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Sustainable Model Innovation Development in Indonesian Pharmaceutical Industry

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Abstract: The purpose of this research is to build an integrated and sustainable model innovation development to improve quality of strategic asset and innovation. This research used two-steps approach sequential equation modeling with respondents the top level managers of 121 pharmaceutical companies in Indonesia as sample research while target population of about 225 pharmaceutical companies. The result of this research concludes that quality of strategic innovation is mainly achieved through improving quality on strategic asset. By developing internal and external organizational learning, subsequently, strategic asset development will be well-developed. The process of external organizational learning is influenced by the quality of strategic alliance and the power of market orientation culture whereas the internal organizational learning has role as a growth generating factor.

Key words: Strategic asset, strategic alliance, innovation, organizational learning market, oriented culture, Indonesian pharmaceutical

INTRODUCTION

In many developing or transitional economic countries, the interest in innovation is strongly conditioned by national or regional context; it is absolutely different from the interest innovation in the developed countries which has not been much influenced by the national or regional context. Pharmaceutical researches in emerging market are conducted by Banerjee and Dash (2011) in India, Kara *et al*. (2013) in Turkey but those researches still use simple analysis descriptive statistic. Muller and Sreeko suggested that the research on innovation and entrepreneurship in some developing countries is required to be replicated in developing countries.

Acceleration in launching a new product will enhance or gain sustainable competitive advantage. For this reason, manager should either develop radical or incremental innovation. This innovation process is proposed by building research team and innovation development supported by a sufficient internal environment. The related study to the innovation is conducted in Jordanian industrial organization by Shaar *et al*. (2015), it investigates the effect of top management support on innovation. Synergy effect between structure and technology does not mediate the effect of top management support in innovation. Related study also conducted in Malaysia by Hanaysha and Hilman (2015), it investigates strategic effects of product innovation but their research model is inappropriate methodology. In China the related study conducted by Hai and Gima; it investigates the impacts of strategic innovation to the performance of new technology. The current study is taken because there are several studies on the implementation of innovation strategy with inconsistency results. The study conducted by Whittaker and Bower (1994) concludes that there were negative correlation between strategic innovation and firm performance. On the other hand, there are studies that conclude positive correlation between innovation strategy in technology and firm performance. The strategic alliance on the collaboration between research and development took place in this industry center. The result shows the similar result discovered by Cappon Hai which applies regression and correlation analyzes. The result in their research demonstrated a positive influence between the applied innovation strategy and firm performance. Thus, the research result had the opposite conclusion of the research conducted by Chandler and Hanks.

Researches on innovation, organizational learning and strategic asset portfolio and business performance have been frequently related to the environment. The research illustrates diversity in the result of many studies. The study suggested by Hai in China concerning the environment influence on causal relationship between innovation and business performance is different from the study described by Voss and Voss (2000) in USA. The distinction in study results have been caused by environment aspect used in research which plays role as moderation variable.

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Alliance quality, strategic asset and organizational learning: Research in pharmaceutical fields was conducted by Rothaermel and Deeds (2004) who applied thorough examination on 889 strategic alliances which were split up into 2 alliance groups, i.e., exploitative alliance and explorative alliance. By applying two stage linier regression, Rothaermel and Deeds (2004) have concluded that a number of strategic alliances in pharmaceutical industry taken so far had given a positive influence on product development through the accumulation of capability and competency. Besides that, Rothaermel and Deeds (2004) also showed that alliance related to new product innovation (Explorative alliances) apparently does not influence product development significantly. At the same time, the alliance that relates to available product exploitation business (exploitative alliances) has obviously influenced product development negatively. This might have relation with the findings described by Helene who told that if strategic alliance is frequently implemented then the organizational learning process is impeded and the negative effect from strategic alliance in the forms of cheating, holdup and moral hazard will emerge in this alliance, consequently the development process of science and capability accumulation will fall down.

The research initiated by Hamel (1991) which relates to long-term buyer seller relationship orientation, trust and dependency, found a perception asymmetry in relationship. This study was also presented by Garvin (1993) who also found the asymmetry of buyer and seller perceptions to long-term market orientation and trust in alliance. The result of this research is also supported by the research presented by Steinman on market orientation gap between seller and customer perspective. Consequently, joint adjustment is required to improve relationship quality through equally collaborative membrane to that perception distinction. By implementing a joint adjustment, the organizational learning activity will run smoothly (Sari and Theo, 2003).

Witt (2002) conducted empirical research of asset accumulation in pharmaceutical industry. According to the theory proposed by Selznick and Penrose, there were two researchers who then implemented an explorative research to analyze that Penrose and Selznick's study result empirically. The research demonstrated by Thomke and Kuemmerle concluded that sustainable competitive advantage can be attained by the improvement of science and competency accumulation toward operation business progress through innovation as suggested by other researchers (Amit and Schoemaker, 1993). They also needed a chemical library and laboratory to enhance that accumulation of science. The size of chemical laboratory was measured by a number of compounds in library. In addition, the chemical laboratory was measured by a number of scientific publications of new drugs and clinical test done by involving numerous drugs supervisory agencies to obtain drugs distribution. The research presented by Thomke and Kuemmerle also indicated that big company will be faster to access knowledge through development of information system which combined research and development while small company has very limited sources to access the knowledge. This is caused by limited financial support and resources belonged to a small company, nevertheless, small pharmaceutical industries have surplus in the implementation of strategic market entry. According to several studies suggested by Miles, Szulansky, Thomke and Kuemerle, Rothaermel and Deeds and other study results, therefore, this research proposes the following Hypothesis 1:

- H_1: the quality of strategic alliance will have a positive influence on the company strategic asset

Organizational learning emerges because of disparities of capability, information and technology in several companies. This condition motivates company to make internalization of capability on science and technology in their environment. The means used to make internalization is through team working in the alliance to carry out the organizational learning process. Hamel (1991) stated that there are 3 factors that influence the organizational learning activity. The first is a need to work as a team (collaborative intent) which is the learning motivation to do internalization of partner's capability, science and technology. The dimension of collaborative intent is very affected by competitive posture that relates to market-oriented culture, the relative position of company's sources, the expected capacity pay off to exploit the business capability and skill as well as perspective power from partner. The second factor is transparency in the learning area. Some of the partners are more opened in learning process than other partners. The other partners choose more secured learning area (protective). So, there will be no internalization from partner in capability. The higher unfairness level in learning process, the greater failure in learning process will happen. The third is receptivity of partner's absorption capacity to the process and content learning. Several factors that influence receptivity level are sense of confidence and size-skills gap with industry leader. Equally collaborative membrane is required in alliance to learn the flow of exchanged sources in order to attain expand channel and organizational memory distribution.

Recently, development of strategic alliance formation is very important. The motivation in conducting or implementing strategic alliance is the role of strategic alliance which determines the corporate strategy to boost a continuous competitive control. The supporting capabilities such as resource, capability and competency are required to attain the competitive control objectives. These supporting capabilities are obtained through interaction with other companies in the processes of assimilation, acquisition as well as effectiveness and efficiency of science and technology. The learning organizational process is not only derived from strategic alliance but also from internal experience that will accelerate innovation process which subsequently facilitate product development.

Exchanging of resources and sharing technology to help collaboration partners must be a great challenge in alliance. The condition is also represented by Barney (2002, 2001) who proved that the threats of success in alliance are adverse selection, moral hazard and holdup. Adverse selection relates to cheating when our partner brings a difficult or expensive source to be planted. Moral hazard relates to partners who bring low-quality source and holdup comes out if partner exploits investment of other partner. The same thing will happens in the sharing process of science and technology in helping to improve partner's capability and knowledge. Subsequently, the technology sharing and exchanging tend to be limited and prudently to the formal agreement or a small scale of sharing and exchanging activity and resources. The knowledge and technology transfer will cause managerial implication which is fundamental in strategic collaboration. Transfer and integration of technical knowledge is also done through personal work visit or gathering, so the communication is limited. Technology exchange has a wider range and more involves high level management principles than knowledge exchange. Technology exchange involves strategic aspects and needs extensive and dedicative coordination which is not only about personal visit. These exchanges may cause greater cost and risk. They said that greater technical and technology exchanges in collaboration will influence the processes of improvement and innovation for 2-3 years through organizational learning. Therefore, this research proposes the following Hypothesis 2:

- H_2: the quality of alliance has a positive influence to the process of external organizational learning in company

Market orientation and organizational learning: Research study conducted by Jin continued the study proposed by Narver and Kohli and Jaworski which is related to the market orientation culture and innovation. The study result proposed by Jin and they find that market-orientation culture is positively related to the company performance. This may be caused by customer orientation that encourages the implementation of marketing concept that is carried out by a company with forward-looking or long term orientation. In addition, Jin related the competitor orientation with the innovation. Jin described that marketing intelligence activity to face the business competitor will be able to identify the weaknesses and strengths of company, so the market oriented culture will motivate the organizational learning which then be able to improve the quality of a strategic asset and innovation development.

Development of market orientation has been investigated by Narver. The study showed that market orientation will increase return on asset and market growth. Thus, these two researchers carried out the investigation on the influence of market orientation to profitability level. They also conclude that the strong market orientation would bring company to make product innovation to attain high-quality performance. The company with a strong market-oriented culture will encourage the development of technology orientation culture.

Another research is suggested by Farrell (2000) on the development of market-oriented culture and organizational learning. In his research, Mark states that market-oriented culture would encourage company to do market research to extend the capability of customer's knowledge and then spread the knowledge to cross functional department to create economic value that is acceptable in the market. By implementing market research, then the firm will develop or create product development. The product development will create innovation in line extension, me too product and new to the world. The activity of organizational learning is influenced by top-level management performance and the type of transformative leadership. The top-level management performance will motivate the routine activities of organizational learning to be organizational culture. In that case, Farrel exposed that in order to achieve high-quality performance; the organizational learning activities which include adaptive and generative learning must be developed. Here, Mark's investigation supported the prior research presented by Song and Parry who suggests that the effect from cross functional

coordinating is developed from market-oriented culture to human resource portfolio. According to the earlier research, therefore, this research proposes the following Hypothesis 3:

- H_3: market orientation culture has a positive influence on the external learning activity

Organizational learning and strategic asset: According to Chandler, the company that establishes the continued and dynamic learning process will obtain competitive advantages of source and competency successfully. By learning process in strategic alliance, the economic scale and scope can be exploited through innovation. In following the monumental work by Hamel (1991) conducts research on internationally strategic alliance. In this investigation, it is discovered that collaboration creates many advantages which is mainly related to opportunity in an internalization of development of partner's competency and skills to improve the competition rank in market.

Functional capability can be attained through the exchange process of functional experience, science and technology in an alliance. The experience in manufacturing will be emphasized on new product development. At the same time, the experience in marketing will be emphasized on the available product development to acquire an advanced pre-eminence through the development process.

Dynamic internal environment could be created through strategic alliance to facilitate the organizational learning. Dynamic internal environment will improve the abilities of marketing and manufacturing strategy that will also influence business performance. The ability of manufacturing capability is the ability of operational process supported by the appropriate technological ability. According to the theories presented by Hamel (1991) and the investigation carried out by Roger and Mingfang, therefore, this research proposes this following Hypothesis 4:

- H_4: the internal organizational learning will have a positive influence on the quality of company's strategic asset portfolio

Functional capability can be achieved through the exchange process of functional experience, science and technology in alliance. The experience in manufacturing will be emphasized on new product development. The experience in marketing will be emphasized on the available product development to acquire an advanced pre-eminence through the development process. The argument of this research is supported by empirical study presented by Masaaki who explain that the greater intensive technical exchange with outsider would improve the business performance. Nevertheless, the knowledge transfer without being followed by technology transfer will have no significant effect on alliance business performance. This study is consistent with the investigation presented by Hamel who stated that the exchange of sorts of knowledge have not influenced the company performance yet. Based on the above-mentioned research, therefore, this research proposes Hypothesis 5:

- H_5: the external organizational learning will have a positive influence on company's strategic asset portfolio

Strategic asset and innovation: Research presented by Moorman and Miner investigate the impact of organizational memory on new product development and creativity. In this research, they conclude that knowledge plays an important role in leveraging new product development. Roger and Mingfang also continue the study presented by Moorman and Miner with the result that content learning in technology has a positive impact on product development. Nevertheless, the content learning in marketing has no significant impact on new product development. Through these investigations, it seems that there is vagueness in organizational learning influence on new product development.

Technology is vehicle product development and mode or manner technological partnering that is needed for access technology. The investigation that is similar with was also presented by Amit and Schoemaker (1993) who investigated technology as asset influence to new wealth creativity. Their investigation has concluded that efficiency factor, complement assets and novelty have a significant influence on new wealth creativity. According to the above investigation, therefore, this research proposed Hypothesis 6 as follows:

- H_6: the quality of Strategic asset has a positive influence on company's innovation strategy

Earlier research investigations introduced by Eisenhardt and Behnam proved that experimental strategy accelerates company's new product development. Capability and competency in experimental strategy is supported by the process of organizational learning in company. Organizational learning can be obtained from the learning experience in company and the experience from inter-functional teamwork.

Study on strategic alliance proposed by Sarkar supported the investigation introduced by Eisenhardt and Behnam. They discovered findings that a company that is very intense and proactive in alliance acquires advantage in market base superiority to improve performance.

Other investigation carried out by Helena *et al.* (2001) also supported the investigation presented by Sarkar *et al.* (2001). Those researchers made investigation on social capital, the internalization of knowledge and technology and its exploitation through organizational learning process. The result shows that organizational learning process has a positive impact on new product development.

Sources portfolio is the antecedence of innovation process. This innovation process is attained from the entrepreneur work which uses prospector strategy through scanning environmental and long range planning to identify opportunity (Miles and Snow, 1978). In compliance with Chandler's idea in 1990 which relates to organizational learning and economic of scale and scope, prospector strategy in Miles and Snow's in 1978 investigation (1978) tended to implement heavy investment in research and development as well as in the implementation of marketing concept. Prospector strategy will employ the source portfolio for creating change to put the market position strength through innovation. Prospector strategy that employs this source portfolio is also used to develop technology, operational process and market research to attain new product. By integrating the novel ideas with the result of internal organizational learning, prospector strategy puts up market and technological disruption to enhance barrier to entry for the continued competitive superiority.

Investigation on pharmaceutical industry presented by Rothaermel and Deeds (2004) has also concluded that product development through innovation has a positive impact on business performance. Business performance in this research was measured by lag indicator financial index from Return on Equity (ROE). Meanwhile, the product development is measured by lag indicator of a number of new products owned by company.

Environmental adaptation process through the organizational learning process on fast-paced environment is still the pivotal strategic competency for the most of company organization (Eisenhardt and Behnam, 1995). The adaptation process will accelerate the innovation process. Through the more intensive organizational learning, thus the innovation process will run smoothly. Eisenhardt and Behnam (1995) stated that company who postpones entering market in 6 months from budget will suffer losses 33% than a company who enters market on schedule. In other side, company who enters market on time or 50% earlier from budget will only reduce profit 4%. How a company can accelerate product development is the research topic of innovation policy. Based on the earlier research, therefore, this research proposes the Hypothesis 7 as follows:

- H_7: external organizational learning executed in company has positive influence on the quality of company's innovation strategy

According to the studies proposed by Rothaermel and Deeds (2004), they conclude that innovation strategy is affected by strategic asset combined with the external and internal organizational learning. In their studies, it is stated also that innovation strategy develops business performance. This discovery was also supported by the study investigated by Hao which affirmed that internal learning relates to internal capability improvement in accordance with competencies in marketing and operational in inter-functional teamwork. At the same time, the external organizational learning emphasizes on new product development through innovation.

MATERIALS AND METHODS

Unit research consists of companies who perform strategic alliance with other companies in pharmaceutical industry in Indonesia. This research unit consists of owner and director, top-level company manager which were represented by marketing manager, production and business development manager, research and development manager. The owner and executive of that company can represent their views, attitude and behavior of company in executing strategic alliance in the development of Strategic asset to obtain the continued competitive superiority (Howell, 1987). This industry is an interesting topic to be studied since of the competitive environment is fairly intense and this industry plays quite important role in economy sector, especially in public health.

Measurement of research instrument which relates to concepts or latent variable should meet the standard requirements of validity and reliability that have been used by many researchers. The measurement of variable is analyzed in composite by considering the error composite variable (ξ) in value of (1-construct reliability)which is multiplied with composite variance. The strong explanation of composite variable (λ) is in value of the square of construct reliability that is multiplied with the deviation standard of composite variable. The measurement of composite variable is presented as follows.

Alliance quality: The questionnaire consists of 8 items. Six items have factor loading >0.5, therefore, 2 items cannot be included as the indicator. The loading factors score and factor score weights are as follows in Table 1.

Table 1: Loading factors and factor score weights for alliance quality

Indicators name	Loading factors	Factor score weights	Construct reliability
Transparency 1	0.63	0.082	Cr = 0.82836
Transparency 2	0.84	0.246	$\alpha = 0.8175$
Relationship1	0.56	0.054	$\xi = 0.149$
Relationship1	0.56	0.055	$\lambda = 0.8484$
Commitment	0.80	0.179	
Risk-sharing	0.59	0.074	

Table 2: Loading factors and factor score weights for internal organizational learning

Indicators name	Loading factors	Factor score weights	Construct reliability
Cross-training	0.81	0.156	Cr = 0.85166
Feedback	0.87	0.258	$\alpha = 0.7957$
Certainty	0.60	0.089	$\xi = 0.132$
implementation feedback			$\lambda = 0.872$

Quality alliance's composite reliability was tested with construct reliability (internal reliability) in the amount of 0.82836. Based on the score of loading factor and the number of coefficient of reliability, the 6th questions are considered of having good validity and reliability for the alliance quality construct. Alliance quality variable were compositely measured by testing factor score (composite variable) using factor score weights for each indicators as seen in Table 1.

Internal organizational learning: The questionnaire consists of 4 items. There is 3 point of questions that has loading factor >0.5 and 1 item is excluded as indicators of internal learning. The loading factors score and factor score weights to test composite variable are presented as follows (Table 2).

This construct's composite reliability was tested with construct reliability in the amount of 0.85166. It is almost equal and is considered under estimated if the composite reliability was tested with Cronbach's alpha (0.7957) and corrected item to total correlation is sufficiently significant. Based on the score of loading factor and the number of coefficient of reliability, the three questions are considered of having good validity and reliability for the internal organizational learning construct. Internal organizational learning variable is measured by using factor score by weighing each indicator as seen on Table 2.

Colaborative or external organizational learning: The questionnaire consists of 5 items of questions. Among those questions, there are 3 items that have the loading factor >0.5 and 2 questions are not included in the indicators of external organizational learning. The score of loading factor and factor score weights to test the composite variable are presented on Table 3 as follows.

This external organizational learning's composite reliability was tested with construct reliability in the amount of 0.69855. It is almost equal to and considered under estimated if the composite reliability was tested with Cronbach's alpha (0.6951). These two reliability tests result shows that the three points of questions have good different level from external learning construct. Internal organizational learning variable is measured by using factor score by weighing each indicator as seen on Table 3. This calculation process is done to make multiple indicators become single indicator.

Table 3: Loading factors and factor score weights for colaborative organizational learning

Indicators name	Loading factors	Factor score weights	Construct reliability
Long term orientation	0.63	0.203	Cr = 0.69855
Communication activity	0.65	0.201	$\alpha = 0.6951$
Involvement	0.69	0.244	$\xi = 0.143792$
key-customer			$\lambda = 0.577242$

Table 4: Loading factors and factor score weights for strategic asset quality

Indicators name	Loading factors	Factor score weights	Construct reliability
Cost-driver	0.61	0.118	Cr = 0.806235
Unique	0.71	0.176	$\alpha = 0.7965$
Substitution	0.74	0.183	$\xi = 0.241$
Profit-generator	0.79	0.301	$\lambda = 1.045$

Table 5: Loading factors and factor score weights for innovation strategy

Indicators name	Loading factors	Factor score weights	Construct reliability
Research	0.92	0.372	CR = 0.930198
New-product-dev	0.91	0.335	$\alpha = 0.9308$
Launching-early	0.88	0.230	$\xi = 0.185324$
			$\lambda = 1.578$

Strategic asset quality: The questionnaire consists of 5 items of questions. But, there are only 4 items that have the loading factor >0.5, therefore, one questions is not included in the indicators of strategic asset quality. The score of loading factor and factor score weights to test the composite variable are presented on Table 4 as follows.

This construct's composite reliability was tested with construct reliability in the amount of 0.806235. It is almost equal to and considered under estimated if the composite reliability was tested with Cronbach's alpha the score is 0.7965 (under estimate). According to this composite reliability measurement, indicator of this latent variable is significantly different for each company. Strategic asset quality variable is measured by using factor score by weighting each indicator as seen on Table 4.

Innovation strategy: Respondent were asked to answer 5 questions in the questionnaire. Thus, only 3 question that have loading factor >0.5. The score loading factors and factor score weights for market orientation loading factor and factor score weights to test the composite variable are presented on Table 5 as follows. The

Table 6: Loading factors and factor score weights for market orientation

Indicators name	Loading factors	Factor score weights	Construct reliability
Customer-orientation	0.84	0.120	CR = 0.874337
Competitor-orient	0.68	0.056	$\alpha = 0.86722$
Responsiveness	0.97	0.724	$\xi = 0.169$
			$\lambda = 1.084$

composite calculation makes innovation strategy as an observation variable with representative single measurement.

This construct's composite reliability was tested with construct reliability in the amount of 0.930198. It is almost equal and is considered under estimated if the composite reliability is applied with Cronbach's alpha; the score is 0.9308 (under estimate). Based on this construct reliability index, innovation strategy's indicator have sufficiently good differentiator instrument. Innovation strategy variable is measured by using factor score by weighing each indicator as seen on Table 5.

Market orientation: Respondent were asked to answer 5 questions in the questionnaire. Thus, only 3 question that have loading factor >0.5. The correlation of each question on all of the questions is sufficiently significant. Thus, the three questions are individually adequate in measuring the market orientation. The score of loading factor and factor score weights to test the composite variable are presented on Table 6 as follows. The composite calculation makes innovation strategy as observation variable with representative single measurement. The composite reliability is measured by using construct reliability index; the score index will be 0.8743.

If the composite reliability was tested with Cronbach alpha gives not much different score, thus, it is 0.8672 (under estimate). According to the score of loading factor and Cronbach alpha index, the three questions have sufficiently valid, consistent and have fairly good differentiator in measuring market orientation. Market Innovation variable is measured by using factor score (composite variable) by weighing each indicator as seen on Table 6.

RESULTS AND DISCUSSION

Hypothesis testing is implemented to test the significance of research model parameter. Before we estimates parameter model, we need to evaluate goodness of fit of model, thus the estimates parameter result will meet the statistic norms that is necessarily fulfilled as well as the additional norms such as custom and simplicity in study. Data processing for assessing the goodness of fit model and parameter estimates is presented in Fig. 1 as follows.

Estimation of the parameter research modeling that is implemented by using two steps approach sequential

Table 7: Result of testing research hypothesis

Hypothesis	Estimate β	SE β	CR	Prob. value
External learning<--strategic alliance	0.476	0.189	2.519	0.012
External learning<--mark orientation	0.360	0.184	1.960	0.050
Strategic asset<--internal learning	0.421	0.118	3.573	0.000
Strategic asset<--external learning	0.271	0.218	1.414	0.157
Strategic asset<--strategic alliance	0.080	0.220	0.274	0.784
Innovation development<--external learning	0.194	0.220	0.884	0.377
Innovation development<--strategic asset	0.271	0.188	-0.246	0.040

equation modeling is relatively representative to explain and analyze the structural and causal real phenomenon in developing the performance of pharmaceutical business in Indonesia. The feasibility of this model is presented by the absolute goodness of fit χ^2 (2.889) or it's probability (p = 0.715), the comparative index from Tucker Lewis (0.995), the simplicity index of ratio parsimony ratio (0.238) and root mean square error adjusted (Rmsea = 0.001). This processing data result is employed to test hypothesis which is implemented by looking at the critical value of statistic numbers and probability numbers as presented as follows.

By looking at those statistic numbers Table 7 thus, this research concludes that improvement of the quality strategic innovation will be reached by developing quality strategic asset. The development of strategic asset is carried out through the internal organizational learning process (exploitative learning) which is also supported by external organizational learning process (explorative learning), even it is not relatively significant but it has fairly great influence. The development of strategic asset is not directly influenced by the quality of strategic alliance but it is indirectly affected by external organizational learning process. The external organizational learning will be acquired from the collaboration with supplier, distributor and the role of key customer. Market-oriented culture affects the external organizational learning process in order to develop Strategic asset quality owned by company to induce market performance. If the researcher does not involve market-oriented culture, thus the alliance quality and organizational learning do not play much role in developing the quality of strategic asset. The direct development of strategic asset will have impact on business performance and innovation strategy. The internal and external organizational learning processes as well as market-oriented culture will indirectly influence the innovation strategy that is an important role in this study. This empirical research continues the study presented by Rothaermel and Deeds (2004) by identifying and analyzing the causal relationship of organizational learning, strategic asset quality, strategic alliance, innovation strategy and market-oriented culture to improve the business performance. This research model is not much different from the research model presented by Rothaermel and Deeds (2004), Rothaermel (2001). They used the variables

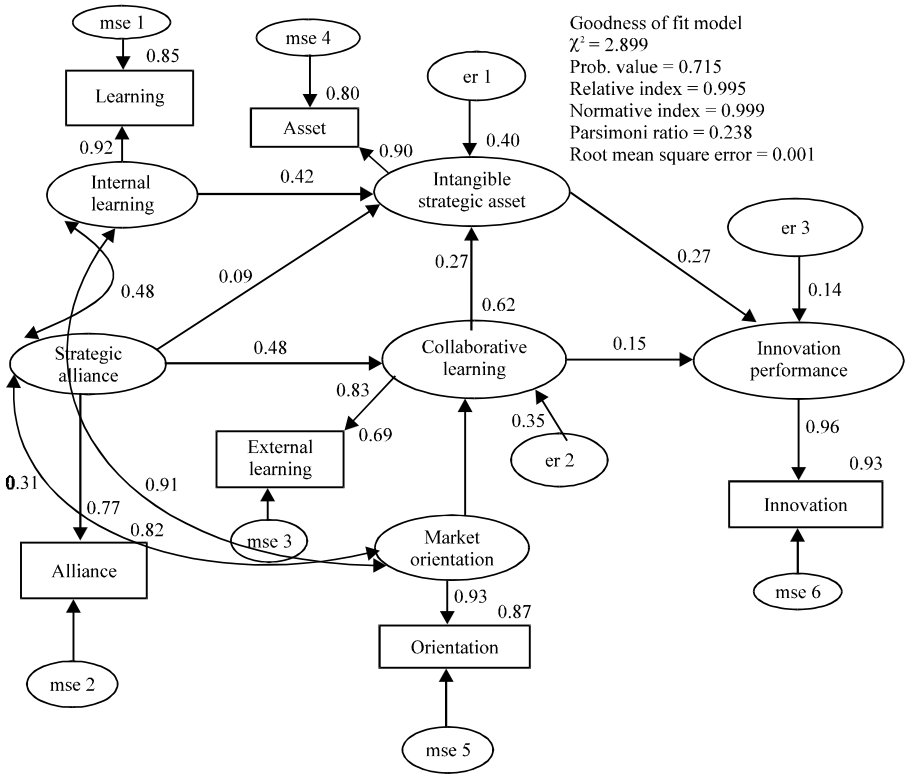

Fig. 1: Graphical output estimation of the empirical parameter model by two stage SEM

of exploitative and explorative alliances in new product development whereas it had not much supported that new product development. This is caused by alliance strategic which did not much give great support to the organizational learning process due to negative effects of cheating, holdup and moral hazard.

Business strategy in Indonesian pharmaceutical industry for gaining competitive advantages is implemented by differentiated product through process innovation. Strategic differentiation depends on competency from developing new product and improvement of existing products. These competencies are acquired by learning organization, strategic alliance and building market orientation culture. Internal learning organization will improve strategic asset while external organizational learning does not improve innovation strategy. It is because this organizational learning may not create synergy effects. Building strategic alliance in corporate strategy must be designed to improve learning process.

Strategic assets are developed from internal organizational learning process as a growth factor that can be done by applying cross function project team, cross function training program and effective feedback system. Innovation development is conducted by enhancing strategic asset quality and strengthening the external organizational learning that can be described by feedback system, communication and long-term orientation. External organizational learning can be well employed if the firm has strong market orientation culture that is demonstrated by the responsiveness on customer need, competitor strategy and dynamical environmental change.

External organizational learning can also be well developed if the firm establishes the building of strategic alliance with the suppliers, distributors and key customer that can be described by good relationship with the suppliers and distributors, commitment to work together, risk share in sebagaithe cooperation and a quality strategic asset. Nevertheless, this research does not support this proposition. Thus, this phenomenon will become interesting for further research. Besides that the important role of the external organizational learning is its effect on innovation indirectly through enhancing or improving quality of strategic asset. The successful innovation is represented by creativity, product development and how fast launching product is achieved.

CONCLUSION

In accordance with that research gap, subsequently, the research on innovation and strategic asset to improve pharmaceutical business performance in Indonesia

becomes an interesting topic. This research is intended to build research model in asset development and innovation in order to improve pharmaceutical business performance in Indonesia.

IMPLICATIONS

From this result of research, it is recommended that to win the competition of Indonesian's pharmaceutical industry, it needs innovation strategies, reflected in research activities, new product developing and launching to market. Those activities need prominent competence which is reflected as unique and unplanted long term profit generator. This competence may be obtained through the process of internal organizational learning as growth generator and external organizational learning as the trigger of social entrepreneurship creativity.

The development of market orientation is built through customer focus, flexibility and responds to competitors' strategies. This market orientation culture will encourage the external organizational learning activities. Alliance strategy plays an important role in organizational learning activities to explore the complement resources by cooperation with the supply chain to win the strategy in business competition.

LIMITATIONS

This research uses the survey method that is roughly estimated in real condition phenomena. This parameter research estimation become the weakness that is indicated by relatively low squares multiple correlation. This research will be very applicable if case study is conducted to certain firms and explorative study concerning strategic behavior on firm's operation. An environmental factor should get the attentions for these factors have important moderating role in strategic review. Certainly, the factor from environment should be well decided, so that the factor would be able to explain the difference of the successful firm from the unsuccessful one.

REFERENCES

Amit, R. and P.J.H. Schoemaker, 1993. Strategic assets and organizational rent. Strategic Manage. J., 14: 33-46.

Banerjee, S. and S.K. Dash, 2011. Factors influencing scope and acceptability of E-detailing as a pharmaceutical marketing communication tool in emerging economies like India: Views of the company personnel. Int. J. Pharm. Healthcare Marketing, 5: 153-168.

Barney, J.B., 2001. Is the resource-based view a useful perspective for strategic management research?. Yes. Acad. Manag. Rev., 26: 41-56.

Barney, J.B., 2002. Gaining and Sustaining Competitive Advantage. PrenticeHall, New Jersey.

Donald, S.L. and J.D. Kasarda, 1992. State of the Art of Entrepreneurship. PWS-Kent Publishing Company, Boston, Germany,.

Farrell, M.A., 2000. Developing a market-oriented learning organisation. Aust. J. Manage., 25: 201-223.

Garvin, D.A., 1993. Building a learning organizations. Harvard Bus. Rev., 71: 78-91.

Hamel, G., 1991. Competition for competence and interpartner learning within international strategic alliances. Strat. Manage. J., 12: 83-103.

Hanaysha, J. and H. Hilman, 2015. Strategic effects of product innovation, service quality and relationship quality on brand equity. Asian Soc. Sci., 11: 56-72.

Howell, R.D., 1987. Covariance structure modeling and measurement issues a note on Interrelations among a channel entitys power sources. J. Market. Res., 24: 119-126.

Kara, A., S.A. Syed, T. Mehmet and C. Cerad, 2013. An examination of the effects of adaptive selling behaviour and customer orientation on performance of pharmaceutical sales person in emerging market. J. Med. Marketing, 13: 102-114.

Rothaermel, F.T. and D.L. Deeds, 2004. Exploration and exploitation alliances in biotechnology: A system of new product development. Strategic Manage. J., 25: 201-221.

Rothaermel, F.T., 2001. Incumbents advantage through exploiting complementary assets via interfirm cooperation. Strategic Manag. J., 22: 687-699.

Sari, W. and J.B.M.P. Theo, 2003. An investigation into factor influencing international strategic alliance process. Gadjah Mada Int. J. Bus., Vol. 5,

Shaar, E.M.A., S.A. Khattab, R.N. Alkaied and A.Q. Manna, 2015. The effect of top management support on innovation: The mediating role of synergy between organizational structure and information technology. Int. Rev. Manag. Bus. Res., 4: 499-499.

Voss, G.B. and Z.G. Voss, 2000. Strategic orientation and firm performance in an artistic environment. J. Market., 64: 67-83.

Whittaker, E. and D.J. Bower, 1994. A shift to external alliances for product development in the pharmaceutical industry. R. D. Manag., 24: 249-260.

Witt, U., 2002. How evolutionary is Schumpeters theory of economic development?. Indu. Innovation, 9: 7-22.