

# [Transportation structure for a university education essay](https://assignbuster.com/transportation-structure-for-a-university-education-essay/)

## Introduction

This chapter is discusses about the theories that related to the definition of university facility and service, its concepts, and also the university in campus transportation structure. In addition, this chapter also included the role of students as primary participants in university. In addition, this chapter also discuss about the issue on having own transport in campus and strategy of implementation for in-campus transportation structure.

## 2. 2 University facilities and services

The word ‘ facility’ can be defined an instrument that used by those involved in an organization that seeks to carry out their tasks or missions. Donald Shoup (2005) had indicated that big universities are one of the higher education institutions organizations. They consist of facilities, main halls, hostels, clinic, library, offices, parking, canteens, stores, theaters and classrooms. Facilities must bring users to feel comfortable when they are using, which known as ‘ service’. Thus, the facility is expressed something ‘ tangible’ while service is ‘ intangible’.

According to Abdul Rahim Bin Romle (2002), universities are seen as a process or in which students act as ‘ products’, as output and having a utility value on the labor market. The main purposes of every university are to provide extra knowledge, seek for academic development, educate the students, and coordinate national development demands, which had stated by Johnes and Taylor (1990). Maimunah Sapri et. al. (2009) had addressed that achieve the core teachings and research missions, universities need to have substantial facilities and services. The facilities not only contain laboratories, lectures theatres and offices but also had student hostels, catering facilities, in campus shuttle bus, and sports and recreations centres. Additionally, with increasingly the student population, there are also requirements for the universities to provide other services, such as students support services, students welfare services, medical services, and career guidance.

Generally, students view as the primary participants of universities’ facilities and services, because they need a healthy environment for create a better learning environment. Thus, universities sensitivity in provide facilities and services purposely to fulfill the students’ needs and requirements. Most of the universities are the same types in providing facilities to students which are library, laboratories, lectures theatres, hostels, mosque, catering facilities, shuttle bus, and sports areas.

## 2. 3 University Transportation System

According to T. Shannon et al. (2006), most of universities had provided their students with in campuses transportation service in the campuses. Based on a past research who survey by Limanond, T. et al (2010), there are classified five major the transport modes in a rural university of Thailand namely Suranaree University of Technology. The first mode is drive own transport in campus to the destination. By following, students ride with their friend who drives. Next is students using in campus shuttle bus, city bus, or an intercity bus. Lastly, students walk and cycle to the destination, respectively.

According to Nor Hazani Mat Daud (2008), bus and taxis are the mostly public transportation services available to fetch people from and to Universiti Teknologi Mara (UITM) main campus, Shah Alam. These two types of public transportation are easy to meet the requirement from students, staff and visitors. The bus and taxi service is to cater the students stay outside and surrounding the campus to the destination. Most of universities had allowed registered taxis to enter the campus.

In addition, the in campus bus service is also available at all of the students. The in campus shuttle bus service is provided for the students easy to move to a location from another, especially to their faculties and main library. A system serving a university that primarily provides in campus shuttle bus because providing of shuttle bus to the internal campus circulation purposes. Additionally, providing mobility where from student hostels to faculties needed to take long distances and thus there is insufficient time to walk between classes. Another goal of providing of shuttle bus is one of the solutions to reduce the traffic congestion (all transport modes) in campus. (John Dagett and Richard Gutkowski, 2003)

Besides that, in campus shuttle bus had operate around a complete loop of the core area of the campus with every university own schedule fix periods. Even though it is free, it is not a popular service for those students who have alternatives because of the infrequent headways and its route, which are not direct. Outside the time periods of the bus, some of the students have drive own vehicle or have a ride-share arrangement with friends who having own vehicles in campus. Additionally, bicycle trips are mostly for recreational purposes and usually occur in the campuses. (Carlos Balsas, 2003)

On the other hand, a prior researcher had stated that walking and cycling are more suitable modes of transportation to get to and around the campus. Most of the colleges had a high percentage of students live on campus, and another considerable percentage of students are reasonable walking and cycling distance. The bicycle offers riders speed and flexibility over short distances. Waking also is the primary mode of transportation for the students because walking is fast, direct, and has no costs involved. The students are physically more fit, have restricted budgets, live close to campus and already own a bicycle. These two modes have many health benefits too.

In general, there are different types of transportations in universities. Bus and taxi are the public transports that had provided in the campus. While, other transport modes are walking and cycling and these modes are encouraged by universities. Walking and cycling are exercises that good for students healthy too. Because of reason flexible, some of the students are having their own vehicles in the campus. Both of these transport modes have their own benefits to students.

## 2. 4 Students as Primary Participants

Students have been viewed as the primary generation of education, so that they should be treated as participants. This perspective stems from the understanding that educational institutions are highly competitive in the education market with alternative strategies being aggressively developed to fulfill pupils’ needs and requirements in order to attract a sustainable facility and service. (Joseph and Joseph, 1998).

Based on the past research, most of them are focus on the participants of students as the students are considered as users who receives the service in university or higher education institutions which consist of the facilities provided such as the accommodation, computer lab, hostel, cafeteria, library, mosque, sport complex, shuttle bus, and others. Hence, Hill et al. (1995) stated that “ pupils’ self-perception of their educational experiences provide significant measurements for the evaluation of university outcomes.” It could be inferred that students’ knowledge of facilities as services is an important predictor of satisfaction with facilities and services that had provided.

According to Elliot and Healy (2001), student’s satisfaction is a temporary behavior that results from the evaluation of their experience with the education facilities provided. It should be focused on the issue that carried out within the student’s satisfaction analysis and results. (Harvey, 1995; Hill, 1995). More than that, Aldridge and Rowley (1998) also had indicated that some of the universities had carry out some evaluation on the expected of students experience through the assessment of the facilities in campus.

However, university as the service provider should think the ways to improve the delivered services continuously and relatively with all the changes in terms of the students as customer needs as satisfaction among the factors that will ensure their retention because of their confidence of the services provided. Determining which features of the student experience are most closely related to satisfaction may provide information about actions that can be taken to maintain high levels of satisfaction and improve student learning.

## 2. 5 Students Having Own Transports in Campus

According to Limanond, T. et al, (2010), there is public transportation system in a rural university in Thailand namely Suranaree University of Technology which naturally of poor quality, with long headway, low accessibility, and insufficient network coverage. This is one of the reasons that influence most of the students to having own transport to the destinations. In addition, the rural university surrounding is lack of infrastructures and neighbourhoods, such as shopping malls, cinema, and entertainment places. Thus some the students lack to go outing and they spend more time together with their colleagues in campus. If not, they have to travel long distance to the city for better places. With all these characteristics, it can sure that in rural universities might be different from in urban universities. Therefore, there might require alternative in campus transportation strategies.

For the urban universities, it also impact neighbouring communities in many ways, such as parking, traffic, service access and off campus housing. Hence, most of universities are not encouraging their students having own vehicles in campus because in campus shuttle bus also had provided to the students in the campus. Tolley (1996) had indicated that the major environmental impacts of transportation system in the campuses which are include disturbance to teaching, loss of natural environment and greenery, exploitation of the visual environment by parking provision, and health effects on the students. In detail, the issue of disturbance to teaching is because of some of students who having their own transports, they would like go to classes at the last minutes. One of the reasons affects the issue on exploitation of the visual environment by parking provision had happened is the exploitation of campus’ land to build more car parking because over demand of parking space. On the other hand, less exercise also will bring effect to the students’ healthy.

Hence, there are many of reasons that cycling, walking, taking in campus shuttle bus are more alternative modes of travel than having own transport in the campus. These include health benefits, personal and social costs, and also benefits to the environment. However, cars are suitable because of status symbols and the flexibility go to destination without spending a long times, but these mode of transports had meet several of problems and options which are the maintenance and repair cost of the car, its fuels costs, insurance, parking, congestion, road costs, land values, municipal services, pollution, noise, and another resource consumption. (Todd Litman and David Burwell, 2006).

## 2. 6 Accidents among students

According to Gudrun Faller et al. (2009), accidents experienced by university students are classified as occupational, if they happen had related with their studies, including accidents on the way to and from university. Based on report of The German Social Accident Insurance (DGUV), there are found that the data are not complete because of several problems. First, not all of the accidents are reported by students, this is because many students do not know that accidents are classified as occupational, particularly the accidents happening on the way to university or from university back home are likely not to be considered occupational. Next, only accidents are recorded, which are subject to registration. Thus, no serious injuries are excluded in registration, which under less lucky circumstances could have led to severe injuries. Third, additional information such as socio-demographic elements are not collected in the official registration.

Furthermore, the increasing on having own transports by students and staffs also one of factors that affect accidents happened in the campuses. The reason behind is increasing vehicles will affect the traffic congestion in the campuses. Mostly injuries are motorcycles based on the past researches. Some of them because the careless of drivers in the campuses.

## 2. 7 Strategies of Implementation on In-campus Transportation Structure Problem

According to Tolley (1996), the transportation structure planning plays role as one of main parts of a university’s environmental management or sustainability plans.

Based on T. Shannon et al. (2006), some of universities are implementing strategies to reduce the having own vehicles in campus and increase the use of alternative modes of transport, such as internal shuttle bus, bicycle, and walking. In the same time, there are attempt to reduce both the demand for parking and the environmental impacts of commuting. There are the health benefits that may result if decreasing the having own transport in campus and corresponding increase in the use of active transport mode, such as walking and cycling. Way to encourage the active transport has been identified as one means of achieving the public health goal of increasing physical activity.

Besides that, to plan a strategy of in campus transportation structure is needed to consider the expected of students on their requirements. For another better way, the students can walk or cycle to faculty from hostel, in addition as one of exercises in campus. Walking and cycling are two main elements of the Transportation Demand Management (TDM) strategies. Actually, TDM can be defined as parcel of planning strategies, incentives and disincentives, which change to the alternatives from drove own transports for traveling. The most extensively implemented solutions are parking management, car sharing, park schemes, in campus shuttle bus, having own vehicles in campus, alternative fuels, and the transportation information (Victoria Transport Policy Institute).

In University of California, Los Angela (UCLA), the planning laws had required minimum of parking, because expensive of cost to build it. Shoup (2005) had argued that the eliminating minimum in parking requirements would substantially to reduce the cost of urban development, improve urban design and reduce the having own vehicles. In campus parking is a common problem with different slants. These different solutions are being realized by a growing number of campuses, which are not only restricting parking in the campus core, but are also implementing parking management programs which charge higher fees and are coupled with innovative ways to promote alternative modes, that are in campus shuttle bus, bicycle and walking.

Besides that, many universities also are exploring a range of environmentally appealing solutions to in campus traffic congestion and improve safety due to federal requirements concerning air quality, increasing congestion, lack of land for parking, the high cost of constructing parking structures, pressures to reduce traffic’s impact on surrounding neighborhoods, and constraints on financial resources. (Limanond, T. et al, 2010)

According to Del Peterson et al. (2005), appropriate campus design and transport policies also important strategies. It would make it easier for students to use sustainable transport in the campus. The campus design should put faculties, main halls, canteens, laboratories, hostels and shops within walking or cycling distance, so that students and staff can travel from building to building on foot or by bicycle comfortably and safely. Besides that, for a campus located on a hillside, special care would be needed for the bicycle route network design to ensure satisfactorily comfortable bicycle rides. In addition, covered walking streets with a well-mannered landscape and nice atmosphere would encourage students to use walk to the destination. Additionally, the administration department could create policies to promote sustainable transport in the campus, such like a free on campus transit service with good coverage and adequate frequency.

In Cornell University, there are all of aspects needed for a critical focus on transportation structure planning. First of all, the planning has been alternative and strategies that is concentrated on balancing open space and density on the central campus. Additionally, maintaining a suitable environment with preserving the landscape features and views and meeting the building needs will continue to be concerns for the future. (Franklin Crawford, 2006)

In the other words, there is “ The University in a Garden”, the concept as conceptualized by Universiti Sains Malaysia (USM) in a final report entitled “ A Walkable Campus Project”(2003), which a policy document which was prepared to guide the adoption of a sustainable environment approach in USM. The vital goal of the “ A Walkable Campus Project” was to provide a conductive environment, through the creation of a garden atmosphere, for the well-being and enjoyment of the whole campus community. In the same time, it purposely in solving in-campus traffic problems, support students walking as a healthy recreation suits to the university life hence, to have a healthy lifestyle amongst the campus community.

Most of universities had faced in campus transportation problems. This suggest that many universities can adopt similar reforms, it helps to decrease number of having own transport in the campus, creating a more green, safe, and livable campus immediately. It also raises awareness among students of sustainable transport, resulting in greener, safer, and more livable communities in the long run. (Shoup Donald, 2005)

## 2. 8 Conclusion

As define early, university is one of the Higher Education Institute organizations that main purposely in providing educational services to students. Other than that, related supportive facility and service to the students also one of main aspects that focused by university in the way to satisfy students expected requirements who as the main participants. As the result, a sustainability facility and services in university should be focused and implemented.