

**IDENTIFYING THE INFLUENTIAL FACTORS ON
ACADAMIC PERFORMANCE OF SINGLE SEX
EDUCATION SYSTEM AND CO-EDUCATION SYSTEM:
A CASE STUDY**

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Degree of Master of Science

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**Dissertation submitted in partial fulfillment of the requirements for the
Degree of Master of Science in Business Statistics**

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DECLARATION

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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Date: .09.2018

The above candidate has carried out research for the master dissertation under my supervision.

Name of the Supervisor: Prof. T S G Peiris

Signature of the Supervisor:

Date:

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ABSTRACT

Sri Lankan society expects each and every one to be a higher achiever in each level of the process of formal education. Government of Sri Lanka has enshrined the right to free education in the constitution. In previous studies it had been found that academic performance of single sex education system is significantly better than that of co-education system in Colombo Education Zone (CEZ). The purpose of this study was to identify the influential factors on academic performance of single sex education system and co-education system. For this study 300 senior secondary level students from 10 schools in CEZ were selected. The sampling procedure was Purposive Stratified Random Sampling. Primary data were collected through a structural questionnaire consisting of 24 questions with 4-point likert Scale. Secondary data were collected from Department of Examinations and Colombo Zonal Education Office. It was found that the student performance in single sex education schools is significantly higher than that in the co-educational schools. Exploratory Factor Analysis (EFA) was carried out to extract factors as all criteria for EFA satisfied the observed data. The six factors identified are competitiveness, cooperation, teachers' dedication, confidence, addiction and peer effects. These factors were found to be invariant of the three types of orthogonal rotations namely Varimax, Equamax and Quartimax and the two types of factor extraction methods named Principle Component Factoring (PCF) and Principal Axis Factoring (PAF). The first factor, competitiveness consists of the three variables namely: satisfied on academic activities, enthusiastic to get high marks, enthusiastic to answer the question and competitive in studies. The second factor, cooperation consists of group study, coverage of missed lessons, sharing knowledge, sensitive to the issues of friends, and assistance to the issues of friends. Teachers' dedication consists of teachers' timely attendance to the classes, covering the syllabus and finding additional time to cover syllabus. The confidence factor consists of mobile phone usage and time spent in social websites. Fifth factor consists of answering the questions without any hesitation, others' attention and confidence on passing the examinations. Factor six consists of competitiveness in extra-curricular activities, bringing friends to correct the path and spending leisure time with friends. It is recommended that these results be used effectively by decision makers for the development of the senior secondary level education system in CEZ and to carry out similar studies in other educational zones in Sri Lanka

Keywords: Academic Performances, Co-education System, Factor Analysis, Senior Secondary Level Students, Single Sex Education System

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LIST OF ABBREVIATIONS

- CEZ - Colombo Educational Zone
- CFA - Confirmatory Factor Analysis
- EFA - Exploratory Factor Analysis
- PCF - Principle Component Factoring
- PAF - Principal Axis Factoring

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