

UNDERSTANDING THE USER PERCEPTION OF VALUE-ADDED SERVICES IN LONG DISTANCE SUPER LUXURY AND LUXURY BUSES IN SRI LANKA

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ABSTRACT Value-adding services in a public transportation play a crucial role in enhancing customer/passenger satisfaction, especially in long-distance bus transportation. There is a lack of studies addressing value-added services and their role in long-distance buses in the Sri Lankan context. Therefore, this study focusses on understanding the value-added services provided in the long-distance buses in selected corridors in Sri Lanka, users' perception of value-added services in long-distance buses and the relationship between users' convenience level & value-added services in super luxury and luxury buses in the selected corridors. This study was developed based on passengers' responses to an online questionnaire focusing on four different corridors. The responses were analysed using descriptive statistics & factor analysis through the data analysis software SPSS. Fourteen different value-added services and 12 variables impacting user satisfaction were identified concerning the value-added services and Exploratory Factor Analysis was used to identify the relevant latent variables/factors.

Keywords: Value Added Services; Luxury/Super Luxury buses; Level of convenience.

1. INTRODUCTION

Public transport is a service that is based on a fixed schedule and a comparatively lower cost to the public than private transportation [1]. Public transportation in Sri Lanka is mainly based on land transport system including road networks and railway transport. 93% of the land-based transport system is covered by road-based transport [2]. There are nearly 12000km of A and B class roads and 170km of expressways in the road network of Sri Lanka. Bus transportation is the main transport mode in Sri Lanka providing services under several categories such as "Normal, Luxury, Semi Luxury, and Super Luxury". Normal buses mostly cover short distances networks and others cover long-distance networks [2]. Luxury buses are air-conditioned with television sets and good music to improve convenience and elevate the passenger travel experience [3]. Further, super luxury buses are designed to ensure luxury, comfort, and safe passenger transport service to commuters. Sri Lankan super luxury buses in service have low standards when compared with super luxury buses in other countries[4]. While the government and private sector are service providers for public bus transportation in Sri Lanka, Sri Lankan Transport Board (SLTB) & National Transport Commission (NTC) are the regulators of bus transport services in Sri Lanka. SLTB is regulating the short distance & interprovincial long-distance buses and NTC is regulating the long-distance buses. The service quality of the long-distance buses are far better than short-distance buses in service quality in Sri Lanka [5]. Value-added services in bus transportation are the services that create additional value to the passengers for money paid, such as through "smart cards, off-board payment, ergonomically designed seats (adjustability, comfort), entertainment mediums, and passenger information systems" [6]. Therefore, addressing the user perception of the value-adding

services in the bus transport system is vital to improve the service quality of bus transportation. However, user perception regarding value-added services in the bus transport system is not addressed well in the previous research studies in Sri Lankan context.

This study focuses on the nature of the value-added services provided on long-distance buses in three selected corridors in Sri Lanka. The following research objectives have been developed concerning the study.

- Study the value-added services provided within the long-distance buses.
- Identify the user perception of value-added services in long-distance buses.
- Identify the relationship between user convenience and value-added services in the super luxury and luxury buses in Sri Lanka.

2. MATERIALS AND METHODS

Primary data for the study was collected using a survey conducted in two stages.

- Stage 1: Interviews with industry experts to get their perception of the value-adding services within the long-distance buses in order to acquire more knowledge about the study area
- Stage 2: Online questionnaire with bus users (passengers) to get the passengers' perception of the value-adding services within the long-distance buses.

The targeted population for this research is the users of luxury/super luxury bus transportation Galle, Matara, Badulla, and Nuwara Eliya corridors. The sampling technique is snowball sampling, and the sample size is selected as 120 by using existing related literature sample sizes. Data were collected from four different corridors as Colombo – Galle, Colombo – Matara, Colombo – Badulla and Colombo – Nuwara Eliya. Although the initial plan was to conduct face to face interviews with the passengers using random sampling technique, due to the Covid-19 pandemic, online platforms were used to contact relevant passengers using snowball sampling technique.

3. RESULTS AND DISCUSSION

120 responses were collected through the online questionnaire and after data cleaning 107 responses were selected for the data analysis. Based on the demographic descriptive statistics analysis, study found that females are mostly using the luxury and super luxury buses in Galle and Badulla corridors than Matara and Nuwarelia corridors. In contrast, most of the male passengers are using the luxury and super luxury buses in Matara and Nuwarelia corridors than Galle and Badulla corridors. This study also found that, 70% of the passengers stated that their mode choice is a Luxury bus for their long-distance journey and 30% of the passengers stated that their mode choice is Super Luxury buses for their long-distance journey, in the selected corridors. When it comes to the waiting time of the passengers, super-luxury bus passengers wait 5 – 10 min for the arrival of luxury buses at the bus stand and most super luxury passengers have not waited more than 15 mins for luxury buses. It is evidence that the Luxury or Super Luxury buses are almost always arriving at the fixed time to the bus stands in all four selected corridors.

The first objective of the study is to study the nature of value-added services in long-distance buses. Through the literature study and the interview with the industry experts, 14 value-added services were identified; “Entertainment mediums, Movie, Video song, Quality of the video, Audio song, Audio level, Comfortable seats, Wi-Fi facilities, Network coverage, Charging facilities for devices, On-board conditions (cleanliness of the vehicle), Accessibility to disabled and mobility-impaired people, Information about the destination (route info), and Temperature control”. Further, the respondents of this study were asked to list the additional value-added services they are expecting from the service providers. It was found that passengers expect Wi-Fi facilities, AC control, customized audio, and

visuals. 73% of respondents stated the value-added services in the buses add value to the ticket price they pay. This emphasises that the passengers give considerable importance to value-added services in their long-distance journeys.

The second objective of the study is to identify user perception of value-added services in long-distance luxury and super luxury buses. In order to derive the factors impacting overall user satisfaction in long distance buses, Exploratory Factor Analysis (EFA) was used, a method which has been applied in several similar studies[7]. According to the data analysis conducted using EFA using 12 measured variables, “personal concerns of the users & the ticketing information” and “vehicle condition & scheduling information” were identified as the two most important factors which impacts the user satisfaction " in luxury buses and super-luxury buses respectively. EFA analysis was again conducted with the purpose of deriving the factors influencing the satisfaction level of value-added services from passengers’ perspective. for the luxury buses, influencing factors were “internal condition of the vehicle, visual factors, and audio factors” and for the super-luxury buses factors were “entertainment mediums, external factors, and comfort”. Objective 3 was to identify the relationship between user convenience and value-added services in the super luxury and luxury buses in Sri Lanka with respect to their mode choice. EFA was conducted using 23 measured variables and value-adding services based on the impact level (1-5) on the mode choice. Within the 23 factors which influence the mode choice, after the EFA data analysis, “preference factors, onboard factors, entertainment factor, and ticketing information” were identified as the four most important factors influencing the convenience level of long-distance passengers in their mode choice between available modes.

4. CONCLUSION

This study provides an overview about the importance of studying about the impact of value-added services in long distance bus transportation in order to enhance customer/passenger satisfaction. Using EFA, after conducting relevant data analysis, study derived “factors impacting overall user satisfaction in long distance buses, factors influencing the satisfaction level of value-added services from passengers’ perspective and factors influencing the convenience level of long-distance passengers in their mode choice between available modes”. These findings can be helpful to the Sri Lankan public transport service providers to improve their service quality. This study only considers four corridors including Galle, Matara, Badulla, and Nuwarelia due to the time and financial constraints of the study timeline. This is the main limitation of the research as the results were oriented only with these corridors. Another limitation of this study is, Covid 19 pandemic, and due to the country’s prevailing situation, the responses were collected from passengers only through the online questionnaire. Due to of this limitation, this study focused only on passengers’ perceptions and number of the respondents was also a limited number. Future research directions from this study are to study the users’ perception including the service providers, drivers, and conductors on the value-added services with respect to all types of long-distance buses (Luxury, Semi Luxury, and Super Luxury buses). Also, further researchers are welcomed to consider the whole Sri Lankan bus transport system to develop more accurate results on this research avenue.

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