

THE DEVELOPMENT STRATEGY OF SUSTAINABLE COMPETITIVE ADVANTAGE AT INDONESIAN PHEIs

Dr. M Yusuf S Barusman, MBA

Bandar Lampung University, Lampung, Indonesia

Coressponding email : yusuf.barusman@yahoo.com

Abstract

The competition among higher education institutions in Indonesia has been becoming tougher since a decade ago, especially in new student enrollment period. This phenomenon is very interested to be studied because PHEIs (PHEI), which had operated less or more than ten years, could hold out in the situation. The objectives of this research are to analyze the determining factors that influence the sustainability of the PHEIs (PHEI), to analyze future scenarios regarding dynamic of external environment of PHEIs (PHEI), and to develop the best strategy to face the most possible scenario occurred. Data collection was done by textual analysis, in-depth interview, focus group discussion and questionnaire. Data was analyzed descriptively through Analytical Hierarchy Process (AHP), Participatory Prospective Analysis (PPA) and Exponential Comparison Method (ECM). The study finds that there are four internal and five external determining factors that influence sustainability of PHEIs. In addition, there are 72 scenarios concerning the dynamic of external environment that could be happened in the future. To overcome the most possible scenario that could be happened in the future, PHEIs could develop strategy by combining the main internal factor, namely leadership effectiveness, financing availability, effectiveness of human resource management and curriculum relevance.

Key words: PHEI, sustainability, alternative scenario, strategy development

1. INTRODUCTION

The research to figure out the causal factors for the organization to survive in a very long term has been conducted by many scholars. So far, there are four paradigms that can explain this matter (Teece et al, 1997). First is the dominant paradigm during 80's namely competitive approach developed by Porter (1980). The second is strategic conflict approach (Shapiro, 1989). The third is the resource-based view (RBV). The latest approach which is developed from RBV theory is dynamic capabilities.

Private Higher Education Institution (PHEI) is one of the organizations facing the major challenges related to its sustainability in a very dynamic and more competitive environment. It can be noticed in every new academic year when the State or PHEIs recruit their new students. There are 3.103 of higher education organizations in Indonesia comprising of 2.67 percent of State Higher Education Institutions and 97.33 percent of PHEIs as noted by the Directorate of Academic, Directorate General of Higher Education in 2010.

More stringent competition among PHEIs exists particularly in Coordination of Private Higher Education Region II covering the South Sumatera area, Bangka Belitung, Lampung and Bengkulu. Five forms of Higher Education Institutions (university, college, institute, academy and polytechnic) in Coordination of Private Education Region II compete one another to gain new students in order to survive in such dynamic environment. The impact of the competition obviously turns up at university level which sums of 11.59% and it is indicated by the existence of private universities operated for more than 10 years of age.

Private universities which are operated for more than 10 years (established up to 2000) and less than 10 years (established in 2001 to 2010) in Coordination of Private Universities Region II have their own advantage so that they can survive. Private universities established by 2000 are prime in managing the undergraduate program (S1 degree) in which the average number of students is 286 per study program and graduate program (S2 degree) with the average number of 113 students per study program. Meanwhile, the private universities established in 2001-2010 are excellent in managing diploma 3 (D3) program in which the average number of student is 65 per study program. The contradicted condition among PHEIs in facing the dynamic environment is an interesting issue to be studied including: 1) what are the determining factors of the sustainable competitive advantage at PHEIs, 2) how is the future scenario of PHEIs and 3) how is the development strategy of sustainable competitive advantage of PHEIs to face the external dynamic factor?

The purposes of this study are to (1) identify the determining factors affecting the sustainable competitive advantage of PHEIs, (2) analyze the future scenario of PHEIs and (3) build the organization strategy of PHEIs to develop the strategy of sustainable competitive advantage.

2. RESEARCH METHOD

This study was designed for the purpose mainly to the development of sustainable competitive advantage at PHEIs in Indonesia. The study used system approach as epistemological base especially Soft System Methodology, which is characterized by the use of various methods and technique. In addition, the study dependent more on synthesis rather than analysis, although the two ways of thinking were used simultaneously. This research was conducted in October up to December 2012 at some PHEIs located in Coordination of Private Education Region II. Seven private universities were selected as the object for this study, namely Bandar Lampung University, Malahayati University, Muhammadiyah Metro University, Tulang Bawang University, University of PGRI Palembang, Tridianti University and Bina Dharma University.

Data was collected through the textual analysis, in-depth interview, expert survey, focus group discussion and questionnaire. Meanwhile, the data analysis was descriptively done by using several tools including Analytic Hierarchy Process (AHP), Participatory Prospective Analysis (PPA) and the Exponential Comparatition Method (ECM).

3. RESULT AND DISCUSSION

Determining Factors of Sustainable Competitive Advantage

At Private Higher Education Institutions

Conceptually, the organization's sustainability of PHEI is influenced by the internal and external factors. Based on the result of textual analysis and in-depth interview with several PHEI experts, there were 24 factors identified that influence the sustainability of a PHEIs. They were divided into 11 external and 13 internal factors (Table 1). Although not all experts agree, however, it can be concluded that the inability of PHEI to adjust to the external changes becomes the main cause of PHEI failure to grow and develop or even closed. In addition to adaptability, the speed to respond both opportunities and threats is also considered as the important point in maintaining the sustainability of PHEI.

Considering the enormous number of identified external and internal factors, therefore, the selection of the factors affecting the sustainability of PHEIs is done (Table 1) and to be used for strategy arrangement. This factor selection is conducted to gain the main factors as determinants of the sustainability of PHEI. AHP method is used to select the determining factors affecting the sustainability of the PHEI based on certain weight of value to each factor. The critical value of weight used in this study is 0.3 as the minimum with the assumption that the value already reflects the adequate value and dominates among other factors.

Table 1. The result of the identified factors affecting the sustainability of PHEI

Factors affecting the sustainability of PHEI			
Internal organization		External organization	
1.	Availability of fund and finance	14.	Government policy on growth of Higher Education Institution
2.	Number of lecturers in Doctor and Professor level	15.	Total recruitment of new students of PHEI
3.	Availability of infrastructure	16.	Appearance of professional courses institute
4.	Relevance curriculum	17.	Number of high school graduates
5.	Accessibility of campus location	18.	Number recruitment of civil servants
6.	Implementation of quality management	19.	Unemployment rate
7.	Network	20.	Local and national economic growth
8.	Value and organizational culture	21.	Dynamic demand of industrial competence
9.	The effectiveness of information technology application	22.	Availability of qualified Master and Doctor lecturer's candidates.
10.	The effectiveness of leadership	23.	People perception of local PHEI
11.	Brand power or the name of the PHEI	24.	Technology development
12.	The effectiveness of marketing strategy	-	-
13.	The effectiveness of Human Resource Management strategy	-	-

AHP method is initiated by establishing a framework of hierarchical structure and defining sustainability of PHEI as the goal. The establishment of hierarchical structure in this case consists of focus, criteria and sub-criteria. The focus is the sustainability of PHEI, and as the criteria are internal and external factors. Meanwhile, the sub-criteria for the internal factors are the organization management, infrastructure management and finance as well as the academic management. The external factor criteria use three sub-criteria, namely the government policy, the economic and social environment. From the data processing results using the Expert Choice 11, five external and four internal factors as determinants of sustainability of PHEI are obtained. The internal factor determining the sustainability of PHEI are the leadership effectiveness, the availability of fund and finance, the effectiveness of Human Resource Management strategy and the relevance curriculum. Meanwhile, the external factors determining the sustainability of PHEI are the growing number of Higher Education Institution, local and national economic growth, the dynamics on industrial competence demand, the availability of qualified lecturers (master and doctor) candidates and public perception on local PHEI. The result of selected factors affecting the sustainability of PHEI using AHP method in more detail is presented in Table 2.

Table 2 The result of selected factors affecting the sustainability of PHEI using AHP method

Criteria*	Sub-Criteria	Factor		
Internal CI = 0,0068	Organization Management CI = 0,0535	0,332	1. Implementation of Quality Management	0,145
			2. Networking broadness	0,096
			3. Values and organization culture	0,231
			4. The effectiveness of leadership	0,321
			5. Brand power or name of PHEI	0,103
			6. The effectiveness of marketing strategy	0,104
	Infrastructure, Facility and Finance Management CI = 0,0148	0,189	7. Availability of fund and finance	0,475
			8. Availability of Infrastructure and Facility	0,262
			9. Accessibility of campus location	0,115
			10. The effectiveness of information technology application	0,148
	Academic Management CI = 0,0571	0,479	11. Number of qualified Doctor and Professor lecturers	0,294
			12. The effectiveness of Human resource Management strategy	0,375
			13. Relevance curriculum	0,332
External CI = 0,0099	Government Policy CI = 0,0000	0,392	14. Number of Higher Education Institution growth	0,734
			15. Number of new students recruitment of State Higher Education Institution	0,266
			16. Number of civil servant recruitment	0,065
			17. Attractiveness of course profession institution	0,095
			18. Unemployment rate	0,087
			19. Local and national economic growth	0,336
	Economic Environment CI = 0,0227	0,388	20. Dynamic demand of industrial competence	0,417
			21. Number of high school graduates	0,173
			22. Availability of qualified Master and Doctor lecturers candidates.	0,317
			23. public perception on local PHEI	0,352
	Social Environment CI = 0,0758	0,220	24. Technology development	0,158

Note: * CI Tota l= 0,0293, ** Selected factor as the determinant of PHEI sustainability

The Future Scenario of Dynamic External Environment of Private Higher Education Institutions

The organization's external factors of PHEI become the uncontrolled inputs that must be faced by PHEI. The dynamic of external factors need to be formulated so that PHEIs are able to anticipate the dynamic external environment precisely. Based on the result of focus group discussion as part of the implementation of Participatory Prospective Analysis (PPA) method, the future condition of any external factor affecting the sustainability of PHEI can be formulated. Government policy towards the growth of number of new Higher Education Institution has two conditions that are most likely to happen in the future, namely to encourage the

opening of Higher Education Institution (A1) and limit the opening of Higher Education Institution (A2). The dynamic demand on industrial competence towards the changing of graduate's competence resulted by PHEI have two conditions that are most likely to happen, namely to require higher competence (B1) and require ordinary competence (B2). The economic growth occurred at local and national level has three conditions that are most likely to happen in the future, they are rapid (C1), medium (C2) and slow (C3). Public perception on quality of PHEI compared to State and Foreign Higher Education Institution has three conditions that are most likely to happen in the future. The conditions are the quality of PHEI is better than State and Foreign Higher Education Institution (D1), the quality of PHEI is equal to State and Foreign Higher Education Institution (D2) and the quality of State and Foreign Higher Education Institution is better than the PHEI (D3). Meanwhile, the availability of qualified lecturer (master and doctor) candidates who are interested in becoming the relevant lecturer's candidate and linear with the needed study program has two conditions in the future. They are many (E1) and rare (E2). In more detail, the external factors conditions (state) affecting the sustainability of PHEI in the future are presented in Table 3.

Five external factors affecting the sustainability of PHEI have variety of conditions and resulted in a number of alternative scenarios of external factors conditions that happen in the future as shown in table 3. By considering the future condition of each external factor and the combination of five external factors, there are 72 alternative future scenarios from the external factors that can be arranged and might happen in the future affecting the sustainability of the organization of PHEI. As an example of alternative future scenario of A1-B1-C1-D2-E2 is the future where the existing government policy encourages the number of Higher Education Institution growth, the dynamics of industrial field demanding the graduates' competence of PHEI, local or national rapid economic growth, fixed public perception on PHEI quality compared to State and Foreign Higher Education Institution, the existing limited number of people with master and doctor qualification who are interested to be lecturer candidates and linear with the needed study program.

Table 3 The conditions of external factors affecting the sustainability of PHEIs in the future

Factor	Future External State		
	A1	A2	
A	(Encourage to open Higher Education Institution)	(Limit to open Higher Education Institution)	
B	B1	B2	
	(Demanding the competence)	(Ordinary)	
C	C1	C2	C3
	(Rapid growing)	(Medium growing)	(Slow growing)
D	D1	D2	D3
	(Quality of PHEIs is better than State or Foreign Education Institution)	(Quality of PHEIs equals to State or Foreign Education Institution)	(Quality of State and Foreign Higher Education Institutions is better than PHEI)
E	E1	E2	
	(Many)	(Rare)	

Description:

- A Government policy towards the growing number of new Higher Education Institution both state and PHEI
- B Dynamics on industrial competence demand towards the changing of graduate's competence resulted by PHEI
- C Existing local and national economic growth
- D Public perception on quality of the PHEIs compared to the State and Foreign Higher Education Institutions
- E Availability of qualified lecturer (master and doctor) candidates who are interested to be lecturer candidates that relevant and linear to the needed study program

The result of PPA held in Bandar Lampung predicts that there is a future scenario, which is most likely to happen in the future, namely strategic alternatives A1-B1-C1-D1-E1. Experts predict that there will be government policy encouraging number of Higher Education Institution growth in the future, as there is government awareness on the low number of Gross Participation Number (GPN) of Higher Education in which the number is only 23 percent. This number is lower than many regions outside of Java. GPN is the participation rate of per 100 people aged 19-24 who attends Higher Education. It is predicted that the dynamics of the

industrial demand for PHEI graduates' competence in the future is increased. It is happened as the consequence of globalization that set the competition in industrial world to respond rapidly with more qualified product and more efficient cost. Experts also predict that there will be rapid economic growths at local and national level. It is characterized by the achievement of per capita income reaching U.S. \$ 3,500 as a psychological figure number for most country to enter the category of middle and high-income country. The established public perception on Private Higher Education is still deeply influenced by the formality and recognition from the government. However, on the other side, there is a tendency of more equal attention and development between State Higher Education and Private Higher Education from the government that provide opportunity for PHEIs to develop maximally. Experts also predict that there will be many relevant lecturer candidates with master and doctor qualification. It is proved by a large number of existing scholarships provided by Higher Education and other institutions including local government for lecturers or prospective lecturers to continue their study.

Strategy Development of Sustainable Competitive Advantage at Private Higher Education

The dynamic of external environment of Private Higher Education have alternative scenarios that might happen in the future as presented in Table 3. Referring to the internal factors selected from the data result of AHP (Table 2), 20 types of strategies for the selected scenario that is most likely to happen in the future can be arranged. The strategy is built by combining external and internal factors of Private Higher Education as presented in Table 4.

Table 4 The development of alternative strategies of PHEIs to face the dynamic external factors affecting the organization sustainability of PHEI based on internal dynamic factors.

Alternative Scenario of External Factor Condition	Alternative Strategy Based on the Internal Dynamic Factor *			
	Leadership Effectiveness (S1)	Fund and Finance Availability (S2)	Resource Management Strategy Effectiveness (S3)	Curriculum Relevance (S4)
Ai	Strategy	Strategy	Strategy	Strategy
	Ai – S1	Ai – S2	Ai – S3	Ai – S4
Bi	Strategy	Strategy	Strategy	Strategy
	Bi – S1	Bi – S2	Bi – S3	Bi – S4
Ci	Strategy	Strategy	Strategy	Strategy
	Ci – S1	Ci – S2	Ci – S3	Ci – S4
Di	Strategy	Strategy	Strategy	Strategy
	Di – S1	Di – S2	Di – S3	Di – S4
Ei	Strategy	Strategy	Strategy	Strategy
	Ei – S1	Ei – S2	Ei – S3	Ei – S4

Description:

i = alternative condition that most likely to happen from each external factor . Factor A point ii = 1 – 2, factor B point i = 1 – 2, factor C point i = 1 – 3, factor D point i = 1 – 3, and factor E point i = 1 – 2 (see Tabel 3)

Based on the result of PPA conducted in Bandar Lampung, it is known that the emerged strategies from each internal factor (leadership effectiveness, availability of fund and finance, strategic HRM effectiveness and relevance of the curriculum) in order to deal with the dynamics of external factors have some alternative strategies that can be undertaken by the organization of Private Higher Education. Considering this research is a policy research, therefore, not all strategic alternatives can be undertaken to deal with the external dynamic factors. The smart choice taken by policy maker within the organization of PHEI is crucial point in selecting the strategy to be implemented in order to deal with the occurred external dynamic factors.

Selection of the main strategy by the policy maker of the organization of Higher Education Institution is done for one alternative scenario that is most likely to happen in the future. The scenario is A1 - B 1 - C1 - D1 - E1. Exponential Comparison Method (ECM) as a primary strategy selection tool is used considering a large number of available alternative decisions and multi criteria. In addition, the use of ECM will further provide more significant differences from the weight value of each alternative strategy that could raise the relative perfect rating. In this case, the decision criteria used for the selection of the best main strategies are (1) strategic alignment with the organization of Higher Education Institution's values and culture, (2) the easiness of the chosen strategy implementation, and (3) the consequence of cost provision to implement the chosen strategy.

Based on experts' opinions who are the decision makers in seven PHEIs in Coordination of Private Higher Education Region II (Bandar Lampung University, Malahayati University, Muhammadiyah Metro University, Tulang Bawang University, University of PGRI Palembang, Tridinanti University and Bina Dharma University),

it can be synthesized that there are 20 key strategies which can be done by the organizations, particularly PHEIs located in Coordination of Private Higher Education Region II (Table 5). In this case, twenty main strategies are applicable for one alternative scenario that is most likely to happen in the future from the external factors, namely A1 - B 1 - C1 - D1 - E1.

As the main strategy presented in Table 5 is specifically designed for one alternative scenario that is most likely to happen in the future, then the main and best strategy can be changed in line with the change of the alternative strategies that are most likely to happen in the future and the change of experts' opinion as the policy maker in the organization of PHEI. The main strategy that can be done by the organization of PHEI emphasizes more synthesis thinking than analysis thinking, although both are used simultaneously. According to Eriyatno (2007), the analysis is a way of thinking which is more focusing on the problem that has occurred in the past whereas the synthesis is on how to achieve the goal in the future.

Table 5 The main strategy to be done by the organization of PHEI in developing a sustainable competitive advantage in the future

Alternative external condition factors that are most likely to happen	The main strategy of PHEI in developing a sustainable competitive advantage in the future	
	Internal Factor	Main Strategy
A1 (Government policy tends to encourage opening of new higher education institution)	S1	Leader provides encouragement and responsible freedom for all existing human resources at PHEI, especially lecturers who are expected to be more creative in their work and have scientific specialization.
	S2	There should be a foundation commitment and understanding in PHEI related to various needs investments especially on human resources (lecturers and educational staff)
	S3	Sending all lecturers in further study of master degree (S2) and doctorate degree (S3)
	S4	Curriculum development in accordance with the demands and needs of the community.
B1 (Competence demand from the industrial field)	S1	Leader gives freedom to all existing human resources, especially in the head level and lecturer to collaborate with the field work association which is in accordance with the existing field of study on PHEI.
	S2	Improving provision of fund for teaching and learning tool
	S3	Developing learner attitude, open and anti-status quo
	S4	Reviewing and evaluating the curriculum periodically by involving both internal and external stakeholders (including the industry).
C1 (Rapid growth of Local and National Economic Growth)	S1	There should be transformative leadership driving the freedom for the organization to be creative.
	S2	PHEI PTS should be able and willing to encourage academic staff to develop continuously / contribute to the academic world
	S3	There should be a finance policy of PHEI which is affordable for local public
	S4	Developing curriculum that is in line with with local and national need
D1 (People perceived that PHEI has a better quality than of State and Foreign Higher Education)	S1	Leader must have a strong commitment to improve the PHEI image
	S2	PHEI should focus its funds to be used in a variety of quality-oriented academic activities such as seminars, research and community service
	S3	All human resource activities must refer to the quality oriented
	S4	Developing quality-oriented curriculum that should be up to

Institution PTA)

date and match with the needs of industry and society

E1 More availability of qualified lecturers (master and doctor) candidates	S1	Leader must continuously encourage and help the lectures who want to continue their education to the higher level (S2 and S3)
	S2	Improving lecturer's welfare
	S3	Creating a comfortable working environment and clarity of reward and punishment.
	S4	Creating a policy to provide more opportunities to the lecturers with doctor (S3) qualification and / or have high academic level to teach the subject including as the coordinator of the subject

Description: S1 = The effectiveness of leadership, S2 = availability of fund and finance, S3 = Thr Effectiveness of HRM strategy, S4 = Relevance curriculum

4. CONCLUSION AND RECCOMNEDATION

Conclusion

Based on the above elaborations, conclusions of this research can be drawn as follows:

1. The sustainability of PHEIs in the future is affected by determining factors namely internal and external factors. The internal factors include the leadership effectiveness, availability of fund and finance, effectiveness of human resource management strategy and relevance curriculum. While the major external factors are the government policy towards the growth of number of higher education institution, dynamic's demand on industrial competence, local and national economic growth, public perception on local PHEI and availability of qualified lecturers (master and doctor) candidates.
2. The external factor conditions affecting the future sustainability of organization of PHEI can be described in 72 alternative scenarios. The most possible scenario likely to happen is the government policy to encourage the growth of higher education institutions, demanding needs of graduate competences by industry, local and national rapid economic growth, better public perception related to the quality of PHEIs, and availability of many qualified lecturer candidates.
3. In order to anticipate the most possible future scenario, the study produce the best-recommended strategy developed from the combination of external and internal factors. The strategy is leadership that motivate, encourage, empower staffs within the organization of PHEIs, commit to the image of PHEI, adopt the value of change and open attitude. Further, it is suggested the funding strategy through increasing tuition revenues by cross subsidies and boosting other revenues through industrial cooperation. Meanwhile, related to financing strategy, it is suggested to increase budget allocation for human resource development and infrastructure that focus on improving academic quality. Related to human resource management strategy, it is recommended to improve staff quality though upgrading qualification (doctoral), develop learning attitude, openness and anti status quo, having quality oriented human resource policies, the need of developing human resource system that create good working environment including reward and punishment. Related to curriculum strategy, it is suggested to develop curriculum that fit and up date to local and national needs especially industry though regular reviews involving all stakeholders.

Recommendation

In relation to the above conclusions, some recommendations offered by this research are as follows:

1. The organization of PHEI needs to pay attention and apply the strategic policy related to the dynamics of external factors especially to the government policy toward the growth of Higher Education institutions, the dynamic demands of graduate competence by industry, local and national economic growth, public perception on PHEI, and the availability of qualified (master and doctor) lecturer candidates. The strategic policy must be prepared based on certain internal factors, namely the improvement of leadership effectiveness, availability of fund and finance, effectiveness of human resource management strategy (HRM) and the relevance of the curriculum.
2. In order for PHEIs to get sustainable competitive advantages, it is suggested to continuously analyze the dynamic external environment described by 72 future scenarios. In addition, it is needed to regularly review the best strategy for the most likely future scenario

REFERENCES

- [1] Ansoff I, McDowel E. 1990. *Implanting Strategic Management*. Second Edition. Prentice Hall.
- [2] Ansoff I. 1975. Managing Strategic Surprise by Response to Weak Signals. *California Management Review*. Vol. XVIII No. 2 p. 21-22.
- [3] Argyris C, Schon D. 1978. *Organizational Learning: A Theory of Action*.
- [4] Argyris C. 1993. *Knowledge for Action: A Guide to Overcoming Barriers to Organizational Change*. Jossey-Bass Willey.
- [5] Bakar ARA, Hashim F, Ahmad H, Isa FM, Dzakaria H. 2009. Distinctive Capabilities and Strategic Thrusts of Malaysia's Institutions of Higher Learning. *International Journal of Marketing Studies*. Vol.1, No.2.
- [6] Barney J. 1991. Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17/1.
- [7] Barney J. 2001. Is The Resources-Based View a Useful Perspective for Strategic Management Research? Yes. *The Academy of Management Review* 26/1.
- [8] Barney JB, Hesterly WS. 2008. *Strategic Management and Competitive Advantage: Concept and Cases*. Pearson Education. New Jersey.
- [9] Boccardelli P, Magnusson MG. 2006. Dynamic Capabilities in Early-Phase Entrepreneurship. *Knowledge and Process Management* vol 13 number 3 pp 162-174.
- [10] Bourgeois R, Jesus F. 2004. Participatory Prospective Analysis: Exploring and Anticipating Challenges with Stakeholders. Monograph No. 46. CAPSA.
- [11] Bui H, Baruch Y. 2010. Creating learning organizations in higher education: applying a system perspective. *The Learning Organization* vol.17 no.3 pp 228-242.
- [12] Collis DJ, Montgomery CA. 2005. *Corporate Strategy: Resource-Based Approach*. McGraw Hill.
- [13] Cooper DR, Schindler PS. 2008. *Business Research Methods*. 10th Edition. McGraw Hill.
- [14] Creswell JW. 1994. *Research Design: Qualitative & Quantitative Approaches*. Sage Publication.
- [15] David FR. 2009. *Strategic Management: Concept and Cases*. Pearson Prentice Hall.
- [16] Direktorat Akademik Ditjen Dikti. 2010. *Facts and Figures*. Jakarta: Direktorat Akademik Ditjen Dikti.
- [17] Eriyatno, Sofyar F. 2007. *Riset Kebijakan: Metode Penelitian Untuk Pascasarjana*. IPB Press.
- [18] Eriyatno. 1999. *Ilmu Sistem: Meningkatkan Mutu dan Efektivitas Manajemen*. Jilid Satu. IPB Press.
- [19] Fuhl F. 2006. The Influence Factors of Dynamic Capabilities: The Case of Innovation Speed at Korean Electronics Companies. Dissertation. The University of St.Gallen, Graduate School of Business Administration, Economics, Law and Social Sciences.
- [20] Gandolfy F. 2006. Can School Organization be Transformed into Learning Organization? *Contemporary Management Research* page 57-72 vol. 2, no 1.
- [21] Gibson et al. 2009. *Organizations Behavior, Structure, Processes*. McGraw-Hill. New York.
- [22] Gorelick C. 2005. Organizational learning vs the learning organization: a conversation with a practitioner. *The Learning Organization* 12,4 p 383.
- [23] Grant RM. 1991. The Resource-Based Theory of Competitive Advantage: Implication for Strategy Formulation. *California Management Review* 33/3.
- [24] Hamel G, Prahalad CK. 1996. *Competing for The Future*. Harvard Business School Press.
- [25] Helfat et al. 2009. *Dynamic Capabilities: Understanding Strategic Change In Organizations*. Blackwell Publishing.
- [26] Hua L.T. 2011. Sustainable Competitive Advantage for Market Leadership Amongst The Private Higher Education Institutes in Malaysia. 2nd International Conference on Business and Economic Research (2nd ICBER 2011) Proceeding.
- [27] Jain, Anurag. 2003. Toward A Systemic View of Organizational Dynamic IT Capabilities: An Empirical Assesment. *Dissertation*. The University of Texas at Arlington.
- [28] Jackson MC. 2003. *Systems Thinking: Creative Holism for Managers*. John Wiley and Sons, Ltd.
- [29] Khisty CJ. 1995. Soft-System Methodology as Learning and Management Tool. *Journal of Urban Planning and Development*, vol.121, no.3.
- [30] Kotter JP. 1996. *Leading Change*. Harvard Business School Press. Boston.

- [31] Krasnikov AV. 2007. Examining The Relationship Between Marketing Capability and Firm Performance. *Dissertation*. University of South Carolina.
- [32] Lopez SV. 2005. Competitive Advantage and Strategy Formulation: The Key Role of Dynamic Capabilities. *Management Science* 43, 5/6.
- [33] Macher JT, Mowery DC. 2009. Measuring Dynamic Capabilities: Practices and Performance in Semiconductor Manufacturing. *British Journal of Management*, vol.20.
- [34] Major D, Meakin D, Perrin D. 2011. Building The Capacity of Higher Education to Deliver Programmes of Work-Based Learning. *Higher Education, Skills and Work-Based Learning*, vol.1 no.2, pp.118-127.
- [35] Mangkuprawira TS, Hubeis AV. 2007. *Manajemen Mutu Sumber Daya Manusia*. Ghalia Indonesia. Bogor.
- [36] Mangkuprawira TS. 2004. *Manajemen Sumber Daya Manusia Strategik*. Edisi Kedua. Ghalia Indonesia. Bogor.
- [37] Marquardt MJ. 1996. *Building The Learning Organization: A System Approach to Quantum Improvement and Global Success*. McGraw Hill.
- [38] Mills V, Whittaker S. 2001. Work Based Learning in Scottish Higher Education: Policy and Practice. *The Learning Organization*, vol.8, no.2, pp.64-69.
- [39] Moizer J. dan Tracey P. 2010. Strategy Making in Social Enterprise: The Role of Resource Allocation and Its Effects on Organizational Sustainability. *System Research and Behavioral Science* 27, 252-266.
- [40] Pandza K, Polanjar A, Buchmeinster, Thorpe R. 2003. Evolutionary Perspective on The Capability Accumulation Process. *International Journal of Operation & Production Management* 23, 7/8.
- [41] Perez SE, Castillejo JAM. 2008. The Resource-Based Thoery of The Firms and Firm Survival. *Small Business Economics* 30:231-249.
- [42] Porter ME. 1980. *Competitive Strategy*. Free Press. New York.
- [43] Raelin JA. 2011. Work-Based Learning in US Higher Education Policy. *Higher Education Work-based Learning* vol.1 no.1, 2011 pp 10-15.
- [44] Sallis E. 2002. *Total Quality Management in Education*. 3rd Edition. Kogan Page Ltd. London.
- [45] Shapiro C. 1989. Theories of Oligopoly Behavior, in R. Scmalensee and R. Willig (Eds). *Handbook of Industrial Organization*. Elsevier A North Holland. Amsterdam.
- [46] Teece DJ, Pisano G, Shuen A. 1997. Dynamic Capabilities and Strategic Management. *Strategic Management Journal* 18(7), 509-533.
- [47] Teece DJ. 2009. *Dynamic Capabilities & Strategic Management: Organizing for Innovation and Growth*. Oxford University Press, New York.
- [48] Tsang EWK. 1997. Organizational Learning and The Learning Organization: A Dychotomy Between Descriptive and Prescriptive Research. *Human Relations*, 50,1 p.73.
- [49] Xie, Xuanli. 2006. Growth and Renewal: How Does Organization Experience Affect Diversification In Early and Mature Organizations. *Dissertation*. University of North Carolina at Chapel Hill.
- [50] Zollo M, Winter S. 2002. Deliberate Learning and Evolution of Dynamic Capabilities. *Organization Science* 13, 3.