Considerations and Suggestions on University Development Strategic Cluster Towards Sustainability

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Abstracts

This paper focuses on the higher education's policy and strategic management towards sustainable development in case of King Mongkut's University of Technology Thonburi. The strategic cluster is suggested to gear up the relevant management and policy units with the existing university-development research centers for the accomplishment of their institute's vision and flagships. On the basis of investigation, the core management and policy units in KMUTT consist of The Planning Division, The Policy Innovation Center, and The Systems Innovations Center. According to the KMUTT's vision, The Policy Innovation Center has researched and initiated the KMUTT's strategic goals. The Planning Division conducts the strategic and development plans in which The Systems Innovations Center continues managing to be the action plans. Meanwhile, several university-development research centers have been gradually established in different function and expertise: teaching and learning development, sustainability development, technological facility development, and physical facility development. The appropriate mechanisms to manage all units together will be the key success for the university's continuous improvement.

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Introduction: KMUTT's History in brief

KMUTT's history has been evolved from its origin as the Thonburi Technology Institute (TTI) in 1960. In national problem-solving scenario, the lack of technicians and technologists, TTI's establishment was the first technical institute recruiting students after their completions in secondary education. Later, the institute has been developed as shown in quotation.

> By the virtue of the Technology Act, enacted on April 24, 1971, three technical institutes under the Department of Vocational Education, namely Thonburi Technical Institute (TTI), North Bangkok Technical Institute, and Nonthaburi Telecommunication Institute, were combined to form one degree-granting institution under the name of King Mongkut's Institute of Technology (KMIT) constituting three campuses. TTI thus became KMIT Thonburi Campus. In 1974, KMIT was transferred from the Ministry of Education to the Ministry of University Affairs. A new Act was enacted on February 19, 1986; the three campuses of KMIT became three autonomous institutions, each having the status of a university. KMIT Thonburi Campus henceforth became King Mongkut's Institute of Technology Thonburi (KMITT). On March 7, 1998 as announced in the Royal Gazette, KMITT became King Mongkut's University of Technology Thonburi (KMUTT). KMUTT is the first among public universities in Thailand to receive full autonomy. Its administrative system is now patterned after international government owned universities. The new act gives KMUTT total control over its budget, allows it to own and manage property, and grants authority to set up new faculties and departments, as well as introduce new academic programs. (http://global.kmutt.ac.th/about/history)

After becoming KMUTT in 1998 as an autonomous university with nation's trend in less public funding for higher education, this academic institute unavoidably committed with issues that have been debated and resolved in principle; Funding support from the government, Performance evaluation and personnel management, Autonomous university governance, and Privileges for autonomous public universities and their personnel (Kirtikara 2002).

KMUTT's Evolution on Strategic Development Units

Consequently, to maintain its competitiveness and sustainability in higher education arena, several units have been gradually established relating to various aspects of university development starting with The Policy Innovation Center (PI) and Systems Innovations Center (SI) in 2000. Both centers were founded in order to collaborate with The Planning Division as in the strategic cluster. PI initiative's concept is to monitor the rapid advance in science and technology trends and issues in economic and social developments. The derived trends or impacts hence are synthesized to be the knowledge base for the university's policy and strategic managements (Policy Innovation Center 2003). Meanwhile, to connect the policies and strategies with the operational levels, SI is accountable for facilitating forums and information to cascade both top-down policies and strategies and bottom-up valuable initiatives among management, staffs and all stakeholders. This is not only to leverage the efficiency of workplace's
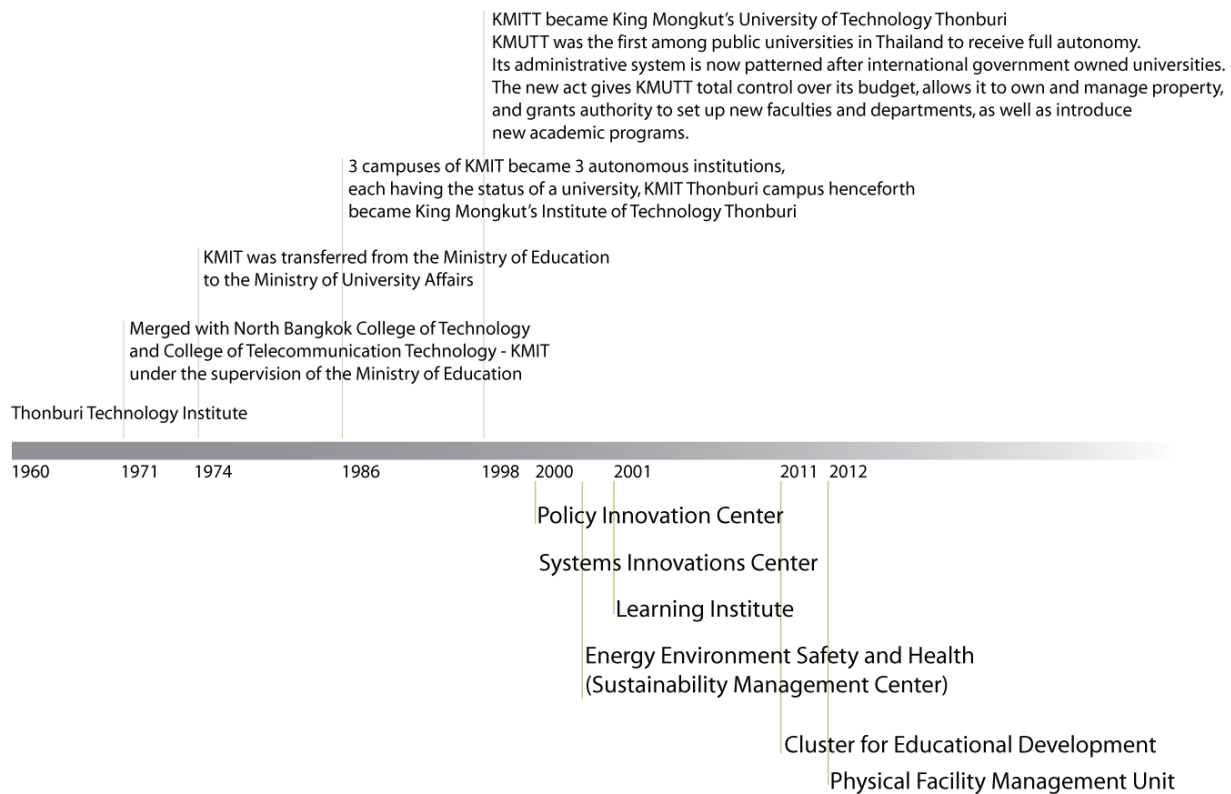
communication, but also the expectation to improve or create the organization's performance-based systems continuously (Systems Innovations Center 2011).

The Sustainability Management Center, named "Energy Environment Safety and Health office", was then set up to ensure the vision to be Green University (KMUTT Sustainable University 2012). This office functions in regulating code of conducts, standards, or systems and being the role model on energy, environment, safety, and health management. Becoming the implementation in university as the holistic approach, the office has to promote, support, and facilitate school, faculty, department, division, or unit within KMUTT to integrate the green policy into their workplaces and systems.

Since 2001, according to the National Education Act (1999) and one of the KMUTT's flagships towards learning organization, The Learning Institute (LI) was established and entrusted with teaching and learning development and innovation. The structure of LI has been evolved from its origin to now three functional roles. The first role is to be the research unit for teaching development and new approach to learn. Secondly, role of training and couching new academic staffs has been deployed to support every school and department's academic staff development. And last role is to be the pilot unit for kinds of innovative pilot projects in learning within KMUTT (Learning Institute 2012). In addition, LI has been demanded from the emerging of educational trends and issues such as work-integrated learning or general education in higher education level.

The next research and development unit following into this field is The Cluster for Educational Development (C4ED 2011). The cluster, called as its generic name, determined networking and team-working approaches to develop from faculties, instructional strategies, to organization systems. In fact, the major role of this unit has been shown as the technological facility development. Its Beta Lab has been researched and developed the university online learning platform called "Learning Environment" to enhance the classroom activities to be more comprehensive with outside the classroom.

And recently, The Physical Facility Management Unit (PMU) has originated in the school of architecture and design in order to cope with issues in campus such us master plan, learning environment and space, landscape, architecture and communication design. The rationale of PMU's initiative is the incidence of physical growth among three campuses in addition with the new city-center building located nearby downtown area. The review of institute's roadmap and development plans by this unit will assist the university to layout and design the growth of physical functions and campus themes in every location with strategic alignment.

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KMIT was transferred from the Ministry of Education
to the Ministry of University Affairs

Merged with North Bangkok College of Technology
and College of Telecommunication Technology - KMIT
under the supervision of the Ministry of Education

Thonburi Technology Institute

1960   1971   1974   1986   1998 2000   2001   2011 2012

Policy Innovation Center

Systems Innovations Center

Learning Institute

Energy Environment Safety and Health
(Sustainability Management Center)

Cluster for Educational Development

Physical Facility Management Unit

Figure 1. The KMUTT's Timeline with Strategic Development Units

Suggestions on University Development Strategic Cluster towards Sustainability

The cluster in the university's strategic development suggested in this paper is grounded on realizing that several units have already existed and functioned, but with or without well-organized coordination. Instead of setting up the new office for strategic management as the mechanism for matching strategic ambition with academic performance in university (Duggan n.d.), which probably be appropriate with other university's conditions and structures, KMUTT is potential and capable of managing collaboration or just slightly restructuring its existing organization chart as suggested in Figure 2. The Planning Division would be the center of strategic cluster. All related information from university management to the studies in research and development units will be managed with integrated decision making and planning. Coherently, there should be the session for all university's R&D units as the R&D clustering to brainstorm in multidisciplinarity.

The integrative solutions from this collaborative research and development process would ensure that the university development initiatives will be aligned with the overall university's visions and strategic goals. The implementation plans out of the strategic cluster should attempt to

complement among other units. Then the organization resource allocating and sharing should be utilized efficiently and effectively.

Finally, to accomplish the strategic goals of KMUTT roadmap and flagship, the Systems Innovations Center will be responsible for the cluster's outbound roles including communication, encouragement, and facilitation through the strategic forums. The more participation from university's stakeholders means the more satisfaction in their academic activities. At the circle's end, conceptually, the long-term strategic planning or KMUTT's roadmap and flagship shall be addressed by the Policy Innovation Center with the significant study in S&T, economic and social trends towards sustainability.
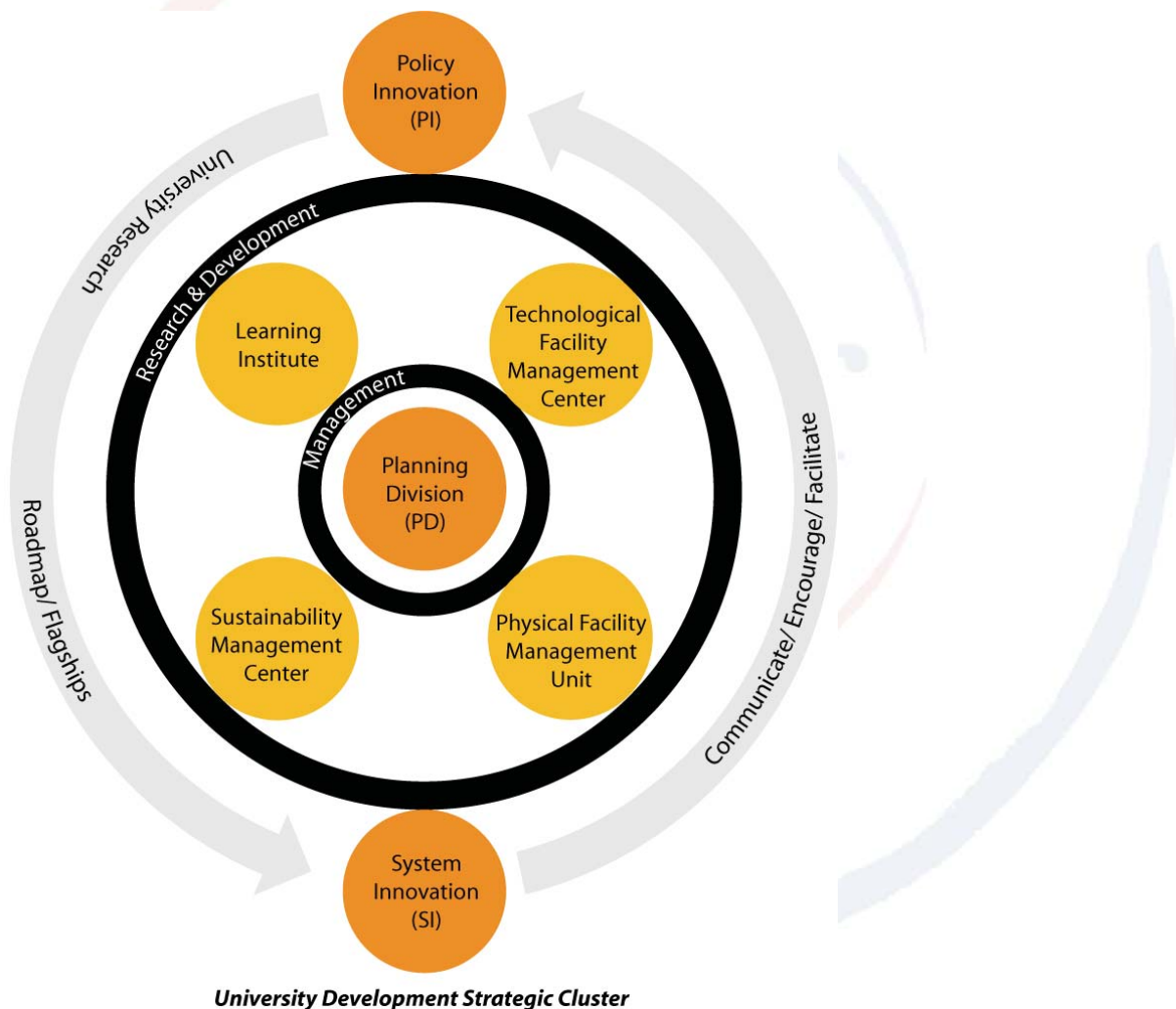

University Development Strategic Cluster

Figure 2. Diagram of University Development Strategic Cluster

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