

**Factors Influencing Travel Behavior and Mode Choice among Universiti
Teknologi Malaysia Employees**

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ABSTRACT

Universiti Teknologi Malaysia occupies a large number of employees. The majority of employees use their private vehicles to perform their jobs. Thus, the rush of vehicles damages the sustainable environment of the campus. The statement of research problem indicates that there is traffic congestion in UTM, because of employees driving their cars to work. Until researcher understands the employees travel behaviour, employees cannot be convinced to shift to public transportation. The objectives of the research is to determine the travel behaviour, modal split, factors which influence the modal shift towards public transport. In addition, the willingness to adopt public transportation among the employees of the UTM, if UTM provides pick and drop facility to their employees to reduce the incoming number of private vehicles to the campus. It is envisaged that this research will contribute to the sustainable campus environment of Universiti Teknologi Malaysia. In research methodology, a sample of 144 university employees was selected. Purposive sampling method was adopted to select the respondents. A quantitative questionnaire survey was used to gather information about travel characteristics of employees, their journey to work and mode of transportation. The data was analysed through descriptive frequencies, mean, median, mode and t-test for the factors that influence and encourage use of public transport by employees. A hypothesis test was performed to test the researcher hypothesis. From the analysis of data researcher analysed that more than ninety percent of employees travelling mode is towards private vehicles. This means modal split of UTM employees is 90:10. Fifty percent employees are willing to adopt public transport due to parking problem, avoiding mental stress, traffic congestion, and fare rate cheaper than car and to protect environment. On the other hand, fifty percent respondents revealed some problems which influence for biased towards public transport such as pick and drop to their children to school, wastage of time and personal status and privacy. From the hypothesis test researcher proved that more than 90% of UTM employees modal split is biased towards private vehicles. In another hypothesis researcher failed to reject the null hypothesis which is, employees willingness to switch public transport if provided by UTM. It is concluded that wastage of time, pick and drop of children to school, personal status and privacy as well as inaccessibility to public transport are key factors deterring employees to use public transportation to come to work. Hence, it is recommended that intensive efforts are required from the UTM to provide a bus service for their employees and encourage them to shift the modal split in favour of public transport.

ABSTRAK

Universiti Teknologi Malaysia menempatkan bilangan pekerja yang ramai. Majoriti pekerja menggunakan kenderaan persendirian ke tempat kerja. Oleh yang demikian, kesibukan kenderaan persendirian ini telah mengakibatkan kerosakan kepada persekitaran kampus yang mampan. Penyataan masalah kajian menunjukkan bahawa terdapat kesesakan trafik di UTM disebabkan oleh pekerja memandu kenderaan persendirian ke tempat kerja. Sehingga pengkaji memahami perilaku perjalanan pekerja ke tempat bekerja, pekerja tidak pasti untuk bertukar kepada pengangkutan awam. Objektif kajian ini adalah untuk menentukan perilaku perjalanan, pecahan mod, dan faktor yang mempengaruhi pertukaran mod kepada pengangkutan awam. Pekerja UTM bersedia untuk bertukar kepada pengangkutan awam jika UTM menyediakan kemudahan mengambil dan menurunkan pekerja supaya dapat mengurangkan bilangan kenderaan persendirian ke kampus. Kajian ini akan memberi sumbangan kepada persekitaran kampus Universiti Teknologi Malaysia yang mampan. Di dalam metodologi kajian, 144 sampel pekerja universiti telah dipilih. Teknik sampel purposif telah digunakan untuk memilih responden. Kajian soal selidik secara kuantitatif telah digunakan untuk mendapatkan maklumat mengenai ciri-ciri perjalanan pekerja, perjalanan mereka ke tempat kerja dan mod pengangkutan. Data dianalisis melalui frekuensi deskriptif, min, median, mod, dan ujian-t untuk mengetahui faktor-faktor yang mempengaruhi dan menggalakkan penggunaan pengangkutan awam oleh pekerja. Ujian hipotesis telah dijalankan untuk menguji hipotesis pengkaji. Daripada analisis data, pengkaji mendapati bahawa lebih daripada 90 peratus mod perjalanan pekerja adalah dengan menggunakan kenderaan persendirian. Ini bermakna pecahan mod pekerja UTM adalah 90:10. Lima puluh peratus pekerja bersedia untuk bertukar kepada pengangkutan awam kerana masalah tempat letak kereta, mengelakkan tekanan mental, kesesakan trafik dan kadar tambang yang lebih murah berbanding kereta serta untuk melindungi alam sekitar. Sebaliknya, lima puluh peratus responden pula mendedahkan masalah yang mempengaruhi pertukaran ke pengangkutan awam seperti mengambil dan menurunkan anak ke sekolah, pembaziran masa dan status peribadi serta privasi. Daripada ujian hipotesis, pengkaji telah membuktikan bahawa lebih 90% daripada pecahan mod pekerja UTM adalah bergantung kepada kenderaan persendirian. Dalam hipotesis lain, pengkaji gagal untuk menolak hipotesis nol iaitu kesediaan pekerja untuk bertukar kepada pengangkutan awam jika disediakan oleh UTM. Kesimpulannya, pembaziran masa, mengambil dan menurunkan anak ke sekolah, status peribadi dan privasi serta tiada akses kepada pengangkutan awam merupakan faktor utama yang menghalang pekerja untuk menggunakan pengangkutan awam ke tempat kerja. Oleh yang demikian, adalah dicadangkan bahawa usaha-usaha secara intensif adalah diperlukan daripada UTM untuk menyediakan perkhidmatan bas kepada pekerjanya bagi menggalakkan mereka menukar mod perjalanan mereka kepada pengangkutan awam.