

TABLE OF CONTENTS

Certificate of Examiner	i
Acknowledgment	ii
Declaration	iii
Abstract	iv
Plagiarism Verification Certificate	v
Table of Contents	vi-viii
List of Figures	ix
List of Tables	x
List of Abbreviations	xi
Chapter 1 : Introduction	
1.1 Introduction	1
1.2 Usage of internet enabled devices and performance of students in academics	3
1.3 Usage of technology, self-directed learning and student engagement	4
1.4 Problem statement	5
1.5 Research Questions	5
1.6 Aim and Objectives of the Study	6
1.7 Structure of the thesis	7
Chapter 2 : Review of Literature	
2.1 Technology usage and academic performance	8
2.2 Student engagement	25
2.3 Self- directed learning	36
2.4 Summary of the literature review	47
Chapter 3 : Research Methodology	
3.1 Summary of the research design	48
3.2 Sample and data collection	49
3.3 Data coding	50
3.4 Data preparation and handling	50
3.5 Estimating the sample size	50
3.5.1 Sample size	51

3.5.2	Modification for the Cochran formula for sample size	51
3.6	Pilot Study	52
3.6.1	Media and technology usage scale (MTUAS)	53
3.6.1.1	Internal consistency among indicators of E-Mailing	53
3.6.1.2	Internal consistency among indicators of Text Messaging	53
3.6.1.3	Internal consistency among indicators of Smartphone Usage	54
3.6.1.4	Internal consistency among indicators of Media Sharing	55
3.6.1.5	Internal consistency among indicators of Internet Searching	55
3.6.2	SRSSDL	56
3.6.2.1	Internal consistency among indicators of Awareness	56
3.6.2.2	Internal consistency among indicators of Learning Strategies	57
3.6.2.3	Internal consistency among indicators of Learning Activities	57
3.6.2.4	Internal consistency among indicators of Evaluation	58
3.6.2.5	Internal consistency among indicators of Interpersonal Skills	59
3.6.3	Work Engagement Scale	59
3.6.3.1	Internal consistency among indicators of Work Engagement Scale	59
3.7	Instrument used and the process of data collection	60
3.8	Data responses	65
3.8.1	MTUAS Scale	69
3.8.2	Self- Rating Scale of Self- Directed Learning	87
3.8.3	Work Engagement Scale	106

3.9	Data Analysis Tools	113
3.9.1	Descriptive statistics	113
3.9.2	Inferential statistics	113
3.9.3	Multiple Linear Regression	113
3.9.4	Pearson correlation coefficient	114
3.10	Conceptual Framework with Hypothesis	115
3.10.1	Conceptual Framework for depicting the interrelationship between the variables.	116
3.11	Conceptual and Operational Definitions of Variables	118
3.11.1	Information and Communication Technology (ICT)	118
3.11.2	Self- Directed Learning	119
3.11.3	Student Engagement	119
3.11.4	Academic Performance	120
Chapter 4 : Data Analysis and Interpretations		
4.1	Assumption of Multiple Linear Regression	121
4.1.1	Assumption- 1 Linear Relationship between the Variables	122
4.1.2	Assumption – 2 Independence of error/ Lack of auto correlation	122
4.1.3	Assumption – 3 Homoscedasticity	122
4.1.4	Assumption -4 Normal Distribution of Data	123
4.2	Contributors of the Study	123
4.3	Results and Discussions	127
4.4	Research Findings	132
Chapter 5 : Summary of Findings and Implications		
5.1	Essential Findings	134
5.2	Practical Implications of the Study	137
5.3	Limitations and Future Directions	138
5.4	Discussion	139
5.5	Conclusion	140
5.6	Conference Participation/ Presentation and Publications in Journals.	143
	References	xii