

**EFFECT OF ECONOMIC AND SOCIAL ASPECTS IN
SUSTAINABLE SUPPLY CHAIN MANAGEMENT IN
APPAREL INDUSTRY**

Jayani Ishara Sudusinghe

168044G

Degree of Master of Science

Department of Transport and Logistics Management

University of Moratuwa

Sri Lanka

May 2018

**EFFECT OF ECONOMIC AND SOCIAL ASPECTS IN
SUSTAINABLE SUPPLY CHAIN MANAGEMENT IN
APPAREL INDUSTRY**

Jayani Ishara Sudusinghe

168044G

Thesis submitted in partial fulfillment of the requirements for the degree Master of
Science in Supply Chain Management

Department of Transport and Logistics Management

University of Moratuwa

Sri Lanka

May 2018

DECLARATION OF ORIGINALITY

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.

Signature:

Date:

COPYRIGHT STATEMENT

I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my thesis/dissertation, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as articles or books).

Signature:

Date:

STATEMENT OF THE SUPERVISOR

The above candidate has carried out the research for the Degree of Master of Science under my supervision.

Name of the supervisor:

Signature of the supervisor: Date:

Name of the supervisor:

Signature of the supervisor: Date:

ABSTRACT

Apparel industry being a labor sensitive arena in the global market, the social sustainability conscious global consumers are demanding for transparency along the global apparel supply chain. Meanwhile, the outsourced apparel manufacturing in developing countries such as Sri Lanka, Bangladesh along with other local manufacturers are seeking for economic improvements despite the attention towards sustainability practices. However, the social sustainability practices resulting in improved economic performance is an under investigated arena both in the operational and research level. Hence this research fills the gap of exploring the effect of social sustainability on the economic sustainability of the apparel supply chain.

The inputs from industry experts were gathered and analyzed while initiating to develop a common framework for social sustainability and economic sustainability dimensions under the Global Goals (UN SDGs). Further, a survey was conducted in order to understand the socially and economically sustainable practices in the Sri Lankan apparel supply chain. Finally, the relationship between social and economic sustainability dimension was explored using Partial Least Square Structural Equation Modelling (PLS SEM) technique.

The best social sustainability performance was well reflected by the actions of exporting apparel manufacturers compared to the local apparel manufacturers. However, it was revealed that the social sustainability practices are resulting in the economic performance improvements of the apparel manufacturers in the Sri Lankan context.

ACKNOWLEDGEMENT

Foremost, I would like to offer my sincere gratitude to my research supervisor Dr. Pradeepa Jayaratne for her knowledge, motivation and commitment guiding me throughout the Research Degree program to research and write this thesis. Moreover, my heartfelt gratitude is extended to my co-supervisor Prof. Amal S. Kumarage for his immense assistance and guidance in making this study an authentic product.

Further, I would like to thank all the industry experts being a part of this research and adding an extra value in order to develop the Sri Lankan apparel industry. I would also like to acknowledge Joint Apparel Association Forum (JAFF) of Sri Lanka and Sri Lanka Apparel Brands Association (SLABA) for sharing their database with me in order to identify the respondents for this research. I would also like to gratefully acknowledge the Senate Research Grant No. SRC/MP/2015/2 of the University of Moratuwa, Sri Lanka for funding this research.

Finally, I would like to extend my gratitude to my parents for providing me with unfailing support and continuous encouragement throughout these years.

TABLE OF CONTENTS

DECLARATION OF ORIGINALITY	ii
COPYRIGHT STATEMENT	iii
STATEMENT OF THE SUPERVISOR.....	iv
ABSTRACT.....	v
ACKNOWLEDGEMENT	vi
1. INTRODUCTION	1
1.1. Background	1
1.1.1. Supply Chain Management (SCM).....	1
1.1.2. Sustainability in Supply Chain Management.....	2
1.1.3. Social Sustainability Dimension in SSCM	2
1.1.4. Economic Sustainability Dimension in SSCM	3
1.1.5. Apparel Industry in Sri Lanka.....	3
1.2. Research Gap	3
1.3. Problem Statement	4
1.4. Research Objectives and Research Questions.....	4
1.5. Overview of the Thesis	5
2. LITERATURE REVIEW	7
2.1. Sustainable Development.....	7
2.1.1. The Triple Bottom Line	7
2.1.2. United Nation’s Approach towards Sustainable Development.....	8
2.2. Sustainable Supply Chain Management	10
2.2.1. Evolution of SSCM.....	11
2.2.2. Definitions of SSCM.....	12
2.2.3. Industries.....	14
2.2.4. Drivers of SSCM.....	14
2.2.5. Theories in SSCM.....	17
2.2.6. Modelling Techniques in SSCM.....	18
2.3. Environmental Sustainability Dimension in SSCM.....	18
2.3.1. Definitions.....	19
2.3.2. Factors Affecting GSCM	20
2.3.3. Functions in GSCM	21
2.3.4. Upstream SC in GSCM.....	21

2.3.5.	Internal Organizational SC in GSCM	21
2.3.6.	Downstream SC in GSCM.....	22
2.3.7.	Industries and Countries.....	23
2.3.8.	Impact on Other Areas	23
2.4.	Social Sustainability Dimension in SSCM	24
2.5.	Economic Sustainability Dimension in SSCM	27
2.6.	Apparel Supply Chain.....	28
2.6.1.	Textile and Apparel Supply Chain.....	29
2.6.2.	Life Cycle of Garments.....	34
2.6.3.	Sustainability in Apparel Supply Chain.....	34
2.6.4.	Future	35
2.7.	Apparel Industry in Sri Lanka.....	35
2.8.	Developing Research Objectives and Research Questions	36
2.8.1.	To identify the metrics of social sustainability dimensions related to apparel supply chain	36
2.8.2.	To identify the metrics of economic sustainability dimensions related to apparel supply chain	37
2.8.3.	To identify the most commonly used metrics related to social and economic dimensions in apparel supply chain	37
2.8.4.	To identify the interrelation between social and economic sustainability in apparel supply chain	37
3.	RESEARCH METHODOLOGY	39
3.1.	Research Paradigm.....	39
3.1.1.	Research Approach	39
3.1.2.	Data Collection Methods	42
3.1.3.	Data Analysis	45
3.2.	Research Design of the Current Research.....	52
3.3.	Data Collection	54
3.3.1.	Phase 1	54
3.3.2.	Phase 2	58
3.4.	Data Analysis	59
3.4.1.	Phase 1	59
3.4.2.	Conceptual Framework Development.....	60
3.4.3.	Phase 2	61
4.	RESEARCH ANALYSIS – Phase 1.....	73

4.1.	Identification of Key Themes in Sustainable Apparel Supply Chains.....	73
4.1.1.	Acceptance and Rejection of Themes.....	73
4.2.	Themes in the Conceptual Framework.....	76
4.2.1.	Social Sustainability Practices Benefiting towards Society (SB).....	77
4.2.2.	Education Benefits (EB).....	85
4.2.3.	Equity Improvement (EqIONE).....	88
4.2.4.	Gender Related Equity Improvement (EqITWO).....	92
4.2.5.	Ethical Improvement (EI).....	96
4.2.6.	Health and Safety Improvement (HS).....	99
4.2.7.	Improved Labor Conditions (R2).....	102
4.2.8.	Child and Bonded Labor Conditions (R1).....	105
4.2.9.	Regulatory Responsibility (RR).....	108
4.2.10.	Improved Wage Conditions (WC).....	112
4.2.11.	Workers' and Employees' Conditions (WEC).....	115
4.2.12.	Improved Economic Performance (EP).....	118
4.3.	Conceptual Framework Development.....	121
5.	RESEARCH ANALYSIS – PHASE 2.....	123
5.1.	Descriptive Data Analysis in Survey Questionnaire.....	123
5.1.1.	Demographic Data Analysis.....	123
5.1.2.	Social Sustainability Practices Benefiting towards Society (SB).....	128
5.1.3.	Education Benefits (EB).....	138
5.1.4.	Equity Improvement (EqIONE).....	141
5.1.5.	Gender Related Equity Improvement (EqIONE).....	145
5.1.6.	Ethical Improvement (EI).....	149
5.1.7.	Health and Safety Improvement (HS).....	152
5.1.8.	Improved Labor Conditions (R2).....	154
5.1.9.	Child and Bonded Labor Conditions (R1).....	158
5.1.10.	Regulatory Responsibility (RR).....	161
5.1.11.	Improved Wage Conditions (WC).....	164
5.1.12.	Workers' and Employees' Conditions (WEC).....	168
5.1.13.	Improved Economic Performance (EP).....	172
5.2.	PLS Path Modelling.....	181
5.2.1.	Assessment of Formative Measurement Model for LOCs.....	184
5.2.2.	Assessment of Formative Measurement Model for HOC.....	187

5.2.3.	Assessment of Structural Model	189
6.	DISCUSSION	191
6.1.	Global Goals and Supply Chain Sustainability	191
6.2.	Social and Economic Sustainability Dimensions in Apparel Supply Chain.....	191
6.3.	Social Sustainability in Apparel Supply Chain.....	192
6.3.1.	Social Sustainability Practices Benefiting towards Society (SB)	195
6.3.2.	Education Benefits	196
6.3.3.	Equity Improvement (EqIONE).....	196
6.3.4.	Gender Related Equity Improvement (EqITWO)	197
6.3.5.	Ethical Improvement.....	198
6.3.6.	Health and Safety improvement.....	198
6.3.7.	Improved Labor Conditions	199
6.3.8.	Child and Bonded Labor Conditions.....	200
6.3.9.	Regulatory Responsibilities	200
6.3.10.	Improved Wage Condition.....	200
6.3.11.	Workers' and Employees' Condition.....	201
6.4.	Economic Sustainability in Apparel Supply Chain.....	202
6.5.	Relationship between Social and Economic Sustainability Dimensions in the Apparel Supply Chain.....	203
7.	CONCLUSION AND RECOMMENDATIONS.....	205
7.1.	Conclusion of the Research.....	205
7.2.	Recommendations.....	209
8.	REFERENCES	211
9.	APPENDIX.....	226
9.1.	Appendix 1 - Social Sustainability Practices Benefiting towards Society (SB) ..	226
9.1.1.	Theme 4 - Access to Quality Essential Health Care Services.....	226
9.1.2.	Theme 44 - Health Financing.....	227
9.1.3.	Theme 11 - Education for Sustainable Development.....	228
9.1.4.	Theme 32 - Public Access to Information.....	229
9.1.5.	Theme 88 - Product and Service Information and Labeling	229
9.1.6.	Theme 15 - Youth Employment.....	230
9.1.7.	Theme 18 - Access to Sexual and Reproductive Health-Care Services.....	231
9.1.8.	Theme 5 - Access to WASH (Water, Sanitation and Hygiene)	231
9.1.9.	Theme 25 - Infrastructure Investments	232

9.1.10.	Theme 3 - Economic Development in Areas of High Priority.....	233
9.1.11.	Theme 27 - Access to Public Spaces.....	234
9.1.12.	Theme 60 - Changing the Productivity of Organizations, Sectors, or the Whole Economy.....	234
9.1.13.	Theme 50 - Research and Development	235
9.1.14.	Theme 99 - Technological Legacies	235
9.1.15.	Theme 64 - Disaster/ Emergency Planning or Response	236
9.1.16.	Theme 86 - Partnerships	237
9.1.17.	Theme 10 - Access to Medicines	238
9.2.	Appendix 2 - Education Benefits (EB)	238
9.2.1.	Theme 12 - Availability of a Skilled Workforce	238
9.2.2.	Theme 13 - Capacity Building	239
9.2.3.	Theme 38 - Employee Training and Education	240
9.3.	Appendix 3 – Equity Improvement.....	241
9.3.1.	Theme 7 - Non-Discrimination	241
9.3.2.	Theme 43 - Grievance Mechanisms.....	242
9.3.3.	Theme 17 - Diversity and Equal Opportunity	243
9.3.4.	Theme 34 - Inclusive Decision Making	245
9.4.	Appendix 4 – Gender related Equity Improvement (EqITWO).....	246
9.4.1.	Theme 20 - Women in Leadership.....	246
9.4.2.	Theme 42 - Gender Equality	247
9.4.3.	Theme 53 - Women's Empowerment through Technology	248
9.5.	Appendix 5 – Ethical Improvement (EI).....	249
9.5.1.	Theme 31 - Anti-Corruption	249
9.5.2.	Theme 40 - Ethical and Lawful behavior.....	249
9.6.	Appendix 6 – Health & Safety Improvement (HS).....	250
9.6.1.	Theme 8 - Healthy and Affordable Food	250
9.6.2.	Theme 69 - Food Prices	251
9.6.3.	Theme 70 - Food Safety.....	251
9.6.4.	Theme 5 – Access to WASH	252
9.6.5.	Theme 9 - Occupational Health and Safety	252
9.7.	Appendix 7 – Improved Labor Conditions (R2).....	253
9.7.1.	Theme 19 - Workplace Violence and Harassment.....	253
9.7.2.	Theme 94 - Sexual Exploitation.....	254

9.7.3.	Theme 41 - Freedom of Association and Collective Bargaining	254
9.7.4.	Theme 46 - Labor/Management Relations.....	255
9.8.	Appendix 8 – Child and Bonded Labor Conditions (R1)	256
9.8.1.	Theme 47 - Labor Practices in the Supply Chain	256
9.8.2.	Theme 35 - Abolition of Child Labor	257
9.8.3.	Theme 37 - Elimination of Forced or Compulsory Labor	258
9.9.	Appendix 9 – Regulatory Responsibilities (RR).....	259
9.9.1.	Theme 29 - Effective, Accountable and Transparent Governance	259
9.9.2.	Theme 49 - Protection of Privacy	259
9.9.3.	Theme 30 - Compliance with Laws and Regulations	260
9.10.	Appendix 10 – Improved Wage Condition (WC).....	261
9.10.1.	Theme 2 - Earnings, Wages and Benefits	261
9.10.2.	Theme 16 - Equal Remuneration for Women and Men	263
9.11.	Appendix 11 – Workers’ and Employees’ Conditions (WEC).....	264
9.11.1.	Theme 54 - Work Life Balance.....	264
9.11.2.	Theme 21 - Childcare Services and Benefits	265
9.11.3.	Theme 26 - Sustainable Transportation	266
9.11.4.	Theme 24 - Access to Affordable Housing.....	266
9.12.	Appendix 12 – Improved Economic Performance (EP).....	267
9.12.1.	Theme 36 - Economic Performance.....	267
9.12.2.	Theme 36.1 - Retention of Employees.....	269
9.12.3.	Theme 36.2 - Attraction of New Employees	269
9.12.4.	Theme 36.3 - Improved Image.....	269
9.12.5.	Theme 36.4 - Attraction of Potential New Customers	270
9.12.6.	Theme 36.5 - Customer Retention	270
9.12.7.	Theme 39 - Employment.....	271
9.12.8.	Theme 48 - Parental Leave	272
9.12.9.	Theme 71 - Foreign Direct Investment	272
9.12.10.	Theme 107 - Improved Profits	273
9.13.	Appendix 13 – Rejected Themes	273
9.13.1.	Theme 1 - Availability of Products and Services for those on Low Incomes 273	
9.13.2.	Theme 6 - Electricity Availability and Reliability	273
9.13.3.	Theme 14 - Indirect Impact on Job Creation	274

9.13.4.	Theme 22 - Access to Financial Services	274
9.13.5.	Theme 23 - Economic Inclusion	274
9.13.6.	Theme 28 - Sustainable Buildings	274
9.13.7.	Theme 33 - Physical and Economic Displacement.....	275
9.13.8.	Theme 45 - Jobs Supported in the Supply Chain.....	275
9.13.9.	Theme 51 - Security	276
9.13.10.	Theme 52 - Socially Inclusive Events.....	276
9.13.11.	Theme 55 - Accessibility of Buildings.....	276
9.13.12.	Relationship between Social and Economic Sustainability Dimensions .	294
9.14.	Appendix 3 - The Survey Questionnaire.....	296

LIST OF FIGURES

Figure 1.1. Relationship between sustainability dimensions	3
Figure 2.1. Millennium Development Goals (MDGs)	8
Figure 2.2. UN SDGs	9
Figure 2.3. Sustainable Supply Chain Management	13
Figure 2.4. Evolution of the SSCM.....	14
Figure 2.5. The Textile-Apparel Supply Chain.....	29
Figure 3.1. Research Methods in SSCM.....	49
Figure 3.2. Research Design	53
Figure 3.3. Online interface of SDG Compass	54
Figure 3.4 A sample PLS Path Model.....	63
Figure 3.5 HCM Types	64
Figure 3.6. Reflective vs Formative Measurement Model.....	66
Figure 3.7. Formative Measurement Model Assessment Procedure.....	67
Figure 3.8 Steps in Test for Collinearity	68
Figure 5.1 Firm Size Comparison	123
Figure 5.2 Business Category	124
Figure 5.3. Job Position of the Respondents	124
Figure 5.4. Employee position vs Firm size.....	125
Figure 5.5. Employee position vs Business category.....	125
Figure 5.6. Social and Economic Sustainability Practices in Apparel Supply Chain	126
Figure 5.7. Summary of Sustainable Practices in Apparel Supply Chain.....	127
Figure 5.8. Social Sustainability Practices Benefiting towards Society vs Firm Size	128
Figure 5.9. SB1 vs Small Scale Firm Type.....	130
Figure 5.10. SB2 vs Small Scale Firm Type.....	130
Figure 5.11. SB3 vs Small Scale Firm Type.....	131
Figure 5.12. SB4 vs Small Scale Firm Type.....	131
Figure 5.13. SB5 vs Small Scale Firm Type.....	132
Figure 5.14. SB6 vs Small Scale Firm Type.....	132
Figure 5.15. SB7 vs Small Scale Firm Type.....	133
Figure 5.16. SB8 vs Small Scale Firm Type.....	133
Figure 5.17. SB1 vs Large Scale Firm Type.....	134
Figure 5.18. SB2 vs Large Scale Firm Type.....	134
Figure 5.19. SB3 vs Large Scale Firm Type.....	135
Figure 5.20. SB4 vs Large Scale Firm Type.....	135
Figure 5.21. SB5 vs Large Scale Firm Type.....	136
Figure 5.22. SB6 vs Large Scale Firm Type.....	136
Figure 5.23. SB7 vs Large Scale Firm Type.....	137
Figure 5.24. SB8 vs Large Scale Firm Type.....	137
Figure 5.25. Education Benefits vs Firm Size.....	138
Figure 5.26. EB1 vs Small Scale Firm Type.....	139

Figure 5.27. EB2 vs Small Scale Firm Type.....	139
Figure 5.28. EB3 vs Small Scale Firm Type.....	140
Figure 5.29. EB1 vs Large Scale Firm Type.....	140
Figure 5.30. EB2 vs Large Scale Firm Type.....	141
Figure 5.31. EB3 vs Large Scale Firm Type.....	141
Figure 5.32. Equity Improvement vs Firm Size.....	142
Figure 5.33. EqI1 vs Small Scale Firm Type.....	142
Figure 5.34. EqI2 vs Small Scale Firm Type.....	143
Figure 5.35. EqI4 vs Small Scale Firm Type.....	143
Figure 5.36. EqI1 vs Large Scale Firm Type.....	144
Figure 5.37. EqI2 vs Large Scale Firm Type.....	144
Figure 5.38. EqI4 vs Large Scale Firm Type.....	145
Figure 5.39. EqITWO vs Firm Size.....	145
Figure 5.40. EqI3 vs Small Scale Firm Type.....	146
Figure 5.41. EqI5 vs Small Scale Firm Type.....	147
Figure 5.42. EqI6 vs Small Scale Firm Type.....	147
Figure 5.43. EqI3 vs Large Scale Firm Type.....	148
Figure 5.44. EqI5 vs Large Scale Firm Type.....	148
Figure 5.45. EqI6 vs Large Scale Firm Type.....	149
Figure 5.46. Ethical Improvement vs Firm Size.....	149
Figure 5.47. EI1 vs Small Scale Type.....	150
Figure 5.48. EI2 vs Small Scale Type.....	150
Figure 5.49. EI1 vs Large Scale Type.....	151
Figure 5.50. EI2 vs Large Scale Type.....	151
Figure 5.51. Health and Safety Improvement vs Firm Size.....	152
Figure 5.52. HS1 vs Small Scale Type.....	152
Figure 5.53. HS2 vs Small Scale Type.....	153
Figure 5.54. HS1 vs Large Scale Type.....	153
Figure 5.55. HS2 vs Large Scale Type.....	154
Figure 5.56. Improved Labor Condition vs Firm Size.....	154
Figure 5.57. LC1 vs Small Scale Type.....	155
Figure 5.58. LC2 vs Small Scale Type.....	156
Figure 5.59. LC3 vs Small Scale Type.....	156
Figure 5.60. LC1 vs Large Scale Type.....	157
Figure 5.61. LC2 vs Large Scale Type.....	157
Figure 5.62. LC3 vs Large Scale Type.....	158
Figure 5.63. Child and Bonded Labor Condition vs Firm Size.....	158
Figure 5.64. LC4 vs Small Scale Type.....	159
Figure 5.65. LC5 vs Small Scale Type.....	159
Figure 5.66. LC4 vs Large Scale Type.....	160
Figure 5.67. LC5 vs Large Scale Type.....	161
Figure 5.68. Regulatory Responsibility vs Firm Size.....	161
Figure 5.69. RR1 vs Small Scale Type.....	162
Figure 5.70. RR2 vs Small Scale Type.....	162

Figure 5.71. RR1 vs Large Scale Type	163
Figure 5.72. RR2 vs Large Scale Type	164
Figure 5.73 Wage Condition vs Firm Size.....	164
Figure 5.74. WC1 vs Small Scale Type	165
Figure 5.75. WC2 vs Small Scale Type	166
Figure 5.76. WC3 vs Small Scale Type	166
Figure 5.77. WC1 vs Large Scale Type	167
Figure 5.78. WC2 vs Large Scale Type	167
Figure 5.79. WC3 vs Large Scale Type	168
Figure 5.80 Workers' and Employees' Condition vs Firm Size	168
Figure 5.81. WEC1 vs Small Scale Type.....	169
Figure 5.82. WEC2 vs Small Scale Type.....	170
Figure 5.83. WEC3 vs Small Scale Type.....	170
Figure 5.84. WEC1 vs Large Scale Type.....	171
Figure 5.85. WEC2 vs Large Scale Type.....	171
Figure 5.86. WEC3 vs Large Scale Type.....	172
Figure 5.87 Economic Performance vs Firm Size	173
Figure 5.88. EP1 vs Small Scale Type.....	174
Figure 5.89. EP2 vs Small Scale Type.....	174
Figure 5.90. EP3 vs Small Scale Type.....	175
Figure 5.91. EP4 vs Small Scale Type.....	175
Figure 5.92. EP5 vs Small Scale Type.....	176
Figure 5.93. EP6 vs Small Scale Type.....	176
Figure 5.94. EP7 vs Small Scale Type.....	177
Figure 5.95. EP1 vs Large Scale Type.....	177
Figure 5.96. EP2 vs Large Scale Type.....	178
Figure 5.97. EP3 vs Large Scale Type.....	178
Figure 5.98. EP4 vs Large Scale Type.....	179
Figure 5.99. EP5 vs Large Scale Type.....	179
Figure 5.100. EP6 vs Large Scale Type.....	180
Figure 5.101. EP7 vs Large Scale Type.....	180
Figure 5.102 Formative- Formative HCM.....	182
Figure 5.103. Path Model of the Framework	183
Figure 7.1 Social Sustainability Dimension.....	206

LIST OF TABLES

Table 2.1. UN SDGs	9
Table 2.2. Functions of the textile- apparel supply chain	30
Table 3.1. Mixed Approach in Research Methodology	41
Table 3.2. Phases of thematic analysis.....	46
Table 3.3 Quantitative Data Analysis Approach.....	47
Table 3.4. Descriptive Data Analysis Techniques	48
Table 3.5. Research Methodologies in SSCM	51
Table 4.1. Summary of Accepted and Rejected Themes	74
Table 4.2. Summary of themes under SB	78
Table 4.3. Summary of themes under EB	86
Table 4.4. Summary of themes under Equity Improvement	89
Table 4.5. Summary of themes under gender related equity improvement (EqITWO)	93
Table 4.6. Summary of themes under ethical improvement	97
Table 4.7. Summary of themes under HS	100
Table 4.8. Summary of themes under R2.....	103
Table 4.9. Summary of themes under R1.....	106
Table 4.10. Summary of themes under RR.....	109
Table 4.11. Summary of themes in WC.....	113
Table 4.12. Summary of themes under WEC	116
Table 4.13. Summary of themes under EP.....	119
Table 4.14 Categorization of Social Sustainability Dimension	121
Table 5.1. Convergent Validity Testing.....	184
Table 5.2. VIF Values of Indicators in the Measurement Model of LOCs.....	185
Table 5.3. VIF Values for Indicators in the Measurement Model of LOCs	185
Table 5.4. Inclusion and Exclusion of Indicators in the Formative Construct.....	186
Table 5.5. VIF Values of Indicators in the Measurement Model of HOC.....	187
Table 5.6. Significance and Relevance of HOC	188
Table 5.7. VIF Values	189
Table 5.8. Significance of the structural model relationships.....	190
Table 5.9. Effect Sizes (f^2)	190

LIST OF ABBREVIATIONS

SCM	Supply Chain Management
SSCM	Sustainable Supply Chain Management
3BL/ TBL	Triple Bottom Line
UNWCED	United Nations World Commission on Environment and Development
MDG	Millennium Development Goals
SDG	Sustainable Development Goals
GRI	Global Reporting Initiative
UN	United Nations
WBCSD	World Business Council for Sustainable Development
GSCM	Green Supply Chain Management
ECSC	Environmentally Conscious Supply Chain
ESC	Environmental Supply Chain
IT	Information Technology
LCA	Life Cycle Assessment
ECD	Environmental Conscious Design