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**THE EFFECT OF STRATEGIC LEADERSHIP ON COMMERCIALIZATION
CAPABILITY: EXAMINING THE MODERATING ROLE OF UNIVERSITY
SUPPORT**

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Keywords: Sustainability, Supply Chain Management, Tripple Bottom Line

Abstract

Purpose

This study aimed to investigate the effect of strategic leadership on commercialization capability and the role of University support as the moderator between strategic leadership and commercialization capability.

Design/Methodology/Approach

The population in this study were 504 active lecturers at the Universitas Sumatera Utara who had received research grant from University. Samples in this study were calculated using the Slovin formula, obtained as many as 83 people, selected by using proportionate random sampling. Multiple Regression Analysis is used to explore the effect of strategic leadership on commercialization capability. Moreover, Moderated Regression Analysis is also used as data analysis technique to explore the role of University support as the moderator between strategic leadership and commercialization capability

Findings.

The result showed that strategic leadership has the significant effect on commercialization capability, while University support is not the moderator of relationship between strategic leadership and commercialization capability.

Research Limitation/Implication

This study only conducted the empirical research from researchers' view. Further study by using qualitative method which included university and industry sector is needed to receive clear picture of commercialization capability in university.

Originality/Value

This study focused on strategic leadership and the important role of University support as the moderating variable on commercialization capability.

Keywords: Strategic Leadership, Commercialization Capability, University Support

I. Introduction

Currently, the increasing demands faced by universities in Indonesia, one of those is to play a major role in supporting the national development strategy based on knowledge. Technology transfer for Higher Education is mandatory in accordance with Government Regulation (PP) No. 20 the Year 2005 Article 2. Hence, there are a lot of Universities have adjusted their missions by inserting the commercialization strategy. However, in reality, the progress of commercialization is considered low, there is a gap between University research and industrial needs. On average, less than 1% of higher education research products can be patented, and not all of them can be beneficial for business (Harman and Harman, 2004). Based on the Ministry of Law and Human Rights, only 20% of Indonesian innovations are patented. Even, patents alone are not enough without commercialization that can provide economic value (Republika, 10 Mar 20).

In this study, the researchers play the role of the main innovation actor who is expected to be able to commercialize the results of his research. Specifically, at public Universities in Indonesia, researchers are not only lecturers who have the responsibility to teach and conduct research, but also have to serve the community as part of the Tri Dharma of Higher Education. As said by (Bergreen, 2016), the key role of researchers as crucial actors for universities' ability to commercialize academic research is explored by demonstrating their individual views.

Nonaka (1994), commercialization of research product is considered against the traditional view of university's role, which expected to serve the knowledge society. This increasing role presents new challenges for University to encourage the development of commercialization. As posited by Asikainen (2015), University has significant role in generating knowledge and bridging it to the market. The university also plays a role in creating convenience, flexibility and facilities that support innovation for researchers as innovators themselves. By having the University supports, academic researcher will be encouraged to create research product that benefit the society and satisfy the market needs.

Commercialization can be established through the existence of changes in research culture. According to Asmawi (2013), cultural change is occurred by the act of leadership in the university. Hence, academics with strategic leadership skill is empowered by universities, since it is believed can affect the research culture to more market-driven (Collier et al, 2011). Strategic leadership enables academic researchers to plan, to manage their research results and to recognize market opportunities for the research products, which finally lead to the creation of economic value through various types of commercialization actions.

Despite many studies conducted to explore the researchers' view on commercialization (Razak & Murray, 2017; Berggren, 2016; Ismail et al, 2015), very few focus on the effect of strategic leadership and the moderating role of university support on commercialization capability in University. Strategic leadership will enhance supportive innovation culture and enable researchers to be more commercially driven. However, the role of University supports to facilitate the commercialization capability also equally notable. Therefore, this study aimed to explore the effect of strategic leadership on commercialization capability. Moreover, this study also aimed to investigate the role of University support as the moderator between strategic leadership and commercialization capability.

II. Literature Review

2.1.Strategic Leadership

According Hitt and Ireland (2002), strategic leadership for a company is the access to obtain coalitions with partners as well as the capability to establish good teams. While Stumpf and Mullen (1991) mentioned being innovative, able to optimize resources, able to recognize opportunities and create competitive advantage are the capabilities should be possessed by strategic leaders in private firm.

The ability to conduct strategic decisions, ability to convey vision and goals, as well as to manage key competencies are necessities for a leader (Boal and Hooijberg, 2000). Mintzberg (1994) stated that the imagination and creativity are important to make strategies. At the strategic level, the specific ability to manage challenges and threats is needed. Every leader at the strategic level should be able to generate new ideas, being innovative and have a wise perspective (Goldman et al., 2015). Gavetti (2011) reveals that strategic ability actually shows the ability to recognize opportunities that may not be realized by others.

2.2.Commercialization Capability

According to OECD (2005, p. 152), commercialization can be expressed as a form of market demand-oriented innovation. Basically, it is how to create a new, innovative product whose entire activities include design, packaging, promotion and strategy for pricing must be able to meet customer needs and ultimately be able to open up a new market for them.

Commercialization is the development of traditional research which is transformed into an innovated application in various forms (Razak & Murray, 2017). Generally, university Commercialization in university happens through commercial strategies such as providing research consultation, the availability of technology transfer, licensing for research product, having joint ventures, form a company within the university or spin-off companies, the partnership between university and industry, participate in the exhibition of innovation and conduct public presentations (Bruneel et al., 2010; Heng et al., 2011; Kotha et al., 2013). While other strategies can be conducted through research publications among scholar or academic presentations (Yaacob et al., 2011), which are more familiar in university than commercial strategies, since academic dissemination is the priority of universities (Rahal and Rabelo, 2006). However, it is necessary for researchers to rely on themselves instead of fully

dependent on of outside support, they should build their own capabilities for commercialization

2.3.University Support

Facilities, training and management are part of University's role to promote the commercialization. It is found that Incentives are perceived as one of the effective method to motivate the initiatives of research product commercialization. The creation of a center should be considered to support commercialization. (Ismail et al, 2015)

Universities can contribute to economic development both by interaction with existing industry and by other types of commercialization of knowledge, like the establishment of new firms (Rasmussen et al, 2006). A commercialization system may include elements ranging from motivation and education to initiatives to support specific commercialization projects such as innovation centers, incubators, patenting offices, and seed capital funds. In many cases, different actors are involved alone or in collaboration: the university itself, public agencies, nongovernmental organizations, and private companies.

2.4.Conceptual Framework

There is a positive relationship between leadership and the successful innovation (Jewel et al, 2011). A study by Razak & Murray (2017) showed the significant effect of strategic leadership on commercialization success for academic researcher in University. It is supported by Mir and Rahman et al (2013), that demonstrated leadership skill is one of key factors to manage innovation strategically. By having the strategic leadership skill, an academic researcher as the innovation actor will be able to plan innovative research ideas, maximize the resources and manage research conflicts. Those strategic skills are needed for academic researcher to enter the highly competitive and innovative business environment. Therefore, it can be stated that the strategic leadership will have significant effect on commercialization capability of academic researcher. This statement leads to following hypothesis: **H1: Strategic leadership affects the commercialization capability**

The capability of this commercialization cannot be completely separated from the support provided by the University. Given the fact that the role of the University has shifted, which is expected to support national economic development, thus forcing the University to encourage commercialization research activities at the University. The more favorable the support, the stronger the effect of strategic leadership on the commercialization capability. Academic researchers will be motivated and more focused on producing research results that have economic value that can be marketed to the public. In addition, university support such as training, for example, will enable academic researchers not only to identify market opportunities but also to collaborate with industry and be involved in industrial product development. Hence, logically to achieve commercialization capability is influenced by strategic leadership and strengthened by university support. The discussion leads to following

hypotheses: **H2: University support moderates the effect of strategic leadership on commercialization capability**

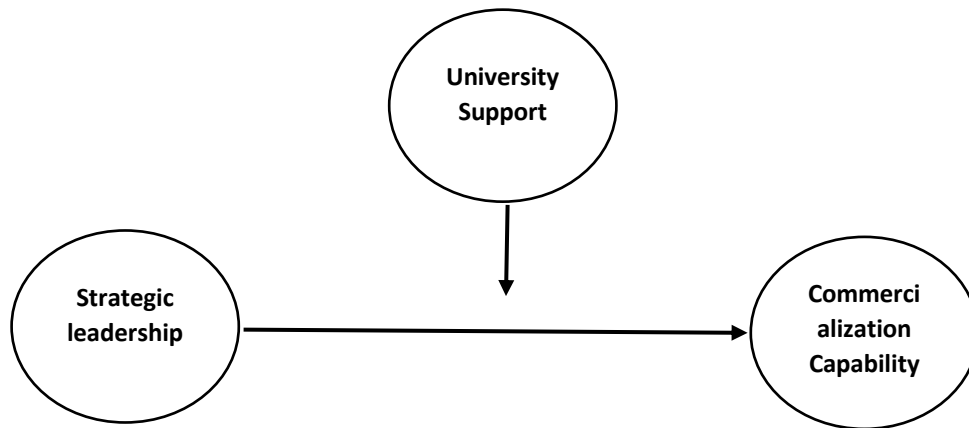


Figure 1. Conceptual Framework

III. Methods

The population in this study were 504 active lecturers at the Universitas Sumatera Utara who had received research grant from University. Samples in this study were calculated using the Slovin formula, obtained as many as 83 people, selected by using proportionate random sampling. This research used two types of data resources, which are: (1) Distribution of Questionnaires, and (2) Documentations Studies. Multiple Regression Analysis is used to explore the effect of strategic leadership on commercialization capability. Moreover, Moderated Regression Analysis is also used as data analysis technique to explore the role of University support as the moderator between strategic leadership and commercialization capability.

IV. Results

4.1. Moderated Regression Analysis

The results of the Moderated Regression Analysis research can be seen in Table 1 below:

Table 1. Result of Moderated Regression Analysis

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	-.145	.909		-.160	.873
	Strategic Leadership (X)	.671	.251	.809	2.671	.009
	University Support (Z)	.701	.251	.875	2.798	.006
	Moderator_XZ	-.098	.063	-.821	-1.545	.126

a. Dependent Variable: Commercialization Capability (Y)

Based on Table 1, the following moderation equation is obtained.

$$Y = -0,145 + 0,671X + 0,701Z - 0,098XZ + e$$

Based on the results in Table 1, it is known that :

- a. Strategic Leadership (X) positively affect the commercialization capability (Y) with the coefficient value 0,671 at Sig-Values 0,009 < 0,05. It means that the result supports the hypothesis
- b. University support (Z) positively affect the commercialization capability (Y) with the coefficient value 0,701 at Sig-Values 0,006 < 0,05.
- c. University support (Z) is not significant in moderating the effect of strategic leadership (X) on commercialization capability (Y) with the Sig value in the Moderation_XZ line is 0.126 > 0.05. It means that the result does not support the hypothesis.

4.2. Coefficient of Determination (R-square)

The results of the Coefficient of Determination can be seen in Table 2 below:

Table 2. Coefficient of Determination

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.709 ^a	.503	.491	.42678	1.628

a. Predictors: (Constant), University Support (Z), Strategic Leadership (X)

b. Dependent Variable: Commercialization Capability (Y)

Based on table 2 found that the coefficient of determination (*R-Square*) is 0,503. It means that strategic leadership and university support are able to contribute in explaining commercialization capability at 50,3%.

V. Discussion

5.1. The effect of strategic leadership on commercialization capability

The result demonstrated that strategic leadership affects the commercialization capability among academic researchers in Universitas Sumatera Utara. It is supported by Razak & Murray (2017) showed the significant effect of strategic leadership on commercialization success for academic researcher in University. Possessing strategic leadership means the academic researcher as the innovation actor has the ability to create research vision, foresee the market opportunities, coordinates the resources and utilize the new ideas. These strategic abilities will increase the ability of academic researcher to pursue the commercialization activities such as collaborating with many parties in industry sector, involving in business

exhibition, joint venture or even forming business partner especially in the dynamic and innovative business environment.

5.2. The role of University support as the moderator between strategic leadership and the commercialization capability

The main objective of this study is to investigate the role of University support as the moderator between strategic leadership and commercialization capability. The study found that university support did not moderate the effect of strategic leadership on commercialization capability. Ideally, the relationship between strategic leadership on commercialization capability will be stronger if there is support from University. When University support is not available, the relationship between strategic leadership and commercialization capability will be lower. Result of study have shown University support does not have the role to strengthen or weaken the relationship. As a matter of fact, the role of university supports indeed the central elements of commercialization capability. By providing the facilities for research and development, University has elevated the capability of commercialization for researchers. Other important supports such as publication incentives, research grants, policies and regulation are expected to strengthen the commercialization. The research finding may give implication that the university support does not act as the moderator, more likely as the independent variable. Thus, further study in the future is needed to give clear picture about the role of university support on commercialization capability as well as the exploration in qualitative perspective by involving the representatives from University and Industry.

VI. Conclusion

The result of this study provide support for the effect of strategic leadership on commercialization capability. It validates the previous finding that strategic leadership affects the commercialization capability. The interesting finding from this study is the lack of support toward the role of University support as the moderator between strategic leadership and commercialization capability. From the research model, it is found no support that university support enhanced or hindered the effect of strategic leadership on commercialization capabilities of academic researcher. Finally, results also showed that other factors that explain about 50 % of the variance in commercialization capability. It may infer that commercialization capability of academic researcher need to be explored more.

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