

**PERPUSTAKAAN**

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**ARE MALAYSIAN CITIES AUTOMOBILE DEPENDENT?  
A CASE STUDY OF JOHOR BAHRU, BATU PAHAT AND MUAR,  
JOHOR DARUL TAKZIM**

**NURZAWANI MUKHTARAH BT AWI**

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## ABSTRAK

Kebergantungan terhadap automobil boleh didefinisikan sebagai satu keadaan di mana guna tanah dan sistem pengangkutan di bandar dianggap tiada pilihan lain untuk bergerak melainkan automobil. Fenomena kebergantungan ini memberi kesan buruk terhadap alam sekitar, sosial and ekonomi di bandar-bandar Malaysia. Untuk mencapai objektif pengangkutan mampan, fenomena kebergantungan terhadap automobile hendaklah dikurangkan secara menyeluruh. Objektif kajian ini adalah untuk mengenalpasti fenomena kebergantungan terhadap automobile, mengenalpasti status modal split, mengkaji kualiti perkhidmatan pengangkutan awam di bandar dan memberi cadangan-cadangan yang bersesuaian bagi mengurangkan fenomena ini dari terus membelenggu sistem pengangkutan bandar. Kawasan kajian ini terdiri daripada tiga bandar utama di negeri Johor iaitu Johor Bahru, Batu Pahat dan Muar. Kajian ini lebih fokus kepada pandangan responden terhadap fenomena kebergantungan terhadap automobil. Sebanyak 220 orang responden terlibat di dalam kajian ini. Satu set soal selidik telah disediakan untuk mendapatkan maklumat-maklumat penting yang berkaitan dengan fenomena kebergantungan terhadap automobile seperti pemilikan kenderaan, mobiliti personal, pandangan terhadap perkhidmatan pengangkutan awam bandar dan mobiliti pengguna transit. Hasil dari kajian ini menunjukkan modal split di Johor Bahru adalah pada 82:16, Batu Pahat pada 75:25 dan Muar pada 74:26. Bandar-bandar ini juga telah dikenalpasti sebagai “highly automobile-dependent city” kerana pemilikan kenderaan penduduk melebihi 450 kenderaan per seribu populasi. Faktor keselamatan telah menjadi sebab utama mengapa responden membeli kenderaan persendirian dan trip kebanyakannya adalah untuk trip rumah ke tempat kerja. Kajian ini juga mendapati bahawa majoriti responden pengguna transit terpaksa bergerak melebihi 400 meter dari kawasan kejiranan mereka untuk menunggu bas. Apabila ditanya adakah mereka akan membeli automobile, kesemua responden transit mengakui sudah semestinya mereka akan membeli automobile sekiranya berkemampuan. Perkhidmatan pengangkutan awam yang disediakan juga berada dalam tahap yang tidak memuaskan. Kebanyakan pengguna transit mengakui mereka berasa tidak adil kerana mod transit yang digunakan tidak memenuhi keperluan untuk bergerak terutamanya dari segi aspek “reliability”. Pengkaji mencadangkan strategi untuk mengurangkan fenomena ini di bandar-bandar Malaysia dengan mengenakan “road pricing” ke atas automobile yang memasuki kawasan-kawasan tertentu di pusat bandar bagi mengurangkan kesesakan. Untuk memperbaiki tahap kualiti pengangkutan awam, “Bus Rapid Transit” adalah dicadangkan.



## **ABSTRACT**

Automobile dependence is defined as a series of convergent land use and transportation conditions in a city that leaves people with few non-car options for urban travel. This dependence compromises the environmental, social and economic health of cities in Malaysia. To achieve sustainable transport, automobile dependence has to be reduced at all cost. The objective of this study is to examine automobile dependency, identify the current modal split, determine the level of service provided by local public transport and suggest recommendation to reduce automobile dependence. The study areas cover three major cities within the state of Johor – Johor Bahru, Batu Pahat and Muar and focuses on the public's view on automobile dependence. A sample of 220 respondents comprising heads of household were identified by stratified random sampling for a questionnaire survey. The survey was prepared to solicit information on respondents' mobility and their travel means that may reflect the patterns of automobile dependence in cities such as car ownership, total personal mobility, perceived quality of alternative modes and mobility for the non-drivers. The finding reveals that modal split between private and public transport to be 82:18 for Johor Bahru, 75:25 for Batu Pahat and 74:26 for Muar. These cities also prove to be highly-dependent on automobile, having more than 450 motor vehicle ownership, per 1000 population. Safety emerged as the reason why there is a need to utilize and acquire a private automobile and the main purpose for automobile travel mainly for journey-to-work. The study also found that more than half of transit users participated in this survey had to walk more than 400 meters to the nearest bus station and a striking finding confirmed that all public transit users would definitely opt for an automobile, if they have an access to acquire one. Local public transport also proves to be an incompetent travel means, providing poor services and left users no other travel options seems more attractive but automobile. Majority of transit users also claimed that they feel severely disadvantaged because their mobility is affected due to poor local public transport service. Recommendation to this study is focused on strategies to reduce auto-dependence and use, such as introducing road pricing, and improve local public transport means by introducing Bus Rapid Transit (BRT) and redesign the land uses to be transit-oriented rather than auto-oriented.