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# University Based on Knowledge Management to Create Sustainable Competitive Advantages

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#### **Abstract**

The purpose of this article is to provide a conceptual framework for the application of knowledge management to create sustainable competitive advantage at universities. In this 4.0 era, universities face many demands, challenges, opportunities and threats. A superior university is not only a large, high-rise building. However, universities must have advantages. In addition, the number of universities in the world is very large. Thus, each university must be able to compete and colaborate with other universities. The method used in writing this paper is to use literature studies. The author examines various scientific articles both national and international as well as relevant books. The conceptual results of this paper indicate that, resources owned by universities can be created, stored, updated, utilized and communicated. The resources owned by the university need to be well managed and used as advantages. Advantage created can be short term and long-term advantage. The conceptual framework of this paper can be used as a basis for a university to create sustainable advantages.

#### INTRODUCTION

Higher education is the arena of education after secondary education. Higher education has a very important. The role of university dealing with educational, research and community service activities or known as Tridharma College.

In the 4.0 era as it is today, universities face a variety of demands, challenges, opportunities and threats. The demands of higher education in the institutional context can come from human resources, government, society and the industrial world.

The challenge of higher education is a condition that must be addressed properly. Globalization and the progress of information technology that is quick encourage universities to adapt and innovate to remain relevant. University have a good performance reflected in the achievement of superior performance and the ability to maintain excellence in the long term.

Opportunities for universities as a gathering place for academics and prospective academics who have knowledge become visible to their existence. With the resources owned by universities, it enables universities to innovate through their strategic assets. There have been many innovations that have been used by the community as university innovation. The question is how many tertiary institutions with owned assets can survive and maintain it for a long time.

However, universities are also faced with an era of disruption like today. Higher education unable to innovate, low use of technology has the potential to lose existence. So, universities must be able to adjust to current needs. That ability is reflected in the ability of university to make it impossible to be a profitable opportunity and have a value of expediency. Higher education can see weaknesses into strengths and advantages. Higher education can see limitations is a gift that has the potential to be developed. Higher education can also turn difficulties into abilities. And universities must be able to change what is worthless to have high

grades. This ability must be reflected in every tridharma activity carried out.

Excellent universities are universities that have advantages. The superiority of higher education can be reflected in the quality of inputs, the quality of the process, the quality of the output and its outcomes. However, many universities are not superior despite using various strategies (Widodo, 2018).

Quality university are not reflected in how much land and buildings they have, nor in how tall the buildings are, nor in how many students there are. Although, a typical building can also be excellent for the community. The large number of students can also a benchmark for community acceptance of university in the hearts of the community. High quality universities can be reflected in the three qualities of undertaken activities.

Therefore, superior universities usually develop dimensions of excellence in higher education such as excellence in academics, excellence in research, excellence in community service, excellence in student affairs, and excellence in institutions.

Thus, one key to getting excellence is innovation. Innovation can be created if supported by good knowledge resources. Existing knowledge resources need to be managed so they have benefits and benefits can be created. The ability of university to manage their knowledge resources has great potential for university to have organizational sustainability.

### **METHODOLOGY**

The method used in this research is to use literature studies. The researcher examines various sources relevant to the topics discussed in this research article. The literature includes various books, national journals, international journals, and proceedings. The data got is then compiled, analyzed, and then concluded.

# RESULTS AND DISCUSSION

# Strategic Asset of Higher Education

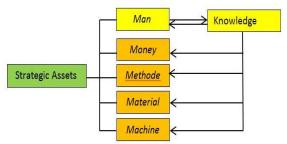


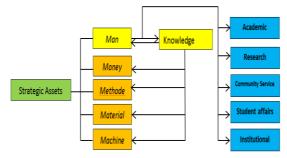
Figure 1. General Assets Strategic

Potential resources and capabilities that exist are strategic assets that can be an sustainable advantage, even excellence. Potential, which is also a strategic asset, can bring benefits when supported by human resources. Therefore, human resources who have knowledge, who have the potential to create knowledge, and have the potential to manage it well so it is profitable. One theory is that strategic assets in the form of existing resources and capabilities can convert values into profits (Amit and Schoemaker, 1993). One strategic element of an organization is human resource management (Sutrisno, Edy, 2009).

A university can make use of resources with all the capabilities it has and strives to make these resources profitable. Strategic resources can be general or specific. According to Peteraf (1993) strategic resources as cornerstones of competitive advantage that contain four conditions, namely heterogeneity, imperfect mobility, ex ante limits to competition, and ex post limits to competition. Strategic assets that have extraordinary potential can include people, money, methods, machines and materials. Of the five strategic assets, human man is the asset that holds the most strategic role compared to other strategic assets.

That is because, the four strategic assets (money, method, material and machine) can work well, the potential that can bring profit depends on a person with the ability he has to manage it. So that human capital with all the capacities and capabilities it possesses has a more important role for humans. With the capabilities and capacity of existing human resources in a university, it can develop various fields of activity, for example academic,

research, service, student and institutional activities.



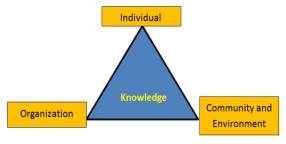
**Figure 2.** Field of University Activities with a Strategic Asset Approach

### University Based on Knowledge Management

Knowledge is information that has both value and use and being the basis for someone to act, by making individuals or organizations capable of others or more effective in acting (Wiyanto, 2016). Because knowledge is a systematic and integrated process, the activity of coordinating an organization to take, use, share, create, and store knowledge, follow-up on information and expertise of individuals and groups in pursuing organizational goals (Cheng, 2015). The form of knowledge a person has can be factual, conceptual, procedural or metacognitive which is got through one's sensory experience from various sources. Either from oneself or from others through the activities of observing, asking, collecting data, associating, and communicating dynamically depending on how a person or organization sees it. In this new era of knowledge is a very important component (Grant, 1991). Even knowledge has been recognized as an important source for achieving a sustainable competitive advantage (Mohsen, 2011). Therefore, every knowledge that is owned and owned by individuals and organizations needs to be managed properly. The knowledge possessed can be in the form of individual knowledge, knowledge of the organization, knowledge of society and the environment.

Knowledge management as an integration and coordination of individuals and organizational management by managing existing knowledge and generating new knowledge (Jyoti, 2011). These activities can reduce the possibility of loss of knowledge

(Bratianu, C. and Leon, R., 2015). The flow of information that is managed allows individuals to get the right information when needed quickly (Leticia, 2012). Knowledge management is a series of value creation processes using knowledge-based assets (Yusak Anshori, 2005).



Figur 3. Knowledge Orientation

Intellectual assets (knowledge) need to be managed properly, correctly and precisely in the process's size and results to get and maintain market share (users of goods / services offered). The conceptualized knowledge management goal to build a better organization can be achieved 2014). Knowledge (Amrous, management can also support organizational growth goals (Laihonen, H., et al, 2015). This is supported by Walid Qassim Qwaider (2011), which states that knowledge management is a discipline that helps the dissemination of individual or group knowledge in organizations that directly impacts performance. Therefore, knowledge management is the core of the organization's business growth (Schiuma, G, 2012). Even a study shows knowledge management and e-learning provide value to organizations and through the use of social networks, knowledge is no longer limited to certain groups of individuals, but will allow organizations to learn from their most valuable assets (Kane, K., et al, 2010).

Some figures theoretically explain that the dimension of knowledge includes dimensions including acquisition, conversion, application and protection. Then, based on theoretical dynamics and phenomena in this study, it is summarized into knowledge acquisition, knowledge sharing and knowledge utilization (Sangjae, Byung & Hoyal, 2011). In addition, Márcia (2012) shows that the dimensions of knowledge management include: knowledge

sharing, knowledge creation, protection of knowledge and utilization of knowledge. Meanwhile, according to Susanne & Ingi (2012), knowledge management includes dimensions of knowledge identification, knowledge creation and knowledge storage / retention and transfer of knowledge and utilization of knowledge. Once the complexity of knowledge management, Collison and Parcell 2004) say (Ghalib, that knowledge management reaches the boundaries of learning and development, information technology, and human resources. So it can be said that the success of knowledge management is strongly influenced by three fundamental elements namely people, processes and technology. Thus the process of knowledge management includes the dimensions of activities to create knowledge, store knowledge, share knowledge and update knowledge. From the series of activities, categorization or other levels of knowledge management that can be implemented include level 1 (document management), level 2 (information creation, sharing and management), and level 3 (enterprise intelligent) (Yusak Anshori, 2005).

Knowledge management university is a university that makes knowledge management as a basic basis that a foundation for thinking of all academicians in it for implementing all higher education program activities. Knowledge resources possessed by universities are strategic assets that must be used. Because, human resources can create knowledge, able to store knowledge, able to share knowledge and be able to renew knowledge. Originating from various sources of knowledge both individuals and organizations, requires that knowledge needs to be managed well so it is useful. The activity of creating knowledge can be done through the activity of tacit knowledge into explicit knowledge. Knowledge exploration activities can be carried out to gain new knowledge. Activities that can be done for example through critical thinking activities, reflective thinking, analytical, skeptical, even radical in thinking.

The activity of storing knowledge can be carried out in various ways to ensure that the

knowledge that has been created can be durable, maintained, maintained and remain sustainable. Transfer of the existing knowledge in the mindset into other forms such as books, scientific journals, magazines, news and others. The sophistication of information technology can be done to ensure knowledge can be stored properly and easily accessed if needed. Flasdisk media, hard disks, hard drives, and other media both portable, virtual, and in the form of printed hard files can an option. Knowledge sharing activities are carried out to spread the knowledge possessed by individuals to other parties. Through multi methods, multi forms, multi channels can be done in knowledge sharing activities. Either done individually or integrated. With the hope of the message, the knowledge to be shared will be more easily conveyed and easily understood by the recipient. Universities as higher education institutions have many scientists, academics and professionals born universities. Activities. renewa1 knowledge through development activities, academic assessment becomes one of the most strategic tools.

With a good knowledge management, it enables universities to gain excellence in various fields. For example, excelled in the academic field, excelled in research, excelled in service, excelled in student affairs, and excelled in institutions.

# **Higher Education and Sustainable Competitive Advantage**

Competitive advantage (Warren J. Keegan, 2007) is the second basic marketing concept. While the first is the customer bride and the value equation. Organizations in goods or services must create greater customer value than those created by competitors. The second is a competitive advantage. Competitive advantage is a total offering, faced with relevant competition, which attracts more customers. These advantages can appear in any element offered by the company in terms of products, prices, advertisements, promotions and distribution. a The third is focus or concentration of attention.

A clear focus on the needs and desires of customers and one competitive offer is needed to drive the business, which is needed to maintain differentiating advantages. All of this can be achieved when the company focuses its resources and effort on the needs and desires of customers and how to deliver a product that will meet those needs. In addition, to create competitive advantage we also know the name of generic competition from Michael Porter. A company can compete, among others, through; differentiation, cost pioneering, focus and rapid response (Barry Render and Jay Heizer, 2001). From Michael Porter's strategy among practitioners of production and operations management is translated into six specific strategies, namely: flexibility, low prices, delivery, quality, after-sales service, and a broad product unit. Third, the development of these strategies into six strategies was developed to create a kind of competitive advantage from the products and/or services produced, distinctive advantage-product uniqueness.

In 1984 sustainable competitive advantage was introduced by Day (in Mohammad hakkak and Masoud, 2015). Then in 1985 the term sustainable competitive advantage began to be developed seriously by Porter and in various competitive strategies to create long-term excellence. However, a formal definition of sustainable competitive advantage has not yet been given. Some experts began to provide formal definitions to clarify the substance and studies related to sustainable competitive advantage. The definition of sustainable competitive advantage, for example Borney (in Hakkak and Masoud, 2015), says sustainable competitive advantage is continuity of benefits and the application of a unique value creation strategy so that competitors cannot imitate it. On the same reference Kevin, explained that the advantage of sustainable competition is related to the company's efforts in building and maintaining long-term profits.

The size of the target market, access to resources and customers and the limitation of a competitor's power are the factors that influence it. Sustainable competitive advantage can be achieved if managers implement strategies that cannot be easily copied or imitated by competitors. Sustainable competitive advantage is only possible to be achieved through activities that cannot / are difficult for competitors to imitate (Sampurno, 2013). A new company can have a competitive advantage if the company designs and implementing a value creation Therefore, to build competitive advantage the company must be carried out appropriately and sustainably, by developing strategies and implementing them. The same thing with the above opinion, to run a company's business, a company will not enjoy a sustainable competitive advantage if only processing resources capabilities. Companies must be able to combine resources in different new ways or develop new capabilities to gain a sustainable competitive advantage. condition is possible through creative thinking and innovation and approaches to competitive advantage.

Organizations will not achieve sustainable competitive advantage if only following the product market-based strategy or resource-based strategy. Knowledge resources provide a strong base for companies to create sustainable

competitive advantage. To develop a strategy-based knowledge in the context of creating a sustainable competitive advantage requires continuous effort, requires future understanding and comprehensive planning.

The strategic superiority of higher education does not always guarantee sustainable competitive advantage, because it is possible that higher education excellence can also be carried out by other tertiary institutions. Therefore, every advantage that is created must be valuable, rare, cannot be imitated and difficult to replace. Organizations can achieve sustainable competitive advantage if the organization successfully designs and implements a value creation strategy (Wiyanto: 2016). Value (value) is unique because it can be valuable for organizations and individuals in it (valuable), rarely or no competitors who have (a rarity), can not be imitated or may be imitated but difficult (imitability), can not be substituted (non substituability), can be processed (exploitability).

Higher education can create value that can excellence in various fields including academic activities, research, service, student affairs and institutions. The advantages created can also be measured from the dimensions of input, process, output and outcome.

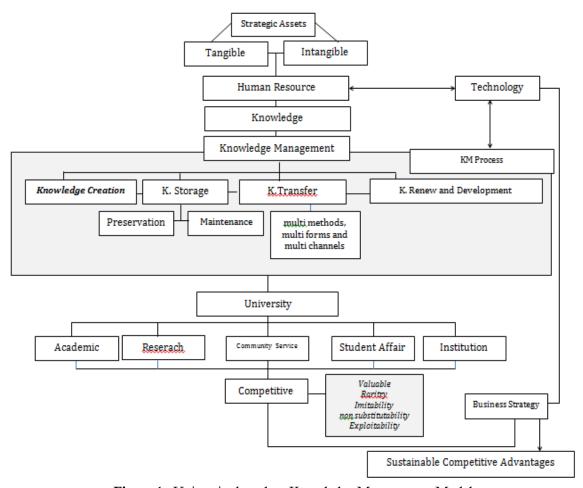


Figure 4. University-based on Knowledge Management Model

# **Proposition**

The successful application of knowledge management is influenced by human resources, and knowledge management processes. Knowledge management makes it possible to know the organization's strategic assets which can then be used. In higher education, knowledge management can a basis and applied in various fields of higher learning, namely academic activities, research, service, student affairs and institutions. Strategic institutions of higher education can be got from various fields of higher education that can also be seen from the dimensions of input, process, output and outcome. The ability to use resources and capabilities that are owned, by using technology, combined with business strategies can create excellence. If the excellence that is owned and created is valuable to the organizations and individuals within it and the stakeholders, rarely or no competitors have,

cannot be imitated or may be imitated but is difficult, cannot be substituted, can be processed then it can be said the advantage is sustainable.

## CONCLUSSION

Based on the discussion above, it can be explained that universities with a good knowledge management insight will achieve excellence, even sustainable competitive advantage. Knowledge management can a basis, a reference framework for higher education in higher education tridharma activities excellence. Excellence universities can be created (through exploration activities), stored (in order to have endurance and easily accessible), renewed (to suit the demands of the situation and conditions), and communicated (a through transformation activities). Excellence can be created in accordance with the role of university that is tridharma activities that can

come from tangible assets and intangible assets. Excellence owned by university, which is the same as other university, is still maintained and maintained. While the advantages different from other university need to be optimized, they become distinct characteristics that make them different from other university. The uniqueness of a university if managed properly will create a sustainable competitive advantage.

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