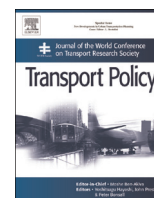




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The complex relationship between school policy, service quality, satisfaction, and loyalty for educational tour bus services: A multilevel modeling approach

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ABSTRACT

The results of this study provide useful information for schools and bus companies. Schools are offered guidance as to how to choose quality bus services, and bus firms are given ideas as to how to be profitable by building customer loyalty and satisfaction. For this purpose, data were gathered through a mail survey of 3261 teachers from 742 schools. The study applied a multilevel SEM technique to investigate a research question that had not been previously studied. The results from the model indicated that service quality has a positive influence on satisfaction, which was found to be significantly and positively related to loyalty at both the individual and school levels. The quality of bus services was measured using three factors: type of vehicle, driver response, and bus management. These factors were determined to be priorities for bus businesses in developing user loyalty and satisfaction. When investigating the school level, factors related to government-allocated school resources, participation, and safety policies were found to have a significant direct effect on service quality.

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1. Introduction

1.1. Background

A school trip or excursion integrated into the curriculum is an educational activity that truly provides out-of-class learning opportunities for students. When arranging each educational tour, a school must find and hire sightseeing buses. This need leads to a great market value for educational sightseeing tour bus services. Therefore, quality bus services that meet a school's requirements must be a high priority for bus companies because if both users and the school are satisfied, they will become repeat customers. Simultaneously, the school needs to establish mechanisms to ensure that they procure safe and comfortable sightseeing buses. A

school's sightseeing bus procurement process usually involves various stakeholders, each of whom often have different consumption behaviors. In general, a high safety standard is imperative. Unlike customer loyalty for other types of businesses, in which service selection often depends only on one decision maker, educational tour bus user loyalty involves multiple levels of decision making at the individual (teacher) and school policy levels. Therefore, it is necessary for bus companies to consider various loyalty factors. For this reason, a multilevel analysis was introduced into this study.

Sightseeing bus tour companies are required to respond to the needs of customers to build customer satisfaction. Regardless of this, the occurrence of school bus trip accidents often leads to a lack of confidence in service quality and safety; therefore, bus firms must improve their service quality to reach the standards required by the schools. In addition to safety, travel comfort is an essential factor in developing user satisfaction and loyalty, meaning that companies must have effective management.

This study provides useful data relating to educational tour

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buses for both schools (demand) and bus companies (supply). The former can gain knowledge regarding how they can ensure high quality bus services using sightseeing bus service quality indicators, required resources, procurement procedures, and school policy, whereas the latter can gain insight into how to build customer satisfaction and loyalty from the information related to the bus service quality parameters. To answer the above research question, this study applied multilevel structural equation modeling (SEM) to model an objective response, which has not been previously done in any similar research.

1.2. Literature review and hypotheses

1.2.1. Perceived service quality

Perceived service quality involves customer perceptions of service quality based on a comparison of their desires or expectations and the actual received service (Parasuraman et al., 1985). To assess the service quality of public transportation (urban public bus, interurban public bus, rail, airline), the literature review highlighted three major factors that users consider important, which developed the basic background for Hypothesis 1 in this study:

1. **Vehicle:** Initially, users value the external vehicle conditions in terms of its appearance as new and safe. Goh et al. (2014) found that buses over 25 years old had a statistical relationship with the occurrence of accidents. Users then consider the internal vehicle conditions, such as the seating conditions and arrangement, inside temperature, cleanliness, and entertainment equipment. Users are also concerned with the provision of safety devices, such as fire extinguishers, emergency exits, glass breakers, and seat belts (Jomnonkwao and Ratanavaraha, 2015). Furthermore, Zhang et al. (2014) stated that noise, vibration, thermal comfort, and acceleration influenced the passenger experience.
2. **Driver:** Many studies have indicated that driver kindness and friendliness is a key service quality indicator (Cafiso et al., 2013a, 2013b; Chou et al., 2011; de Oña et al., 2012; González-Díaz and Montoro-Sánchez, 2011). Ratanavaraha and Jomnonkwao (2014) also suggested that bus company entrepreneurs carefully select drivers based on their age, experience, education, driving license, driving skills pertaining to the route, level of training, and social habits, such as no drinking or smoking, because these factors reflect the driver's quality. These results were also consistent with the findings in Goh et al. (2014) showing that age, gender, and driver experience were closely associated with accident incidence.
3. **Service provider's management:** de Oña et al. (2013) considered the factors of frequency, punctuality, proximity, fare and information. Vlachos and Lin (2014) found that ticket price, punctuality were indicators of airline management. Jomnonkwao et al. (2015a) measured the service management quality of sightseeing bus using 9 indicators: (1) having good customer contact system, (2) pleurably allowing customers for a pre-trip inspection, (3) convenient location, (4) on-time performance, (5) installation of global positioning system, (6) suggestion of safety equipment usage via video, (7) for long-distance travel distance, two drivers must be provided, (8) receiving accident insurance coverage over mandatory insurance for all seats, (9) appropriate driver recruitment process of bus company i.e. age, experience, etc.

H1. : For educational tour bus services, the service quality can be measured by the three parameters of vehicle, driver, and service

provider management at both the individual and school levels.

Furthermore, the literature review revealed that perceived service quality was directly positively associated with customer satisfaction in that if customers perceived a high level of service quality, their satisfaction was high (Chotivanich, 2012; Wen et al., 2005). Thus, this study hypothesizes that:

H2. : For educational tour bus services, the service quality has a direct positive influence on satisfaction at both the individual and school levels.

1.2.2. Satisfaction and loyalty

Satisfaction is an individual's feeling derived from a comparison between the perceived service and the expected service. Customers satisfaction can be measured on three levels: if the perceived service is found to be lower than the expected service, customers are dissatisfied; if the perceived service is equal to the expected service, customers are likely to be quite satisfied; and if the perceived service is higher than the expected service, customers are very satisfied (Kotler, 1997; Looy et al., 2003). Steven et al. (2012) reported that user satisfaction was associated with business performance, and previous studies indicated a direct relationship between the level of satisfaction and loyalty (Chotivanich, 2012; Wen et al., 2005). For these reasons, this study proposes the third hypothesis as follows:

H3. : For educational tour bus services, satisfaction has a direct positive influence on loyalty at both the individual and school levels.

Customer loyalty is demonstrated when a customer shows regular satisfaction toward a product or service through repeat patronage, repurchasing, word-of-mouth behavior, and protecting the product, service and/or service provider (Oliver, 1999). However, educational tour bus services are different from other general products and services because the frequency of use for such a service may be low, resulting in less commitment between the users and the service provider. When selecting sightseeing tour bus services for a school, more than one person is often involved in the decision making. Further, because the service has a high value, the definition of loyalty for educational tour bus services is narrower than definitions for other general products and services. Therefore, customer loyalty for this service can be measured using three indicators: word of mouth (WOM), repurchase intentions, and identification. Accordingly, the fourth hypothesis is stated as follows:

H4. : For educational tour bus services, loyalty can be measured by the three indices of WOM, repurchase intention, and identification at both the individual and school levels.

1.2.3. The relationship between individual-level and school-level indicators

The decision to select an educational tour bus service in Thailand usually involves many people, each of whom has a different perception of service. At the individual level, the differences in the economic and social characteristics of each decision maker should be examined. However, this study was constructed using hierarchical data made up of the teacher level (level 1) and the school level (level 2). In this respect, organizational factors, such as school policies, are likely to create conditions or motives linking the implementation of individual-level factors to meeting mutual goals (Kanjanawasee, 2005). This would necessitate an investigation into the school policy and resources available for educational tour bus services (Wölsmann, 2003), the level of participation (Ratanavaraha and Jomnonkwao, 2013), and the level of safety (Vicario, 2012). Based on these ideas, Hypotheses 5 and 6 are stated as follows:

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