

**DETERMINANTS OF PASSENGER SATISFACTION USING
PUBLIC TRANSPORT SYSTEM IN COLOMBO: A
CASESTUDY ON KOTTAWA – PETTAH ROUTE**

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Degree of Master of Science in Business Statistics

Department of Mathematics

University of Moratuwa

Sri Lanka

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Dissertation submitted in partial fulfilment of the requirements for the
degree the Master of Science in Business Statistics

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DECLARATION OF THE CANDIDATE AND SUPERVISOR

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

This research intends to identify the determinants of passenger satisfaction using the public bus transport system on Kottawa – Pettah Route in Sri Lanka. Data were collected from a structured questionnaire and the sample size is 400. The sampling method was stratified random sampling and a sampling unit is a passenger boarding from the Kottawa bus stand during November 2019. The Factor analysis (FA) was carried out to derive the inferences of the study. It was found that the observed data satisfied all the necessary requirements for FA. Fifteen factors identified as the determinants of satisfaction of passengers using Kottawa – Pettah Route. In view of the above, it is recommended to strictly implement the current laws and regulations, design new laws and regulations, train bus crew, introduce new innovative methods to improve the satisfaction of the passengers using public bus transport system. This will also result in protection and enhancement of the interests of passengers, other road users, drivers, conductors, operators and other stakeholders of public bus transport system in Sri Lanka.

Key words: Factor analysis, Satisfaction of passengers, Public bus transport,

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LIST OF ABBREVIATIONS

Abbreviation	Description
BRTS	Bus Rapid Transport System
CAGR	Compounded Annual Growth Rate
CGR	Ceylon General Railway
CTB	Ceylon Transport Board
DW	Durbin–Watson
EFA	Exploratory Factor Analysis
FA	Factor Analysis
GDP	Gross Domestic Product
KMO	Kaiser-Meyer-Olkin
MSM	mean squares for the model
MSR	mean squares for the residuals
OLS	Ordinary least squares
PCF	Principal Component Factoring
SLTB	Sri Lanka Transport Board
SSM	Model sum of squares
SSR	Sum of squared residuals
SST	Total sum of squares

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