UNIVERSITY LAND MANAGEMENT: A REVIEW

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Abstract:
The public universities has recently struggled to maintain its operating costs due to a reduction in budget allocation from Federal Government. As a result, public universities must diversify their revenue sources in order to maintain their operating costs. One initiative that could be taken is through effectively manage the university assets in which land is one of the important components. Land is one of the tangible assets that needs for a systematic operational in a way to achieve assets greatest return. Therefore university as landowner must ensure that their land is strategically and efficiently managed, in order to achieve the best and highest return. The land management theory has emphasis on putting land into efficient use and good effect. Land policy, land information, and land administration are the three components of land management that put land use for good effect. These three components are important to ensuring that land management meets its objectives. Therefore, the main aim of this study is to review on how university managing their land and what are the essential component that supports good land management practice in University. To achieve this, qualitative method used in this research in which it will rely on the analysis of the relevant statutes, university’s strategic plan of the university, the policy and procedure of university land management, journal and book are reviewed to identify the information and
practice on university land management. This Study found four component of university land management which are land management unit, land information management, the statement of strategic plan, policy and procedures as well as financial management. These components should be useful for universities especially to their decisions-makers, such as chancellors and asset managers.

Keywords:
University, University Land, Land Management

Introduction
Public Universities around the world are now experiencing financial difficulties in managing their operations (World Bank, 2015). One of the reasons behind this is that reduction of budget allocation from higher government (McLaren, J. I. & Struwig, F. W. 2019). Public universities around the world are urged to evolve the revenue sources because depending on government funding is no longer reliable to ensure their financial sustainability. One of the approach that could promote financial sustainability in universities is diversifying source of income through asset monetization. Despite several types of university owned assets, this study focuses only on land owned and manage by the university. The ability of universities to manage their land effectively will lead to the cost savings, such as taxation and income generation through leases and joint ventures. This research is primarily aimed at identifying the main components of good university land management based on the past research. Better understanding of the component that support good university land management will help top management of the university to effectively manage their land.

According to Cornell University (2015), land defines as solid part of the earth surface, whether improved of unimproved. While in university perspectives, Donaghy et. al. (2017) stated that university owns parcel of land which are under-developed, developed, under-utilized, or not fully maximized for revenue generation. On the basis of these two definitions, this study focuses on how universities manage their land with or without the building thereon. In this paper all the terms related to vacant land and land occupied with any structure belong to the university such as asset, immovable asset and real estate will be referred as land.

Management Of The University
In general, Abd Hamid (2015) defines university as an institution of higher education and research, which grants academic degrees in a variety of subjects and provides both undergraduate education and postgraduate education. While Alemu (2018) define that university as a higher education institution that operant teaching, learning and research activates such as arts, humanities, and science faculties and more specialized university institutions in agriculture, engineering, science, and technology. In this paper, university refers to higher education institution with the main business is teaching, learning and research which ultimately issued an academic degree.

The previous research on university management usually focuses on education and research since it was their core business. Even so, apart from academics, university management actually covers a wide range of scope. According to Hodges (1952), management of universities fall into four main groups namely education, students, public relations, and
auxiliary activities. Meanwhile Heijer (2011) through his study on managing university land has classify 4 component of campus management based on stakeholder’s perspective which are strategic, financial, functional and physical as shown in Figure 1.

![Figure 1: Campus Management Perspectives With Their Corresponding Key Performance Indicators](source: Heijer (2011))

The four components as shown in Figure 1 actually can be applied in another scope of management such as asset management as detailed by Heijer (2011) below:

i. Strategic perspective which is how and to what extend are institutional goals and education, research, human resource and valuation of knowledge support, achieved or obstructed with the current real estate portfolio

ii. Functional perspective such as the number and types of users that have to be accommodated, the satisfaction about the current campus, occupancy, and frequency rate

iii. Financial perspective such the campus investment, resources that are spend on real estate and the values the campus represents.

iv. Physical perspective which is the quantity and quality of current and future campus including location characteristics, types of space, condition and age of the building.

The discussion on managing asset belong to university in this section can be consider as general because the ultimate goal of this study is to review on land management as one of the category under university asset. Therefore, the next section of this paper will explore specifically the essential components of land management practice in University.

**Land Management In The University**

Generally, De Jonge et. al (2008) defines land as a building and land. According to Heijer (2011), university land is defined as both the university building and land either owned by the university or rented from another real estate-owner. Meanwhile, Musa and Ahmad @Baharum (2012) have classified land as a physical asset of the university. Based on these three definitions, university land can be defines as land and building own and managed by the university.
To ensure that the land belong to the university could achieve their best function in term of economy, social and sustainability, university should have a good land management practice. According to Land Administration Guidelines, land management is the process of put a land resources into good effect (United Nations Economic Commission for Europe, 1996). While Enemark (2005) describes land management consist of land policies, land rights, land use planning, regulation, implementation and development to ensure land resource could achieve their highest and best use. Therefore university land management can be summed up as the process of making university land resources to the highest and best use.

According to Enemark (2005), there are three components that describe the land management activities that support sustainable development as follows.

i. Land policies may be associated with: security of tenure; land markets (particularly land transactions and access to credit); real property taxation; sustainable management and control of land use, natural resources and the environment; the provision of land for the poor, ethnic minorities and women; and measures to prevent land speculation and to manage land disputes.

ii. Land information infrastructures that include cadastral and topographic datasets and provide access to complete and up-to-date information about the built and natural environment.

iii. Land administration functions that ensure proper management of rights, restrictions, responsibilities and risks in relation to property, land and natural resources. These functions include the areas of land tenure (securing and transferring rights in land and natural resources); land value (valuation and taxation of land and properties); land use (planning and control of the use of land and natural resources); and land development (implementing utilities, infrastructure and construction planning).

Next, based on the review of past studies this study has identified four components that could support an efficient university land management which are land management unit, land information management, the statement of strategic plan, policy and procedures as well as financial management.

**Land Management Unit**

One of the components that could support a good land management is by established a unit that responsible to all land matters of the university. Goldstein (2006) land management require the establishment of organisational structures and systems for ensuring the attainment of objectives. Therefore, this approaches can improving efficiency university land management as suggested by Wang (2015) and Donaghy et al. (2017) is by set up corresponding land management entity which represents universities to manage and monitor university land. As mentioned earlier, the land can be either vacant or any land occupied with the structure. In this regard Donaghy et al. (2017) emphasized that it is important to note that land management and the facilities management have different scope of duties. Therefore, it should be handling by two different units.

The next step is to ensure there is a good organization structure that could support all the job scope within the responsibility of the land management unit. An appropriate organization
structure does not indicate a good or bad land management but it could certainly improve the chances of success (Hodges, 1952; Donaghy et. al, 2017). In addition, the appointment of staff within this unit is preferable someone who had background on land management. This is due to the fact that they must make effective decisions on university land (Bourne and Jenkins, 2013). According to Wang (2015), the university can provide professional trainings time to time to improve staff awareness on land management and professional competence among the staff.

**Strategic Plan, Policy And Procedures Related To University Land Management.**

In general, the definition of strategic plan by Maleka (2015) is a blueprint for achieving the goal of the organization. While, Berahim, et. al. (2019) defines strategic plan of an organization as the statement of direction and an action plan that touches on governance, economic, social and environment that should be achieved within a set period of time. In university land management context, Donaghy et. al. (2017) describe the plan outlines the institution’s land development goals and desired outcomes should be frequently revisited and evaluated; and is designed to achieve multivariable outcomes which include both programmatic support, cost economy and revenue generation.

Base on University of Reading's Estate Strategy to 2026 (2014), University of Reading has developed a plan to describe how they can use their land for support their operation in the future. This approach include, using land for academic purposes as their core business, as well as investing in land to generate revenue to sustain their operation cost. Besides that, by taking the Land Management Strategic Plan 2017-2017, University of Alaska (The University of Alaska, 2017) as an example, the items that become the outline in land management strategic plan includes the goal to be achieve in certain duration of years, the unit that responsible in achieving the land management goal, the types of land resource, the obstacle to overcome, the strength to build, the revenue projection, the specific and the measurement to evaluate the progress of strategies implementation. However, the outline of strategic plan that should be adopted is depending on the nature and characteristic of each university.

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Next, the strategic plan should be more specifically interpreted as the policies and procedures. This study has found that some universities that have adopted policies and procedures for managing their university land such as Land and Building Security Policy by University of Alberta (University of Alberta, 2012), Policy and Procedures on Occupational of university Land and Building by lease or licence (University of Queensland, 2014) and Auburn University’s Policy on the Assignment of University Land (Auburn University Facilities Management, 2015). Based on these three documents, the content of the policy and procedure usually includes the document number, the policy title, the responsible unit or custodian, the approving authority, policy scope, purpose and objectives, overview, definition, acronyms, date of approval and review, and the policy statement.
University Land Information Management

Information system implemented process of recording, storing, and disseminating linguistic expressions as well as for the supporting of decision making. According to Abdullahi (2015), the starting point for capturing information is the establishment of a register of land in university. Beside that Wang (2015) stated that university land management information system is the process of records the whole process of purchasing, receiving, checking, acquiring, transferring, and disposing the assets and achieves the networked supervision and dynamic management. Therefore a lot of information related to the land such as land title information, location, category of land use, taxation information, market value, land transaction information as well as detailed information of the building structure on the land and future plans (Eziubochi, 2011). Dachyar and Perkasa (2018) claimed that the university do not utilize a good information system very well, because the processes were carried out manually and were not integrated. Therefore, in order to enhance the land management efficiency, the use of advanced information management seems extremely important.

In term of land this system recorded information about land use, tenure, cadastral and topographic tax and all about the land. Term of building system recorded information about age of the building, use maintenance. This verity of information, that make difficulty on manage land information Therefore modern information and network technology as a basic approach to achieve efficient university land management. (Wang, 2015). Land information management became more efficacies when element of information system and technology combine. Donaghy et. al. (2017) a comprehensive information can make management work more faster and efficacies. Heijer (2011) say that managing land information can help decision making in the university. Therefore, land information infrastructures can help university to land management more efficacies and can make decision making on develop university land asset precise.

Financial Management

The last component that is important in the management of universities land is the financial management component. Financial management component is includes expenses and revenue derived from university land. University nowadays started generated revenue from their land. As stated at University of Reading Reading’s Estate Strategy to 2026 (2014) they can generate 5% revenue from their land to support university’s core operations. Beside that, University of Oxford also take their action by renting, leasing and developing their land in order to make revenue, to support their core business (Oxford Financial Statements, 2017). This is also, have been done by almost all university in the world. Base on Chinmay J. and Ashwin A. (2019) research, university in the world are start to diversify university income, therefore monetization universities asset is part of it.

In term of expenses, university need to consider some of the expenditures that will be incurred when university lands develop. For example Heijer (2011) and University of Reading's Estate Strategy to 2026 (2014) mention that, if the land can be used efficiently, developing university land can be a beneficial thing for the institution. Otherwise, it might be a financial burden for the university, as it must cover a variety of management costs. As a result, the university must have a clear plan for generating revenue from their land.

Besides that, universities land are also not exempt from land taxation and any other holding cost related to the land. As the category of land use is an institution, the university is exempt
from the property tax imposed by the local authority. However, the university still has to pay for other related costs. According to Wiewel et al. (2007), some university pays a PILOT or payment in lieu of taxes. In Malaysia all lands, buildings or hereditaments occupied by public university for public purposes are required by Article 156 of the Federal Constitution to make contribution in aid of rates to the Local Authorities. In addition the university in Malaysia is also responsible for paying land taxes and any other service charge in accordance the rates assigned by the land office.

**Conclusion**

Land is the asset that supports university activity and a source for university income generation. Therefore university need a good land management practice. This study had identified four components that support an efficient university land management which are land management unit, land information management, the statement of strategic plan, policy and procedures as well as financial management.

Base on the studies, land management unit component can improve the efficiency of university land management. This is because, land management unit have expertise on land management processes. Besides that, this studies find that university also need to have good land information management. Land information can be several of information, university need to have a system that help them use the information for their good. This information may help them make a decisions faster and efficacies.

Next strategic plan, policy and procedures. Has mention earlier, university land is the asset that supports university activity and a source for university income generation. Therefore to accomplish that goal, the university must have a strategies that suitable on them. This strategy can act as a guide for the university in its land management operations. Lastly is a financial component. In term of getting revenue, in aspect of good land management, university need to make sure expenses is lower than revenue. Therefore, four components should be useful for universities especially to their decisions-makers, such as chancellors and asset managers.

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