

**FACTORS AFFECTING STUDENTS' SATISFACTION
IN ONLINE LEARNING WITHIN HIGHER
EDUCATION SECTOR IN WESTERN PROVINCE OF
SRI LANKA**

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Degree of Master of Science

Department of Mathematics

University of Moratuwa

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Thesis submitted in partial fulfillment of the requirements for the degree Master of
Science in Operational Research

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DECLARATION OF THE CANDIDATE & SUPERVISOR

I declare that this is my own work and this thesis 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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The above candidate has carried out research for the Masters dissertation under my supervision.

Name of the supervisor: Dr. Pasan Edirisinghe

Signature of the supervisor:

Date:

Abstract

Online learning played a major role in higher education sector in Sri Lanka during COVID-19 outbreak due to the sudden closure of all educational institutes. Prior to the outbreak, majority of students in higher education sector in Sri Lanka had the experience only with traditional education system. Thus, it is vital to ensure the satisfaction of students in online learning in higher education sector in Sri Lanka. This study was conducted to determine most critical factors for students' satisfaction in online learning in higher education sector in Western province, Sri Lanka. Main factors considered in this study were interaction, internet self-efficacy, internet self-regulated learning, lecture delivery, technology and support services. Moreover, suggestions made by students were evaluated for successful online learning implementation.

Data for the study was collected during the period of March – May 2022. A questionnaire was designed using a google form and distributed among students in higher education sector in Western province via online to collect data. A combination of convenience and snowball sampling methods were used to draw the sample and sample size was 385. Behaviour of demographic variables in the study were observed through descriptive statistics and graphs. Confirmatory factor analysis (CFA) was employed together with structural equation modeling (SEM) in the analysis.

It was found that only the interaction which measured between learner-learner, learner-instructor and learner-content, quality of lecture delivery and proper usage of latest technology have statistically significant impact on students' satisfaction in online learning in higher education sector in Western province, Sri Lanka at 5% level of significance. These three factors in the model explained 58% of variation in students' satisfaction in online learning in higher education sector in Western province, Sri Lanka. Through CFA, unidimensionality, validity and reliability of the measurement model was ensured. Most students suggested that smooth internet connection with a proper data package, sufficient lecturer – student interaction during online class and availability of quality lecture recordings lead to a successful online learning implementation.

Keywords: CFA, SEM, COVID-19, Convenience Sampling, Snowball Sampling

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TABLE OF CONTENTS

Declaration of the Candidate & Supervisor	i
Abstract	ii
Acknowledgement	iii
Table of Contents	iv
List of Figures	ix
List of Tables	x
List of Abbreviations	xii
List of Appendices	xiii
1. Introduction.....	1
1.1 Background of the Study.....	1
1.1.1 COVID-19 and education.....	2
1.1.2 Online learning in Sri Lanka	3
1.2 Significance of the Study	4
1.3 Objectives of the Study	5
1.4 Overview of the Thesis	5
2. Literature Review.....	6
2.1 Definition for Students' Satisfaction.....	6
2.2 Students' Satisfaction in Online Learning	7
2.3 Factors Associated with Online Learning	8
2.3.1 Factors identified through studies conducted in other countries	8
2.3.2 Factors identified through studies conducted in Sri Lanka	11
2.4 Methods and Techniques used in Previous Studies	14
2.5 Summary	16

3.	Methodology	17
3.1	Research Design	17
3.2	Population and Sample	17
3.3	Questionnaire Design	17
3.4	Data Collection	19
3.5	Research Hypothesis and Proposed Conceptual Framework	20
3.5.1	Research hypothesis	20
3.5.2	Proposed conceptual framework	21
3.5.3	Latent constructs	21
3.5.3.1	Interaction	22
3.5.3.2	Internet Self-Efficacy (ISE)	22
3.5.3.3	Internet Self-Regulated Learning (ISRL)	22
3.5.3.4	Lecture Delivery (LD)	22
3.5.3.5	Technology	23
3.5.3.6	Support Services (SS)	23
3.5.3.7	Students' Satisfaction in Online Learning (SOL)	23
3.6	Methods used in Preliminary Analysis	23
3.7	Methods used in Advanced Analysis	23
3.7.1	Measurement model and structural model	24
3.7.2	Confirmatory Factor Analysis (CFA)	24
3.7.3	Unidimensionality	24
3.7.4	Validity	25
3.7.4.1	Construct Validity	25
3.7.4.2	Convergent Validity	26
3.7.4.3	Discriminant Validity	27
3.7.5	Reliability	27
3.7.6	Normality assessment for data	28

3.7.7	Standardized residual covariance	29
3.7.8	Structural Equation Modeling (SEM)	29
4.	Preliminary Analysis.....	31
4.1	Analysis of Demographic Data	31
4.1.1	Distribution of demographic factors.....	31
5.	Advanced Analysis	39
5.1	Measurement Model for Latent Constructs.....	39
5.1.1	Testing for unidimensionality.....	39
5.1.2	Testing for validity	39
5.1.2.1	Testing for Construct Validity	39
5.1.2.2	Testing for Convergent Validity	41
5.1.2.3	Testing for Discriminant Validity	42
5.2	CFA Results for Finalized Measurement Model.....	44
5.2.1	Finalized measurement model for latent constructs	45
5.2.2	Testing for unidimensionality – Finalized measurement model.....	45
5.2.3	Testing for validity – Finalized measurement model	45
5.2.3.1	Testing for Construct Validity – Finalized Measurement Model.....	45
5.2.3.2	Testing for Convergent Validity – Finalized Measurement Model...	47
5.2.3.3	Testing for Discriminant Validity – Finalized Measurement Model...	48
5.2.4	Testing for reliability – Finalized measurement model.....	50
5.2.4.1	Testing Internal Reliability – Finalized Measurement Model	50
5.2.4.2	Testing Composite Reliability (CR) – Finalized Measurement Model.....	51
5.2.5	Normality assessment – Finalized measurement model.....	52
5.2.6	Standardized residual covariance – Finalized measurement model.....	52
5.3	Structural Equation Modeling - Finalized Measurement Model.....	52

5.3.1	Structural model based on finalized measurement model in CFA	52
5.3.2	Assessment of fitness indices for structural model	53
5.3.3	Standardized regression weights for structural model.....	54
5.3.4	Regression weights for structural model	56
5.4	Finalized Model under Structural Equation Modeling.....	57
5.4.1	Finalized structural model	58
5.4.2	Assessment of fitness indices for finalized structural model	59
5.4.3	Standardized regression weights for finalized structural model.....	59
5.4.4	Regression weights for finalized structural model	61
5.4.5	Correlations between exogenous constructs - Finalized structural model	63
5.4.6	Normality assessment – Finalized structural model	63
5.4.7	Standardized residual covariance – Finalized structural model	63
5.4.8	Modification indices – Finalized structural model.....	63
5.5	Discussion of the Advanced Analysis	65
5.5.1	Results of CFA for measurement model	65
5.5.2	Results of CFA for finalized measurement model	66
5.5.3	Results of SEM analysis for structural model	68
5.5.4	Critical factors affecting students’ satisfaction in online learning.....	69
6.	Conclusions and Future Work	71
6.1	Suggestions for Smooth Online Learning Implementation.....	71
6.2	Conclusions	72
6.3	Limitations of the Study	73
6.4	Future Work	73
	Reference List	74

Appendix A - Standardized Factor Loadings for Measurement Model.....	82
Appendix B - Regression Weights of Path Estimates in Measurement Model	84
Appendix C - Standardized Factor Loadings for Finalized Measurement Model.....	86
Appendix D - Regression Weights of Path Estimates in Finalized Measurement Model	88
Appendix E - Skewness of Items in Finalized Measurement Model	90
Appendix F - Sample Questionnaire	92

LIST OF FIGURES

	Page
Figure 3.1	Variable View of the Data Set in SPSS 18
Figure 3.2	Data View of the Data Set in SPSS 19
Figure 3.3	Proposed Conceptual Framework for the Study 21
Figure 4.1	Bar Chart for Distribution of Residential Province 32
Figure 4.2	Bar Chart for Distribution of Discipline 32
Figure 4.3	Pie Chart for Distribution of Internet Connection at Home 33
Figure 4.4	Bar Chart for Distribution of Average Monthly Internet Charges 34
Figure 4.5	Percentage Component Bar Chart for Distribution of Gender and University Type 35
Figure 4.6	Percentage Component Bar Chart for Distribution of Residential Area and University Type 35
Figure 4.7	Percentage Component Bar Chart for Distribution of Academic Year and University Type 36
Figure 4.8	Percentage Component Bar Chart for Distribution of Gender and Average Monthly Internet Charges 37
Figure 4.9	Percentage Component Bar Chart for Distribution of Residential Area and Average Monthly Internet Charges 37
Figure 4.10	Percentage Component Bar Chart for Distribution of Academic Year and Average Monthly Internet Charges 38
Figure 5.1	Measurement Model for Latent Constructs 40
Figure 5.2	Finalized Measurement Model for Latent Constructs 46
Figure 5.3	Structural Model based on Finalized Measurement Model in CFA 53
Figure 5.4	Structural Model with Standardized Regression Weights 55
Figure 5.5	Structural Model with Regression Weights 57
Figure 5.6	Finalized Structural Model in AMOS 58
Figure 5.7	Finalized Structural Model with Standardized Regression Weights 60
Figure 5.8	Finalized Structural Model with Regression Weights 62

LIST OF TABLES

	Page
Table 3.1	Thresholds for Fitness Indices 26
Table 4.1	Data Distribution of Gender, Residential Area, University Type and Academic Year 31
Table 4.2	Distribution of Devices used to Participate for Online Lectures 34
Table 5.1	Fitness Indices for Measurement Model 39
Table 5.2	Average Variance Extracted (AVE) for Latent Constructs 41
Table 5.3	Correlation between Exogenous Constructs 43
Table 5.4	Comparison of AVE with Correlation 44
Table 5.5	Fitness Indices for Finalized Measurement Model 47
Table 5.6	Average Variance Extracted (AVE) for Latent Constructs – Finalized Measurement Model 47
Table 5.7	Correlation between Exogenous Constructs – Finalized Measurement Model 48
Table 5.8	Comparison of AVE with Correlation – Finalized Measurement Model 49
Table 5.9	Comparison of Cronbach’s Alpha Values with Correlation – Finalized Measurement Model 49
Table 5.10	Cronbach’s Alpha Coefficients for Latent Constructs – Finalized Measurement Model 51
Table 5.11	Composite Reliability for Latent Constructs – Finalized Measurement Model 51
Table 5.12	Fitness Indices for Structural Model 54
Table 5.13	Standardized Regression Weights for Path Estimates 56
Table 5.14	Regression Weights for Path Estimates 56
Table 5.15	Fitness Indices for Finalized Structural Model 59
Table 5.16	Standardized Regression Weights for Path Estimates in Finalized Structural Model 60

Table 5.17	Regression Weights for Path Estimates in Finalized Structural Model	61
Table 5.18	Correlations between Exogenous Constructs – Finalized Structural Model	63
Table 5.19	Skewness of Items in Finalized Structural Model	64

LIST OF ABBREVIATIONS

Abbreviation	Description
AGFI	Adjusted Goodness of Fit Index
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Composite Reliability
GFI	Goodness of Fit Index
MI	Modification Index
MLE	Maximum Likelihood Estimator
NFI	Normed Fit Index
RMSEA	Root Mean Square of Error Approximation
SE	Standard Error
SEM	Structural Equation Modeling
TLI	Tucker-Lewis Index

LIST OF APPENDICES

Appendix	Description	Page
Appendix – A	Standardized Factor Loadings for Measurement Model	82
Appendix – B	Regression Weights of Path Estimates in Measurement Model	84
Appendix – C	Standardized Factor Loadings for Finalized Measurement Model	86
Appendix – D	Regression Weights of Path Estimates in Finalized Measurement Model	88
Appendix – E	Skewness of Items in Finalized Measurement Model	90
Appendix – F	Sample Questionnaire	92