged and protected. Knowledge management isconcerned with identifying, translating, sharing, andexploiting the knowledge within an organization.
m. Technology. Technology is an important driver ofsuccessful innovation

Based on these two opinions, the innovation strategy in this study is measured by dimensions including strategic innovation, project management, portfolio management, innovation process, and technology. Empirically seen from previous research journals, there are a number of measures used by researchers in measuring business performance. There are several measurement of business performance,namely : increased sales, increased ROA, andNew product success[12]; growth rate and profitability of the business acquired[8]; operational performance[13]; operational performance, growth performance, profitability performance, and competitiveness performance[14].

Previous studies have found that business environments and innovation strategy have an impact on business performance. There was a strong relationship between the environment such as corruption, crime, financing, infrastructure, business regulation and human capital with the company's sales growth[15].The environment had a significant effect on performance[16], [17]. Supply chain management process framework has been used to assess innovation and performance[18]. The previous research show a significant positive relationship between innovation and financial performance[19].Innovation and performance evaluation moderate the relationship between the organizational ethical climate and innovation[20].

Based on the literature review, it can be arranged as follows:

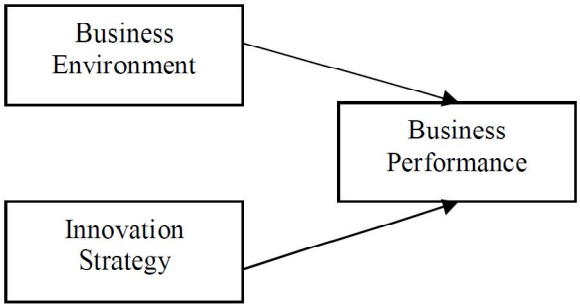


Fig.2 Conceptual Model

III. METHODOLOGY

This research uses explanatory quantitative method. The observation was conducted in time horizon that is cross section / one shot in 2017. The unit of analysis is business units of fixed broadband based onmultiplay provider in Indonesia, focus on internet and television service with observation unit is leader of each Business Unit. Altogether there are 64 business units as a population of national analysis units. Given the small size of the population it will be taken all members of the population to be examined (census). Verification analysis, used to measure quantitative data and hypothesis testing that is with partial least square (PLS).

IV. RESULT AND DISCUSSION

4.1 Goodness of Fit Model - Analysis of Structural Model (Inner Model) and Meaurement Model (Outer Model)

Analysis of structural model (inner model) shows the relationship between latent variables. Inner models are evaluated using the Goodness of Fit Model (GoF), which shows the difference between the observed values and the values predicted by the model. This test is shown by the R Square value of the endogenous construct. It is the coefficient of determination in endogenous constructs. the value of R square is 0.67 (strong), 0.33 (moderate) and 0.19 (weak)[21]. Prediction relevance (Q square) otherwise known as Stone-Geisser's. This test is performed to determine

predicted capability with blinfolding procedure. If the value obtained 0.02 (small), 0.15 (medium) and 0.35 (large).Can only be done for endogenous constructs with reflective indicators.

Here are the GoF and Q-Square values in the construct:

Table 1 Model Testing

Variable	R Square	AVE	Cronbachs Alpha	Composite Reliability	Q Square
Business Performance	0.419	0.933	0.976	0.982	0.909
Business Environment		0.719	0.937	0.947	0.612
Innovation Strategy		0.742	0.975	0.977	0.735

Source: Primary data processed by Smart PLS(2015)

The table above gives the value of R^2 on moderate criteria with greater than 0.33, and the Q square value above is large, so it can be concluded that the research model is supported by empirical condition or fit model.

The measurement model analysis shows the relationship between the manifest variable (indicator) with the latent variable respectively. The measurement model analysis aims to test the validity and reliability of the dimensions and indicators used in measuring each constructive research variable. Analysis of measurement model can be explained by discriminant validity, loading factor, contras validity and composite reliability. The method to see discriminant validity is by measuring the root value of average variance extracted (AVE).

The recommended value is above 0.5. Construct Validity is explained by the factor loading value. The loading factor of the measurement model is greater than 0.50 or the t value of this loading factor is greater than t table at 5% significance then the dimension can be declared valid in measuring variable[21]. Composite Reliability and Cronbachs Alpha are used to see the reliability or dimensional reliability level in measuring research variables.

If the value of Cronbachs Alpha is greater than 0.70 [22]then the dimensions and indicators are stated reliably in measuring the research variables.

From the table above shows that the values of AVE> 0.5, this indicates that all the variables in the estimated model meet the criteria of discriminant validity. Composite reliability and Cronbachs Alpha of each variable> 0.70 Thus it can be concluded that all the variables have good reliability. The following figure shows the model test results using Smart PLS 2.0 as follows.

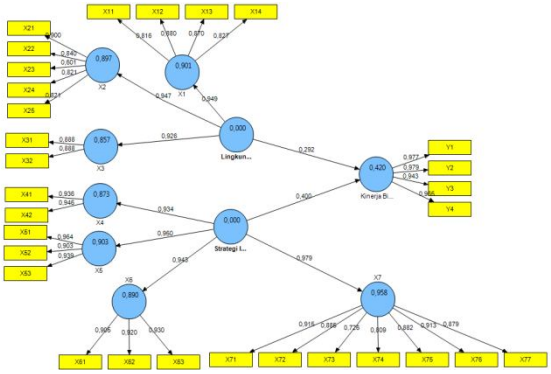


Fig. 3 Coefficient of Influence of Research Model

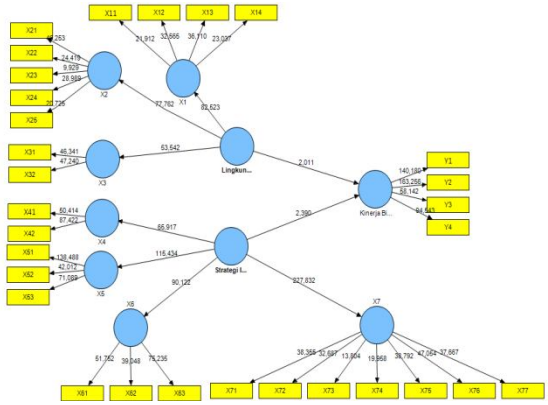


Fig. 4t statistic of Research Model

The use of Second Order in the research model causes the loading factor to be obtained to explain the relationship between latent-dimension and dimension-indicator variables. The following table presents the results of the measurement model analysis for each dimension of the indicator.

Table 2 Loading Factor of Dimension-Indicator

Dimension-Indicator	λ	SE(λ)	t count
Business Environment -> X1	0.949	0.012	82.523
X11 <- X1	0.816	0.037	21.912
X12 <- X1	0.880	0.027	32.565
X13 <- X1	0.870	0.024	36.110
X14 <- X1	0.827	0.036	23.037
Business Environment -> X2	0.947	0.012	77.762
X21 <- X2	0.900	0.019	46.253
X22 <- X2	0.840	0.034	24.419
X23 <- X2	0.601	0.060	9.929
X24 <- X2	0.82	0.02	28.989

Dimension-Indicator	λ	SE(λ)	t count
	1	8	
X25 <- X2	0.821	0.040	20.725
Business Environment -> X3	0.926	0.017	53.542
X31 <- X3	0.888	0.019	46.341
X32 <- X3	0.888	0.019	47.240
Innovation Strategy -> X4	0.934	0.014	65.917
X41 <- X4	0.936	0.019	50.414
X42 <- X4	0.946	0.011	87.422
Innovation Strategy X5	0.950	0.008	115.434
X51 <- X5	0.964	0.007	138.488
X52 <- X5	0.903	0.021	42.012
X53 <- X5	0.939	0.013	71.089
Innovation Strategy -> X6	0.943	0.010	90.122
X61 <- X6	0.905	0.017	51.752
X62 <- X6	0.920	0.024	39.048
X63 <- X6	0.930	0.012	75.235
Innovation Strategy -> X7	0.979	0.004	227.832
X71 <- X7	0.915	0.024	38.355
X72 <- X7	0.885	0.027	32.687
X73 <- X7	0.726	0.053	13.804
X74 <- X7	0.809	0.041	19.958
X75 <- X7	0.882	0.023	38.792
X76 <- X7	0.913	0.019	47.054
X77 <- X7	0.879	0.023	37.667
Y1 <- Business Performance	0.977	0.007	140.180
Y2 <- Business Performance	0.979	0.006	163.256
Y3 <- Business Performance	0.943	0.016	58.142
Y4 <- Business Performance	0.965	0.010	94.543

The result of analysis of measurement model from the dimensions by the indicator shows that the indicator is valid where most of loading factor value bigger than 0.70 with t value> 1.99. The model of measurement of latent variables over its dimension explains the extent to which the validity of the dimensions in measuring latent research variables. The results of the measurement model analysis of the research variables over the dimensions show that all dimensions are valid.

Table3;Hypothesis Simultaneous Testing of the Influence of Business Environment and Innovation Strategy on Business Performance

Hypothesis	R^2	F	F Tabel	Description
Business Environment and Innovation Strategy→ Business Performance	0.419	22.071*	3.145	H0 rejected

* Significant at α =0.05

Table4Partial Hypothesis Testing Business of the Influence of Business Environment and Innovation Strategy on Business Performance

Hypothesis	γ	SE (γ)	T	R^2	Description
Business Environment and → Business Performance	0.292	0.145	2.011*	0.173	H0 rejected
Innovation Strategy → Business Performance	0.400	0.167	2.390*	0.247	H0 rejected

* Significant at α =0.05

Based on the test results it is known that there are significant influence both simultaneously (Table 3) and partially (table 4) from Business Environment and Innovation Strategy to Business Performance in which the influence of innovation strategy is more dominant that is equal to 24.7%

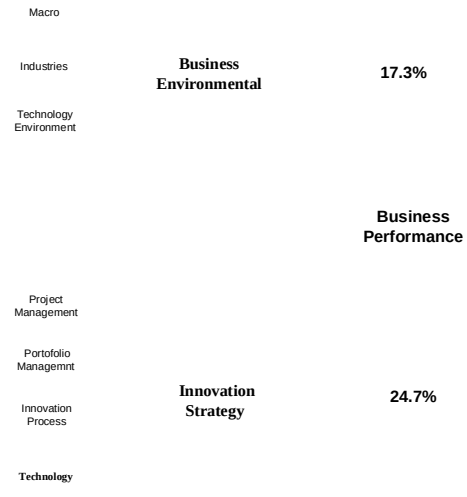


Fig.5 Research Finding

The results of this study indicate that business environment and innovation strategy are having significant effect on business performance. The innovation strategy has a greater impact than business environment in improving business performance. Aspects that have the most dominant role in the implementation of innovation strategy is technology, followed by portfolio management, innovation process, and project management. These four aspects are a bigger driver than the business environment in improving business performance. Meanwhile, the aspect of the business environment that contributes to the improvement of business performance is the macro environment, followed by the industrial environment, and the operational environment.

This finding is in line with previous studies which found that the business environment impact business performance[15], [16],[17].This finding is also in line with previous studies which found that innovation strategy impact business performance[18], [19],[20].

CONCLUSION AND RECOMMENDATION

The results of this study indicate that business environment and innovation strategy are having significant effect on business performance. The innovation strategy has a greater impact than business environment in improving business performance. The results of this study are expected to be useful for multiplay business unit management in Indonesia, that efforts to improve business performance is driven by the development of innovation strategies that are supported by the adaptation of the business environment. Development of innovation strategy is mainly prioritized on technology development, followed by portfolio management, innovation process, and project management. Meanwhile, in adapting the business environment, the macro environment, needs to receive greater attention, which is supported by adaptation of the industrial environment and operational environment.

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