

THE ROLE OF ENVIRONMENTAL ADAPTABILITY COMPETENCY ON INCREASING THE PERFORMANCE OF PHARMACEUTICAL COMPANIES IN INDONESIA

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ABSTRACT

This research aimed at filling the gap in the research of tactical generic strategy which is relatively hard to find in pharmaceutical industry. The research method used multi group sequential equation modeling with top managers from 106 companies as the research samples. Those samples were from 225 pharmaceutical companies in Indonesia. The results of the research concluded that increasing the companies' performance needed four (4) concepts; 1. Culture development of market orientation, 2. Organizational education, 3. The quality of strategic asset, and 4. Innovation. If the company has a high environmental adaptability competency, it will be recommended to develop drug products with prescription (ethical drugs). On the other hand, if the company has a low environmental adaptability competency, it will be recommended to develop over trading counter drugs with an innovative ability.

INTRODUCTION

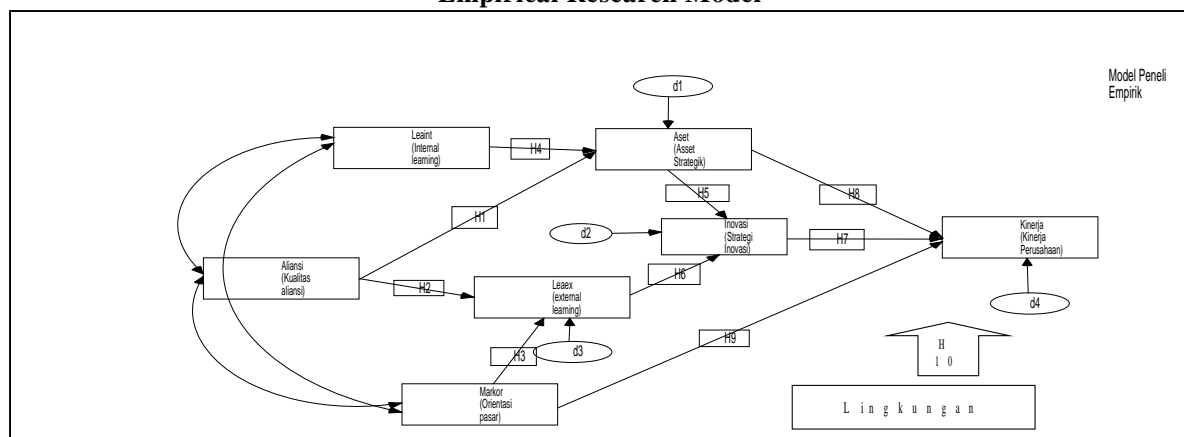
The research focused on market orientation culture, organizational learning process, strategic asset, innovation and companies' performance in their relation with environmental adaptability competency as a variable of moderation, in line with research gap which was found in the exploration study as well as a business phenomenon that is related to the company-low competitiveness (Eshaq M Alshaar, Shady Ahmad Khatab, Raed Naser, Alkaled and Abdelkareem Q, 2015). The research gap was related to behavioral aspect or tactical aspect strategy. They were mediating factors to bridge the market orientation culture, organizational learning process and the strategic alliance with improving corporate performance that have not uncovered yet (Powel, 1998; Thomke and Kuemmerle, 2002; Rothaermel and Deeds, 2004 Obasi Akan Alien, helms Spralls, 2006)

The competitive advantages can be obtained by creating value and uniqueness that were difficult to be adapted from the portfolio of the corporate sources. They could be developed by a strategic alliance and organizational learning process. The uniqueness of this portfolio was due to a joint asset or joint activity among the corporate. Those activities were to handle the process of organizational learning in order to obtain the synergic effect that was impossible to get if asset and capability were used individually by the corporate.

1. Research Model and Results of Hypothesis Examination

Based on research gap which was related to strategic asset, innovation and organizational learning, this research try to solve the problem "How to develop continuous competitive advantages to improve the performance of a company within the framework of moderating influence of environmental adaptability. To response the above matter, ten (10) hypotheses that were summarized in the model of tiered causality by including moderation effect were presented below:

**Figure 1
 Empirical Research Model**



Source : The Result of development of research model

Empirical Research Model

The model of this research was a tiered causality research which introduced the effect of environmental moderation. This responded the effect of contingency of the environmental adaptability competency in the study of corporation strategy study. The objects of this research were pharmaceutical companies in Indonesia. The research populations were 225 companies with the top managers as the respondents. One (1) respondent represented one company. Response rate from the research was 56%, consisted of 20 foreign companies, 7 state-owned enterprises, and 94 national private companies. The measurement of variables compositely handled by using factor score weight obtained from confirmatory factor analysis. The research instrument arranged by using semantic differential scale with anchor (range from 1 to 10), and then it was sent by post. The research instrument testing had been handled. The first was to test response bias, then continued with the test of validity and reliability of the instrument, as well as construct or concept.. the result of the measurement was composite, the corrected as $(1 - \text{construct reliability}) \times \text{variance}$ (Frone and Lyne, 1992) and the result of the measurement presented in the following table:

Table 1
Description of Research Data

Variable	Range	Average	Variance	Skewness
Alliance Quality	4.02	5.1468	0.869	-0.765
Internal Learning	4.13	3.6006	0.893	-0.971
External Learning	2.89	5.1430	0.477	-0.216
Strategic Assesst	6.83	4.7426	1.245	-0.313
Innovation	8.44	5.7251	2.680	-0.402
Market Orientation	4.44	6.9982	1.346	-0.483
Company Performance	7.03	4.8786	1.862	-0.436

Source: The processed research data

The culture of market orientation in pharmaceutical industry is quite good, but it still not followed by the learning and growth. The consequence is the innovation as competitive weapon plays less role in winning the competition. The quality of strategic alliance and innovation are still in the low category, while in the organizational internal learning is also still alarming among the pharmaceutical companies in Indonesia.

The parameter prediction in the research hypotheses and moderation effect examination use Amos program with Multi Group Sequential Equation Modeling. It is presented in the following table:

Table2
Coefficient Regression of Standardized Research Model

Empirical Research Hypothesis	Ungrouped Data	Low Adapted Group	High Adapted Group
1. Asset \leftarrow Alliance	0.237 *	0.107	0.323 *
2. Eks. Learning \leftarrow Alliance	0.340 *	0.300	0.350 *
3. Eks. Learning \leftarrow Market Or	0.338 *	0.360 *	0.311 *
4.asset \leftarrow Int. Learning	0.373 *	0.374 *	0.352 *
5. Innovation \leftarrow Asset	0.260 *	0.066	0.389 *
6. Innov. \leftarrow Eks. Learning	0.134	0.104	0.067
7. Performance \leftarrow Innovation	0.278 *	0.330*	0.162
8. Performance \leftarrow Asset	0.214 *	0.145	0.282 *
9. Performance \leftarrow Market Or.	0.192 *	0.125	0.299 *

Source: Output of Amos Processed Data

- *) effected in the significant level of 0.05

Research Hypotheses Examination

Hypothesis 1

The quality of strategic alliance positively influences on the quality of owned strategic asset.

The result of empirical examination shows that the better the quality of strategic alliance, the better the portfolio of strategic asset. Physical and non physical asset (capability and competency) are included here.

It means that the more transparent and the higher the commitment are, the better the quality of asset will be. The examination of moderation effect on environmental adaptability competency (hypothesis 10) concludes that the lowness of environmental adaptability competency will decrease the quality of alliance on the owned strategic asset. On the other hand, if the environmental adaptability competency is high, it will strengthen the effect of alliance quality on strategic asset competency quality.

Hypothesis 2

The quality of strategic alliance positively influences the external organizational learning process.

The result of empirical examination of hypothesis 2 concludes that the better the quality of strategic alliance is, the better the process of external organizational process will be. It is reflected in the long term strategic orientation, feedback handling from the consumers and active communication with the suppliers. If the result of this examination is related to the role of environmental adaptability competency as moderation variable, then it can be concluded if the level of environmental adaptability is low, it will decrease the influence of alliance quality on the external organizational process. On the other hand, if the intensity of environmental adaptability competency is high, it will increase the influence of strategic alliance on the external organizational learning process.

Hypothesis 3

The culture of market orientation positively influences on the external organizational learning process.

The result of hypothesis examination concludes that the bigger interest in learning competition trend, competitor strategic, and inter function coordination are, the more improved the external organizational learning will be. If it is related to the moderation effect of environmental adaptability competency, it can be concluded if the level of environmental adaptability is low, it will increase the influence of market orientation culture. So that it will increase the spirit of external organizational learning. However, the environmental adaptability competency is high, the market orientation will not increase the external organizational learning process.

Hypothesis 4

The internal learning process positively influences on the quality of strategic asset owned by companies.

The result of the significance of internal learning causality effect on the strategic asset concludes that the more assignment, inter function training, and employers' suggestion are done, the better strategic asset will be. If it is related to the moderation effect of the environmental adaptability competency (hypothesis 10), it can be concluded if the level of environmental adaptability is low, it will strengthen the internal organizational learning effect on the quality of strategic asset. However, the environmental adaptability competency is high, it will weaken the internal organizational learning effect on the quality of strategic asset.

Hypothesis 5

The quality of strategic asset positively influence on a handled-innovation strategy.

The result of the significance of coefficient regression concludes, if the better strategic asset owned by the companies, the faster the new product launching will be.(innovation effectiveness is more improved). If the level of environmental adaptability is low, it will weaken the effect of the strategic asset quality on adoption, development, and launching new products. However, the environmental adaptability competency is high, it will strengthen the effect of the strategic asset quality on adoption, development, and launching new products.

Hypothesis 6

The process of external organizational learning process positively influences on a handled-innovation strategy.

The result of this empirical examination cannot prove the research hypothesis. The conclusion shows that the process of external organizational learning has not motivated adoption, development, and launching new products yet. It is proved that the cooperation between suppliers and distributors does not give any contribution in innovation. If the level of environmental adaptability is low, the process of external organizational learning motivates the improvement process supported by market orientation. If the level environmental adaptability competency is high, the process of external organizational learning does not play an important role in the development of innovation strategy. However, the environmental adaptability competency is low, the effect of innovation will increase the companies' performance.

Hypothesis 7

The innovation strategy that is done has a positive influence on companies' performance.

The examination result of the significance of innovation causality effect on companies' performance is also significantly proved. The conclusion shows that adoption, development, and launching new products influence the companies' performance. If it is related to the role of environmental adaptability competency, it can be concluded that the highness of environmental adaptability competency level, innovation will weaken the companies' performance.

Hypothesis 8

The quality of strategic asset owned by the company positively influences on companies' performance.

The result of empirical examination has been proving the significance of strategic asset effect on the companies' performance. The result shows that the development of resources, capability and competency in the portfolio will improve the companies' performance. If the level environmental adaptability competency is high, it will strengthen the influence of asset on the companies' performance. On the other hand, if the environmental adaptability competency is low, the influence of strategic asset on the companies' performance is weaken.

Hypothesis 9

The culture of market orientation positively influences on the companies' performance

The result of empirical examination proves that there is an influence of market orientation on the companies' performance. It means that the culture of forward looking on the industry trend always learns the strategy of competitors, inter function coordination. They will motivate a better companies' performance. If it is related to the examination result of moderation effect, this research concludes, if the role of environmental adaptability competency is high, it will strengthen the influence of market orientation culture on the companies' performance. On the other hand, if the environmental adaptability competency is low, the influence of market orientation culture will weaken.

Hypothesis 10

The environmental adaptability competency moderates equality structure which influences external learning, strategic asset, innovation, and companies' performance.

The result of empirical examination shows that there is an influence of environmental moderation on the structure of causality relationship in the research model. The conclusion is based on the examination of different coefficient regression in the structure of regression equality on the low and high level of environmental adaptability competency and the result of goodness of fit index evaluation between base line model (constraint given) and alternative model (without constraint) based on invariance model distribution². (Frone et al., 1992). The study of moderation examination result on environmental adaptability competency has already presented briefly in the hypotheses 1 up to 9.

THE RESULTS OF THE RESEARCH

Based on the model of the research and the result of hypothesis examination It explains that to increase the pharmaceutical companies' performance needs three (3) steps i.e., first, the development of external organizational learning process, second, the development of strategic asset quality, third, the development of innovation. The important factors are systematically tracked using the model of structured tiered equality with standardized data model. The influence of each variable can be seen from the direct effect, indirect effect, and total effect using value added analysis. From the data process of tiered equality model is presented in the following table 3:

Table 3
The Resume of the Research Result and Map Tracking of Causality Effect

Before data grouped					The Intensity of Low Adaptability Competency					The Intensity of High Adaptability Competency				
Depend. Var Indep. Var	4.	5.	6.	7.	1.	4.	5.	6.	7.	2.	4.	5.	6.	7.
1. Leaint		S	K	S	1.		C	C	D	1.		C	I	C
2. Markor	S		S	S	2.	C		C	C	2.	C		C	C
3. Aliansi	S	S	S	K	3.	C	D	D	C	3.	C	C	C	I
4. Leaex			S	K	4.			C	C	4.			D	C
5. Aset			S	S	5.			D	C	5.			C	C
6. Inovasi				S	6.				C	6.				C

Source: The result of development for research

Notes:

T = High

D = Decreasing Depend.

Var = Dependent Variable

S = Averaga

I = Increasing Indep.

Var = Independent Variable

K = small

C = Relatively constant

C red = relatively decreasing

C hijau = relatively increasing

S = insignificant

The increasing performance of pharmaceutical companies in Indonesia needs to increase strategic asset, organizational learning, and innovation as strategic attitude (tactic aspect) leads to the increasing of companies' performance. In the high level of environmental adaptability competency, the asset development and market orientation are the most important aspect. They are supported by internal learning and the quality of strategic alliance to develop ethical drug. But in the low level of environmental adaptability competency, the development of generic drugs innovation supported by internal and external organizational learning process is become the main factor. The most important role in the process of external learning is the quality of strategic alliance and market orientation.

CONCLUSIONS

Based on the above hypotheses examination and by knowing the direct and indirect influence, it can be concluded that:

1. The increasing performance of pharmaceutical companies in Indonesia needs to increase the quality of strategic asset which is developed from internal learning proses.
2. The increasing performance of pharmaceutical companies in Indonesia needs to increase the quality of strategic asset which is supported by the increasing quality of strategic alliance.

3. The increasing performance of pharmaceutical companies in Indonesia needs to increase innovation through the development of strategic asset which is supported by internal learning process..
4. The increasing performance of pharmaceutical companies in Indonesia needs innovation as the result of the development of strategic asset through the increasing of strategic alliance.
5. If the the adaptability competency is low, the increasing companies' performance is from the development of innovation by external organizational learning process that is supported by strategic alliance.
6. If the adaptability competency is low, the increasing companies' performance is from the development of innovation by external organizational learning process that is supported by market orientation culture.
7. The pharmaceutical companies that have a high adaptability competence on increasing the companies' performance needs the increasing of market orientation culture.
8. The condition of a high adaptability competency, internal organizational learning, and the quality of strategic alliance indirectly influences innovation and companies' performance.
9. If the adaptability competency is high, increasing the companies' performance needs the asset strategic quality which is supported internal learning and the quality of alliance strategic.

Theoretical and Managerial Implication

The results of the research support the growth theory. This theory explains that the advantages in economic values (*Rente*) can be continuously obtained by creating isolating mechanism through the activity of organizational learning to reach improvement (Edith Penrose, 1959, Rumelt, 1987, Barney, 2002). The increasing of experiences and innovator fungsional competence also influence companies growth by innovation improvement (Lambkin, 1988; Eisenhard et al.,1990).

The companies' growth theory has not empirically supported by external learning process, so it has not created innovation yet. It mainly happens to the companies that have a high adaptability competency. Consequently, they have not been capable to create innovation. It is predicted because of dysfunctional organizational learning process, and opportunistic behaviour and also moral hazard. The organizational learning process which is presented by Crossan dan Berdrow (2003) includes the activity of intuiting, interpreting, integrating and institualization (**4 I**). It is still far from proportional. The results of the research supporte the theory of transcation cost and theory of Resources Base Company. The implementation of the research result is, if the company has a high adaptability competency, it is suggested to develop *ethical drug* which is supported asset quality. It is obtained from the collaboration and internal organizational learning.. On the other hand, if the company has a low adaptability competency, it is suggested to develop generic drugs (*over trading counter*) by doing an external organizational learning and mainly supported by market orientation culture and the increasing of alliance quality.

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