

Direct and Indirect Effect of Human Capital & Social Capital on Institution Quality and Market Share of Private Higher Education in East Kalimantan

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Abstract : *The purpose of this research is to analyze the direct and indirect effects of human capital and social capital towards institution quality and market share in the private higher education institutions in East Kalimantan. Human capital is measured by level of education of lecturer, and work experience of the lecturers, while social capital is measured by the number of institutional collaboration partners. A total of 78 study program of private higher educational institutions in East Kalimantan is observed as a sample. Relationships between variables were analyzed by the method of Path Analysis. The results showed that the level of education of lecturers, significantly positive impact on the institution quality, and indirectly have a positive impact on market share. The experience of the lecturers and social capital, significantly positive impact, either directly or indirectly to the institution quality and the market share of private higher education institutions in East Kalimantan.*

Keywords - *Human Capital, Social Capital, Institution quality, Market share*

I. Introduction

The number of private higher education institutions in East Kalimantan rapidly growing significantly in the last ten years. These conditions increase the intensity of competition. The government has set guidelines for higher education institutions to compete fairly, by imposing a quality standards in education through accreditation systems. Through the accreditation system, the government provides assessment and assign ratings accreditation of an institution of higher education. Rating and scores of accreditation reflecting the achievement of quality standards of higher education institutions. Thus each college can compete fairly by established standards. One important factor that must be considered for a higher education institution is human capital [1]. As with other organizations, human capital is one of the critical success factors for higher education institutions. One component of human capital in higher education institutions is a lecturer. Lecturer is a potential resource that acts as a spearhead in higher education [2]. Therefore, many higher education institutions began to give special attention to the lecturers, as it is believed that the development and improvement of lecturers, can have an impact on the reputation and competitive advantage for higher education institutions [3].

According to human capital theory, investment in human capital through education and experience. Education can improve the knowledge, skills, and the capacity and quality of human capital, which will increase productivity [4]. Experience creating knowledge accumulation, thus providing additional insight and understanding of an object. The experience will enhance the ability of human capital [5].

In the perspective of social system, an institution of higher education is an entity of many other social entities. Therefore, higher education institutions can interact with various other institutions. Such interactions, generating social capital [6]. Many studies have proven that social capital has significance for the organization. Almost all of them showed the empirical fact that social capital is one of the factors that can support the success of an organization [7], [8], [9].

This study aims to analyze the impact of education level of the lecturers and the experience of lecturers to institution quality and market share of private higher education institutions in East Kalimantan. Moreover, it also analyzed effects social capital on the institution quality and market share private higher education institutions in East Kalimantan.

II. Literature Review

2.1. The Concept Of Human Capital

The concept of human capital is viewed in a number of ways. Firstly, Schultz (1961) links it to property in the form of skills and knowledge possessed by individuals [10]. This view is extended to include knowledge, skills, education and abilities [11]. Also, Rastogi considers human capital to include Knowledge, competency, attitude and behavior of individuals [12]. Secondly, De la Fuente and Ciccone consider human capital as knowledge and skills obtained through general education and vocational training. This view neglects the experience people acquire through out life [13].

A third perspective considers human capital as the main source of economic activity [14]. In this connection Rosen sees human capital as an investment on people to increase their productivity [15]. Frank and Bernanke see human capital as a whole set of factors including; education, training, experience, energy and worthiness that influence additions to workers' output [16]. This view leads Sheffrin to conclude that human capital is a stock of skills and knowledge which manifest in the ability of labour to perform better [17]. Equally, Rodriguez and Loomis [18] conceive human capital as the knowledge, skills, competencies and attributes of individuals that make it easy for them to create personal, social and economic wellbeing. From the above, human capital includes skills and competencies acquired through education, training and life experiences.

Human capital is characterized in a number of ways. Crawford [19] holds that unlike ordinary labour, human capital is expandable, self generating, transportable and shareable. It is expandable and shareable in the sense that the stock of knowledge increases the individual's human capital as original knowledge and continuously elaborated and developed. Also, human capital is transportable and shareable in the sense that the original holder of knowledge has the possibility of sharing this knowledge with others.

Human capital can be categorized into general, firm specific and task specific. According to Becker [20] knowledge and skills of workers accumulated through education and experience constitute general human capital on the one hand and on the other hand there is firm/task specific human capital which is acquired through education, training and work experience and is scarcely applied in other firms/industries and tends to increase productivity only at a given firm.

Based on the description above, it can be concluded that there are two important dimensions which is an element of human capital, ie education and experience. Both of these dimensions enhance the ability of human capital to deliver added value to the organization. Education and experience allows the accumulation of knowledge and ability continuously, so that makes human capital does not depreciate like in other types of capital.

2.1.1. Education

The basic assumption of the Human Capital theory is that a person can increase their incomes through increased education. Every additional one school year means, on the one hand, increasing the ability of a person's employment and income levels, but, on the other hand, delaying receipt of income during the year in following the school. In addition to the delay in receiving the income, people who go to school have to pay a fee directly. Then the amount of income it receives all his life, calculated in present value or net present value [21].

It is known that improving the quality of human capital can not be done in a short time, but it takes a long time. Investment in human capital, are basically same as the other factors of production investments. In this case also calculated rate of return (benefit) of investment in human capital. If someone is going to make an investment, then he must analyze the cost benefit (cost benefit analysis). The cost is in the form of expenses incurred for schooling and the opportunity cost of schooling is the income he received when he was not in school. While the benefits are earnings (return) to be received in the future after the school is finished. Hopefully, from this investment, the benefits much larger than costs.

In the human capital theory, education is seen as an investment. That is, for an organization, the decision to improve education for its workforce, must be based on the consideration of return in the future, and the costs to be incurred. In connection with this, many organizations are trying to recruit qualified workers with higher levels of education. It is considered more advantageous because the organization does not need to provide a budget for investment in human capital, rather than labor recruiting relatively lower education.

2.1.2. Experience

Work experience is the process of formation of knowledge or skill, on a method of work because of the employee involvement in the execution of work tasks [22]. Another opinion suggests work experience is a measure of the length of time or employment that has taken one can understand the duties of a job and have carried out properly [23]. According Trijoko, work experience or skill is knowledge that has been known and mastered a person who as a result of the act or the work that has been done for a certain time [24]. Work experience will accelerate the completion of work and improve labor productivity. Labor productivity gained from the experience of a career that has been obtained in the past.

2.2. Social Capital

The economic definition of social capital refers to rules that promote confidence and reciprocity in economy [25]. This stated economic definition is comprised through networks, civil organizations, and through shared confidence between people, product of their own social interaction. Regarding the social capital study, it is important to understand the nature and mechanics of a practical community.

Usually social capital refers to the implicit value on the internal and external connections of a social network, however, a great range of definitions interrelated to the term are commonly found. These definitions have a tendency to share the central thought, that social networks have an economic value [26]. In the same way a screwdriver, as a sample of physical capital, or school education, as the builder of human capital, can improve productivity for human beings and organizations. Social contacts and the way these relate with themselves are also factors of economic development [27].

Social capital is the cumulative capacity of social groups to cooperate and work together for the common good [28]. Coleman (1990) [29] identified social capital as a resource that accrues to individuals, by virtue of their access to contacts, connections, and linkages. A well connected person especially one of high status, is seen as having more of it, by converting these relationship to value to himself. Social capital is about the value of social networks, binding similar people and bridging between diverse people with norms of reciprocity [30]. Social capital can be understood as “the goodwill available to individuals or groups. Its source lies in the structure and content of the actor’s social relations” [31].

2.3. Impact of Human Capital and Social Capital

Many empirical studies have provided evidence that human capital and social capital have a positive impact, both at the level of the individual and for the organization, even at the state level. Human capital affects the individual worker, the organization and the economy as whole. To the individual worker it increases his/her income due to increase productivity. He or she is preferred by employers and stands the chance to move to a higher level in the organizational hierarchy [32]. The human capital of individual workers influences the level of competences and competitiveness of an organization as well as organizational routines, cultures and relational capital [33].

Lucas provides a basis for the understanding of the role of human capital in economic growth and the explanation of the differences in the growth of nations in a context where the cost of education and training is inversely related to the level of development of a country [34]. Countries with low human capital development (LDCs) are characterized by rapid population growth while those with an initial high stock of human capital keep on intensifying education and training.

There exists a strong relationship between human capital and economic growth. As an investment, it increases the total product. In fact, human capital is considered as the whole set of productive capacities that an individual acquires in the form of accumulated general or specific knowledge. According to Becker [35], it is made up of activities in the form of investment. Conclusions of the model of human capital underscore the fact that well trained workers, or those who have attained a very high level of education are the most productive. From all indications, human capital is an investment. The factors which influence investment in human capital are age of the individual, the cost of education and salary differential between different levels of education.

Considering the studies of Tatlah et al. [36] on the role of human capital and education on economic growth, we see that spending on education remains the main investment on human capital on the one hand and the later contributes to growth on the other hand. To this end, in Uganda, Barro [37] shows that public and private spending on education and training received by the youth influence positively the quality and quantity of output of enterprises and consequently increases economic growth. However, this influence is seen to be more important in the case of public spending on education than private spending. Really, public investment on education is not only limited to the recruitment of teachers and paying them. It also involves expenditure on infrastructure such as building laboratories etc.

2.4. Effect Of Human Capital And Social Capital On Institution Quality And Market Share

The impact of human capital and social capital on institutional quality and market share can be explained by the theory of resources based view (RBV). RBV theory regards the company as a set of resources and capabilities. RBV assumption is that companies compete on the basis of resources and capabilities. Differences in resources and capabilities of the company with a competitor company will provide a competitive advantage [38].

Corporate resources can be divided into three kinds, namely, tangible, intangible and human resources [39]. The ability to show what can be done by the company with its resources [40]. Ability levels higher company known as 'dynamic capability' / capability dynamics [41]. The dynamics of the ability of a company's ability to create, maintain, or alter the ability of any other company [42].

According to RBV, the strategy is done by allocating resources to the needs of the market at the moment is insufficient ability of the company's competitors that will provide effective results for the company. Resources and capabilities are important in business level strategy. And a valuable resource that can affect various efforts by the company is an important factor in the corporate-level strategy [43].

At the business level, researchers have investigated the relationship between resources and the sustainability of competitive advantage [44]. RBV focus is what can make the resources into superior and why competitors can not obtain, create or mimic better resources with ease. The answer is the characteristics of the resources and capabilities are referred to as 'strategic assets' strategic assets such as corporate culture that is socially complex, is silent and causes the habit has become a concern.

On the corporate Level also noticed how strategic asset affect the company's performance. The effect is not only based on the characteristics of the resource, but also on the mechanism of communication and coordination company. These factors enable the company to develop a strategic asset to the business activities. The performance of an enterprise depends on the internal consistency among the three elements 'corporate strategy triangle' is - resources, business, and organizational mechanisms, which could include structures, systems and processes of the organization [45]. Another important thing in corporate strategy is how the resources to bring growth companies. Strategic assets, for example, can reduce the company's entry into new markets. Strategic assets can give way to the same acquisition strategy guide investment decisions.

The success of the growth and sustainability of the company, will depend on the development of new resources to exploit the resource as long [46]. It also happens to changes in external conditions. Thus, RBV also pay attention to organizational learning, the accumulation of knowledge, capability development, and the process of changing the association [47].

As has been stated previously, Lecturer is one of the resources at higher education institutions. Referring to the RBV theory, if the lecturer has the characteristics as a valuable resource, unique, and rare for the organization, then it should higher education institutions will receive benefits such as institution quality and market share.

Based on the conceptual framework and results of empirical studies of previous studies, we propose three hypotheses that will be tested as follows:

- Hipotesis 1 : Education level of the lecturers, experience of the lecturers, and social capital is a positive Impact on the institution quality of higher education institutions in East Kalimantan
- Hipotesis 2 : Education Level of the lecturers, experience, and social capital Influential positive for the market share of higher education institutions in East Kalimantan
- Hipotesis 3 : Institution quality has a positive influence on the market share of higher education institutions in East Kalimantan

III. Research Methods

The unit of analysis of this research is the study program organized by the private universities in East Kalimantan. The research sample was determined by purposive sampling method, with the following criteria: 1) It has been accredited by the National Accreditation Board of Higher Education (BAN-PT); 2). Has been in operation for at least 5 years; 3). Has competitors, similar courses in other universities. A total of 78 courses that meet these criteria, entirely sampled observations.

The level of education lecturer, measured by weighted average educational level of tenured faculty who are working on a study program. For lecturers who educated S3 (PhD) is weighted 3, Masters (S2) was given a weight of 2, and Bachelor (S1) is weighted 1. Level work experience lecturer measured by average years of work as lecturer in a study program. Social capital is measured by the number of cooperation partners of the study program. Variable quality of institutions measured by scores of accreditation. While market share is measured as the ratio between the number of student applicants to the program of study, with the total of students who enroll in the same study program between the College of East Kalimantan, calculated in percentages.

To analyze the relationship between variables, we used the method of path analysis. Testing the hypothesis with a p-value parameter, which is compared with the significance level of 1% and 5%.

IV. Results And Discussion

4.1. Results of The Study

Relationships between variables were analyzed can be seen in Table 1 below. X_1 is a variable notation of level education of lecturer, X_2 is lecturer experience, X_3 is social capital, Y_1 is the performance quality, and Y_2 is the market share.

It can be seen, that the influence of level education of lecturer (X_1), experience of lecturer (X_2), and the Social capital (X_3) to the institution quality (Y_1) is significantly positive. This shows that these three variables provide direct positive impact on the institution quality.

Table 1. Model Estimate

			Estimate	S.E.	C.R.	P	Label
Y ₁	<---	X ₁	,011	,003	4,234	***	
Y ₁	<---	X ₂	2,922	,616	4,743	***	
Y ₁	<---	X ₃	,403	,052	7,799	***	
Y ₂	<---	X ₃	1,183	,233	5,077	***	
Y ₂	<---	X ₂	13,396	2,587	5,177	***	
Y ₂	<---	X ₁	,008	,011	,782	,434	
Y ₂	<---	Y ₁	,682	,263	2,596	,009	

Education level of lecturer are not a significant impact on market share. While the experience of lecturer and social capital provide a significant and positive impact to the market share (Y₂). On the other hand, institution quality has a significant positive impact to the market share. Visually, the relationship between variables can be seen in the following figure 1 :

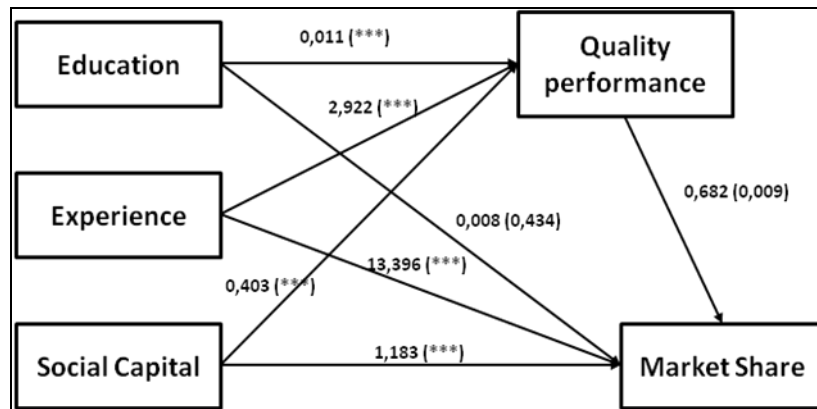


Figure 1. Research Model

4.2. Discussion

We already know that statistically, empirical evidence shows that the level of education of lecturer significant positive effect on institution qualities. However, the level of education of lecturer no significant impact on market share. While the institution quality a significant impact on market share. Based on these results, we can conclude that the impact of the level of education of lecturer to the market share occur indirectly, but it must go through quality performance. Thus, the relationship between the level of education of lecturer and market share, institution quality serves as an intervening variable. In other words, the absence of institution quality, the level of education of lecturer will have no impact on the market share of private higher education institutions in East Kalimantan.

Arguments can be put forward from the relationship is due to the level of education of lecturer is something that is internal. The level of education of lecturer more work and provide support for internal. Highly educated lecturers contribute to the improvement of the quality of teaching, administration and other internal activities. This contributes more impact on quality improvement, rather than an external impact on the market share. The experience level of the lecturer, significantly positive impact to the institution quality and market share. This shows that the impact of the level of experience of lecturer to the institution quality and market share occurred either directly or indirectly. That is, in the absence of institution quality though, the level of experience of lecturer will give a positive impact on market share.

Why is that? The experience level of teachers can contribute to the internal and eksternal. Experienced lecturers can improve the performance of internal the institution via improved quality of teaching and learning processes, the transfer of knowledge to young lecturers, as well as creating new ideas to the organization. Experience lecturer increase public confidence and external parties to the reputation and credibility of the institutions that will ultimately have an impact on the acquisition of market share.

Social capital, has a positive and significant impact on the quality of institutions and market share. That is, the social impact of capital, to the quality to the institutions and market share, occur either directly or indirectly. Thus, even in the absence of quality institutions, social capital will have a positive impact to the market share. Social capital works internally and externally. Internally social capital creates adaptive organizational culture, opportunities and new insights in the management of higher education, and increase the strength and uniqueness of resources. Externally, social capital adds to the accumulation of public confidence, to the existence of the institution.

V. Conclusion & Suggestion

This research revealed the direct and indirect effect of human capital and social capital on the quality of institutions and market share of private higher educational institutions in East Kalimantan. Human capital consisting of the level of education of lecturer and lecturer work experience, provide different effects on institution quality. Education level of lecturer, have a direct impact on the quality of institutions, and the indirect impact to the market share, which must go through institution quality as intervening variables. lecturer Work experience significantly positive impact either directly or indirectly on the quality of institutions and market share. Likewise, the social capital that show a positive and significant impact either directly or indirectly on the quality of institutions and market share.

We recommend to the management of higher education institutions in East Kalimantan to give attention to human capital, especially in terms of the level of education of lecturer, work experience, as well as social capital, as this will have a positive impact on the quality of institutions and market share. Lecturers should be given the opportunity to improve their education to a higher level, because in essence it is of investment to increase the capacity of human capital. Lecturers should also be given the opportunity to broaden and extend the experience. The college also have to open up to cooperation with external parties as much as possible because it is a reflection of social capital enrichment.

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