

**ANALYSIS OF HOUSEHOLD'S E-WASTE AWARENESS
DISPOSAL BEHAVIOUR AND ESTIMATE OF POTENTIAL
TOWARDS EFFECTIVE E-WASTE MANAGEMENT IN GALLE
DISTRICT**



By

KANANKE PATHIRANAGE ISHANI DILANTHIKA

EU/IS/2018/MS/002

MS 2062



FCM2921

Project Report
Main Library, Eastern University, Sri Lanka

A Dissertation submitted to the Faculty of Commerce and Management, Eastern University, Sri Lanka as a partial fulfilment of the requirement of the Degree of Bachelor of Business Administration Honours (BBAHons)

**Department of Management
Faculty of Commerce and Management
Eastern University, Sri Lanka**

2024

ABSTRACT

This study investigates the awareness, practices, and perceptions regarding electronic waste (e-waste) management among households in Galle District, Sri Lanka. E-waste poses significant environmental and health risks due to its toxic components and improper disposal methods. The research aims to fulfill four primary objectives: first, to assess the extent of e-waste awareness among households, focusing on understanding its environmental impacts and the importance of responsible disposal practices. Second, is to analyze current e-waste disposal behaviors among households, identifying prevalent methods and their implications for environmental sustainability. Third, to identify potential areas for enhancing e-waste management practices within Galle District, including opportunities for recycling, reuse, or improved waste management strategies. Finally, based on findings, the study provides recommendations and insights for local authorities, organizations, and communities to enhance e-waste awareness and management practices. Using a mixed-methods approach, the research gathered quantitative data through surveys and qualitative insights through interviews with household representatives. Descriptive analysis revealed varied levels of e-waste awareness among participants, with a notable lack of knowledge concerning the environmental impacts of improper disposal. Findings from regression and correlation analyses highlighted significant factors influencing e-waste management behaviors, including awareness levels, socio-economic status, and access to disposal facilities. Correlation analysis further underscored the relationships between these factors and actual disposal practices, revealing gaps between awareness and action. The study's conclusions emphasize the urgent need for comprehensive e-waste education programs targeting households in Galle District. Recommendations include the establishment of community-based collection centers, educational campaigns on e-waste hazards, and partnerships between local authorities and recycling industries to promote sustainable practices. Limitations include the study's focus on a specific geographical area and potential biases in self-reported data. Future research could expand to include broader geographical areas and longitudinal studies to assess the effectiveness of intervention strategies over time.

Keywords: Electronic Waste, E-Waste Management, Household Practices, Environmental Awareness, Sri Lanka

TABLE OF CONTENT

| | |
|--|------------|
| AKNOWLEDGEMENT..... | iii |
| ABSTRACT..... | iv |
| LIST OF ABBREVIATIONS..... | xi |
| CHAPTER ONE..... | 1 |
| INTRODUCTION..... | 1 |
| 1.1 BACKGROUND OF THE STUDY..... | 1 |
| 1.2 PROBLEM STATEMENT..... | 4 |
| 1.3 RESEARCH OBJECTIVES..... | 9 |
| 1.4 RESEARCH QUESTIONS..... | 9 |
| 1.5 SIGNIFICANCE OF THE STUDY:..... | 9 |
| 1.6 SCOPE OF THE STUDY..... | 10 |
| 1.7 CHAPTER SUMMARY..... | 10 |
| CHAPTER TWO..... | 11 |
| LITERATURE REVIEW..... | 11 |
| 2.1 INTRODUCTION..... | 11 |
| 2.2 THEORETICAL REVIEW..... | 11 |
| 2.2.1 Theory of Planned Behaviour (TPB)..... | 11 |
| 2.2.2 Environmental Concern and Behaviour Model..... | 14 |
| 2.2.3 Extended Producer Responsibility (EPR)..... | 16 |
| 2.2.4 Diffusion of Innovation Theory..... | 19 |
| 2.3 EMPIRICAL REVIEW..... | 21 |
| 2.4 SUMMARY..... | 27 |
| CHAPTER THREE..... | 28 |
| CONCEPTUALIZATION AND OPERATIONALIZATION..... | 28 |
| 3.1 INTRODUCTION..... | 28 |
| 3.2 CONCEPTUAL FRAMEWORK..... | 28 |

| | |
|--|-----------|
| 3.3 DEFINITION OF VARIABLES..... | 29 |
| 3.3.1 Effective E-waste Management..... | 29 |
| 3.3.2 E-waste Attitude | 29 |
| 3.3.3 E-waste Intention..... | 29 |
| 3.3.4 E-waste Knowledge (Awareness)..... | 29 |
| 3.3.5 Reasons for E-Waste Management..... | 29 |
| 3.3.6 Reasons against E-Waste Management | 30 |
| 3.4 DEVELOPMENT OF HYPOTHESIS..... | 31 |
| 3.5 OPERATIONALIZATION OF THE VARIABLES | 32 |
| 3.6 CHAPTER SUMMARY..... | 34 |
| CHAPTER FOUR..... | 35 |
| RESEARCH METHODOLOGY | 35 |
| 4.1 INTRODUCTION..... | 35 |
| 4.2 RESEARCH DESIGN | 35 |
| 4.3 POPULATION AND SAMPLING..... | 37 |
| 4.4 METHODS OF DATA COLLECTION | 38 |
| 4.5 METHODS OF DATA ANALYSIS | 39 |
| 4.6 CHAPTER SUMMARY..... | 40 |
| CHAPTER FIVE | 41 |
| DATA PRESENTATION AND ANALYSIS | 41 |
| 5.1 INTRODUCTION..... | 41 |
| 5.2 RELIABILITY AND VALIDITY ANALYSIS | 41 |
| 5.3 DEMOGRAPHIC DATA ANALYSIS..... | 48 |
| 5.3.1 Age..... | 48 |
| 5.3.2 Gender | 49 |
| 5.3.3 Educational level | 51 |
| 5.3.4 Monthly income..... | 52 |

| | |
|--|-----------|
| 5.4 DESCRIPTIVE ANALYSIS..... | 54 |
| 5.4.1 Attitude of the E-Waste Management..... | 54 |
| 5.4.2 Intention of the E-Waste Management | 57 |
| 5.4.3 Awareness / Knowledge of the E-Waste Management | 60 |
| 5.4.4 Reasons for E-Waste Management..... | 63 |
| 5.4.5 Reasons Against for E-Waste Management..... | 66 |
| 5.4.6 E-Waste Management Practices | 69 |
| 5.4.7 Disposal Behaviour for Electronic Gadgets | 72 |
| 5.4.8 Reasons of Disposing/ Replacing Electronic Gadgets | 75 |
| 5.4.9 Options adopted in Disposing of Electronic Gadgets..... | 77 |
| 5.5 CORRELATION ANALYSIS | 80 |
| 5.6 MULTIPLE REGRESSION ANALYSIS..... | 82 |
| 5.7 TESTING OF RESEARCH HYPOTHESES..... | 90 |
| 5.7.1 Hypothesis 01: E-Waste Attitude..... | 90 |
| 5.7.2 Hypothesis 02: E-Waste Intention | 91 |
| 5.7.3 Hypothesis 03: E-Waste Knowledge (Awareness) | 92 |
| 5.7.4 Hypothesis 04: Reasons for E-Waste Management..... | 93 |
| 5.7.5 Hypothesis 05: Reasons against E-Waste Management | 93 |
| 5.8 CHAPTER SUMMARY | 94 |
| CHAPTER SIX | 95 |
| DISCUSSION | 95 |
| 6.1 INTRODUCTION..... | 95 |
| 6.2 DISCUSSION OF RESEARCH FINDINGS..... | 95 |
| 6.2.1 Discussion from Descriptive Analysis..... | 95 |
| 6.2.2 Findings of Correlation Analysis | 98 |
| 6.2.3 Discussion of Regression Analysis..... | 99 |
| 6.2.4 Discussion of Testing Hypothesis..... | 103 |

| | |
|--|------------|
| 6.3 COMPARISON OF THE FINDINGS WITH PREVIOUS RESEARCHES .. | 108 |
| 6.4 CHAPTER SUMMARY | 111 |
| CHAPTER SEVEN..... | 112 |
| CONCLUSION AND RECOMMENDATION..... | 112 |
| 7.1 INTRODUCTION..... | 112 |
| 7.2 CONCLUSION | 112 |
| 7.3 RECOMMENDATIONS | 117 |
| 7.4 LIMITATIONS OF THE STUDY | 119 |
| 7.5 SUGGESTION FOR FUTURE RESEARCH..... | 120 |
| 7.6 CHAPTER SUMMERY | 121 |
| REFERENCES..... | 122 |
| APPENDIX 01 – QUESTIONNAIRE..... | 127 |