



THE SERVICE DELIVERY OF PUBLIC STAGE BUS
SERVICES IN URBAN AND RURAL AREAS OF
MALAYSIA

BY

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ABSTRACT

The current bus systems adopted by many towns and rural areas in Malaysia, are not fully equipped to address the needs of the settlement forms, and socio-demographic and trip characteristics of the good urbanization process. These systems have portrayed a bad image on the overall connectivity and mobility in the urban or rural areas of Malaysia. Studies dwelling on the contemporary research of bus services quality in Malaysia have been limited, especially with regards to the comparison of urban and rural bus performances. Hence, this study focuses on assessing the level of service of bus services offered in selected urban and rural settlements in Malaysia. Five definitions of public transport level of services (LOS) according to Transportation Research Board are adopted. Assessment of the LOS has been conducted using both quantitative and qualitative methods of primary and secondary data capture. Three performance measures, namely fixed-route hour of service, fixed-route service frequency and passenger-load threshold were evaluated in determining the existence and extent of such disparities. The passengers' satisfaction and preference survey was conducted to complement some qualitative explanations left void by the LOS evaluation. Methods of on-board face to face intercept survey and adoption of Geographical Information System (GIS) /Global Positioning System (GPS) was deployed in the collection of primary data. With a sample of 1130 passengers surveyed, the demand side's perception and aspiration have been collected and analysed based on the classification of LOS. The findings on the level of service (LOS) highlighted that the quality performance of the urban and rural bus service was still poor and lower than the tolerable threshold D. These also explicated some gaps and disparities in terms of (i) frequency, (ii) operation hour, (iii) bus speed, and (iv) passenger load threshold between the urban and rural bus operation systems. In analysing the satisfaction levels among the urban and rural passengers, it was found that the majority of the respondents (60.4%) in both rural and urban localities, were dissatisfied with the bus services. The recommendations put forward included the improvement of service facilities of dedicated bus lanes, high technology fleet, modern ticketing system, efficient information systems (arrival-departure time), locating the bus stops exactly on the alignment of the bus lanes, extended service hours into midnight and beyond, and adaptation of best practices in bus service system to ensure the future sustainability of urban and rural bus services in Malaysia.

خلاصة البحث

أنظمة الحافلات الحالية المعتمدة من الكثير من المدن والمناطق الريفية ليست معدة إعدادا كليا لتلبية الاحتياجات المتعلقة بأشكال التسوية والاحتياجات الاجتماعية والسكانية وخصائص السفر المرتبطة بعملية التحضر الجيدة. وقد عكست هذه الأنظمة صورة سيئة عن المواصلات الشاملة والتنقل في المناطق الحضرية أو الريفية في ماليزيا. الدراسات في الأبحاث المعاصرة المتعلقة بجودة خدمات الحافلات في ماليزيا محدودة، وخاصة فيما يختص بمقارنة أداء الحافلات الحضرية والريفية. وبالتالي، تركز هذه الدراسة على تقييم مستوى خدمات الحافلات التي قدمت في مجموعة مختارة من المناطق الحضرية والريفية في ماليزيا. قام مجلس أبحاث النقل (مستوى الخدمة) باعتماد خمسة تعريفات لمستوى خدمات النقل العام. وقد تم إجراء تقييم (مستوى الخدمة) باستخدام طرق التحليل الكمي والنوعي للحصول على البيانات الأولية والثانوية. ومن أجل تحديد الاختلافات الموجودة في الأداء ومدى تفاوتها، تم تقييم 3 أنواع من مقاييس الأداء وهي: خدمة ساعة مسار ثابت، تردد خدمة مسار ثابت و عتبة حمل الركاب. وقد أجري مسح لتفضيل و رضا الركاب لاستكمال بعض التوضيحات النوعية التي لم يغطيها تقييم مستوى خدمة الأداء. انتشرت طرق الاعتراض وجها لوجه واعتماد نظام المعلومات الجغرافية / نظام تحديد المواقع العالمي من أجل القيام بجمع البيانات الأولية. أجري المسح على عينة تتكون من 1130 راكبا، وقد تم جمع وتحليل تصور جانب الطلب والطموح على أساس تصنيف مستوى الخدمة. وأظهرت النتائج على مستوى الخدمة أن الجودة في الأداء المتعلقة بالحافلات الحضرية و الريفية لايزال ضعيفا وأقل من المستوى المطلوب. يفسر هذا أيضا بعض الفجوات والاختلافات من حيث: التردد، ساعة التشغيل، سرعة الحافلة و عتبة تحميل الركاب بين أنظمة تشغيل الحافلات الحضرية و الريفية. عند تحليل مستويات رضا ركاب المناطق الريفية والحضرية، وجد أن أغلب المستجيبين (60.4%) في المنطقتين كانوا غير راضين عن خدمات الحافلات. التوصيات التي طرحت في هذه الدراسة شملت تحسين مرافق الخدمات من ممرات مخصصة للحافلات، وارتفاع أسطول التكنولوجيا، نظام التذاكر الحديثة، نظم المعلومات الفعالة (وقت الوصول والمغادرة)، تحديد مكان وجود مواقف الحافلات بدقة بالتوافق بين حارات الحافلات، ساعات الخدمة الممتدة في منتصف الليل وما بعد ذلك، والتكيف مع أفضل الممارسات في نظام خدمة الحافلات لضمان الاستمرارية المستقبلية لخدمات الحافلات الحضرية والريفية في ماليزيا.

APPROVAL PAGE

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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This thesis is gratefully dedicated to:

My sweet and loving parents:

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Zainab Kadiron

My Siblings and Inlaws:

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All bus passengers in Malaysia and world.

*“semua ilmu di alam nyata dan ghaib adalah rahmatMu
milikMu semata-mata*

*jangan lupakan aku ya Allah
bahawa aku cuma seorang peminjam dariMu
tunjukkan aku jalan yang terang
jadikan aku orang beriman*

*ya Allah
jadikan aku ilmuan yang menjaga dan menyebarkan ilmuMu
jadikan aku bersyukur kerana diberi cahaya ilmuMu*

*jangan jadikan aku ilmuan yang takbur
jangan jadikan aku ilmuan yang syirik
jangan jadikan aku ilmuan yang fasik*

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