11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, 10-12 December 2014, Mumbai, India

Factors influencing the Stated Preference of University Employees towards Telecommuting in International Islamic University Malaysia

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Abstract

The problem of traffic congestion, especially in metropolitan areas clearly indicates that congestion is steadily worsening. Surprisingly, this trend is also predominant in the major higher learning institutions in Malaysia. The increasing private vehicle use by International Islamic University Malaysia (IIUM) community (both staff and students) has contributed to increase in traffic volume and thus developing long queues and traffic disturbances along the major road particularly during peak hours. In this context, telecommuting is seen as one of the supporting options to reduce the level of congestion and parking demand on-campus. The purpose of this paper is to examine factors that influence the stated preference of employees towards telecommuting adoption in IIUM. A questionnaire survey was administered targeting both academic and administrative staff of the University. The questionnaire consists of four sections, which are demographic profile, travel behaviours, work characteristics and perceptions on various aspects of telecommuting. The findings showed that concept of telecommuting were widely accepted by the IIUM employees. Presence of children, travel distance, travel time, delay time and frequency of face-to-face communication were significant factors contributing the academic employees to telecommute. However, only presence of children and frequency of face-to-face communication were significant factors influencing the choice of administrative staff towards telecommuting.

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1. Introduction

The increase in the number of private vehicles has been taking place in many University campuses in Malaysia. The heavy dependent on the private vehicles are mainly due to the ineffective public transportation system. Nowadays, private vehicle is the most dominant culture of what constitutes a good life and what is necessary for mobility (Sheller and Urry [1]). With the increasing number of vehicles, it creates constant pressure on the road infrastructures in International Islamic University Malaysia (IIUM). High use of private vehicles and most of the employees leaving the campus at the same time after office hours are the main causes of increase in traffic congestion.

Technology has been evolving immensely to allow employees to work from anywhere in the world. The evolution of information technology has created many employment opportunities over the past two hundred years or so (Croasdale [2]). Popuri and Bhat [3] claim that one application of interest to planners and policy-makers is the telecommuting work option because of its potential to mitigate urban traffic congestion and reduce vehicle emissions. By telecommuting, employees are able to work at home (or at an alternative work-site) but stay in touch with their offices via telecommunication equipments (Ahmed Gad [4]). In looking forward to achieve vision 2020, making Malaysia a developed country, both private and public sectors are encouraged to invest in technologies to prepare for the implementation of telecommuting (Mustafa Mohamed [5]). This alternate work concept is relatively new in Malaysia especially in higher learning institutions. However, with the extensive development of telecommunication infrastructures in Malaysia, telecommuting can be seen as a potential and realistic alternate work arrangement in the higher learning institutions.

2. Literature review

The empirical literature on telecommuting has grown significantly over the last decade and most studies are western-based (Mohamed and Abdallah [6]). Various terms commonly used in place of telecommuting are teleworking, networking, remote working, flexible working, electronic homeworking and e-work (Baruch and Smith [7]; Gray et al. [8]). However, the term "telecommuting" is very commonly applied in research. Telecommuting, according to Mokhtarian and Salomon [9], is defined as working at home or at another location during regular working hours by using technology instead of commuting to the regular workplace. It may be part-time or full-time, and need not exclusively involve using computers.

Mohamed and Abdallah [6] have undertaken a survey on the perceptions of employees towards adopting telecommuting in United Arab Emirates (UAE); organizations in Dubai Media City (DMC) and Dubai Internet City (DIC) were selected as the target groups. The study found 54.4% were in favour of part-time telecommuting and 12.5% full-time. Results also showed significant association between gender, marital status, nationality, residence, profession and choice of teleworking. The findings showed that females were the major workforce opting full-time teleworking (88.2%). They also found that married employees were more likely preferred for full-time telecommuting. Another study on the employees' perceptions on telecommuting at University Utara Malaysia (UUM) showed 70.5% of the employees have had high agreement towards telecommuting, 13.5% moderate agreement and 15.9% low agreement (Wan Rozaini and Haitham [10]). This study also found that the average daily travel cost for lecturers was RM 12.70 per person and if a lecturer telecommutes two days per week, the travel saving could be up to RM 101.60 per month. About 70% of the lecturers had agreed that telecommuting would reduce travel costs and stress and increase productivity. The study showed that lecturers are suitable for telecommuting for at least part-time. The University staffs were willing to telecommute, if adequate supporting infrastructures are readily available to support telecommuting, but most importantly, support from top management is needed to establish organizational policies and regulations that could enable employees to telecommute. Mohamed and Abdallah [6] have applied factor analysis on employees' perceptions on facilitators and inhibitors towards telecommuting by using varimax rotated principal component method. The results on telecommuting facilitators have generated six distinct factors (community concerns, individual freedom, productivity improvement,