

UNIVERSITY OF SOUTHAMPTON

**FACULTY OF BUSINESS, LAW AND ART
WINCHESTER SCHOOL OF ART**

**DEVELOPING A SUSTAINABLE SECOND-HAND CLOTHING TRADE IN
GHANA**

by

Kenneth Amanor

Thesis for the degree of Doctor of Philosophy

September 2018

University of Southampton Research Repository

Copyright © and Moral Rights for this thesis and, where applicable, any accompanying data are retained by the author and/or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This thesis and the accompanying data cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder/s. The content of the thesis and accompanying research data (where applicable) must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holder/s.

When referring to this thesis and any accompanying data, full bibliographic details must be given, e.g.

Thesis: Author (Year of Submission) "Full thesis title", University of Southampton, name of the University Faculty or School or Department, PhD Thesis, pagination.

Data: Author (Year) Title. URI [dataset]

ABSTRACT

Ghana is flooded by the excessive importation of low-grade second-hand clothes (SHC) from America, Europe and Asia. The second-hand clothing trade, which is mainly undertaken in the Kantamanto market within the central business district of Accra, Ghana is unsustainable. This situation has not been given significant attention by successive governments, state agencies and city officials making it an under researched area.

This research aims to develop a conceptual understanding of a sustainable second-hand clothing trade based on the integration of the three essential dimensions that traverse sustainable development; (*economic, environmental and social*). The sustainable developments of the second-hand clothing trade hinges on effective regulation and reuse and recycling systems (a Three-R framework) to advance the economic growth of the trade, and to promote healthy commercial environments and the social well-being of both traders and consumers. The research critically examines theories on sustainable development, waste management hierarchy, development of the second-hand clothing trade and contemporary global second-hand clothing trade practices to create a conceptual framework for the sustainable development of the second-hand clothing trade in Ghana.

The research employs a qualitative approach for collecting data through semi-structured interviews and participant observations from the Waste & Resources Action Programme (WRAP) U.K., the Textiles Recycling Association (TRA) U.K., the Kantamanto Used Clothes Sellers Association in Ghana, the Accra Metropolitan Assembly (AMA), the Ministry of Trade and Industry (MOTI), the Ghana Standards Authority (GSA), the Ministry of Railways Development, and the second-hand clothing importers, wholesalers, retailers and consumers within the Kantamanto market in Accra, Ghana. The emergent themes from the empirical data were categorised in accordance with the research questions and literature reviewed, and constantly analysed using comparisons and reliability checks. The research contributes to knowledge by presenting a conceptual framework that bridges the existing gap in the sustainable development of the Ghanaian second-hand clothing trade.

Table of contents

ABSTRACT.....	i
List of tables	vi
List of figures.....	vii
DECLARATION OF AUTHORSHIP	x
ACKNOWLEDGEMENTS	xi
DEDICATION.....	xii
LIST OF ABBREVIATIONS	xiii
CHAPTER 1: INTRODUCTION	16
1.1. Research Context	16
1.2. Purpose of the study.....	21
1.3. Research aim	22
1.4. Research questions.....	22
1.5. Research objectives	23
1.6. Significance of the study	23
1.7. Structure of the study	24
1.8. Summary.....	26
CHAPTER 2: BACKGROUND AND COUNTRY CONTEXT.....	28
2.1. Background of Ghana's SHC Trade.....	28
2.2. Country Context	31
2.2.1. Accra Context.....	35
2.2.2. Kantamanto Market Context	39
2.3. Ghana's Sustainable Development	43
2.3.1. Relevance of SHC trade development to SDGs.	46
2.4. Problem statement.....	49
2.5. Summary.....	50
CHAPTER 3: LITERATURE REVIEW.....	52
3.0. Introduction	52
3.1. Sustainable Development	52
3.2. The Three Dimensions of Sustainable Development.....	60
3.2.1. Economic Dimension	62
3.2.2. Environmental Dimension.....	63
3.2.3. Social Dimension.....	64
3.2.4. The Three Intersected Rings/ Circles	66
3.3. Sustainable Development Policy	71
3.4. Sustainable Trade	73
3.5. Sustainable Consumption	79
3.6. Critiques of Sustainable Development.....	84
3.7. Development of the (SHC) Trade	86
3.7.1. Economic Liberalization and SHC Trade Development in Developing Countries.....	90
3.7.2. Emergence of Sustainable SHC Trade	93
3.7.3. Global Scope of SHC Trade	98

3.8. Three-R framework for Sustainable Development	102
3.8.1. Regulate	106
3.8.2. Reuse	116
3.8.3. Recycle	119
3.9. Summary	124
CHAPTER 4: CONCEPTUAL FRAMEWORK	126
4.0. Introduction	126
4.1. Propositions	127
4.1.1. Proposition 1 (P1)	127
4.1.2. Proposition 2 (P2)	130
4.2. Theoretical contribution	134
4.3. Summary	135
CHAPTER 5: RESEARCH METHODOLOGY.....	136
5.0. Introduction	136
5.1. Research Philosophical Perspectives.....	138
5.1.1. Qualitative approach	140
5.1.2. Case study approach.....	144
5.1.3. Semi-structured interview.....	146
5.1.4. Participant observation	150
5.2. Research area	156
5.2.1. The United Kingdom	156
5.2.2. Ghana	157
5.3. Research sample.....	161
5.3.1 Sample size.....	163
5.4. Validity and Reliability	164
5.4.1. Validity	164
5.4.2. Reliability	165
5.5. Research Ethics.....	166
5.6. Coding.....	167
5.7. Data Analysis.....	169
5.7.1. Visual Data Analysis.....	171
5.8. Summary.....	173
CHAPTER 6: DATA ANALYSIS.....	174
6.0. Introduction	174
6.1. WITHIN-CASE ANALYSIS	175
6.1.1. Researching the processing of second-hand clothes in the U.K.	175
6.1.2. Researching the SHC trade in the Kantamanto market	183
6.2. CROSS-CASE ANALYSIS.....	193
6.2.1. Major themes	194
6.2.1.1. Economic Dimension	194
6.2.1.2. Environmental Dimension.....	202
6.2.1.3. Social Dimension	210
6.2.2. Sub-themes	216
6.2.2.1. Regulate	216
6.2.2.2. Reuse.....	226
6.2.2.3. Recycle	233

6.3. Summary	238
CHAPTER 7: DISCUSSION OF RESEARCH FINDINGS	240
7.0. Introduction	240
7.1. Sustainable development impact on developing countries.....	241
7.2. Integrating the three dimensions of sustainable development in the SHC trade...	246
7.2.1. Economic dimension.....	247
7.2.2. Environmental dimension	248
7.2.3. <i>Social dimension</i>	250
7.3. Three-R framework for sustainable SHC trade in Ghana	253
7.3.1. Regulate	254
7.3.2. Reuse	258
7.3.3. Recycle	261
7.4. Result of Propositions	264
7.4.1. Remodelled Conceptual Framework.....	271
7.5. Contribution to knowledge	274
7.6. Summary.....	275
CHAPTER 8: CONCLUSION, RECOMMENDATIONS AND LIMITATIONS	276
8.0. Introduction	276
8.1. Conclusion of the thesis	276
8.2. Recommendations.....	282
8.3. Recommendations for future work.....	288
8.4. Limitations	289
Appendices:	290
Appendix A: LEASE LETTER (KANTAMANTO MARKET).....	290
Appendix B: PERMISSION LETTER.....	291
Appendix C: INTERVIEW PARTICIPANT INFORMATION SHEET	292
Appendix D: SEMI-STRUCTURED INTERVIEW QUESTION SAMPLES	294
Appendix E: COLOUR CODING OF TRANSCRIPT	306
References:	311

List of tables

Table 3.1. Sustainable Development: Key Dates/ Timelines. Source: Author's interpretation for the research purposes (1st February, 2019). (Adopted from: United Nations, 1972; WCED, 1987; Peattie, 1992; DETR, 1999; UN, 2002; Strong and Hemphill, 2006; UNEP, 2013; UN-DESA, 2015).

Table 3.2. Historical Timelines of Sustainable Consumption. Source: Author's interpretation for the research purposes (19th December, 2018). (Adopted from: The World Economic Forum, 2013).

Table 3.3. OECD. (2014). *Import Origins of Second-hand Clothing (SHC) to Ghana (2014)*. Available from: http://atlas.media.mit.edu/en/visualize/tree_map/hs92/import/gha/show/6309/2014/ [Accessed 20th June, 2016].

Table 3.4. WRAP (2013). Textile flows and market development opportunities in the UK. *Summary of Legislation affecting the Secondary Textiles Industry (SHC)*. Available from: <http://www.wrap.org.uk/content/uk-textile-productflow-and-market-development-opportunities>, [Accessed 21 June 2016].

Table 3.5 Salvation Army (2007). Trading Company Ltd. (SATCOL) (2004). Why Recycle? *Distribution of clothing/textiles waste qualities*. Available from: <http://www.satradingsco.org>, [Accessed 10th July 2016].

Table 3.6. Stipp (1994). Cities couldn't give away their trash; Now they get top dollar from recyclers. *Recycling of post- consumer clothing/ textiles materials*. *The Wall Street Journal*, pp. B1, B6.

Table 5.1. Philosophical Perspective of the Qualitative Research Process, personal interpretation, 16th May 2016.

Table 5.2. Definitions of the Case Studies for the Thesis, personal interpretation, 21st July 2016.

Table 5.3. Summary of Participant Observations for the Thesis, personal interpretation, 21st July 2016.

Table 5.4. List of Research Participants for the Thesis, personal interpretation, 16th May 2016.

Table 5.5. Video/photographic log sheet for the Thesis, personal interpretation, 28th October, 2017.

List of figures

Figure 2.1. Google (2018a). *Map of Accra Metropolitan Area* [Image]. Available from: <https://www.bing.com/images/search?view=detailV2&ccid=nvxP7lb0&id=D4C10883D619AAEBE2B6DE17D451EC8BF4D9CC81&thid=OIP.nvxP7lb0ZXw-GYV49L5OvQHaKe&mediaurl=https%3A%2F%2Fgeoheads.files.wordpress.com%2F2015%2F06%2Famania.jpg&exph=1123&expw=794&q=map+of+accra+metropolitan+area&simid=608056290855096081&selectedIndex=33&ajaxhist=0>, [Accessed 28th January 2018].

Figure 2.2. Google (2018b). *Kantamanto Market Location in Accra, Ghana* [Image]. Available from: <https://www.google.co.uk/maps/place/Kantamanto+Market,+Accra,+Ghana/@5.5484512,0.2145487,17z/data=!4m5!3m4!1s0x9df90bba982d705:0xaeef576c29728c64!8m2!3d5.5484014!4d-0.2123034> [Accessed 28th January 2018].

Figure 2.3. Google (2018b). *Chart of Sustainable Development Goals (SDGs)* Available from: <https://i0.wp.com/www.globaleducationmagazine.com/wpcontent/uploads/2015/11/sustainable-development-goals-global-goals-2030.png> (2018). [Accessed 19th December 2018].

Figure 3.1. Stevens, C. (2005). *Measuring Sustainable Development*. Statistics Brief, OECD. *Integration of the Three Dimensions Integration and interaction of the three Dimensions* [Image]. Available from: <http://www.oecd.org/greengrowth/35407580.pdf> [Assessed 2 January 2018].

Figure 3.2. Rodriquez, S.I., M.S. Roman, S.H. Sturhahn, E.H. Terry. (2002). *The three intersected rings/ circles of Sustainable Development* [Image]. Sustainability Assessment and Reporting for the University of Michigan's Ann Arbor Campus. Available from: http://css.snre.umich.edu/sites/default/files/css_doc/CSS02-04.pdf, [Accessed 13th July 2016].

Figure 3.3. Department for Environment Food and Rural Affairs. DEFRA, (2011). *The Waste Hierarchy* [Image]. Department for Environment Food and Rural Affairs. *Sustainable Clothing Roadmap: Progress Report 2011*. London.

Figure 3.4 Local concerns about SHC trade ban on social media (Facebook).

Figure 4.1. A Conceptual Framework related to Literature Review, personal interpretation, 16th May 2016.

Figure 5.1. Methodology Outline, personal interpretation, June - September 2017.

Figure 5.2. Creswell (2003). *The Coding Process for the Major and Sub-themes* [image]. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. London, Sage Publications.

Figure 6.1. Augmented conveyor belts to dictate the speed of processing in SHC processing facility 1(Bristol Textile Recyclers) personal interpretation, June - September 2017.

Figure 6.2. Labour intensive sorting and grading process in SHC processing Facility 2 (Chris Carey's collections) personal interpretation, June - September 2017

Figure 6.3. Sorting and grading processes in SHC processing Facility 3 (LMB Textiles Recyclers) personal interpretation, June - September 2017.

Figure 6.4. Mechanical baling in SHC processing Facility 3 (LMB Textiles Recyclers), personal interpretation, June - September 2017.

Figure 6.5. Imported bales of the second-hand clothing in the Kantamanto market, Accra, Ghana, personal interpretation, June - September 2017.

Figure 6.6. Truck reloaded with second-hand clothing bales for re-export to neighbouring countries, personal interpretation, June - September 2017.

Figure 6.7. Clogged open drainage resulting in flooding in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.8. Hawkers selling along the Rail Lines in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.9. SHC Draped on Wooden Racks in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.10. Mapping of participants' views, personal interpretation, June-September 2017.

Figure 6.11. Retailers (male youths) engaged in SHC trade in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.12. Low-grade Second-hand Foot wear in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.13. Residues of Low-grade Discarded in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.14. Consumers Rummaging through SHC in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.15. Traders in flooded environment in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.16. Hawkers trading on the Rail lines in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.17. Low-grade second-hand bags observed in the Kantamanto market, personal interpretation, June - September 2017.

Figure 6.18. Hawkers selling low-grade SHC on Kantamanto market floor, personal interpretation, June - September 2017.

Figure 6.19. Scan Facility for SHC at the Tema Harbour, personal interpretation, June - September 2017.

Figure 6.20. Physical Examination of the SHC at Tema Harbour, personal interpretation, June - September 2017.

Figure 6.21. Banned Second-hand Underwear on Sale in Kantamanto market, personal interpretation, June - September 2017.

Figure 6.22. Self-employed Seamstresses/Tailors Located in Kantamanto market, personal interpretation, June - September 2017.

Figure 6.23. Segment of SHC Pressers in Kantamanto market, personal interpretation, June - September 2017.

Figure 6.24. Low-grade SHC as Waste on Kantamanto market floor, personal interpretation, June - September 2017.

Figure 6.25. Segments of Seamstresses Engaged in Redesigning SHC, personal interpretation, June - September 2017.

Figure 7.1. Integrating Sustainable Development Dimensions, personal interpretation, June - September 2017.

Figure 7.2. Remodelled Conceptual Framework related to research findings, personal interpretation, June - September 2017.

Figure A.1. GNA, (2013). Kantamanto Traders Proves ownership of Land. *A copy of a supposed lease letter* [Image]. Available from: <http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Kantamanto-traders-prove-ownership-of-land-273556>, [Accessed 3 November 2015].

DECLARATION OF AUTHORSHIP



Research Thesis: Declaration of Authorship

Print name:	KENNETH AMANOR
-------------	-----------------------

Title of thesis:	DEVELOPING A SUSTAINABLE SECOND-HAND CLOTHING TRADE IN GHANA
------------------	---

I declare that this thesis and the work presented in it is my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. Either none of this work has been published before submission, or parts of this work have been published as: [please list references below]:

.....
.....
.....

Signature:		Date:	
------------	--	-------	--

ACKNOWLEDGEMENTS

I am grateful to the University of Southampton's community, particularly my supervisors: Professor Jonathan Faiers and Doctor Yasmin Sekhon Dhillon, for their outstanding supervision and academic guidance throughout my research. Their invaluable guidance was critical to the successful completion of this PhD. I am very grateful.

I wish to express my profound gratitude to the Faculty members of the Winchester School of Art, University of Southampton, who have motivated and encouraged me during this research period. I am particularly grateful to Professor Joanne Roberts for her critical contributions to my work. Whilst at WSA, I had the privilege to meet the wonderful personalities who have assisted me hugely and I am very much indebted to all of them.

I owe a debt of gratitude to my family for their immeasurable help, care and prayers throughout this PhD study period. God bless and keep you. AMEN.

DEDICATION

...My cup and inheritance... Psalm 16

I dedicate this work to my lovely wife *Stella Sitsofe Amanor* and my adorable son *Kirk Penuel Etornam Kojo Amanor* who were my emotional support, love, and inspiration throughout this journey.

LIST OF ABBREVIATIONS

AGOA	African Growth and Opportunity Act
ATL	Akosombo Textiles Limited
AMA	Accra Metropolitan Assembly
AU	African Union
CET	Common External Tariffs
CSOs	Civil Society Organisations
DEFRA	Department of Environment Food and Rural Affairs
ECAP	European Clothing Action Plan
ECOWAS	Economic Community of West African States
ERP	Economic Recovery Programme
FSC	Fashion Supply Chain
GATT	General Agreement on Tariffs and Trade
GRCC	Greater Accra Regional Co-ordinating Council
GRCL	Ghana Railways Company Limited
GSS	Ghana Statistical Services
GTP	Ghana Textiles Printing
GUTA	Ghana Union of Traders Association
ILO	International labour Organisation
IMF	International Monetary Fund
ISI	Import Substitution Industrialization
MDGs	Millennium Development Goals
MMDAs	Metropolitan and Municipal District Assemblies
NDPC	National Development Planning Commission

NUPF	National Urban Policy Framework
OECD	Observatory of Economic Complexity
OECD	Organisation for Economics Cooperation and Development
PRs	Poverty Reduction Strategies
SAPs	Structural Adjustment Programs
SCAP	Sustainable Clothing Action Plan
SDGs	Sustainable Development Goals
SGS	Société Générale de Surveillance
SHC	Second-hand Clothing
TBT	Technical Barriers to Trade
TRA	Textiles Recyclers Association
U. K.	United Kingdom
UN	United Nations
UNCED	United Nations Commission on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic & Social Affairs
UNDP	United Nations Development Programme
UN ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
U. S. A.	United States of America
WBO	World Bank Organization
WCED	World Commission on Environment and Development
WRAP	Waste & Resources Action Programme
WTO	World Trade Organisation

CHAPTER 1: INTRODUCTION

1.1. Research Context

Clothing is a worn world: a world of social relations put upon the wearer's body

(Jones and Stallybrass, 2000, p.3).

Clothes are considered as universal signs that validate the worth of the wearer (constructing the personality), they are intimate to the wearer as they form the next layer of protection, after the skin, of the wearer (Harms, 1938; Johnson and Lennon, 1999; Norris, 2010). Clothes are among the most personal possessions, important consumer goods (Hansen, 2004) and fulfil various functions of adornment, comfort, modesty and protection (Mayhew and Binny, 1968). Clothes form an indispensable part of our everyday life and have a strong impression on our spirits (Raunio, 1995), and enter so fully into our notions to form our countenance and human character (Mayhew and Binny, 1968). Tradescant (in Jones and Stallybrass, 2000, p. 4), also asserts that:

Clothes, unlike the working of the spirit, leave a “print or character” upon the observer and the wearer alike. And, when excessive, they visibly imprint “wickedness and sinne”.

Clothes give a nature to what previously had no nature; they take an existing nature and transnature it, turning the virtuous into the vicious, the strong into the weak, the male into the female, the godly into the satanic... Clothing has the force of an iron yoke, enforcing conformity; clothing has the ability to leave a “slavish print”; clothing is a ghost that, even when discarded, still has the power to haunt.

Clothing is therefore an embodiment and a source of the physical discourse that characterises the wearer, and gains sentimental value and earn cherishability (psychological spaces) (Chapman, 2009; Faiers, 2013).

[The] metaphorical descriptions of clothing as a second skin are understandable given that clothing is the barrier between our naked selves and the external world and that, like skin, clothing is protective, encasing and containing the body, defending it against extremes of temperature and infection (Faiers, 2013, p.29).

Clothing objects that once engaged the heart and the mind of the wearer lose permanence through physically outgrowing them, or going out of fashion, or becoming stained and faded or torn, hence, parting with them becomes unimaginable (Koptyoff, 1986). The once favourite objects trigger strong memories and inextricable stories of intimacy and presence (Granata, 2010). When these used clothes are finally parted with, they carry a whole number of sensory or corporeal traces of touch, smell and sight and “retain the history of our bodies and bodies come and go; the clothes which have those bodies survive” (Stallybrass 1993:37). Shell (2011, p. 1) also emphasised that:

Clothing wore its owner as much as the owner wore the clothing, bearing comparable markers of a personal narrative. Through the movements of a body in time, its clothes would acquire increasingly personal and human characteristics—worn knees and elbows, a stretched waist. Stains, patches, tears, and colour changes accompanied a life journey, or at least several decades thereof.

These used clothes assume new lives or roles with the potential of alternative identities in charity donation bins and charity shops (a site for identity exchange) where they induce the most intoxicating of desires (Faiers, 2013). The vast majority of the used clothes (henceforth referred to as second-hand clothes (SHC) in this research) become a resource to make rugs in a domestic setting, are handed down to relatives, and are reused in developing countries (Norris, 2015). Various authors have defined second-hand clothes (SHC) and some of these interpretations are central to this research:

Defining principal for a second hand market is both economic and cultural. One group or class's discards, or rags, are taken up by another group or class and regarded as riches because this is their best access to quality, style and change (Palmer, 2005, p.1).

Wottle (2010, p.19) explained that ‘basically, an object becomes second-hand once it has changed hands between distributor and consumer more than once, regardless of its state and age’. Concerns regarding second-hand clothing or clothing importations and exchanges as asserted by Hentschell (2008) in late sixteenth-and early seventeenth-century England had to do with the obsession with wearing ‘imported’ foreign clothes. This obsession was perceived to corrupt the moral fabric and, the national identity; it also disassembled and dismantled the unified nation and exposed the land to the sins of the city. “...physical and moral transformations occur when donning a

foreign apparel and by embracing foreign clothes, one embraces the vices associated with that country” (Hentschell, 2008, p. 114). This historical phenomenon of foreign clothing exchange is asserted as being demoralising and opposing nation building. Although the historical case as asserted by Hentschell refers to new imported clothing, its deeper social impact on a nation’s identity is also relevant in considering the unsustainable second-hand clothing trade practices as oppositional to national development.

Second-hand clothes (SHC) in the context of this research refers to used and discarded clothing which comprises non-clothing items like bed linen, towels, under-wear, shoes, bags, belts and curtains (Hansen, 1995; Baden and Barber, 2005; Brooks, 2013; Norris, 2012). The classification of the SHC trade (retailing and consumption) in this thesis is customarily referred to as *obroni wawu* (dead white men’s clothes) in the Ghanaian context, which is analogous to the trade features in other jurisdictions in the sub-Saharan African region. For instance, the SHC is known as *okrika* in Nigeria, *mitumba* (bundles) in Kenya and *salaula* (select by rummaging) in Zambia (Brooks, 2013), which is explained as an informal retailing of nothing new and mainly acquired through methods and places of exchange generally distinct from those for new products (Crewe *et al.*, 2003; Guiot and Roux, 2010). The term ‘second-hand clothing’ (SHC) is utilised throughout the thesis based on the trade and use value of used clothing imports from Europe particularly the United Kingdom as retail stock traded to Ghana to be (re) produced and consumed (Brooks, 2013).

Over 70% of the world’s population (4.2 billion people) use second-hand clothes (Textilerecycle.org) with a global value estimated at more than £2.8 billion (Brooks, 2015). Second-hand clothing prices average 3-20% of the price of new clothes (Baden and Barber, 2005; Brooks 2015). The consumption of SHC is a major or primary source of clothing and an important economic factor for more than a hundred thousand people in developing countries owing to the low-income levels and resultant low living standards (Hansen, 1995; Norris, 2015). However, the excessive importation of cheap low-grade SHC from America, Europe and Asia (Brooks 2015; Norris, 2015) to developing countries is to the detriment of the recipient countries’ economic, environmental and social development and has triggered condemnation for the SHC trade by governmental and non-governmental organisations in most developing countries as precisely observed by Hansen (1995, p. 132):

It is not surprising that textile and garment manufacturers' associations and unions in countries that permit commercial imports of used clothing are complaining about production decline and job losses. Some observers consider used clothing as a sign of neo-colonialism that should be regulated or banned.

These on-going debates on the SHC trade situation and socio-economic/political ramifications between Eastern Africa and the USA is fully explored in Chapters 3 with greater depth of discussion presented in Chapters 7 and 8 of this thesis. These contemporary debates suggest governments in Eastern African countries have taken steps to ban the importation and sale of SHC to regulate the trade and protect their local textiles and garment industries and to avert the perceived dangers of disease associated with the importation of used garments. Norris (2015, p. 184) affirmed that:

Many countries impose restrictions on the import of SHC for reasons of health or protection of domestic industries. The US government currently lists 32 countries imposing outright bans (with exceptions for permitted charitable donations), and another 31 demanding fumigation certificates plus bans on the import of underwear, hats and shoes on hygienic grounds.

Based on these contemporary developments of the SHC trade, it is critical to pivot the SHC trade on developing utilitarian frameworks to improve livelihood (social well-being), developing healthy commercial environments (the market spaces and the communities), and advancing economic equity as integral components of the sustainable development. Sustainable development is based on a concept proposed by the World Commission on Environment and Development (WCED, 1987) report, *Our Common Future*, which is also known as the Brundtland Report:

The development model that allows us to meet present needs, without compromising the ability of future generations to meet their own needs.

The above definition can be considered in two parts; the first part relays typical conventional economic and social objectives of development while the second part integrates the consideration of environmental issues. The 'sustainability' and 'sustainable development' terminologies are used interchangeably in scholastic and popular discourses by 'situating it against the background of sustaining a particular set of social relations by way of a particular set of ecological projects' (Harvey, 1996, p.148). These terminologies come from the Latin word *sustenare* meaning to preserve or prolong the duration of resources with a plan of providing support for future

generations (Sutton, 2004; Rachuri, *et al.*, 2010). Sustainable development is used in this context to promote the support and care for a particular social order (SHC trade) where the economic practices have little regard for current patterns of social and environmental disruptions which is causing local communities like the Kantamanto market not to meet the basic needs or a level of comfort for traders and consumers (Visvanathan, 1991).

The sustainable development terminology is also applied to developed (Western) countries like the U.K. and developing countries including Ghana. It seeks to encourage economically qualitative improvement that will sustain the environment and society in the long term especially within the developing economies (Daly, 1992; Meyer, 2000; Dreby and Lumb, 2012). Alkire and Santos (2011) argue that developed (Western) countries are based on the multidimensional nature of human development and welfare compared to developing countries like Ghana, which are characterised by pressures from population growth, inefficient technology, weak governance, poor health, low per capita income, and poverty. Therefore, based on the unprecedented and persistent conditions of poverty in the foreseeable future (United Nations, 2013), it is imperative to focus on the sustainable development of developing countries like Ghana to alleviate long-term poverty.

The thesis explores the dynamics of sustainable development of the second-hand clothing (SHC) trade within the Western (U.K.) and Ghanaian settings. The WSSD, (2002, p. 2) affirms that:

‘the deep fault lines that divide human society between rich and poor and the over-increasing gap between the developed and developing worlds pose a major threat to global prosperity, security and stability’.

This thesis investigates the sustainable impact of a rich country like the U.K. on poor or developing countries like Ghana. This research investigates the sustainable SHC trading gap between the U.K. and Ghana. The research identified the U.K. and Ghana based on the close diplomatic, cultural, political, economic ties and membership of the commonwealth contributing to their close relations. The U.K. plays a dominant role in the global SHC trade and has the highest rate of SHC exports in Europe (Ouvettes Project, 2005) with 40% of exports to Ghana (UNCOMTRADE, 2011; OECD, 2014). The U.K.’s sustainable SHC activities include the collection of used clothes by

commercial recyclers for overseas exports to developing countries including Ghana (Norris, 2012; Brooks, 2013, 2015).

Ghana plays a significant role in the global socio-economic potential of the SHC trade and is ranked in the top five destinations for the trade (UN COMTRADE, 2011; Brooks, 2015). SHC purchases in Ghana also account for approximately 60% of all clothing purchases (Baden and Barber, 2005), and serves as an export hub to neighbouring countries. However, sustainable development of the SHC trade in Ghana is an underdeveloped research area. This research therefore examines sustainable development of the SHC trade practices in the Kantamanto market, which is the SHC trading hub in Accra, Ghana and for other neighbouring countries.

1.2. Purpose of the study

The purpose of the thesis is to help develop a conceptual understanding of sustainable development for the SHC trade in Ghana by evaluating the sustainable development impacts or benefits of the SHC processes (sorting, grading, baling and exportation) carried out in the U.K. on Ghana. The research seeks to advance sustainable development principles in promoting the SHC economic activities in parallel with environmental goals to achieve sustained natural resource bases, social well-being, equitable access and distribution of resources, leading to the alleviation of poverty.

The thesis also seeks to explore how the effective integration of the three dimensions (*economic, environmental and social*) of sustainable development can promote the Ghanaian SHC trade. The research investigates the interaction and integration of the three dimensions of sustainable development (*economic, environmental and social*) (Holmberg, 1992; Reed, 1997; Harris *et al.*, 2001; Munoz, 2010). Also, the thesis seeks to promote the on-going interaction of the economic, environmental and social dimensions among key stakeholders in the Ghanaian SHC trade; -the governmental agencies, local authorities, import and export companies (local and foreign), and local traders' associations- to ensure the successful and sustainable development of the SHC trade.

Furthermore, the thesis attempts to provide a broad model of *regulate, reuse and recycle* (The *three-R framework*) for the implementation of sustainable development of the SHC trade. The three-R framework seeks to contribute to the sustainable development of the currently disorganised and haphazard status of the SHC trade in

Ghana (Oteng-Ababio *et al.*, 2015). The three-R framework (*regulate, reuse and recycle*) makes propositions for the conception and implementation of a sustainable development of the SHC trade in the Kantamanto market in Accra Ghana, which is characterised by rising urban poverty, rapid deterioration of the natural environment, growing unregulated economic activities, unchecked urban growth and disorganised settlements that lack basic services, (Ravallion *et al.*, 2007; UNEP, 2007; UN HABITAT, 2010; Kumar, 2014).

The non-existence of sustainable development frameworks to standardise existing SHC trade practices in Ghana makes this research significant. The hope underpinning the development of a sustainable SHC trade in Ghana is to ensure that SHC imports generate economic value and equality, regenerate environmental resource bases, meet agreed health and safety standards, reduce poverty and safeguard social well-being (Constanza *et al.*, 1995).

1.3. Research aim

This research aims to contribute to the conceptual understanding of the integration of the sustainable development dimensions (*economic, environmental and social*) within the Ghanaian second-hand clothing (SHC) trade context. Additionally, the thesis aims to provide a three-R framework (*regulate, reuse and recycle*) for the effective implementation of the integration of the sustainable development dimensions in the SHC trade.

1.4. Research questions

1. How do the sustainable development principles of the second-hand clothing (SHC) processing in the West (U.K.) affect the local second-hand clothing (SHC) trade practices within the Kantamanto market in Accra, Ghana?
2. How can the integration of the three dimensions of sustainable development (*economic, environmental and social*) promote the successful sustainable SHC trade within the Kantamanto market?
3. To what extent would the three-R framework (*regulate, reuse and recycle*) influence the implementation of sustainable development dimensions of the second-hand clothing (SHC) trade practices in the Kantamanto market?

1.5. Research objectives

- To investigate the SHC trade processing (sorting, grading, baling and exporting) in the U.K. and its sustainable impact on Ghana.
- To examine the integration of the *economic, environmental and social dimensions* of the SHC trade practices in the Kantamanto Market in Accra, Ghana.
- To develop a conceptual understanding of the integration of sustainable development dimensions (*economic, environmental and social*) in the Ghanaian SHC trade.
- To explore a three-R framework (*regulate, reuse and recycle*) for the effective implementation of sustainable SHC trade in the Ghanaian context.
- To contribute significantly to the knowledge on sustainable development of the second-hand clothing (SHC) trade in the Ghanaian context.

1.6. Significance of the study

This research is crucial for the following reasons. First, it provides insights into how the SHC trade in Ghana is coping with the problems of securing sufficient qualities of imports in the face of changing socio-economic conditions of the burgeoning urban population. The research provides a basis for understanding the sustainable development of the SHC trade which is often situated in a broader context.

Second, it speaks to the issue of how SHC trade is traditionally affecting the economic, environmental and social dimensions of the trade in the Kantamanto market. This is the first effort to evaluate the scope of the SHC trade considering sustainable development in the Ghanaian context. The research seeks to enhance a concrete development and implementation of a sustainable SHC trade in the Ghanaian context.

Third, it adopts the three-R framework for the SHC trade in the Ghanaian context to facilitate international cooperation, by working to establish common benchmarks or requirements, to harmonize the SHC market systems and to capitalise emerging economic, environmental and social opportunities. While this study is pursued within a specific local and regional context, it provides significant systemic insights into

global issues affecting developing countries in general despite their unique attributes or shared political, socio-economic, and socio-environmental attributes (mounting debt and budget deficits, increasing poverty and declining standard of living, and environmental challenges) (Davis, 2006). These common forces work in shaping the SHC trade in developing countries and consequently shaping development along the lines laid down by the dominant rhythm of neo-liberalism, the wave of economic privatisation and the decentralisation of government functions, actors and institutions. The study challenges the orthodox SHC trade and establishes how the three-R framework can be linked to the integration of the three dimensions of sustainable development.

Finally, the research adopts a qualitative approach to describe, interpret and facilitate a more engaging experience with research participants (key stakeholders in the SHC trade) in the U.K. and Ghana to answer the research questions and objectives which is valuable for the sustainable development of the global trade. The research evaluates these views and experiences via semi-structured interviews and participants' observations (fieldwork) to develop a conceptual framework for the integration of sustainable development dimensions (*economic, environmental and social*) and promote the implementation of a three-R framework (*regulate, reuse and recycle*) in the Ghanaian SHC trade.

1.7. Structure of the study

In Chapter 1, the introductory section outlines the context of the research study. It describes the purpose of the research, and its aims, questions, objectives and significance.

In Chapter 2, the background of the research captures the country (Ghana) context and provides the Accra setting with information on the institutionalisation of second-hand clothing trade in the Kantamanto market which is situated in the central business district. Ghana's sustainable development drive and the relevance of the SHC trade to the achievement of the Sustainable Development Goals (SDGs) are also featured in this chapter. The chapter further highlights the precise problem of the research in developing sustainable second-hand clothing (SHC) trade in Ghana.

In Chapter 3, literature related to sustainable development is reviewed, including material on the integration of the three dimensions of sustainable development,

sustainable development policy, sustainable trade, sustainable consumption, critiques of sustainable development, development of the second-hand clothing (SHC) trade in the United Kingdom, economic liberalization and SHC development in developing countries, the emergence of the sustainable SHC trade, the global scope of SHC trade and the three-R framework (Regulate, Reuse and Recycle), this section presents overviews of East Africa Community (EAC) SHC trade and the Indian SHC trade approach.

In Chapter 4, the conceptual framework is presented in relation to the research objectives and questions in Chapter 1 and the literature review section in Chapter 3. The conceptual framework critically focuses on the sustainable development of the SHC trade practices in the Kantamanto market in Accra, Ghana and explains how the research hopes to contribute to the existing body of knowledge on the subject. The chapter also highlights the theoretical contribution of the thesis.

In Chapter 5, the research methodology introduces various research processes and tools, or different research approaches selected for an inductive empirical approach. This chapter explains the use of a qualitative approach (interpretivist philosophical tradition or interpretivist paradigm). The main methods of data collection (the semi-structured interviews and participant observation) and the role of the researcher are identified. The chapter further establishes the validity and reliability of the research in the United Kingdom and Ghana contexts.

In Chapter 6, the data analysis explains how the data collected are analysed and how the key findings of the research can help develop a conceptual understanding of a sustainable SHC trade. The chapter is presented as a within-case analysis and a cross-analysis of the empirical data. The main objective of the thesis is to investigate the contemporary SHC trade practices (processing and export) in the U.K. and its sustainable impact (*economic, environmental and social*) on Ghana. The chapter also examines the integration of the *economic, environmental and social dimensions* of the SHC trade practices in the Kantamanto Market and the effective implementation of the sustainable development through the Three-R framework (*regulate, reuse and recycle*).

In Chapter 7, the discussions of the research findings are critically explained in relation to the key themes and sub-themes identified in the empirical study. This chapter also demonstrates that the conceptual framework is remodelled based on the theories derived from published literature and the findings presented from the empirical study to address the lack of sustainable development in the Ghanaian second-hand clothing trade.

In Chapter 8, conclusions are drawn from the findings in relation to the research questions in the thesis and critically evaluated. The chapter also makes recommendations for the sustainable development of the second-hand clothing trade in Ghana. Further recommendations are made for future research or academic work, and realistic limitations or difficulties of the research and the role of the researcher are acknowledged.

1.8. Summary

This introductory chapter presents an overview of the research topic as related to second-hand clothing exchange and the context for a sustainable development dimension of the trade. The chapter also states the purpose of the study, research aims, objectives and questions of the thesis and concludes with the thesis structure. In summary, this research aims to contribute to the integration of the economic, environmental and social dimensions of sustainable development of the second-hand clothing (SHC) trade practices within the Kantamanto market in Accra, Ghana. The next chapter discusses the country context and Accra setting with material on the institutionalisation of second-hand clothing trade in the Kantamanto market. Ghana's sustainable development drive and the relevance of the SHC trade to the achievement of the Sustainable Development Goals (SDGs) are featured in this ensuing chapter.

CHAPTER 2: BACKGROUND AND COUNTRY CONTEXT

2.1. Background of Ghana's SHC Trade

The first European Missionaries (Portuguese) who arrived in the Gold Coast as far back as 1471 (Decorse, 1992; Verstraelen, 2002) aimed to convert the indigenous people to their religious doctrines and understanding of 'civilization' (Quartey, 2007). These civilization and conversion doctrines also involved imposing the European form of dressing on the indigenous people whose clothing were minimal and close to nudity between the fifteenth and eighteenth centuries (Kwakye-Opong, 2014). The Gold Coast women wore cloth wrapped around their hips while their breasts were bare, while the men also wrapped cloth around their waist to cover their nakedness (Kwakye-Opong, 2014). This form of dressing was seen as uncivilised, primitive, ungodly and not consistent with the newly indoctrinated Christian faith; hence the missionaries engaged the Gold Coast women in the acquisition of informal skills in handicrafts (cutting and sewing clothes) in an effort to transform their dress. However, an equivalent concern for male dress has not been noted in the literature (Sill, 2010).

The European missionaries also imported used clothing as part of this conversion and 'civilizing' process (Opoku and Akorli, 2009). Clothing was a key commodity in the political economy of the West's encounter with Africa during the colonial period Hansen (2008). The Portuguese, British, Danish, Dutch and Swedish traded their fabrics, clothing and other commodities for gold, diamonds and other minerals along the Gold Coast. These trading activities have undoubtedly influenced the culture of dressing (Opoku and Akorli, 2009) and the resultant popular "frock coat class" of Western-educated Gold Coast lawyers which was a differentiation from the traditionalist "cloth portion" dressing of the Gold Coast in the 1880s (Ross, 2008). The emergence of the "frock coat class" saw the adulteration of the Ghanaian culture of dressing and affected the clothing perspective of particularly the educated elites and politicians in the Gold Coast who set themselves apart from their folks by adopting European clothing and furniture (Ross, 2008).

After Ghana's independence in 1957, the development of the manufacturing sector was a priority to the first independent-government- hence the establishment of light manufacturing industries like the woodwork, aluminium, textiles and pharmaceutical industries (Quartey, 2006; Opoku and Akorli, 2009). These establishments were aimed at transforming the Ghanaian economy after independence from the 'agrarian' state to a modern industrialised economy, as has been the case in many South East Asian economies (Ackah *et al.*, 2014). The establishment of manufacturing industries was very vigorous during the 1960s and the Import Substitution Industrialization (ISI) policy was at the centre of the acceleration of the manufacturing industries (Quartey, 2006). The ISI policy focused on the effective protection of domestic production or manufacturing, reduction of economic dependence on imports and creation of employment for accelerated economic growth. The textiles sub-sector particularly witnessed an accelerated growth and dominated the Ghanaian manufacturing sector during the era of the implementation of the ISI. Total employment in the manufacturing sector alone increased by nearly 90% between 1962 and 1970 (Ackah *et al.*, 2014). The textiles sub-sector during the period of the ISI employed a labour force of about 25,000 and accounted for 27% of total manufacturing employment in Ghana (Quartey, 2006).

The ISI policy was truncated by the political instabilities that stretched from the 1970s to the 1980s, which immensely affected the manufacturing drive of the country (Quartey, 2006). The poor performance of the economy necessitated the Government of Ghana to launch the Economic Recovery Programme (ERP) in 1985 to improve the growth of the subsectors of the economy (Fianu and Zentey, 2000). With economic growth expectations the Liberalization Reforms were implemented according to the conditions of the International Monetary Fund (IMF) and the World Bank Organization (WBO) (Aryeetey and Harrigan, 2000; Mmieh and Owusu-Frimpong, 2004). The Liberalization Reforms sought to privatise and deregulate (removal of import taxes and quotas) the economy as proposed by the International Monetary Fund (IMF) and the World Bank Organization (WBO) (Aryeetey and Harrigan, 2000; Quartey, 2006; Ackah *et al.*, 2014). The idea of the Structural Adjustment Program (SAP) was to liberate the economy by opening up its trade to the rest of the world.

Through the Structural Adjustment Program (SAP) in 1989, Ghana progressively eliminated import quotas, tariffs and the import licensing requirements. The World Bank Report of 1994 attributed the increase in capital flow to Ghana to the implementation of the liberalisation policy Structural Adjustment Programmes (SAP) recommended by the World Bank, and the reforms that integrated the Ghanaian economy into the global economy (Aryeetey and Harrigan, 2000; Quartey, 2006; Ackah *et al.*, 2014). These reductions in tariffs and import licensing requirements increased competition for local producers in Ghana hence there were no specific import restrictions on apparel and second-hand clothing (Aryeetey and Harrigan 2000) and the development of Ghana's economy was challenged by other external forces like poor market concepts, growing informal sector, high inflation, declining exports, unstable exchange rate, growing fiscal deficits, reductions in external aid and the accumulation of payment arrears (Anyemedu, 2000; Hilson and Potter, 2005).

A major challenge of the economic liberalisation faced by African countries was the decline in the apparel sector from 1981 to 2000. Out of 16 medium-sized textiles companies that existed in the mid-1970s, Ghana can only boast a mere three textiles manufacturing companies today- Akosombo Textiles Limited (ATL), Ghana Textiles Printing (GTP) and Printex- with employment levels in the sector continually declining from 25,000 in 1977 to 5,000 by the year 2000 (Brooks and Simon, 2012). Over 20,000 state enterprise employees were laid off, and hundreds of employees lost textile and manufacturing jobs because of import liberalisation (Weissman, 1990). The increase of unemployment levels from 20% to 30% between the late 1980s and the early 1990s (Haggblade, 1990) pushed many people on to the streets. Further ramifications of this economic liberalisation were increased prices of export products and the demand for low-priced imported SHC which had no specific import restrictions in Ghana (Aryeetey and Harrigan 2000). During the same period (1980 and 2001), the global second-hand clothing trade grew from a value of US\$207 million to \$1,498 million (United Nations, 1996; 2003). This context underpins most academic investigations and on-going industry debates on whether the SHC trade has a cause and effect relationship to the decline in clothing manufacture in developing countries. The debates about the increasing global economic scope of the SHC trade in the wake of the liberalisation of many Third World economies, including Ghana is discussed extensively in Chapter 3 of this thesis.

2.2. Country Context

Ghana is a tropical country located on the West African Coast and characterised by moderate temperatures ranging between 21c and 32c (70F - 90F) with the country's southern coastal and forest regions comparatively warm, dry and densely settled, while the Northern Savannah is hot and dry and sparsely populated. Ghana shares its border with Togo to the East, Cote D'Ivoire to the West and Burkina Faso to the North. Ghana occupies a land area of 238,538 square kilometres (Anyemedu, 2000; GSS, 2013). Ghana is enriched with an abundant supply of natural assets, which include gold, bauxite, industrial diamonds and a rich preserve of forestland. The country depends on the mining industry with gold, diamonds, and bauxite the predominant exports while gold and cocoa remain the leading export earners (Grant 2000).

Ghana's current population is about 29.6 million (2018) (World Bank, 2018; City FM Online, 2018). Ghana's population grows at an annual rate of nearly 1.7% per annum with females accounting for 51.2 % and 48.8 million being males with a sizeable youth section, large numbers of children and a small number of elderly persons (GSS, 2013). These disparities in the demographics are caused by historical, environmental, political and economic factors (Anyemedu, 2000; Domfeh and Bawole, 2009). The population of Ghana is unevenly distributed over 10 administrative regions and 170 decentralised districts. Each region is further divided into districts depending on their population size and classified as metropolitan (more than 250,000 people) municipal (between 95,000 and 250,000 people) or district (between 75,000 and 95,000 people). The country is made up of 170,000 assemblies; 6 metropolitan, 40 municipal and 124 district assemblies (MMDAs) (Anyemedu, 2000).

Ghana underwent 10 changes of government, including four successful military coups d'état in 1966, 1972, 1979 and 1981 (Anyemedu, 2000). Ghana has a democratically elected executive presidential representative republic, and the President of Ghana is both head of state and head of government of a multi-party system. The President also administers the country with an elected parliament and independent judiciary. The overriding political systems, inherited patriarchal traditions, actions and economic instabilities in developing countries have not advanced the gender-neutral agenda sufficiently, and Ghana's performance on achieving gender equality in productive employment is no exception. The proportion of women in key public office in Ghana

is insignificant and remains low despite high profile public office appointments including the Speaker of Parliament and the Chief Justice. Gender inequality is evident in representation in parliament as women fill only 10.9% of parliamentary posts, and 76.9% of ministerial positions are held by men. The proportion of women appointed as Ministers of State declined from 21% in 2009 to 18.9% in 2010 following a cabinet reshuffle, while women appointed as Deputy Ministers of State have stagnated at 20% since 2009 (Anyemedu, 2000). The proportion of seats held by women in the national parliament is promoting gender equality and female empowerment in decision-making (Domfeh and Bawole, 2009).

The country is characterised by rapid population growth, with infrastructural facilities and employment prospects concentrated in the urban areas (Domfeh and Bawole, 2009). Ghana is becoming increasingly urbanised because of rural–urban migration, natural population increase in towns and cities, and the reclassification of rural jurisdictions to urban ones, which exceed the threshold populations of 5,000 (GSS, 2013; World Bank, 2014). This situation has resulted in massive rural-urban migration consequently overstressing basic social amenities like the provision of healthcare and adequate potable water, and the rise of general levels of poverty, poor environmental health and sanitation and lack of proper waste management systems (Domfeh and Bawole, 2009). Urban centres in Ghana lack sanitation facilities with about 85% of all refuse generated currently not disposed of or collected in a proper manner (MLGRD, 2010). Ghana's urban centres have major challenges to their economic growth and development.

The Ghana Labour Force Survey for 2012/13 shows that the unemployment rate was 5.2% in 2013 (GSS, 2014), up from 3.6 % in 2006 (GSS, 2008). According to the Ghana Living Standard Survey (GSS, 2014), the proportion of the population defined as poor dropped from 28.5% in 2005 and 2006 to 24.2 % in 2012 and 2013. The Ghana 2015 report on the Millennium Development Goals shows that vulnerable employment in Ghana remains high at 68.6%, there is decent work deficit as two out of three people in employment are considered vulnerable, with 52.1 % in urban areas. The labour force participation rate for women is estimated at 74.9 % equated with 79.9 % for men.

Ghana's economy consists mainly of three broad sectors; agriculture (36%), industry (25%), and services (26%), while others account 13% based on figures for 2005. The GDP growth rate increased from 4.0% in 2009 to 7.7 % in 2010 with incomes increasing over 100 % to \$1200 in the last few years (GSS, 2010). Ghana imports large quantities of industrial supplies, consumer goods and foodstuffs. The country's main imports partners are China, the United States of America (U.S.A.), the United Kingdom (U.K.), France, Belgium, India and the rest of the world. According to data provided by the Bank of Ghana, the country's imports declined from USD 12.9 billion in 2016 to USD 12.7 billion in 2017 - a decline of 2.1% compared to the value recorded in 2016 - while exports rose to USD 13.7 billion from USD 11 billion in 2016, resulting in a trade surplus of USD 1 billion (Statista, 2018; World Bank, 2018). The value of oil imports (including gas) increased from US\$1.8 billion in 2016 to US\$2.0 billion in 2017, driven by increase in oil prices on the international market. Non-oil imports for 2017 were estimated at US\$10.7 billion, a 3.9% decrease compared to the position in 2016 (Bank of Ghana, 2017). Non-oil growth declined to 4.8% from 5.1% in 2016 as growth in the services sector decelerated in 2017 (World Bank, 2018). Ghana's economy is estimated to have expanded by 8.5% in 2017 from 3.6% in 2016 driven by the mining and oil sectors.

Ghana has pursued and signed a variety of bilateral and multilateral partnership agreements with the rest of the world. According to article 40 of the 1992 constitution, Ghana's foreign policy is underpinned by a commitment to protect the national interest by establishing equitable economic, political and social system. This includes promoting and adhering to the United Nations (UN) principles and objectives, the World Trade Organisation (WTO) the Commonwealth and the Non-Aligned Movement, the African Union (AU) and, Economic Community of West African States (ECOWAS). Ghana is one of the 79 signatories to the Cotonou agreement, the comprehensive partnership agreement between the EU and developing countries of African, Caribbean and pacific Group of States which is aimed at consolidating development, political and economic cooperation. Ghana has been implementing the Common External Tariffs (CET) to harmonise trade tariffs within the ECOWAS. In August 2016 Ghana ratified the Economic Partnership Agreement (EPA) with Europe, aimed at significantly improving the country's export opportunities in the West. The Ghana Ministry of Trade and Industry (MOTI) has

taken the opportunity to develop a new strategic approach for utilizing Ghana's preferential market access to the United States markets, extended by the African Growth and Opportunity Act (AGOA) through 2025 by an act of the United States Congress.

Ghana is very open to trade, which accounts for 89% of its GDP (WTO, 2016) and the economic growth performance has been acknowledged as one of the best in the sub-Saharan Africa (SSA) region particularly by meeting the 2010 Ghana Millennium Development Goals Report 6 from the early 1980s (Tweneboah-Koduah and Adusei, 2016). Ghana's economic growth over the past 25 years is also among the most rapid in the continent of Africa with the growth rate between 1995 and 2010 averaging 5% (Ackah *et al.* 2014). The UNDP (2015) also asserts that extreme poverty in Ghana declined from 17% to 8% between 2006 and 2013. However, there are concerns about the challenge of translating these impressive growth performances into the generation of productive and decent employment and eradication of income inequality. This economic growth and the decline in poverty placed Ghana as a lower middle-income country, since 2011, instead of a lower-income country (World Bank, 2017).

2.2.1. Accra Context

Accra is Ghana's official capital city, the main administrative and commercial centre of Ghana, and the largest city in the country with population growth rate at nearly 4% per annum (GSS, 2002; Affum *et al.*, 2008). Accra is a coastal city located in the Greater Accra Region, the smallest of the 10 political regions in Ghana (Stephen, 1999). The City of Accra is bounded to the North by Ga West Municipal, the West by Ga South Municipal, the South by the Gulf of Guinea, and the East by La Dadekotopon Municipal (GSS, 2012a) (see figure 2.1). It covers a total land area of 139.674 Km² and is the largest of Ghana's 10 urban cities, with an estimated population of approximately 1.7 million in 1990 and 2.7 million in 2000 (Carboo and Fobil, 2004). In 2005, the population of Accra was estimated at approximately 3.6 million which represented a 6% population growth rate. Accra has over 30% of the urban population of Ghana and about 15% of the country's total population (GSS, 2004). Accra is experiencing a rapid rate of growth and the rate of urbanisation makes it one of the fastest-growing cities in West Africa (United Nations Center for Human Settlements, 1999). The population of Accra Metropolitan Assembly (AMA), according to the 2010 Population and Housing Census, is 1,665,086 representing 42% of the region's total population (GSS, 2014).

The Accra Metropolitan Area (AMA) was established in 2012 with L.I. 2034 following the creation of the La Dadekotopon Municipal Area. The AMA consists of 10 Sub Metropolitan District Councils made up of 72 communities and 76 Electoral Areas. The Metropolitan Chief Executive is the political head of the Metropolis while the Metropolitan Coordinating Director is the administrative head (GSS, 2012b). The informal economy in Accra is associated with the political and economic crisis in Ghana that occurred during the 1970s and 1980s with high inflation rates and subsequent decline in formal employment opportunities (Government of Ghana, 2005b; Owusu 2007). Informal trade activities pose major public policy problems for city authorities particularly the Accra Metropolitan Assembly (AMA) (Aforo 1997; Sawyerr and Bortei-Doku Aryeetey, 1997). Several attempts by the Accra Metropolitan Assembly (AMA) to relocate hawkers on the central business district streets resulted in raids and seizure of the goods of the hawkers. The consistent attempts to stop the trend of street hawking created recurrent clashes between the hawkers or traders and the AMA task force.

Accra has a complex identity of street trading and hawking, the most visible and completely unregulated, yet flourishing informal sector. Various forms of informal trade activities comprising of petty traders dominate the city and hawkers engaging in unregistered economic activities, which obstruct legally regulated economic ventures (Chen, 2006; Broadbent, 2011). Appiah-Kubi (2007) contends that the informal sector contributes within the range of 20% - 40% to the economy of Ghana. The sector also accounts for 60% of the total employment generated in the country and 93% of the private sector, contributing 22 % of real GDP (Grant and Yankson, 2003; GSS 2008; Grant and Oteng-Ababio, 2012). The sector offers the best alternative to formal sector employment and contributes largely to the restructuring and functioning of the urban economy by providing significant livelihood (Oberhauser and Yeboah, 2011).

Accra has a strong concentration of daily markets, shops, banks, and public offices with attendant heavy vehicular and pedestrian traffic. The metropolis has about 20 wholesale and retail markets including; Kaneshie, Makola, Agbogbloshie, Kantamanto, Mallam Atta and Mallam markets (Oteng-Ababio; 2010a, 2010b; Domfeh *et al.*, 2012). The Makola market is a major trading centre located in Tudu in the central business district of Accra and has expanded as with many small domestic markets like the Kantamanto market. The city's increasing daytime population inflows originate from the city's outlying towns and villages made up of people engaged in trading activities. Accra has a proliferation of squatters and informal street vending or hawking, urban sprawl, lack of basic infrastructure services and poor sanitation in public spaces resulting in constant conflicts between law enforcement agencies, city authorities and traders (Nuno-Amarteifio, 1995; Bannerman, 2000; Bhowmik 2005; Boadi and Kuitunen, 2005; Jimu 2005).

The framework for environmental sanitation in Accra is seriously compromised by lack of political will to improve environmental conditions particularly in the domestic markets (Domfeh *et al.*, 2012). Environmental sanitation situations in the city of Accra lead to risk of pollution, poor sanitation and exposure to disease, which have direct and significant impact on the health and vulnerability of the population. Like many cities in developing countries, access to improved sanitation is mostly overlooked (UN, 2007). The cost of environmental degradation is estimated at nearly 6% of GDP of Ghana (IMF, 2009).

Currently, waste collection and recycling activities in Accra are fully privatised, with itinerant waste buyers who buy materials and sell for profit, or waste collected which is dumped at the disposal sites (Fobil *et al.*, 2008; Oteng-Ababio; 2010a, 2010b; Prakesh *et al.*, 2010). The huge informal-sector activities in Accra generate a total waste of 1.44 million kg/day (1440 metric tonnes per day), which translates to approximately 0.5 million metric tonnes per year (Fobil, 2000). The inadequate systems in most domestic markets in Accra do not promote acceptable levels of waste management resulting in continuing difficulties in providing social and physical well-being for the local inhabitants.

Environmental degradation and deterioration of livelihoods continues to be pervasive, intractable and intrinsically linked to poverty which cannot be divorced from the social well-being (Sen, 2006) that is probably one of the main threats to sustainable development in Ghana. Poverty is an agent of environmental degradation and deterioration of livelihoods in urban areas in sub-Saharan Africa like Accra, which has poorly laid structures and is plagued with the highest degrees of poverty with 43% of the population living below the poverty line (UN-HABITAT, 2008). Additionally, the severe congestion in the central business district has been consistently neglected by subsequent governments and little funding allocated for maintaining or improving the domestic markets.

Haphazard erection of structures by individuals and private developers at unapproved locations is a common occurrence in many parts of the central business district and results in a lack of appropriate access routes creating chaotic and squalid conditions (Overå, 2007). The characteristic overcrowding, poor sanitation, drainage and waste disposal systems and unsuitable roads (Pellow, 2002a) illustrates the city's lack of access to resources for the urban population despite the area's expansion in economic activities (UN-HABITAT, 2008). Hart (1973) asserts that the economic activities of people in the lower income bracket in Accra serve as refuge for the unemployed and the informal sector is a safeguard against economic hardships. The absence of effective government control and planning has resulted in buildings springing up in most informal markets in Accra with a tremendous impact on their spatial development. Similar to many cities in Sub-Saharan Africa, the central sustainable development issue for Accra is how to improve the broader physical infrastructure, raise health and environmental standards, and introduce policies that connect to a

sizeable informal economy such as the second-hand clothing trade activities in the Kantamanto market (Simon, 1992; Owusu, 2007; Yankson, 2007). The following section examines the institutionalisation of Ghana's prominent SHC market, the Kantamanto market with a focus on its physical location, infrastructure, and health and environmental standards.

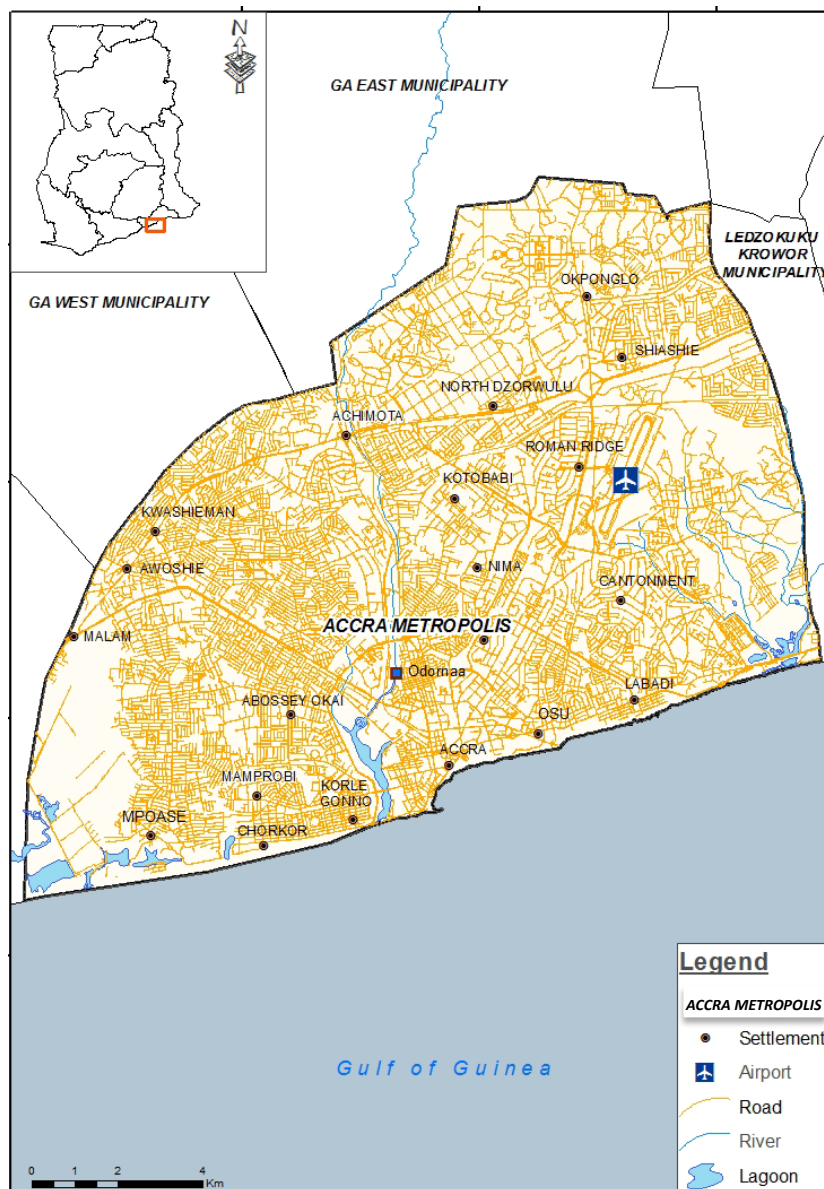


Figure 2.1. Map of Accra Metropolitan Area (Adapted from: Google, 2018a).

2.2.2. Kantamanto Market Context

Most of the populace in the city of Accra is migratory from the rural areas of Ghana and is part of the 69.7% informal sector involved in street hawking and peddling (Ghana Statistical Services, 2008). During the early 1980s, second-hand clothing peddlers predominantly occupied the streets around the Okashie area in Accra.

Although the trade around the Okashie area was highly popular and profitable, it was to the detriment of the city's orderliness and modernisation. Characteristically, the second-hand clothing peddlers were seen holding their merchandise in their hands, or carried over their shoulders or on their heads selling to pedestrians on the pavements and streets of the central business district. These scenes and operations of the peddlers were undeniably hindering city regulation and the development of the central business district of Accra.

The used clothes sellers organised and emerged as the National Union of Used Clothes Sellers. They developed into a pressure group to resist the persistent attempts by city officials to drive them from the streets into neighbouring markets within the city. The Union then demanded an alternative trading space solely for them to carry out their business, and, by 1988, the Union's efforts earned them a temporary space on the Ghana Railways Company Limited (GRCL) land popularly known as the Kantamanto Market. The Kantamanto market space was originally leased to the Gold Coast Government by the Accra Gbese Stool (Gbese Mantse Nii Ayi Bonte II) in 1909, for the Accra Railway Harbour Project and not for market purposes (African Urbanism, 2013; Peace FM News, 2013). The Ghana Railways Company Limited (GRCL) marked the Kantamanto Market site for the development of an ultra-modern rail station (MacDougall, 2011). However, this plan is suspended as the Ghana Railway Company Limited (GRCL) awaits \$3 billion in finance for its plans for an ultra-modern railway transportation network (Asiedu, 2013).

In December 2008, the Ghana Railway Company Limited (GRCL) signed a GH¢150,000 lease agreement with the Kantamanto Rail Line Joint Traders Association which has metamorphosed into the Kantamanto Used Clothes Sellers Association, allowing them to occupy the space for a period of 50 years (MacDougall, 2011) (see appendix A). The lease agreement restricts the traders from developing permanent structures and the agreement can be terminated by either party giving a six

months' notice period (MacDougall, 2011; Ghana News Agency, 2013a; Oteng-Ababio *et al.*, 2015). The ownership and management of the Kantamanto market location has become a political tussle between the Ghana Railway Company Limited (GRCL) (rail sector in charge of developing the rail station), the Accra Metropolitan Assembly (AMA) (managers of the capital city and building or modernising local markets), and the executives of the Kantamanto Used Clothes Sellers Association (occupants of the Kantamanto market) (Peace FM News, 2013).

The Kantamanto market is a microcosm of the types of local markets situated in the Accra Metropolis within the Central Business District and sits in the Ashiedu Keteke Sub Metropolitan area (see figure 2.2). The Kantamanto market is annexed to Makola Market, marked out to the south by the popular White Chapel (UTC) building and to the north by a train line which connects Dzorwulu to Tema. The market space covers an area of about 6.5 acres stretching to the pedestrian walkways outside the fenced market area, with trading activities also carried out along the railway lines (The Herald, 2013). Presently, the Kantamanto market presents an unsystematic, unconventional on-going process of informalisation confirming a nonexistence of formal commercial zoning and unplanned social amenities and infrastructure (Castells and Portes, 1989). The second-hand clothing (SHC) trade in the Kantamanto market serves as a temporary economic relief to over 40,000 traders, out of which 40% are women (Oteng-Ababio *et al.*, 2015). The market houses over 3,000 SHC retailers, who trade individually in different clothing categories including men's and women's jeans, ladies' dresses, ladies' shoes, t-shirts, winter jackets and accessories, under wear and many others (African Urbanism, 2013).

The ships carrying 70-foot containers full of SHC bales normally take up to 14 days from the U.K., 35 days from China and 45 days on sea from other countries to arrive at the Tema Harbour and to importers and wholesalers in the Kantamanto market on Mondays and Thursdays, weekly. The Kantamanto market currently generates between US\$5million and US\$10million in daily sales (Oteng-Ababio *et al.*, 2015) through importers, exporters, wholesalers and retailers who are engaged in the buying and selling of imported SHC. This economic network is further extended by seamstresses and tailors who are engaged in mending the often unwearable SHC for retailers, boutique operators and consumers (African Urbanism, 2013). The

Kantamanto market is a typically bursting, frenzied panorama with congested aisles characterising the market space, making it hard for consumers and traders to cope with the constant jostling of busy head porters and truck pushers cutting bales from warehouses into the market.

Individual retailer spaces and sheds in the Kantamanto market are simply demarcated, with wooden planks, fabric, aluminium or rubber forming the roofing. The trading activities in the Kantamanto market are mostly carried out in poor sheds temporarily made of wood in the harsh hot weather conditions with merchandise typically hanging or piled on the bare floor. The market space has lacked infrastructure and basic amenities to sustain its growing population for over three decades and portrays an improper commercial organisation hazardous to the sizeable numbers of people who trade in its unpleasant and unhygienic environment.

Over 90% of Ghanaians patronise second-hand clothing (Baden and Barber, 2005; Oteng-Ababio *et al.*, 2015), and most of the consumers in the Kantamanto market rummage through piles of second-hand clothes to discover the wearable clothes from the non-wearable, a task usually carried out on the floor. This practice has led to the trade being branded condescendingly as a “*bend down boutique*” in some circles. The imported second-hand clothes are also understood to be clothes of “*dead white people*” popularly referred to in Twi as “*Obroni wewu*”, similarly demeaning to the sections of the population who, due to economic circumstances are forced to rely on the purchase of such items.

According to Amanor (2010), in 1994, the Ghana Standards Authority (GSA) banned the sale of used bras, pants, boxer shorts, bikinis and other second-hand goods, which were perceived to be transmitting venereal diseases; sexually transmitted diseases (STDs) and skin diseases. In 2010, further directives from the Ministry of Trade and Industry (MOTI) and the Ghana Standards Authority (GSA) for a ban on imported second-hand under wear proved futile as the ban was met with fierce resistance from traders who challenged the suggestion that imported under wear posed a health hazard and bemoaned the impact of the ban on their businesses and livelihoods (Amanor, 2010).

The Kantamanto market has also suffered a series of intermittent yet disastrous fires with the latest occurring on 5 May 2013 (African Urbanism, 2013). The efforts of the Ghana National Fire Service (GNFS) to bring the situation under control proved abortive due to the lack of proper access to the market (Arku, 2013). The fire razed about 2,000-metre square of the market to the ground and destroyed goods and properties worth tens of millions Cedis, leaving many retailers devastated and displaced (Oteng-Ababio *et al.*, 2015). The market's lack of proper fire safety standards is characterised by illegal electrical connections (loosely hanging bare wiring), the indiscriminate use of explosive and non-explosive materials, and burning of unwanted (unsellable) merchandise and refuse. The market also reveals an economic condition that demonstrates a passive attitude towards the role of environmental systems (completely degraded and polluted) and subsequent social consequences, which generate critical sustainable development concerns. The Kantamanto market highlights a maze of muddled regulation and reconstruction, ownership and responsibility for the Kantamanto land (Addo-Tetteh, 2013), a situation which has necessitated consistent threats of ejection of the SHC traders by the Accra Metropolitan Authority (AMA) and the Greater Accra Regional Co-ordinating Council (GRCC) (Daily Graphic, 2013; Peace FM News, 2013).

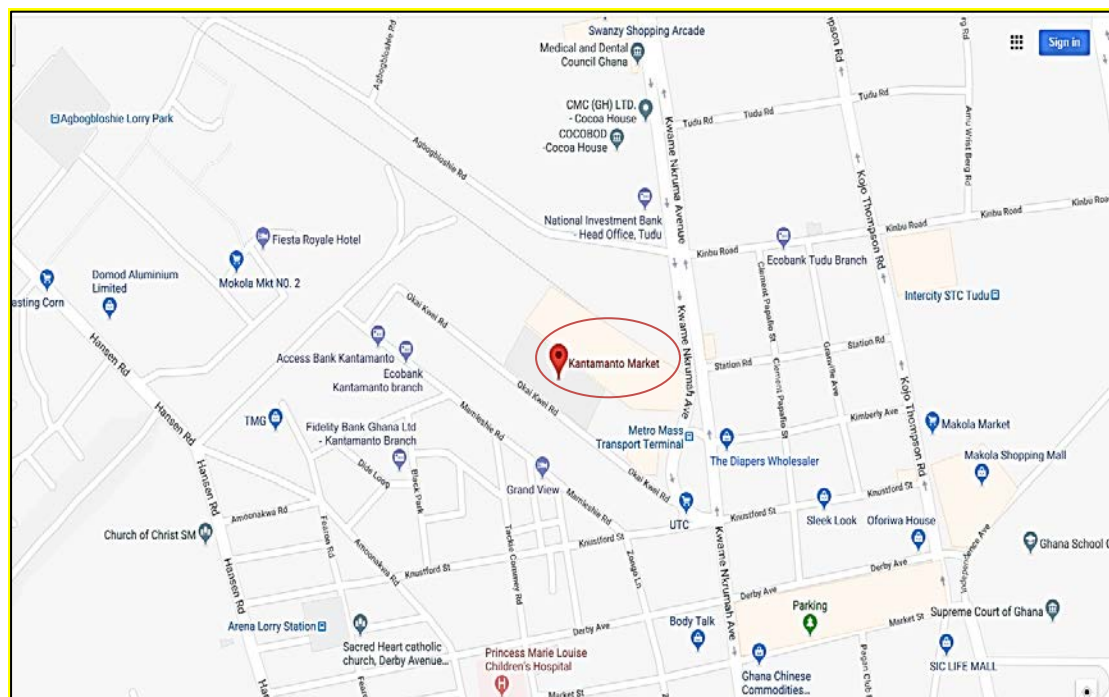


Figure 2.2. Kantamanto Market Location in Accra, Ghana (Adapted from Google, 2018b).

2.3. Ghana's Sustainable Development

Ghana's first President, Dr. Kwame Nkrumah launched a seven-year Development Plan (1964-1970) for the rapid transformation of the economy (Ghanaian Times, 2009). During the 1980s and 1990s, Ghana adopted the Structural Adjustment Programs (SAPs) and Poverty Reduction Strategies (PRSs) to support its poor economic performance. These policies were aimed at correcting the macro-economic imbalances that had occurred because of state-controlled economic policies (Anane, 2004; Domfeh and Bawole, 2009) and to protect the environment by redirecting development efforts to sustainable development (UNEP, 2002; Anane, 2004; Boon *et al.*, 2010). The National Urban Policy Framework (NUPF) was formulated to address the uncontrolled and haphazard development, deteriorating environmental quality, insufficient infrastructure and services, weak urban economic performance and increasing urban insecurity particularly brought about by exposure to disasters like flooding, urban poverty and slum development (Government of Ghana, 2012). The goal of the NUPF is to:

Promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions and sound living and working environment for all people to support the rapid socioeconomic development of Ghana (Obeng-Odoom, 2013, p. 21).

The 1992 Constitution of Ghana indirectly covers issues pertaining to the economic, social, and environmental development. Specific Articles that indirectly touch on sustainable development include articles 36 (1) and 36 (9) (Ministry of Environment Science and Technology, 2012). Several other governmental organisations that are involved in formulating and implementing sustainable development strategies include, the NDPC, MEST and EPA. The National Development Planning Commission (NDPC) is the main organ mandated by the Constitution to formulate sustainable development strategies in Ghana and has oversight responsibilities for the preparation, coordination, implementation and monitoring of medium-term strategic plans prepared by the MMDAs and the MDAs (Ministry of Environment Science and Technology, 2012).

The Ghana Millennium Development Goals (MDGs) involves ensuring sustainable development, which emanates from the Millennium Declaration adopted by World Leaders at the Millennium Summit of the United Nations in 2000. The Millennium Development Goals (MDGs) are the expression of the strong commitment to universal development and poverty eradication made by the International Community in the UN Millennium Declaration. The Declaration captured the aspirations of the international community in terms of, among other things, ensuring environmental sustainability and developing a global partnership for development (UNDP 2015b). They offer a set of concrete targets that can be used to assess the integrity of the political commitment made through the Declaration. The declaration has resulted in eight Millennium Development Goals (MDGs) with the aims of reducing poverty, improving the quality of peoples' lives, ensuring environmental sustainability, and building partnerships to ensure that globalisation becomes a more positive force for all the world's people. The MDGs focused on the dimensions of extreme poverty, including low incomes, chronic hunger, gender inequality, lack of schooling, lack of access to health care, and deprivation of clean water and sanitation, among others. It offers a common and integrated vision on how to tackle some of the major challenges facing the world, particularly the reversal of the loss of environmental resources for the significant improvement by 2020 (UNDP 2015b).

Ghana was the first country in Sub-Saharan Africa to reduce poverty by half, and thus met the Millennium Development Goal 1. This was achieved by the implementation of Ghana's Poverty Reduction Strategy Policy over the last decade in terms of reducing the number of people who are poor according to the UNDP (2015a). Ghana has also managed to achieve nominal progress concerning MDG 7 to ensure the integration of the country's economic, social and environmental development. However, critical challenges exist in achieving the targets of reversing the loss of environmental resources, reducing the proportion of people without access to improved sanitation, and achieving significant improvement particularly in the lives of people living in slum areas. Rapid urbanisation, population pressures, poor sanitation and solid waste management, low levels of investment in sanitation delivery, and fast-unplanned expansion of cities pose major challenges for the full attainment of the Sustainable Development Goals (SDGs) otherwise known as the Global Goals.

The Sustainable Development Goals (SDGs) are founded on the success of the 8 Millennium Development Goals (MDGs) in January 2016. Ghana is among the 193 member states of the United Nations that signed up to the 17 Sustainable Development Goals that set measurable aims for improving our world (see figure 2.3 below). The Sustainable Development Goals (SDGs) seek to foster economic growth, ensure social inclusion and safeguard the environment. Each goal covers a different aspect of life: poverty, hunger, education, equality, the environment, justice, economy and so on. All member states have targets and indicators aimed to be achieved by 2030 and the United Nations is expected to catalogue data from each country to monitor progress towards achieving the goals.



Figure 2.3. Chart of Sustainable Development Goals (SDGs) (Adapted from Google 2018).

The central principle underlining the SDGs is to “*Leave No-one Behind*”. However, the potential challenge to the implementation of the SDGs is the inconsequential sustainable policy by various governments, state agencies and city officials and the low level of knowledge among key national stakeholders to effectively participate in short to medium-term SDGs plans, and frameworks i.e., Ministries, Departments and Agencies (MDAs) and Metropolitan, Municipal, and District Assemblies (MMDAs). Economic growth and development priorities need to be aligned in collaboration with these Civil Society Organisations (CSOs) and the private sector on jointly achieving the SDGs (ILO, 2018).

2.3.1. Relevance of SHC trade development to SDGs.

This research on sustainable development of the SHC trade in Ghana makes linkages to **SDG Goal 1: ending poverty in all its forms everywhere**. According to the Africa Sustainable Development Report UNECA (2017), the objective of Sustainable Development Goal 1 is to end poverty in all its manifestations, including extreme poverty, over the next 15 years beginning in 2016. Eradicating poverty remains one of the greatest global challenges, hence the continued focus on this overarching goal in the 2030 Agenda and in Agenda 2063. The ambition of the Agenda is to create an incredible opportunity for all people everywhere, including the poorest and most vulnerable to enjoy basic standard of living and the benefits of adequate social protection. According to the UNDP (2015) what matters to people is whether they are able to realize their aspirations for themselves and their families.

Poverty eradication is fundamental to the post-2015 sustainable development agenda; hence, the Global Compact and Oxfam collaboration on Pilot the Poverty Footprint Tool. This assessment tool presents a people-centered approach to look at business impacts (both positive and negative) on the multi-dimensional aspects of poverty. The tool provides a comprehensive overview of factors that influence poverty, emphasizes stakeholder engagement, partnership between companies and civil society and promotes corporate transparency and pro-poor business strategies. The Oxfam and the UN Global Compact are enhancing the tool and working to scale up adoption of poverty foot printing by a broader group of stakeholders which is a relevant issue this thesis seeks to address in the Ghanaian context.

The goal 1 also focuses on the private sector or businesses to create decent sustainable jobs or foster economic activities and contribute to basic services and infrastructure. This means private businesses have critical role in the fight to end poverty by providing access (for example, financially) to basic services such as healthcare, transportation and education, peaceful living in a stable society. Private businesses and other stakeholders have a responsibility to take actions to ensure they exacerbate poverty by proactively providing solutions to poverty through sustainable business models, products and services. By applying sustainable development principles businesses like the SHC trade would better serve societies like Ghana that is disproportionately affected by poverty and face limited access to resources and

market infrastructure. The SHC trade in developing countries has a potential to influence the inimitable perspectives of poverty.

Developing a sustainable SHC trade in Ghana is also related to the **SDG Goal 8: Decent work and economic growth (promote inclusive and sustainable economic growth, employment and decent work for all.)**. According to the UNDP (2015), the number of workers living in extreme poverty has declined dramatically over the past 25 years with more than 204 million people unemployed in 2015 in developing countries (ILO 2018). The SDG 8 encourages entrepreneurship and job creation as a key effective measure to eradicate forced labour, slavery and human trafficking to achieve full and productive employment, and decent work, for all by 2030. The thesis argues that the sustainable development of the SHC trade is critical to provide decent work and economic growth.

According to the UNDP (2015), sustainable economic growth requires societies to create the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment. Job opportunities and decent working conditions are also required for the whole working age population. Increased commitments to trade infrastructure will also help increase productivity and reduce unemployment levels in the world's most impoverished regions. The development of SHC trade is linked particularly to SDG 8.3, as the trade seeks to promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, growth of small and medium-sized enterprises and encourages creativity and innovation. SDG 8.4 also promotes the consumption and production that decouples economic growth from environmental degradation, which is in accordance with the research objective (2) of the thesis to integrate the three dimensions of sustainable development in the Kantamanto market.

The objectives of the thesis also make linkages to important goals, initiatives and resources of the **UN Global Compact**. The development of a sustainable SHC trade supports the essential call for responsibility of businesses and investments to achieve transformational change through the SDGs. The achievement of this transformation is rooted in the universal principles (for example; Environment – Principle 7: businesses should support a precautionary approach to environmental challenges; Principle 8:

undertake initiatives to promote greater environmental responsibility; and Principle 9: encourage the development and diffusion of environmentally friendly technologies).

According to the UNDP (2015) businesses are to care about cleaner and more efficient processes to increase resource productivity, which translates to fewer raw material inputs and lower costs. Businesses and companies are further required to be more environmentally responsible by maintaining an advantageous position in the marketplace. Innovation in businesses must be managed in terms of their relationship with the environment. Therefore, it is the responsibility of businesses to promote environmental responsibility by defining the company vision, policies and strategies to environmental quality and social equity. It is also essential for businesses to develop sustainability targets, establish sustainable production and consumption programmes with clear performance objectives in the long-term. To improve their environmental performance, businesses must adopt voluntary charters, codes of conduct, sectoral and international initiatives to reach responsible environmental sustainability principles in their business practices.

The research seeks to contribute to the achievement of the SDGs by providing comprehensive relevant aspects that can influence a sustainable development framework for the SHC trade. The research argues for strengthening an enabling environment for undertaking SHC trade practices and building local markets particularly in the Ghanaian context. Furthermore, this thesis emphasizes the need for sustainable development strategy or policy and interlinkages between the various stakeholders in achieving a sustainable SHC trade. The integration of the key stakeholders in an action oriented, concise and easy to communicate approach can achieve an aspirational and universal sustainable development, which is global in nature.

2.4. Problem statement

Ghana's development over the years has been reactive rather than proactive and carried out in a piecemeal fashion. (Yeboah and Obeng-Odoom, 2010). The UN asserts that, "Ghana's sustainable development is mixed" as the structural fundamentals of the economy are skewed with an estimated annual cost of natural resource and environmental degradation in Ghana equivalent to about 9.6% of GDP (GNA, 2012). Sustainable development challenges in Ghana arise mainly from unsustainable consumption patterns, which create gaps in the domestic trade and emphasises the consequences of poverty in Ghana. The growing gap resulting from the failure to implement sustainable development emphasises a non-integration of the economic, environmental and social dimensions to alleviate poverty among the urban poor in particular (WCED, 1987). This current state of affairs requires profound changes in the way sustainable development is understood and conceptualised within the Ghanaian context.

Sustainable development in Ghana is hindered by the low capacity to plan and implement sustainable development policies with essential infrastructure to ensure growth (Laryea-Adjei, 2000). The lack of an effective implementation of sustainable development concepts in Ghana is also accountable for the informal economic activities like the second-hand clothing (SHC) trade within the Kantamanto Market in Accra, Ghana from the mid-1970s onwards. The institutionalisation of the Kantamanto market demonstrates economic, environmental and social imbalances with very modest and inconsequential implementation for over 30 years by key stakeholders (e.g., governments/state agencies, city officials i.e. Ministry of Trade and Industry (MOTI), Accra Metropolitan Assembly (AMA), and the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA).

Furthermore, the maze of confusion over the allocation, ownership, reconstruction and management of the Kantamanto market location involving the Ghana Railway Company Limited (GRCL), the Accra Metropolitan Assembly (AMA) and the Executives of the Kantamanto Used Clothes Sellers Association (Addo-Tetteh, 2013; Peace FM News, 2013) suggests that the vigorous economic potential of the Kantamanto market has been affected by the passive role of the environmental and social agencies. This situation validates the critical lack of integration of the three

dimensions of sustainable development (*economic, environmental and social*) in the Kantamanto market.

Ghana's second-hand clothing (SHC) trade like any in sub-Saharan Africa is also characterised by poor business and governance conditions, low and mediocre infrastructure, poor government policies and regulations, poor institutions, unreliable and uncertain or poor social capital, among others (Easterly and Levine, 1997; Collier and Gunning, 1999; Fafchamps, 2004; Hansen, 2004a; Baden and Barber, 2005, Frazer, 2008). The poor commercial practices and improper structural organisation of the Kantamanto market demonstrate a fundamental challenge to the effective implementation of sustainable development policies by the various stakeholders to achieve sustainable economic growth and poverty reduction (Domfeh and Bawole, 2009; Obeng-Odoom, 2012).

The Kantamanto market is continually experiencing excessive imports of cheap low-grade SHC; poor quality, usually stained or soiled and with unpleasant odours from America, Europe and Asia, which are often non-wearable. The importation of these cheap low-grade SHC betrays the critical economic, environmental and social underperformance of the SHC processing companies (textiles recyclers) in the West (U.K.) before they export to developing countries like Ghana. It also highlights the adverse impacts that the SHC trade practices of Western countries have on developing nations.

2.5. Summary

This chapter presented the physical features, political and administrative structure, and social and economic characteristics of Ghana. It also describes the local economy and the geographical features of the Accra metropolitan area where the Kantamanto market is situated. It provides a brief overview of the Kantamanto market by highlighting the development of the second-hand clothing trade. This chapter also describes the sustainable development background and achievements of Ghana. The relevance of the SHC trade to the achievement of the Sustainable Development Goals (SDGs) particularly goal 1 and 8 were discussed extensively. The chapter also highlighted the key research problems identified in this thesis. It defined the critical lack of integration of the dimensions of sustainable development (economic, environmental and social) of the SHC trade, the lack of implementation of sustainable

development, and the negative impact of sustainable principles of SHC processing and export from the West (U.K.) on Ghana. The next chapter presents the literature review, which forms the theoretical underpinning and conceptual framework of the thesis.

CHAPTER 3: LITERATURE REVIEW

3.0. Introduction

This chapter discusses the literature reviewed in relation to the research topic and the objectives of this thesis by drawing on the theoretical contributions of expert authors. The literature review chapter focuses on the key subject of sustainable development, the integration of the three dimensions of sustainable development (economic, environmental and social), sustainable development policy, sustainable trade, sustainable consumption, critiques of sustainable development, development of second-hand clothing (SHC) trade with historical and contemporary perspectives of the United Kingdom (U.K.) and the Ghanaian SHC trade. The chapter also reviewed relevant literature on the three-R framework.

3.1. Sustainable Development

Sustainable development steadily evolved out of the philosophies of “progress” from the pre-modern times and during the classical Greco-Roman period, the first philosophies about “progress” were formulated (Nisbet, 1980; Burkert, 1997). According to Younkins (2006), Herbert Spencer (1820-1903) (British philosopher and sociologist), coined the term “the survival of the fittest” in 1852 which is believed that, human progress (development) is inevitable and our acquired characteristics are transmitted to later generations thus equipping them with superior capabilities (Claeys, 2000; Younkins, 2006).

The Victorian social evolutionary theory (characteristic of technology, science and change through invention and implementation) is expressed in Spencer’s work, ‘Progress: Its Law and Causes’. Spencer (1891, p.10) asserted that:

... This law of organic progress is the law of all progress. Whether it be in the development of the Earth, in the development of life upon its surface, in the development of society, of government, of manufactures, of commerce, of language, literature, science, art, this same evolution of the simple to the complex, through successive differentiation. From the earliest traceable cosmical changes down to the latest results of civilization we shall find the transformation of the homogeneous into the heterogeneous, is that in which progress essentially consists.

In the eighteenth and nineteenth centuries, development was identified with progress highlighted in the philosophies of a ‘law of progress’ and its potential benefits in Auguste Comte’s writings on positive philosophy (Comte, 1893). Spencer (1851a, p. 60) acknowledged that:

Progress, therefore, is not an accident, but a necessity. Instead of civilization being artificial, it is a part of nature; all of a piece with the development of an embryo or the unfolding of a flower. The modifications mankind have undergone, and are still undergoing, result from a law underlying the whole organic creation; and provided the human race continues, and the constitution of things remains the same, those modifications must end in completeness.

This philosophy of “progress” (development) expresses “ultimately an issue of human behavior, and negotiation over preferred futures, under conditions of deep contingency and uncertainty” (Robinson, 2004, p. 379). Further, the Earth Charter (2000) asserts “The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature”. This infers that the progress (development) of the human species is not disconnected from the shared universe they inhabit; the human species is inherently responsible for the cause and effect of everything in the universe. Spencer (1851b, p. 59) noted that:

All evil results from the non-adaptation of constitution to conditions. This is true of everything that lives. Does a shrub dwindle in poor soil, or become sickly when deprived of light, or die outright if removed to a cold climate? It is because the harmony between its organization and its circumstances has been destroyed.

Albert Einstein advocated for this key spiritual principle by stating that “we cannot solve problems by using the kind of thinking we used when we created them” (in Calaprice, 2000, p. 317). This principle is based on change of mind set and raising awareness and consciousness to create a society that is sustainable through the ability of present and future generations to benefit from economic growth, to preserve environmental balance, and to reduce social inequality and poverty for the long term and into the future (Teodorescu, 2002).

Sustainable development is therefore, “an evolutionary process in which the human capacity increased in terms of initiating new structures, coping with problems, adapting to continuous change, and striving purposefully and creatively to new goals”

(Committee on Comparative Politics of the United States Social Science Research Council cited in Peet, 1999, p. 77). The evolutionary process in sustainable development is a journey across destinations, a continual ongoing process that aims to shape the relationships between humans and nature to ensure the preconditions of development for future generations are achieved (Becker *et al.*, 1999; Robinson, 2004). This evolutionary process is presented in the table 3.1 below, which captures the key dates and timelines in the achievement of new sustainable development goals.

Table 3.1. Sustainable Development: Key Dates/ Timelines

1972	1st UN Conference on the Human Environment (UNCHE)
1980	The concept of sustainable development appeared for the first time in World Conservation Strategy (WCS)
1987	“Our Common Future” Report (Brundtland Report)
1988	Creation of the International Panel on Climate Change (IPCC)
1992	Earth Summit – United Nations Conference on Environment and Development in Rio de Janeiro
1994	International Conference on Population and Development in Cairo
1995	World Summit on Social Development in Copenhagen
2000	United Nations Millennium Summit in New York
2002	World Summit Sustainable Development in Johannesburg
2005	Kyoto Protocol came into force
2010	10th Conference of Parties to the Convention on Biodiversity (CBD) in Nagoya – COP10
2012	Rio+20 Summit – UN Conference on Sustainable Development (UNCSD)
2015	UN Summit - Countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs)

Source: Author’s interpretation for the research purposes (2019). (Adapted from: United Nations, 1972; WCED, 1987; Peattie, 1992; DETR, 1999; UN, 2002; Strong and Hemphill, 2006; UNEP, 2013; UN-DESA, 2015).

Sustainable development emerged as a concept in the context of growing consciousness of imminent ecological crisis. This new concept of sustainable development is traced back to the increasing concerns for the environment that emerged in 1960s and 1970s with the convention that economic development without appropriate concern for the environment was both wasteful and unsustainable (Peattie, 1992; Shedroff, 2009). This led to the establishment of the concept at the United Nations Conference on the Human Environment (UNCHE) held in Stockholm in 1972 (Peattie, 1992; Malaska *et al.*, 1998, Strong and Hemphill, 2006; Shedroff, 2009).

The first in a series of *United Nations Conference on the Human Environment (UNCHE)*, held in Stockholm in 1972 on the threatening ecological crisis stated that:

A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes...To defend and improve the human environment for present and future generations has become an imperative goal for mankind (United Nations, 1972).

Successive UN Conferences - Bucharest (1974) and Vancouver (1976) - facilitated the type of response required from national governments to overcome environmental and development problems (Strong and Hemphill, 2006). The concept was popularised in the 1980s; it became the topic of the *International Union for the Conservation of Nature's World Conservation Strategy* (1980), Lester R. Brown's *Building a Sustainable Society* (1981) and Norman Meyers's *Gaia: an atlas of planet management* (1984) (Worster 1993).

In 1987, *the World Commission on Environment and Development (WCED)*, known as the Brundtland Commission, submitted a report, entitled *Our Common Future*. The 'Brundtland' report, as it became known, authored by Dr. Gro Harlem Brundtland (Director General of the World Health Organisation) was presented at the World's government (the UN). The broad and widely used definition of the concept of sustainable development by the Brundtland Report (WCED, 1987) is:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The primary focus of this definition is to meet the needs and interests of humans and securing global equity for future generations by redistributing resources towards poorer nations to encourage their economic growth in order to enable all human beings to achieve their basic needs (WCED, 1987). The Brundtland report argued for the significance of environmental quality and, conservation of natural assets, and long-term characteristic of ethical (social) principles in achieving equity between the present and future generations. This is underscored in the quote below:

The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word “environment” a connotation of naivety in some political circles. The word “development” has also been narrowed by some into a very limited focus, along the lines of “what poor nations should do to become richer,” and thus again is automatically dismissed by many in the international arena as being a concern of specialists, of those involved in questions of “development assistance”. But the “environment” is where we live; and “development” is what we all do in attempting to improve our lot within that abode. The two are inseparable (WCED, 1987).

The quote above demonstrates how the World Commission on Environment and Development (WCED) considered critically global development problems which required a cohesive and credible blueprint for “sustainable development- growth that was forceful, and at the same time socially and environmentally sustainable” (Peattie, 1992, p. 76). Subsequently, the *UN Conference on Environment and Development 1992 (The Earth Summit)* in Rio de Janeiro also acknowledged the significant need to redirect international and national plans and policies to ensure that all economic decisions fully took into account environmental impacts (UNCED, 1992). The Earth Summit was climaxed by the adoption of **Agenda 21** (Global Partnership), which was a wide-ranging blueprint for action to achieve sustainable development worldwide through cooperation amongst nations. The comprehensive recommendations outlined to achieve sustainable development included recognising people’s rights to healthy environments and protection from transboundary degradation; preservation of environmental resources, ecosystems, ecological processes and biological diversity for the benefit of future generations; assessing the environmental impact of current

and planned economic activity, provision of information on the environmental effects of economic activity and on transboundary resource usage; co-operating over using transboundary resources in implementing environmental protection and in monitoring and researching the environment; planning the setting and implementation of environmental standards and how to deal with environmental catastrophes; and limiting domestic and transboundary environmental damage and risk (Peattie, 1992). Chatterjee and Finger (1994) further expanded the concept of sustainable development as cited in Strong (1997, p. 1):

[Sustainable development] is not a prediction of ever increasing environmental decay, poverty and hardship in an ever more polluted world among ever decreasing resources. We see instead the possibility of a new era of economic growth, one that must be based on policies that sustain and expand our environmental resource base. And we believe such growth to be absolutely essential to relieve the great poverty that is deepening in much of the developing world.... We have the power to reconcile human affairs with natural laws and to thrive in the process. In this, our cultural and spiritual heritage's can reinforce our economic interests and survival imperatives.... This new reality, from which there is no escape, must be recognized and managed.

In this regard, during the *World Summit for Social Development (WSSD) 1995*, held in Copenhagen, 117 governments pledged to make the conquest of poverty. Their goal was to foster social integration in the overriding objectives of development. The leaders acknowledged the benefits and potential pressures of globalization, identified areas of progress in social and economic development and groups that are particularly affected by poverty, and called for commitment to the reduction and elimination of sources of social distress (WSSD, 1995). The adoption of this Declaration and Programme of Action represented a new consensus on the need to put people at the centre of development through the promotion of social progress, justice and the advancement of the human condition (WSSD, 1995). The summit was based on social principles and a belief in effective environmental protection and continued economic growth ('cleaner growth') which is indispensable and compatible to human survival (DETR, 1999; Haughton, 1999).

Another significant timeline in achieving sustainable development is *The United Nations Millennium Declaration, 2000* in New York at the Millennium Summit. This summit committed world leaders to combat poverty, hunger, disease, illiteracy,

environmental degradation, and discrimination against women. The conference saw 189 Member States of the United Nations agreeing to the development of the 8 UN Millennium Development Goals (MDGs) to be achieved by the year 2015. The 8 Millennium Development Goals were: MDG1: Eradicate Extreme Poverty and Hunger, MDG2: Achieve Universal Primary Education, MDG3: Promote Gender Equality and Empower Women, MDG 4: Reduce Child Mortality, MDG5: Improve Maternal Health, MDG 6: Combating HIV/AIDS, Malaria & other diseases, MDG 7: Environmental Sustainability, MDG 8: Develop Global Partnership for Development. Each of the MDG was supported by 21 specific targets and more than 60 indicators aimed at ensuring that national and international partners (national governments, international community, CSOs and the private sector) forge new alliances through concerted efforts to expand opportunities of people around the world for sustainable development.

The 2002 World Summit on Sustainable Development held in Johannesburg was also another turning point in the evolution of the sustainable development concept. This summit brought together participants, including heads of State and Government, national delegates and leaders from non-governmental organizations (NGOs), businesses and other major groups to focus the world's attention and direct action toward meeting difficult challenges, including improving people's lives and conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security (UN, 2002). The summit formalised sustainable development with the notion of the three dimensions - *economic, environmental and social* - as symbolised by the summit motto "*People, Planet, Prosperity*". This motto progressively focuses on integrative approaches or capabilities that create opportunities to preserve or achieve economic, environmental and social systems for both present and future generations (Folke *et al.*, 2002).

"*People, Planet, Prosperity*" expresses the feelings of concern, and pictures an indistinct vision of a new and better world (Casimir and Dutilh, 2003). The essence is to ensure the integration of the often conflicting objectives of economic growth, environmental protection and social development (Lehtonen, 2004). These principles have often subsumed several ideas like (i) futurity inter-generational equity and social justice–intra-generational equity; (ii) concerns for the future, altruism or procedural

equity—people treated openly and fairly, (iii) trans-frontier responsibility geographical equity; (iv) and the conservation of nature resources or inter-species equity importance of biodiversity and balanced development (Lumey and Armstrong, 2004). “*People, Planet, Prosperity*” is also defined as the capability to use natural resources without permanently depleting them, thus preserving resources for future use (Rachuri1 *et al.*, 2010; Cobbinah *et al.*, 2011).

In furtherance to achieving a new and better world, a remarkable timeline in the evolutionary process of the sustainable development was ***the United Nations Conference on Sustainable Development, 2012 (Rio+20)***, which took place in Rio de Janeiro, Brazil. The summit was based on two key themes: 1) a ‘green economy’, the idea that resource-efficiency and low-carbon economic development can protect the natural resource base and promote sustainable consumption and production patterns, 2) a formation of new coalitions and commitments through institutional or governance structures, which is critical in delivering green economies and eradicate poverty (UN, 2013). The Rio+20 conference underscored the need for new approaches to sustainable development challenges by drawing on the strengths of stakeholders at all levels to bring about real change. The outcome document: “*The Future We Want*” covered 26 separate thematic areas and cross-sectoral concerns for action and follow-up which encapsulated food security, sustainable agriculture, health and population within specific geographic areas particularly Africa.

The most recent decisive timeline of the sustainable development programme was ***the 2030 Agenda for Sustainable Development and its framework of 17 Sustainable Development Goals (SDGs)*** adopted by the United Nations General Assembly in September 2015. The 2030 Agenda focuses on eradicating poverty and ensuring that no one is left behind as a priority for the global community. The 2030 Agenda consists of 4 sections: (i) a Political Declaration (ii) a set of 17 Sustainable Development Goals and 169 targets (based on the report of the OWG, with some small modifications) (iii) Means of Implementation (iv) a framework for follow up and review of the Agenda. The formulation of the 17 SDGs constituted an integrated, indivisible set of global priorities for sustainable development and represented a deep web of interrelationships and dependencies, requires developing and developed countries alike to be committed to achieving the three dimensions (*economic, social*

and environmental) in a balanced, integrated and interactive, progressive manner (UN-DESA, 2015).

3.2. The Three Dimensions of Sustainable Development

Sustainable development embraces economic, environmental and social dimensions in both the present and the future in global and local contexts (Diesendorf, 2000).

Sustainable development is critical for growth of economies by sustaining the environmental dimension, which is a subset of the society (Frankel, 1998; Meyer, 2000; Dreby and Lumb, 2012; Steffen *et al.*, 2015). Sustainable development requires the integration of economic growth, environmental management and social development as interdependent and mutually supportive dimensions for long-term development. Malaska *et al.* (1998) argue that critical to the achievement of sustainable development is the integration of effective economic or trade instruments with environmental protection mechanisms and social incentives for effective running of any sector. This integration process is to assure a human future that is socially just and equal, ecologically and economically sustainable, and politically and culturally free and innovative (Barton, 2000). Although the three dimensions are independent, they can be analysed as mutually interacting dimensions that are often presented as three intersected rings (Du Plessis, 2000).

The Brundtland Commission also affirms that economic, environmental and social dimensions need to be integrated into development models (WCED, 1987). Therefore, the fundamental structures for national decision making in most countries need to incline to the economic, social and environmental dimensions at the policy and management levels as proposed at the Rio- Declaration (UNCED, 1992). This approach proposes an integrated system of management to ensure that economic, environmental and social dimensions are considered in development frameworks. The World Resources Institute (1994, p. 43) also affirmed that:

...the concept of sustainable development is based on the recognition that a nation cannot reach its economic goals without also achieving social and environmental goals...

It is critical that economic goals are achieved in parallel with social goals like universal employment opportunities, basic health care, equitable access and distribution of resources. Similarly, economic goals must be targeted along with environmental goals to achieve a sustained natural resource base. Salih (2003) further highlighted the integration and interaction processes of the three dimensions; for example, social well-being should be influenced by comprehensive economic practices carried out in the well-resourced natural environment (market spaces). The quality of life (social) should also depend on the extent to which economic practices are carried out without degrading or polluting the environment. Their relationships are usually nested with the economy within society, which is in turn nested within the environment. Munoz (2010) also established that sustainable development is achieved through an on-going interaction of the economic, environmental and social dimensions to achieve sustainable development simultaneously as illustrated in figure 3.1. The figure shows a multidisciplinary interaction and integration of the three dimensions.

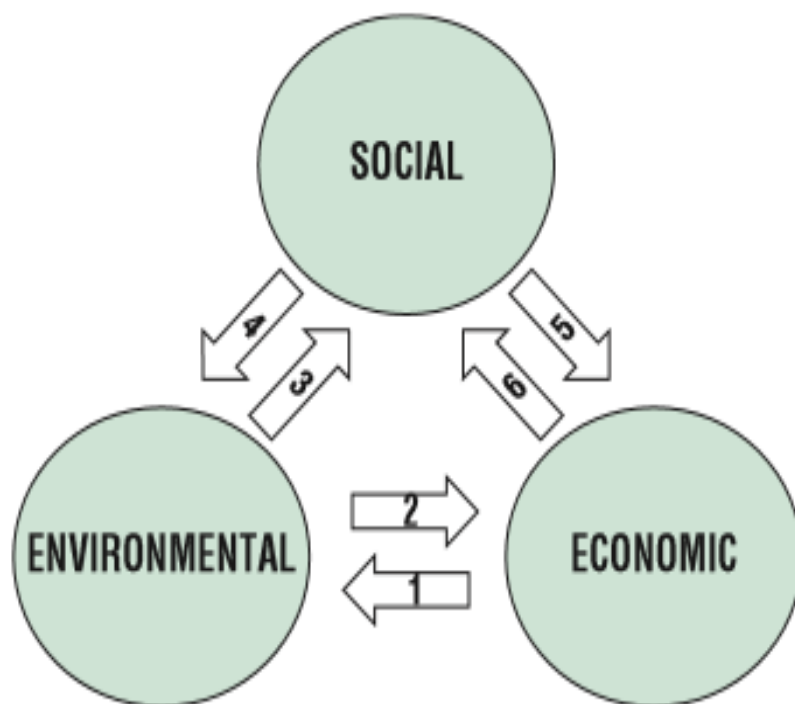


Figure 3.1. Integration and interaction of the three Dimensions (Adapted from: Stevens, 2005, p. 1).

Figure 3.1 above shows the integration and interaction between economic environmental and social dimensions in a balanced way or interdependently towards sustainable development. Stevens, (2005) suggests the objectives of integration or interaction as follows:

1. Environmental- economic: the economic costs of environmental resources.
2. Economic - environmental: pressure on environmental investment
3. Environmental - social: human welfare by maintaining clean environment.
4. Social - environmental: environmental responsibility and consumption patterns.
5. Economic - social: providing good living and income.
6. Social - economic: quantity and quality of economic activities.

The integration presents the economy as a subset of society with the environment working towards an interaction with the economic and social dimensions. It infers that an isolation of environment, society and economy can lead to a contracted sustainable development approach with issues to do with challenges to the socio-economic structure which are often marginalised (Langley and Mellor, 2002). Furthermore, Lovelock (1988) suggests that a precise presentation of the integration of the economy, environment and social dimensions in a typical three-ring pattern which nests the economic dimension within the social dimension and which is in turn nested within the environmental dimension (Figure 3.2) is critical in achieving sustainable development. The integration of the three dimensions (*economic, environmental and social*) are described extensively in the following section.

3.2.1. Economic Dimension

The definition of the Brundtland report recognises that the economic dimension is a subset of the environmental and social dimension and expresses the exact relationship between the dimensions (Littig and Griebl, 2005). The economic dimension implies a maximum of profit through the satisfaction of the other dimensions of sustainable development. Economic impacts ensue from poor environmental quality, which impacts on livelihood and consequently creates economic difficulty for society (Littig

and Griebler, 2005). The future economic progress will be increasingly determined by the sustained integrity of the environmental base (Hamrin, 1983).

Sustainable development attempts to combine the elements of economic efficiency, intergenerational equity, social concerns and environmental protection. Sustainable development means a growing “consumption” which follows extensive economic interpretation of how the use of resources today should not reduce real incomes in the future (OECD, 2008a). The economic dimension is an open system that encompasses or is intrinsically tied to the principles of social equity and environmental integrity (WCED, 1987; Schmidheiny, 1992b).

The economic dimension depends on the social and environmental dimensions, and the social dimension cannot exist without the economy. The economic dimension therefore must demand the environment to meet social well-being without reducing the capacity of the environment for future generations. This is also expressed as “leave the world better than you found it, take no more than you need, try not to harm life or the environment, and make amends if you do” (Hawken, 1993, p. 139). Therefore, the economic dimension must create equal access to income-related benefits and social well-being, which involves the creation of open, competitive, international markets that encourage innovation, efficiency and, wealth creation, and circumvent extreme sectoral imbalances (WCED, 1987; Holmberg, 1992; Reed, 1997).

3.2.2. Environmental Dimension

The environmental dimension means maintaining or improving the integrity of the social supporting systems on earth (Holdren, *et al.*, 1995). This dimension highlights the need for systems that sustain a stable resource base, avoid over-exploitation of renewable resource systems or environmental sink functions, and protect against depleting non-renewable resources (maintenance of biodiversity, atmospheric stability, and other ecosystem functions) (Harris *et al.*, 2001). Environmental risks such as pollution, poor sanitation and exposure to disease vectors have substantial impacts on health consequences in any country. The environmental dimension of sustainable development is one of the most overlooked human needs in the world today as cautioned by a number of world organisations (WHO, 2000; UNESCO, 2006b; UN, 2007).

Poor environmental quality affects social well-being or quality of life and clearly has a detrimental impact on economic activity. Environmental quality plays a fundamental role in society's health and well-being both directly and indirectly. A poor environmental quality such as pollution leads to health problems, and contributes to catastrophic events like flooding. However, a good- quality environment can contribute to important resources development and good health, and can ease disastrous occurrences. According to Sutton (2004, p. 17), the following guiding principles are to be considered for sustainable environments:

- Decision making processes should effectively integrate both long-term and short-term economic, environmental, social equity considerations;
- Threats of irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- Consideration of the global dimension of environmental impacts of actions and policies;
- Develop a strong, growing and diversified economy which can enhance the capacity for environmental protection;
- Maintain and enhance international competitiveness in an environmentally sound manner;
- Adopt cost effective and flexible policy instruments such as improved valuation, pricing and incentive mechanisms;
- Facilitate community involvement in decisions and actions on issues that affect the community.

The environmental dimension identifies an interlinked objective of the concept of sustainable development. It is important to safeguard the environment through efficient requirements from the factors of economic dimension.

3.2.3. Social Dimension

The social dimension of sustainable development draws on the definition provided by the Brundtland Report, *Our Common Future*: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 40). The social dimension has greater focus on and demand for the rights of people and their well-being (health, cohesion and equality) to lead the

economic or trade activities and, at the same time, protect environmental factors like the infrastructure and natural resources. Vallance *et al.* (2011) further affirm that the social dimension also holds the possibility of reconciling people's needs with environmental goals through economic development.

The social dimension reflects the principle of equity within definitions of sustainable development as it focuses on meeting the needs of present as well as future generations (WCED, 1987; Hopwood *et al.*, 2005; Holden and Linnerud, 2007). It processes essential human needs such as food, clothing, and shelter, as all part of a good quality of life (UNCED, 1992; United Kingdom Secretaries of State for the Environment, 1994).

The social dimension also has its foundations in social justice, fair distribution and opportunity, fairness in the apportionment of resources, adequate provision of social services and equality of conditions including health and education, gender equity and participation (Holmberg, 1992; Reed, 1997). Haughton (1999, p. 64) also asserts that: "the social dimension is critical since the unjust society is unlikely to be sustainable in environment or economic terms in the long run". Therefore, the social dimension embraces factors of the economic and environmental dimensions to provide collective social capital including social integrity, social cohesion, and well-being.

An equitable society involves non-discriminatory practices that will not impede individuals from participating economically, socially and politically in society (Pierson, 2002). The social dimension therefore, suggests inter-generational, intragenerational, and interspecies fairness, and connotes duties of care and prevention: technologically, scientifically, and politically. The social dimension embraces numerous human actions, attitudes and beliefs, and interactions that make up human life and encompass environmental change, population change and economic growth (Stern *et al.*, 1992). These human activities involve non-transformative environmental services such as recycling schemes to transformative approaches that address fundamental ways in which the environment should be socially constructed (Demeritt, 2002; Robinson, 2004).

Given the distinctive character of the social dimension, its place is embedded in the environment and encompasses the economic dimension. Society or humans survive or exist based on social interactions and activities that take place within the environment

and all actions depend on safety from continuing threats and protection from harmful disruptions (UNCED, 1992; Levins and Lewontin, 1994). Social dimension depends on environmental dimension and cannot continue without society, therefore cannot be addressed in isolation from the environmental and economic dimensions. This assertion is important, as it requires people to have sustainable relationships with the environment (humans and non-humans). The attempt to define the social dimension separately from the economic and the environmental dimension will wreck the sustainable objective.

3.2.4. The Three Intersected Rings/ Circles

The intersected three rings/ circles was developed by the International Centre for Local Environmental Initiatives in the early to mid-1990s (ICLEI, 1996) and has been reproduced in many policy and scholastic forms across the globe over the years. The intersected three rings/ circles is central to the concept of sustainable development, as it offers meaning to the principle of integrating the economic, environmental and social dimensions. This study argues for efficient contribution to an integrative pattern of economic development that is mindful of environmental and social equity issues by all developmental players like politicians, businesses and CSOs in the implementation of sustainable development.

Figure 3.2 below illustrate the three intersected rings/ circles with the environment circumscribing the social and economic dimensions for analysing sustainable development. The figure provides helpful directions for structuring thoughts on the social-environmental, environmental-economic and economic-social aspects in the process of sustainable development in the present or future (OECD, 2001b; Munoz, 2010). Pearce *et al.* (1989) advance the narrative on sustainable development as ‘motherhood and apple pie’, something that sounds so good that everyone can agree with it whatever their own interpretation as they are interconnected with transformations or changes applied at individual, national or continental levels (Etim, 2012).

Figure 3.2 suggests that economic activities should service social well-being issues while at the same time safeguarding the environment that is necessary for human existence. The three dimensions of sustainable development are all entangled together and therefore, the need to demonstrate the existence of causal relationships between

the economic, environmental and social dimensions within the Ghanaian SHC trade context. The subsequent section analyses the causal relationships between the social and environmental dimensions, the environmental and economic dimensions and the economic and social dimensions.

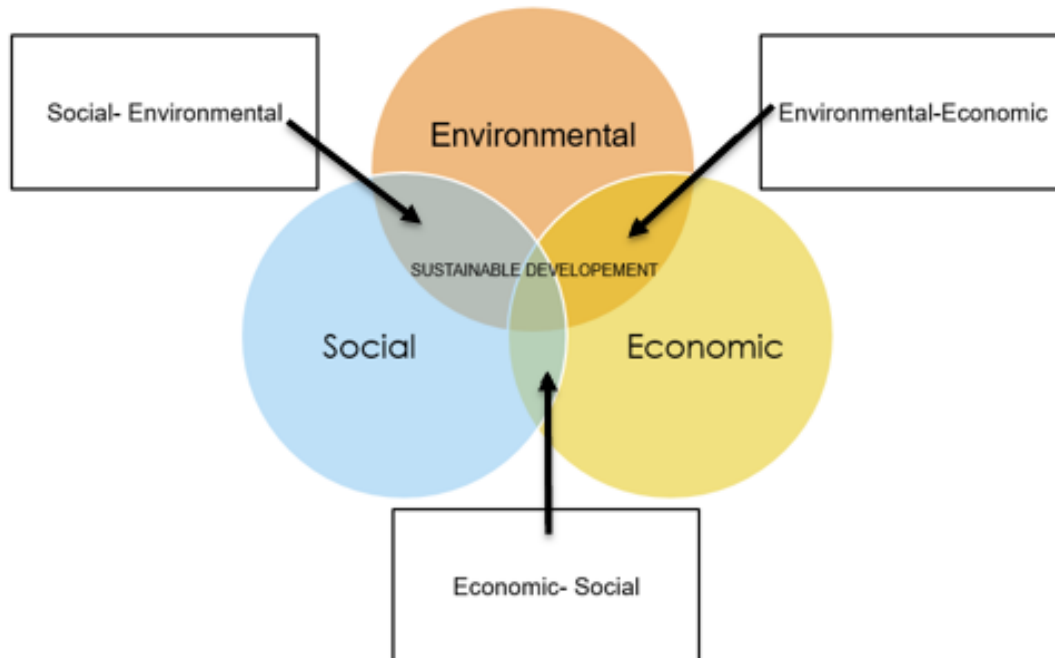


Figure 3.2. The three intersected rings/ circles of Sustainable Development (Adapted from Rodriguez *et al.*, 2002, p. 8).

Social-environmental

Relationships between the social-environmental dimensions represent interests in the national and international equity, which is probably the least developed notably when it comes to measurement of sustainable development (OECD, 2001b). The social-environmental interface at the local level requires situating the local level social and environmental challenges in a broader context, and identifying the roles of stakeholders and institutions at different levels. The social-environmental interface includes demographic aspects; health and the environment, employment and environment, distributional aspects ('environmental justice'), poverty, access to environmental goods (clean air, water), distribution of environmental damage and actual costs, availability of and access to environmental information, public participation, access to courts, and environmental education/training (OECD, 1998).

The social-environmental interface also requires major innovation to focus on the conventional environmental issues (air, water, and waste). The integration of these environmental concerns needs to be factored into economic and social policies, and inter- national environmental cooperation. The social-environmental interface is normally carried out by intergovernmental organisations to bring about the needed institutional change towards better integration of social and environmental concerns in a nation's public policy making. Therefore, it is imperative that the appropriate institutions at the national level play critical roles in setting the framework for local action in addressing the questions of capabilities for the social capital approach.

The social- environmental relationship can be improved to deliver links between environmental quality impacts on social conditions (OECD, 1999). Growing evidence reveals that people's health is influenced by their perception of their local environment; therefore, it is essential to recognise that the social dimension has implications for environmental quality and businesses. The European Commission also affirms the links between environment and social well-being as propounded in the European Environment and Health Strategy (EC, 2008). The strategy sets out to reduce the disease burden caused by environmental factors by identifying and preventing health threats caused by these factors.

Environmental- economic

The environmental- economic relationship represents economic considerations and environmental impact. For example, the environmental – economic interface needs to complement the social-environmental interface. The environmental- economic emphasises the role that poverty plays in environmental management and the alleviation of poverty is central to environmental well-being (Meyer, 2000; OECD, 2001b). The principal areas of interest include providing for participatory planning and decision-making (environmental policies), and promoting environmental awareness and environmental education in the trades and services to impact on the different population groups. Environmental policy design has the potential to positively impact the stakeholders, and involves them in various economic circumstances and deliberations (Peattie, 1992). Overtime, growing pressures on the environment of economic activities as a result of population growth have resulted in damage to the natural environment. Consumer requirements have led to increasing

energy intake in all areas of production of goods and services. The environmental crisis can be interpreted as a complex phenomenon of consumption incompatibility with environmental requirements (Peattie, 1992; Meyer, 2000; OECD, 2001b).

The economy-environmental relationship should be applied to the Kantamanto market in order to ensure a clean, unpolluted environment. This relationship will seek to impose environmental standards such as removing waste, unwanted impact of human activities on the environment, waste management to achieve productivity. The essence of the environmental-economic relationship is determined by applying one of the basic principles of environmental policy - the polluter pays. From the economic-environment perspective, sustainable development refer to quality which aims to impose environmental standards such as those described above.

Economic-social

The economic-social interface reflects the idea that economic activities should be in the service of society, and emphasises the significance of a well-functioning social protection system to address social problems and to maintain conditions that facilitate both economic growth and environmental sustainability. Thus, the social dimension should be in command of the economic dimension and must submit to environmental constraints (OECD, 2004). Therefore, the elements of the environment such as water, air and soil must not be pressurised by human activities and actions. Any economic growth activity and action should give great consideration to the importance of maintaining clean environments and safeguarding social well-being.

The economic and social dimension examines the impact of social phenomena or society as whole. The OECD has stressed the importance of a well-functioning social protection system for addressing social problems and for maintaining conditions that facilitate both economic growth and environmental sustainability. The social protection systems require a range of long-term commitments through specific policies relevant to each dimension. This perspective links concerns about sustainable development at the global level with those of preserving social cohesion with well-designed programmes within each country (OECD, 2004).

The theoretical underpinnings of sustainable development shows a feebly developed sustainable development concept within the Ghanaian context which requires more concrete policy interventions or strategies to ensure a better quality of life for the present and generations to come. The literature reviewed provides merit in drawing upon an integration of sustainable development dimensions, which contextualises the social needs of everyone; effective protection of the environment and maintenance of high and stable levels of economic growth. It highlights the critical need for effective, holistic environmental efficiency through a reduction of environmental impacts on economic retailing activities as this research study considers highly.

Furthermore, essential principles to improve the SHC trade are unearthed in the discourse with an approach that highlights the relevance of sustainable development in avoiding the deterioration of economic, environmental and social systems such as identified in the Kantamanto market. The literature provides new knowledge and opportunities to address and improve social well-being (of the human capital; traders and consumers), the environment (the natural capital that sustains trading), and economic prosperity (the financial capital or trading practices that makes businesses to increase) (Shedroff, 2009).

The narrative highlights gaps in the Ghanaian SHC trade and it is imperative for the Kantamanto market to function based on the integration of the dimensions through a framework of common guidelines that are necessary to be achieved through stakeholder integration and operational features similar to the adaptation of the old radical green slogan '*think globally, act locally*'. When the integration of stakeholders are factored into the SHC trade practices, it would maximise the in the Ghanaian context. The ensuing section examines literature on sustainable development policy, which is relevant for the effective implementation of a sustainable Ghanaian SHC clothing trade.

3.3. Sustainable Development Policy

Policy is referred to as a means of coordinating collective action for change by governments, businesses, trade unions, professional organisations and community organisations (Diesendorf, 2000). Grossman and Krueger (1993) argue for the importance of allowing policy to change trade patterns involving both the structure and the ordinary people to promote environmental protection and social equity. A sustainable trade approach underlines policy gaps at national levels and adopts positive relationships or integrations between economic, environmental and social quality (Muradian and Martinez-Alier, 2000). Sustainable development is therefore a transition that requires changes in policies and the way society (humans) value things (Daly and Goodland, 1996).

The WCED (1987) identified significant fundamentals to coordinate change successfully through sustainable policy; these involve reviving or changing the quality of economic growth through the consolidation of environment and trade in decision-making processes. Weiss (1992) emphasises that the connection between the environment and trade at different stages of sustainable development is challenging as it hinges on the effects of trade practices on the environment and how to assess and identify these effects in the decision-making processes. It is critical, therefore, that the second-hand clothing trade practices in the central business district in Accra, Ghana be assessed, to identify their influence on the environment to ensure they are addressed through a decision-making process (sustainable policy).

Diesendorf (2000) suggests that the key themes for implementing such decisions in sustainability policy include; economic (e.g., taxes, charges, bounties, rebates, and targeted expenditure), regulatory (laws, codes, product certification and standards), education (communication, information and training), and institutional change (which is a combination of regulatory and economic instruments). These key themes offer useful guidelines for any sustainable development policy agenda in any trade as in the case of the second-hand clothing trade in Ghana and perhaps other developing countries.

The General Agreement on Tariffs and Trade (GATT) system also provides a legal framework under which almost all trade occurs. The GATT accords developing nations the commitment called the “development policy” which permits developing nations to use trade restrictions including import curbs and export limitations to discourage ‘eco-dumping’ and permits countries to protect themselves against ‘eco-dumping’ by others (Daly and Goodland, 1996). Most local trade organisations and producers in developing economies have criticised the impacts that fair trade policies in the West have had, which encourage ‘eco-dumping’ in developing countries thus inhibiting the process of their own domestic economic development (Wicks and Bigsten, 1996; Norris, 2015). United Nations Economic and Social Commission for Asia and the Pacific UN ESCAP (2015) estimates that the demands of an integrated development agenda must be based on public policy and requires that:

- Policymakers must become adept at reconciling public and private interests.
- There must be enhanced capacity in governments to coordinate policies in different domains.
- Capacity to engage a diversity of stakeholders will become more and more critical.
- Governments will require strengthened capacity to analyse and evaluate various policy options, based on economic, social and environmental criteria, as well as to monitor progress and policy impacts.
- Policy frameworks must now achieve multiple objectives to support the needed shifts in policy stance, reshape market and other incentives, lengthen the time horizons and reduce policy uncertainty so that investments in people and the planet can work in tandem to drive a virtuous cycle of growth that continually invests in, rather than exploits, the basis for shared prosperity within the planetary limits.
- Policymakers must be able to identify and design policies that foster synergies between the economic, social and environmental dimensions of sustainable development.

This research study’s objective is in accord with the sustainable development policy discourse as the Ghanaian SHC trade evidently requires a conclusive policy framework to promote necessary local economic growth, environmental resources,

and to establish social well-being. Trade regulatory frameworks such as import certifications and standards, registration schemes and licensing if erected to serve the purpose of protectionist barriers are thus pragmatic for achieving sustainable development as argued by Weiss, (1992).

3.4. Sustainable Trade

Trade is a mechanism for transferring goods and services produced in one place to be consumed in another place (Ekins *et al.*, 1994). This definition of trade is focused on different national or global economic activities undertaken by a wide range of commercial organisations in all sectors of an economy from agriculture and minerals extraction and processing to manufacture of consumer and producer goods and services (Roberts and Fuller, 2010). National or international trade activities have pervasive influences or pervaded black markets and illegal undertakings like the production and distribution of illegitimate substances and people trafficking.

Trade existed since earliest civilizations long before the idea of nation existed, and the antecedents of trade can be traced from the trading activities undertaken by regimes and their colonies and what is identified in contemporary times as the cross-border activities by imperatives of state (Roberts and Fuller, 2010). Through the late 19th and early 20th centuries trade expanded across nations and borders with the support of new transportation and communication technologies. The growth of trade in geographical and range of products shaped the improvement of structural organizations for effectual management (Roberts and Fuller, 2010).

The rise of nationalist movements in the years preceding the outbreak of World War II endorsed a collaborative international agenda to manage a world economy that dissuades destructive protectionist policies and the formation of the international institutions like the international Monetary Fund (IMF) and the World Bank to stabilize the international economic environment and facilitate the growth of international trade (Roberts and Fuller, 2010). The General Agreement on Tariffs and Trade (GATT), which is incorporated into the World Trade Organisation, was developed to create a liberalised international trading administration to support the benefits of free trade and prevent the detrimental outcomes of implementing protectionist policies (Roberts and Fuller, 2010).

Various literary works have linked trade (economic) to social and environmental quality. For instance, Redclift (1987) argued that trade or multinational commercial activities are prevailing channels through which international economic relations or activities are currently pursued and affect the environment and social well-being. Roberts and Fuller, (2010) also argued that international business (trade) has a relation to the economic, environmental and social welfare (sustainable development) of people around the world. It infers that the production and trade of goods forms a social and environmental relationship regardless of whether they are described as waste or as goods. Goods traded have the potential of eventually returning into the environment (the source of all that society needs), with unavoidable impacts (Redclift, 1987).

Sustainable trade is recognised as an engine for inclusive economic growth and poverty reduction that contributes to the promotion of sustainable development. Sustainable development materialises when international exchange of goods and services produces social, economic and environmental benefits and demonstrates sustainable development such as generating economic value, reducing poverty and inequality and, regenerating the environmental resource base, and when it is carried out within an open and accountable system of governance (Vorley *et al.*, 2002).

Sustainable trade therefore, highlights a trading system that does not cause harm or damage to the environment or social conditions while promoting economic growth (European Union, EU, 2004). Persio (2015, p. 1) defines sustainable trade as “the business and activities of buying and selling commodities, goods and services that meet such environmental, social and economic criteria capable of benefiting all actors involved to foster global sustainable development”. This definition relates to the buying and selling (trading practices) of second-hand clothes (SHC) and the impact on the economic, environmental and social dimensions of the Ghanaian market context. Sustainable development requires the safeguarding of business activities and products created for financial gains based on indigenous knowledge of the environment and society, as without society there can be no trade (Shiva, 1998).

Sustainable trade therefore classifies environment and trade issues like; local trade restrictions to promote environmental quality, regulation of imports and exports to protect the domestic environment, trade restrictions to enforce environmental

standards in international agreements, trade restrictions in response to perceived inadequate environmental protection controls and controls on the export of unsafe products, technologies and wastes (Glasmeier *et al.*, 1992; Schoenbaum, 1997). These classifications present clear guidelines for the sustainable development of the international SHC trade and a standard for a categorical regulatory framework that is essential for developing countries like Ghana. Encoding the notions of sustainable trade, it is noteworthy that the quality of the SHC trade can be advanced or built to appropriate national standards in accordance with national particularities through collaborative standards and effective capacity that lean on internationally recognised standards (Czaga, 2002; Aubert, 2004).

However, it is intriguing to note that almost one third of member countries of the World Trade Organisation (WTO, 2016) have imposed prohibition (higher tariffs, licensing requirements or outright bans) on the importation of one category or more categories of used goods (Navaretti *et al.*, 2000; Czaga, 2002), which they can do depending on the porosity of their borders (Wicks and Bigsten, 1996). The 8th goal of the Millennium Goals set by the World Leaders in 2000 sought to develop collaborated standards coupled with effective capacity for developing countries to lean on internationally recognised standards already in place to build their own appropriate standards (Czaga, 2002). Therefore, the international SHC trade requires a sustainable trading system that ensures economic, environmental and social equity for both countries of origin and country destination to fit national peculiarities (Aubert, 2004).

Vorley *et al.* (2002) assert that sustainable trade transpires when international trade-off of goods and services creates economic, environmental and social benefits, reproduces the four benchmarks of sustainable development (generate economic value, reduce poverty and reduce inequality), regenerates the environmental resource base, and is carried out within an open and accountable system of governance. Constanza *et al.* (1995) affirm that these guidelines create a sustainable trading system by ensuring environmental and social safeguards in international trade-off agreements and incorporating social and environmental costs directly in trading practices.

According to the World Trade Organisation (WTO, 2016) the Technical Barriers to Trade (TBT) Agreement aims to ensure that technical regulations, standards and conformity assessment procedures are non-discriminatory and do not create unnecessary obstacles to trade. It recognises the right of countries to implement measures to achieve legitimate policy objectives, like international standards that facilitate economic growth, the protection of human health and safety, and measures that create a conducive or protective trading environment. The establishment of the United Nations Conference on Trade and Development (UNCTAD) in 1964 recognises that:

Economic and social progress throughout the world depends in large measure on a steady expansion in international trade. The extensive development of equitable and mutually advantageous international trade creates a good basis for the establishment of neighbourly relations between States, helps to strengthen peace and an atmosphere of mutual confidence and understanding among nations, and promotes higher living standards and more rapid economic progress in all countries of the world.

Sustainable trade remains a considerable challenge to developing countries like Ghana, where it is essential to ensure that domestic trade positively influences the socioeconomic development outcomes in individual countries. These explanations illuminate the core component of this research; that is, the non-existence of legitimate policy objectives in the Ghanaian second-hand clothing trade (Hansen, 2004; Baden and Barber, 2005; Frazer, 2008). The phenomenon of the Kantamanto market, the hub for the SHC trade in Accra, critically requires a safe and healthy market environment that nurtures economic activity and supports the social well-being of both traders and consumers.

Sustainable trade is a fundamental component of the 2030 Development Agenda, which has attracted the involvement of the World Trade Organization (WTO) and the commitment from the Heads of State and Governments. The 2030 Agenda for Sustainable Development consists of six key components; these are, a Declaration, 17 Sustainable Development Goals (SDGs), a set of 169 Targets linked to each goal, and a set of Indicators linked to each Target to measure progress in implementation, the Means of Implementation of the Agenda and, finally, a Review and Follow-up component. The 2030 Development Agenda is most prominently anchored on

implementation and delivering on the main goal of eradicating poverty (Goal 1). The SDGs are broader in scope than the MDGs and reflects the view that development needs to be economically, socially, and environmentally sustainable.

Agenda 2030 has five overarching themes, known as the five Ps *people, planet, prosperity, peace and partnerships*, which span the 17 SDGs, intended to cover all countries (ILO, 2018). Therefore, the true value of both international and local trade is interwoven throughout the SDGs, with explicit trade targets across SDG 2 on zero hunger, SDG 3 on good health and well-being, SDG 8 on decent work and economic growth, SDG 10 on reduced inequalities and SDG 12 on responsible consumption and production. The SDG target related to the informal economy including the SHC trade is SDG 8.3. This target seeks to promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalisation and growth of micro, small and medium-sized enterprises (ILO, 2018). However, many additional SDGs focusing on gradually formalising the informal economy include poverty reduction (SDG 1), gender equality (SDG 5), equality (SDG 10), institutions (SDG 16), and partnerships (SDG 17).

Even though some authors have argued that the informal economy provides an opportunity to marginalised groups to develop and assert power in alternative contexts to oppose actors in the formal economy who may be trying to monopolise sectors, the ILO (2018) argues that a continued growth in the informal sector would increase environmental pressures and exacerbate social exclusion and inequality, which is not sustainable for a country's development. The ILO underscored how work in the informal economy is carried out in small or undefined work places, under unsafe and unhealthy conditions, with low levels of skills and productivity, low or irregular incomes, long working hours and lack of access to information, markets, finance, training and technology. These situations are critical challenges to the rights of workers or traders to decent working conditions with negative implications for their businesses, public revenues, government's scope of action, soundness of institutions, and fair competition (ILO, 2018).

The conditions reflect the SHC trade in developing countries such as Ghana where the trade is carried out in an informal economy with a significant number of unregistered, unregulated or unprotected traders under labour rules and social protection. It is vital

to address the decent work deficits affecting the SHC traders in the Kantamanto market so that traders can have a chance to escape situations of working poverty. Again, to promote decent work, preserve the significant job creation and income generation potential in the local markets, there is need for an integrated strategy cutting across a range of policy areas and involving a range of stakeholders in the informal economy.

Achieving Goal 12 requires a strong national framework for sustainable consumption and production that is integrated into national and sectoral plans, sustainable business practices and consumer behaviour, together with adherence to international norms on the management of hazardous chemicals and waste (ILO, 2018). It means that the extent of waste generation through trade and consumption patterns is featured prominently in the new SDGs and has direct linkage to poverty in developing countries like Ghana. Therefore, the achievement of significant progress in the SDG targets requires critically addressing the waste problems in the local markets such as the Kantamanto market through extensive regulation, reuse and recycling solutions.

Five key opportunities for development in the SDG Agenda emphasise a renewed spirit of partnership, which includes global partnerships, partnerships at all levels, with all countries and stakeholders at all levels of society, private sector, research, academia and Civil Society Organisations (CSOs) (ILO, 2018). The Agenda requires individual states to build on their current policy instruments and frameworks to achieve the sustainable development goals and targets, by considering their distinctive national contexts and development levels. The discourse underscores the importance of integrating a broad spectrum of stakeholders, such as local businesses, local governments, and regional and international bodies in the SHC sustainable trade. It presents valuable instructions for the Ghanaian context, which urgently requires the participatory processes of relevant stakeholders for better planning and better-informed initiatives to achieve the goals of improved decent work life in the Kantamanto market.

3.5. Sustainable Consumption

The term ‘sustainable consumption’ entered the international policy arena in Agenda 21, the action plan for sustainable development adopted by 179 heads of state at the 1992 Rio Earth Summit (UNCED, 1992). Sustainable consumption requires a promotion of resources and energy efficiency, sustainable infrastructure and providing access to basic services, green and decent jobs and a better quality of life for all in developed and developing countries alike. Furthermore, sustainable consumption aims at “doing more and better with less,” net welfare gains from economic activities by reducing resource use, degradation and pollution along the whole life cycle and increasing the quality of life (UNCED, 1992). According to SDG 12, the implementation of sustainable consumption (and production) is to help achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty (UNCED, 1992).

The historical timeline of sustainable consumption adopted from the World Economic Forum (2013) Sustainable Consumption: Stakeholder Perspectives, shows how the concept of safeguarding the planet’s resources has evolved through recent history. The goals of sustainable consumption as captured in the historical timelines in the table 3.2 below emphasizes the central goal that all nations and peoples should combat environmental deprivation (filth) and its threat to human welfare and change socio-cultural practices (human behaviour) that do not develop cleaner and more efficient methods of consumption as affirmed by Oskamp (2000). The international environmental discourse on over-consumption in the developed world is usually implicated as a direct cause of unsustainability. However, the proposed solutions include promoting eco-efficiency and using market instruments for shifting consumption patterns (UNCED, 1992; OECD, 2002; World Economic Forum, 2013). It is also recommended that governments should develop ‘new concepts of wealth and prosperity which allow higher standards of living through changed lifestyles and less dependence on the Earth’s finite resources in harmony with the Earth’s carrying capacity’ (UNCED, 1992; World Economic Forum, 2013).

Table 3.2. Historical Timelines of Sustainable Consumption

Year	Proposed Sustainable Consumption
1798	An Essay on the Principle of Population, Thomas Malthus: In his seminal work, Malthus warned about the implications of an ever increasing population. “The power of population is indefinitely greater than the power of the earth to produce subsistence for man.”
1972	UN Conference on the Human Environment: “In our time, man’s capability to transform his surroundings, if used wisely, can bring to all peoples the benefit of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and human environment.” And further, “To defend and improve the human environment for present and future generations has become an imperative goal for mankind.”
1972	Limits to Growth, commissioned by the Club of Rome: This report proposed that one key element to a sustainable society would be for the world’s people to “moderate not only their demand for children, but also their material lifestyles... To achieve this change would mean that the globe’s people establish their status, derive satisfaction, and challenge themselves with goals other than ever increasing production and ever-accumulating material wealth.”
1987	UN World Commission on Environment and Development: This Commission highlighted imbalances in consumption and the challenge of bringing several billion into the mainstream economy. “Given population growth rates, a five- to tenfold increase in manufacturing output will be needed just to raise developing world consumption of manufactured goods to industrialized world levels by the time population growth rates level off next century.” Later in the report it is pointed out with prescience that, “Perceived needs are socially and culturally determined, and sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecologically possible and to which all can

	reasonably aspire.”
1992	UN Conference on Environment and Development: “The major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances.”
2002	World Summit on Sustainable Development: The closing statement called for countries to “Encourage and promote the development of a framework ... in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems.”
2003	Launch of the Marrakech Process on Sustainable Consumption and Production: This UN process was launched at the first international expert meeting on the 10 year framework held in Marrakech, Morocco, organized by the UN Department of Economic and Social Affairs (UNDESA) Division for Sustainable Development and the UN Environment Programme (UNEP). For nearly a decade, a coalition of willing countries has been working to promote sustainable consumption and production, especially through policy guidelines and in emerging economies.
2012	UN Conference on Sustainable Development (Rio+20): “We adopt the 10-Year Framework of Programmes (10YFP) on sustainable consumption and production. We invite the UN General Assembly to take any necessary steps to fully operationalize the framework.” After nearly a decade of moving ahead without formal agreement by all UN countries, the Marrakech Process 10-year framework is finally adopted as one of the few successes of a controversial Rio+20 Summit.

Source: Author’s interpretation for the research purposes (2018). (Adapted from The World Economic Forum, 2013).

Sustainable consumption is therefore influenced by utilitarian, cultural and social contexts (i.e. working life conditions, urban structure and daily life patterns) (Moisander, 2007). In practice, sustainable consumption focuses on decoupling economic growth from environmental degradation through market-based measures like polluter pay, eco-taxes, government purchasing initiatives, consumer education campaigns and voluntary eco-labelling schemes. In this context, there is a need for radical changes to lifestyles, infrastructure and social and economic governance institutions, in order to redirect development goals for general reduction in consumption levels and ecological footprints in a more localised, decentralised, smaller-scale, and oriented towards human well-being and environmental protection (Douthwaite, 1992; Schumacher, 1993).

Most Western countries or governments are committed to the issue of sustainable consumption, which are prominently environmentally and politically sensitive (e.g. producers are charged with taxes for the recapturing of their products after use in order to reduce waste volumes, promote recycling and development of lean products) (Sanne, 2002). For instance, in 2003, the U.K. government announced a strategy for sustainable consumption and production which was defined as: 'Continuous economic and social progress that respects the limits of the Earth's ecosystems, and meets the needs and aspirations of everyone for a better quality of life, now and for future generations to come' (DEFRA, 2003; Demetriou, 2003).

Presently, consumption is increasing daily, particularly consumption of clothing, food, shelter, travel, sport, and leisure. These are starting points for sustainable consumption from a real life perspective to familiar lifestyles of consumers. Modern consumption patterns are clearly unjust and unsustainable (Seyfang, 2003a; 2004a). This is strongly linked to market-liberal perspectives, which requires governments to provide regulatory frameworks to influence producers to be eco-efficient or provide choices of green products to consumers. According to Jost (2006) making sustainable consumption choices is articulating a moral foundation or political orientation, which affects even the decision of a consumer's wardrobe. These consumption decisions are usually motivated by moral concerns that are projected as overtly or covertly political and socially responsiveness across a broad range of issues (Stolle *et al.*, 2005).

Sustainable consumption (or production) is therefore the efficient production of goods for ethical consumption driven by a market transformation that incorporates both social and environmental concerns when making purchasing decisions. Furthermore, it requires individual consumers, businesses, non-governmental organisations (NGOs) and governmental policy-makers to make political and environmental consumption decisions based on sustainable principles. In a nutshell, everyone is accorded with the duties of sustainable consumption behaviour and responsibility for an effective environmental stewardship. Governments and businesses are required to play the critical role in constructing the field of consumption to satisfy consumers who make deliberate choices based on market place conditions. In the broadest sense consumers' engagement is conceptualized in their sustainable consumption behaviours, lifestyles and trade practices. Therefore, it can be argued that sustainable consumption helps in developing a sustainable trade perspective to avoid drawbacks to environmental development in the globalizing world.

However, in developing countries like Ghana, and particularly the Kantamanto market, the non-existence of schemes of supports and taxing which are productive to environmental developments or sustainable consumption is a major challenge. The pragmatic solution to contribute to the gap in sustainable consumption behaviour must include, quality SHC in the market place and environmental convenience. Similarly, SHC traders must demonstrate socio-economic point of view or principles through their trade decisions and performances to express their ethical and sustainability beliefs to avoid drawbacks to the Kantamanto market environment. By bringing sustainable consumption issues to the fore, this thesis connects in a relevant way to the greater significance of several sustainable development debates and critiques, which have deep-rooted economic, environmental and social concerns. The subsequent section interrogates critiques and debates against sustainable development concepts and principles.

3.6. Critiques of Sustainable Development

Many scholars have interrogated the definitive failure of sustainable development concept and its lack of responsiveness to the excessive consumption patterns particularly in the West. For example; Fernando, (2003, p.19) argues that:

Our current understanding of the relationship between overconsumption, underconsumption and sustainable development [...] remain narrow and misleading” and that “maximization of capitalist profit and environmentally sustainable and equitable consumption cannot be achieved simultaneously.

Sustainable development also is criticized as a modification of a flawed theme “different constellation of the same elements” (Nustad, 2001: p. 481) and a mere ‘siren song’ – an attempt to repackage a failed approach with enticing language of care for the environment and a respect for the rights of future generations (Hove, 2004).

Sustainable development contains elements of both radicalism and reformism. As a result, ships of very varied allegiance are sailing cautiously under the same flag, and the destination is rarely debated.

(Adams, 1995, p. 98).

The above quote captures the contentions about the approach and expectation of sustainable development concept. There are widespread concerns and criticisms of the concept of sustainable development and its practical meaning. As Myerson and Rydin quizzes:

does the discourse around the concept of ‘sustainable development’ represent a cultural oxymoron, a conflation of policy goals from the distinct economic and environmental policy arenas, or is it an innovative step forward in policy thinking which provides new opportunities for goal achievement?

(Myerson and Rydin, 1994, p. 439).

Hove (2004) asserts that sustainable development is a Western concept, propagating the ethical underpinnings to remedy a set of problems through an imposition of associated rhetoric over the rest of the world, which is not morally acceptable. This suggests that the concept places a premium on economic growth over the environment with an ineffective attempt to interlock two paradoxical accomplishments: environmental protection and economic growth (Hove, 2004). The failure to reconcile the inconsistency in these dimensions is a serious underdevelopment or inequity, a continued growth without meaningful reform (Moore, 2000; Hove, 2004). However, Escobar (1995: 195-6) articulated that, “by adopting the concept of sustainable development, two old enemies, growth and the environment, are reconciled”. By this, Escobar advocates that improvements to the concept of sustainable development requires the consideration of changing philosophies about economic growth, environmental protection and other social relations, which perpetuate equality and endorses the expectations of planning and policy frameworks.

However, the application and achievement of sustainable development is seen as problematic and criticised as ambiguous, particularly within the oratorical environmental and social policy planning (Brandon and Lombardi, 2005; Richardson, 1997). Haughton and Counsell, (2004) further argued that sustainable development lacks distinctive meanings at different scales and contexts and particularly not well-defined in policy procedures with measurable goals. Van den Bergh (2011) argues that the ambiguity of the sustainable development concept is counterproductive to the complex nature of national planning, and limits policy practitioners at international, national and local levels. Even though sustainable development has a singular definition that mirrors the continuing significance of social and environmental development, it fails to provide a framework for action or focus making it simply a loose concept of an ideal situation (Richardson, 1997). According to Hove (2004), sustainable development is doomed to failure because of its implementation by imperfect human beings to help those in abject poverty without a clear framework of implementation.

The above critiques make genuine inferences of ambiguity to the effectiveness of sustainable development policy frameworks, which fails to articulate specific and tangible ways to realization. The arguments engender negative impacts on the complex and changing environmental dynamics affecting livelihoods and well-being

(Annamma *et al.*, 2012). Most critically the arguments suggest a failure of the sustainable development concept to alleviate major difficulties like poverty, inequality and subsistence living or resource scarcity particularly in developing countries. The intellectual legitimacy of the critiques of sustainable development concept requires the integration of economic development, environmental resources protection and social well-being planning (Elliott, 1999) as this thesis seeks to accomplish. The major answer to the ambiguity of the concept of sustainable development is to provide valuable organizing recommendations or conceptual frameworks that deliver a typology of meanings that set out the integration of the three dimensions of sustainable development.

Exploring these critiques in the literature review is to recognize the wider significance or benefits for gravitating more towards socio-environmental centres in the interests of the SHC trade. The contextualization of the SHC trade practices in sustainable development is critical to open up a new social and environmental protection agenda in the global SHC trade to interrogate and contribute to the discourse on sustainable behaviours and consumption trajectory.

3.7. Development of the (SHC) Trade

[The] Second-hand clothing trade may have a long history but not one of unbroken continuity between past and present.

Fontaine (2008, p. 222)

This section of the literature review provides insights into possible development trajectories for current SHC trade practices by considering key historical moments in the development of the SHC from the perspective of contemporary sustainable development. This section considers the historical developments, current significance and trends that provide the context for future thinking of sustainable SHC trade. It provides a basis for contribution to significant knowledge of sustainable SHC trade in a broader context. A number of discourses are reviewed in this section from scholars like Ginsburg (1980), Sanderson (1997), Lambert (2004) and Lemire (2012) among others on the historical developments of the SHC trade which offer essential knowledge on the development of the second-hand clothing trade practices that could influence a more sustainable contemporary trade.

Many scholars have asserted that during the Early Modern period (1500 -1830), England was the centre of a broadly based urban advancement with extensive networks of distribution and consumption of second-hand clothing that stretched from metropolitan London to the urban areas in Northern England and exports to Ireland (Ginsburg, 1980; Lambert, 2004; Lemire, 2012). The trade was largely informal, and as it progressed it became an increasing commercial nuisance, characterised by unsustainable trading practices, without authorisation, and in defiance of the city regulations (Lambert, 2004; Lemire, 2012).

Used clothes trading practices were carried out by anonymous (non-registered) traders, street peddlers or itinerants in a heterogeneous urban environment, as peddlers characteristically perambulated the streets of the metropolis crying “Old Clothes”. Their trading practices were outside of the constraints of conventional commercial practices and flouted the organisation of the urban statutes (Lemire, 1988; Styles, 1994; Sanderson, 1997; Toplis, 2010; Lemire, 2012). The implication of this was that SHC trade practices affected the environmental sustainability of the urban centres. During the period, the trade offered an option for individuals to settle the cost of their estates after death or insolvency (Lambert, 2004; Frick, 2005). Piles of used underwear, scarves, bed linen and other washable items were sold along the commercial avenue streets (Ginsburg, 1980; Sanderson, 1997; Lambert, 2004; Wottle, 2010); this infers that consumers had to rummage through piles of unsanitary clothing and linen on the streets.

Fontaine (2008) notes that the era witnessed how used clothes were retrieved from people who died of illness and were neither disinfected nor cleansed of soil and tuberculosis spittle. Used clothes were the most morbid and proliferating source of bacteria, with reports of customers encountering traces of bodily fluids, disgusting odours and parasites. Hentschell (2008) also records that there were concerns that imported clothes from France, Spain and Italy to England represented decadence and were linked to both to venereal disease and a debilitating ‘foreign’ ostentation. Country girls typically wore imported used clothes to ply their trade as prostitutes in the city and thus this type of clothing became specifically associated with sexually transmitted diseases and stigmatised as filthy in the 1830s (Strasser, 2000; Toplis,

2010). Accounts such as these highlight the unsanctionable trade practices that existed in pre- industrial U.K.

In this same period, various scholars asserted that the trade in used clothes was concealed at the bottom of the retail hierarchy and satisfied the clothing needs of the typically lower sections of urban society (Lemire, 1988; Lambert, 2004; Lemire, 2012). For example, in London the trade was mainly clustered around the seven thousand square feet area of Houndsditch, Rosemary Lane and Cutler Street (Lambert, 2004). Similarly to the observations in Edinburgh, the traders were concentrated around the St. Mary's Wynd, which is now St. Mary's Street in Edinburgh (Ginsburg, 1980; Sanderson, 1997). The used clothes trade served as a unique thriving micro enterprise vehicle for entrepreneurs particularly women; wives and widows in a wide range of operatives like pawnbrokers, auctioneers, shopkeepers and various sections for retailing, cleaning and altering, repairing, mending and recycling as rags or quilts (Ginsburg, 1980; Palmer and Clark, 2005). Also, legions of plebeian women were actively involved in mending used clothes with their children and selling them on the streets (Vickery, 2009; Lemire, 2012). However, in 1826, a bill was published to regulate and improve the commercial spaces and the trade practices by registering various traders, introducing official licenses and giving notices by writing names and places of businesses. Councils also legislated that used clothes like bedclothes were washed before they were sold to the public (Lambert, 2004).

Economic growth during the Industrial Revolution period relied significantly on the production and consumption revolution for new manufactured goods which caused a shift from the preference for used clothing items. The continual marketing of new products resulted in a dramatic increase in the disposal of used items particularly clothing products (Lemire, 1988; Shammas, 1990; Strasser, 2000). Lemire (2012) argued that by the nineteenth century, new clothing production and the dispersal of surplus worn garments propelled the intersection of charitable donations and profitable international trade in used clothing across the globe. In the same period, recycling emerged and played a critical role in the development of the used clothing trade (Lemire, 1997; Lambert, 2004; Stobart and van Damme, 2010). Ginsburg (1980)

affirmed that by the third quarter of the century, huge amounts of used clothes were recycled and the best rags came from Yorkshire in England.

The developments of the 'Nearly New' or 'Charity Shop' concept is also traced to the late nineteenth century, when General Booth, Founder of the Salvation Army organised teams of men to collect used goods considered as waste from well-to-do Victorian homes for sale which promoted the growth and development of the charity shop concept (Horne, 2000). Indeed, the charity shop concept as it is known today was a post-1945 phenomenon adopted from a Canadian model and pioneered in the U.K. in the Bermondsey depot (Horne, 2000). Ginsberg (1980) emphasised that the charity shops were housed in rent-free outlet properties, freely given stocks, volunteer staff and the concept presented a respectable opportunity for the poor to patronise used clothes without feeling undignified. The concept of charity shops made choice of used items easy, as the wares were well arranged to a good advantage and every article priced to avoid haggling and beating down of prices by consumers (Horne, 2000).

Following the Second World War, the intersection of charitable donations and profitable international or export trade of used clothes was influenced a great deal by the activities of charitable organisations (Lemire, 2012). The intersection of charitable donations and the international trade of used clothes rapidly became prominent owing to the prevailing profitability trend. This development came with the second-hand clothing (SHC) trade by some global charitable organisations and private entrepreneurs who shipped bales of used clothes of various qualities, sizes and types of garments across global markets (Hansen, 2000a; Lemire, 2012).

3.7.1. Economic Liberalization and SHC Trade Development in Developing Countries

Many other scholars have argued that in the 1980s and 1990s, during the wake of economic and trade liberalization particularly in Sub-Saharan Africa countries, local infant industries were prematurely exposed to global competition with comparatively mature global industries, which precipitated deindustrialization, urban poverty and deprivation (Simon, 1995; Tevera, 1995; Hansen 2000a; Myers, 2011). Through the economic and trade liberalization policy, the International Monetary Fund, World Bank, WTO, and Western governments ensured the removal of trade barriers, opened up markets and free trade regimes in developing countries. These limitations on the policy space reduced the capacity of developing countries to experiment with key industrial policies and raise the incomes of their inhabitants (Shadlen, 2005; Shafaeddin 2005).

Shafaeddin (2005) attested that most of the developing countries in Sub-Saharan Africa particularly experienced slow or negative growth in the manufacturing sectors. For the decades of the trade liberalization policy (between 1960–80 and 1980–2000) under the guidance of the IMF and the World Bank, the average growth rate fell from 3% to 1.5 % in the developing countries (Shafaeddin, 2005). Furthermore, before the economic liberalisation, growth rate in Sub-Saharan Africa was 2.5 % during the 1960–1980, compared to the period after the economic liberalisation; 1980–2000, which witnessed declined annual growth rates of 0.7% (Shafaeddin, 2005).

The relationship between economic and trade liberalization, decline in clothing/textiles manufacture and SHC growth has been an ongoing theoretically controversial subject. In unravelling this contested relationship between the increase in SHC imports and the decline of African clothing industries by Brooks and Simon (2012), they argued that the outcome of the economic liberalization policies of the late 1980s and early 1990s opened most sub-Saharan African clothing factories and productions to external competitions. Brooks and Simon (2012) further asserted that the same macro-economic interventions that led to the closure of unprotected factories also opened up the African markets to the SHC trade. It is incontrovertible that the complications of economic liberalization policies had consequential de-industrialisation; a decline of most of the clothing manufacturing industries with associated unemployment and excessive growth of cheap or affordable SHC

importation in sub-Saharan Africa over the same period as affirmed by Onimode, (1988), Traub-Merz (2006) and Frazer (2008).

Numerous examples of the relationships between economic liberalization, decline in clothing/textiles manufacture and SHC growth have been investigated in many African countries by several authors. For instance, the decade of economic liberalization in Mozambique was accompanied by population growth, exacerbation of poverty and scarce local jobs (Brooks, 2013; Cunguara and Hanlon, 2012). In the 1990s, Kenya's liberalization reform was commended by the IMF and World Bank as a good example for other developing countries to follow. However, during the period, clothing production and export was susceptible. Textile Production stagnated from the mid-1980s and fell sharply after liberalization in the early 1990s (Kinyanjui *et al.*, 2004). The sector employed more than 200,000 workers, but by the end of the decade it was dwindled to 35,000 workers (Girdner and Siddiqui, 2008; Otieno 2006).

Tanzania is one of the African countries that implemented economic reforms in the mid-1980s (Mkenda, 2005). The government decision to liberalise trade and investment policies witnessed a shutdown of many companies that could not withstand competition from imported textiles. For example, the number of textile firms reduced from 35 to 2 in 1996 leading to underutilization of local cotton products and reduction in employment and income generation (Mkenda, 2005). Hansen (2000b) also stated that, key socio-political and economic lapses during the era of economic liberalization attributed to the death of the textiles and garment industries in Zambia. The Nigerian clothing and textile industry similarly faced production challenges and periods of decline during the 1980s and 1990s (Andræ and Beckman, 1998). Similarly, in Ghana, major textile industries in the 1980s were rivaled by the importation of SHC as about 90% of Ghanaians purchased second-hand clothing (Haggblade, 1990; Baden and Barber, 2005) as stated earlier in chapter 2.

The above examples reveal the broad economic pattern across Africa countries and ample confirmation of the lack of protection of local industries due to free market principles during the economic liberalization period by most African governments. The lack of protection of the local industries led to restricted production of local

textiles for the local market, diversification/ foreign investor takeovers, heavy dependence on imported raw materials coupled with high import tariffs on machinery and raw materials such as dyes, chemicals and artificial fibers, high interest rates and the lack of domestic credits, extensive smuggling of cheap imported textiles and garments were influential to the growth of the SHC trade (Hansen, 2000b). The economic performance of the apparel and textiles industries in developing countries had large impacts on employment opportunities, the development of small- and medium-sized enterprises (SMEs) and spillovers into the informal sector (UNCTAD, 2005).

The economic or trade liberalization policy in Sub-Saharan Africa occurred at a much faster pace largely due to pressure from foreign donors than some Asian countries like India (Mkandawire and Soludo, 1998; Jomo and Von Arnim, 2011). Local markets in sub-Saharan African countries like Ghana that were equally compelled by donor bodies in terms of formulating economic and trade policies/ tariffs that negatively impacted on their clothing and textile industry were flooded with disproportionate importation of cheap low-grade SHC from Europe, America and Asia (Brooks, 2015). The accelerated growth of the SHC trade became the main source of income as it provided about 86% to 90% of total informal employment opportunities for many people particularly women who engage in selling in the urban markets, outside the marketplaces, and in the streets. (Hart, 1973; Robertson, 1984; Akyeampong, 2000; Clark, 2000; Baden and Barber, 2005).

The South East Asian textiles sector has much in common with the African discourse and could be positioned near the other end of the spectrum. For instance, the Philippines was a major producer of textiles in Southeast Asia in the post-World War II period with Export Orientated Industries (EOIs) from the 1970s (Ofreneo, 1993). The Philippines textiles sector growth was fuelled by the government's programme of promoting EOIs under a "labour-intensive export-orientated" (LIEO) policy regime (Ofreneo, *et al.*, 1996). The sector experienced a decline in growth through the World Bank's Structural Adjustment Programme (SAP) in 1980s and 1990s when the government lifted varied ISI-style import restrictions and reduced tariffs on imports under a radical Tariff Reform Program (TRP) which made the Philippines one of the most open economies in the world (Fair Trade Alliance, 2006).

Another example is the Indian textile sector, which was predominantly unorganized with massive unemployment during the period from 1980-1981 to 1990-1991 as confirmed by Papola, (1994) and Kannan and Raveendran, (2009). The scenario changed after the economic liberalization period through the Indian Textile Policy of 2000 to improve competitiveness of garment manufacturers, remove the restrictions and encouraged international textile companies to set up base in India (Dun and Bradstreet, 2012). The mercantile tradition of colonial India textile sector was better developed than sub-Saharan African countries owing to a diverse raw material base (availability of indigenous cotton), cheap labour, ever-growing domestic market, better technologies and machinery (Kasi and Chitra, 2016).

Any attempt at recapturing and revamping the declined domestic clothing/textile manufacture in Sub-Saharan Africa will require strategies or policies to protect the local industries from competition and enable local industries to flourish in the local markets. It is important to build control mechanisms while attempt to access large markets through regional integrations like East African Community (EAC) and Economic Community of West African States (ECOWAS). Furthermore, an approach that involves nurturing the sustainable development or ethical principles in the SHC trade is critical for the overall development of the clothing/textiles sector in sub-Saharan Africa. The sustainable development or trajectory of the SHC trade from the Western perspective is investigated in the ensuing section in order to connect to underlying economic systems in developing countries like poor commercial practices, unregistered and unlicensed traders (economic), improper structural organisation (environmental) and poor health standards (social) that do not support sustainable practices in the trade.

3.7.2. Emergence of Sustainable SHC Trade

In the twenty-first century, global environmental emphasis on clothing production and consumption emerged with ethicality and sustainable fashion to form an integral part of the larger trend of environmental friendliness or eco-efficiency (Allwood *et al.*, 2006; Fletcher, 2008; Tomaney and Thomas, 2010; Gwilt and Rissanen, 2011). Sustainable (ethical) fashion tradition or trading patterns of modern fashion consumption patterns, considers the pre- clothing production and post- clothing

consumption practices by industry players (Tomaney and Thomas, 2010). The substantial lesson for clothing industry is for clothes to be fashionably stylish as well as environmentally correct (Fletcher, 2008). Even though fashions change, styles emerge and are replaced by new fashionable styles, the infinite drive for these is further propelled by low prices, low quality, faster trend cycles and planned obsolescence (Fletcher, 2008) towards social stratification and mobility (Sproles, 1981). This disproportionate situation has created an escalation in the unsustainable or unethical peculiarity of the fashion industry (fashion worn too little, washed too often and quickly discarded), with consumers worldwide spending over \$1 trillion on clothing annually (Allwood *et al.*, 2006).

The concepts of sustainability or ethicality seek the maximisation of positive impacts, abate negative impacts along the clothing supply and value chain (production, manufacture, transport, retail and end-of-life management) and maintain health and safety standards within the second-hand clothing (SHC) trade as a critical subject of sustainability and ethicality principles in the West. (DEFRA, 2008). Farrer and Fraser (2011) affirmed three benchmarks primarily used to qualify clothing as sustainable, thus, decrease environmental impact, promote social equity and secure economic world profit. These principles are not divergent to the International Standards Organization's definition of sustainable fashion or eco-fashions (environmental friendliness). The International Standards Organization (in Scott and Dhanda, 2013, p. 175) defined sustainable fashion or eco-fashion as:

identifying the general environmental performance of a product within a product group based on its whole life-cycle in order to contribute to improvements in key environmental measures and to support sustainable consumption patterns.

The clothing industry is challenged by unsustainable (unethical) practices that increase the environmental impact, social inequity and economic privation through production, consumption and disposal practices (Scaturro, 2008; Reiley and Delong, 2011). Beard (2008) argued that the production of clothing involves a long, complex global system and highly extensive chain of continual buying, using and disposal generating more clothing waste for charities who are benefitting immensely from donations of these clothes (Schor, 2005; Allwood *et al.*, 2006; Fletcher, 2008;

Scaturro, 2008; Farrer and Fraser, 2011; Siegle, 2011). This consumption flank within the Fashion Supply Chain (FSC) is ascribed to the quick turnover of clothing production and innovative fashion style speed in the fast fashion sector, which raises legitimate concerns about sustainability (economic, environmental and social) (Fineman, 2001; Allwood *et al.*, 2006; Birtwistle and Moore, 2007; Lee, 2007a; Carter and Rogers, 2008; Hethorn and Ulasewicz, 2008; Niinimäki, 2010; Tomaney and Thomas, 2010; Gwilt and Rissanen, 2011; Annamma, *et.al.* 2012).

Sustainable development in the fashion industry examines the pre-purchase, purchase and post-purchase consumption systems (Jacoby *et al.*, 1977) in the global scope which is linked to a litany of abuses (e.g., poor wages, industrial pollution, excessive working hours, denial of trade union rights, and child labour, among many others) (De Brito *et al.*, 2008; Hethorn and Ulasewicz, 2008). Gwilt and Rissanen (2011, p. 27) also affirmed that:

The fashion industry epitomises unsustainability with its fast-changing trends, high minimums and planned obsolescence, contributing millions of tonnes of clothing to the landfill, incineration and third world dumping.

These concerns have not curtailed the excessive production of cheap quality clothing products, therefore, the need to conceptualise sustainable development to encourage the use of clothing or fashion products until the end of their natural life. Sustainable development of fashion consumption ultimately offers an opportunity to participate in and think about the global impacts on considerable profit generated through immense clothing production and waste generation (Jackson, 2009; Cohen 2011). De Brito *et al.* (2008) argue that sustainable behaviour in the clothing/fashion industry requires activities of all major stakeholders; suppliers, manufacturers, retailers and post-consumption actors (recyclers and charities). However, post-consumer clothing waste (*second-hand clothing*) which includes any type of household garment or textile discarded forms the fastest growing stream in clothing or fashion waste (Hawley, 2006; DEFRA, 2007). This growing stream in used clothing waste volumes (*second-hand clothing*) usually has about 70% of its useful life left (SATCOL, 2004) and offers enormous potential for clothing and textiles waste management strategies (*regulating/reduction, reusing and recycling*) (Fletcher, 2008), which is significant to the development of a sustainable second-hand clothing (SHC) trade.

Second-hand clothing (SHC) are commonly generated from items that have become outmoded in style, cut or fit and are normally referred to as waste in Europe and North America particularly (Gregson, 2007). These clothing/textiles waste accounts for 10% of consumers' environmental impact; therefore, environmental concerns are the primary impulse for reusing used clothes instead of putting them into landfills (Allwood *et al.*, 2006; EIPRO, 2006; EDIPTX, 2007). For example, the U.K. generates approximately about two million tonnes of clothing waste per annum (DEFRA, 2006) of which over one million tonnes end up in landfill sites annually (Waste-Online, 2006). SHC disposal is an increasing problem in the U.K. (DEFRA, 2008) and there has been continuous development of clothing standards to meet social and environmental requirements by the U.K. Department of Environment Food and Rural Affairs (DEFRA), which launched the sustainable clothing roadmap in 2007. The aim is to provide directions to improve performance across the clothing supply chain from design through to end-of-life management (DEFRA, 2011a). Cuc and Vidovic (2011) assert that, charities and local governments in the U.K. have increasingly instituted eco-friendliness (environmentalism) and clothing waste recycling initiatives through several different systems of collecting general clothing waste.

SHC collection is often referred to as not-for-profit by organisations such as charities or NGOs and commercial re-processors (Wicks and Bigsten, 1996; Farrant, 2008); the major used clothing collectors in the U.K. like Oxfam, the British Heart Foundation, Cancer Research, and the Salvation Army collection clothing waste mainly through drop-off centres, door-to-door collections and in-store collection. The collected clothing waste is sorted and graded into good-quality clothing and shoes, which can be reused. These charitable organisations prefer to trade the overwhelming amounts of used clothing donations to SHC processing firms to raise funds for investment in charitable development projects and an eventual potential lifetime source of clothing for people in the developing countries to ensure economic growth and poverty alleviation (Hansen, 2004; Brooks, 2013).

The commercialisation of these donations known as the SHC trade is linked to environmentalism in the Western countries, which is normally positively captioned as being sustainably equitable (Norris, 2012). For example, Oxfam's publicity tries to connect the profitable second-hand clothing (SHC) trade to sustainability

(environmentalism) (Oxfam, 2011). The U.K.'s sustainable SHC policy allows charities to sell unsold SHC stocks to overseas markets like Africa, Asia, Eastern Europe and the Middle East regularly in accordance with their ethical supply policy (Oxfam, 2011). The social enterprise *Frip Ethique* (Ethical cast-offs), established in 2006 by Oxfam in Dakar, Senegal is a ground-breaking model for exporting second-hand clothing (Norris, 2012). About 15% of Oxfam's stock of SHC is sold to *Frip Ethique* for re-sorting and sale in the local market and further down the supply chain, the end profits are fed into Oxfam's poverty alleviation projects. 'Advance Aid' was established as a charity in 2009 with the aim of making the provision of humanitarian relief in Africa more effective (Norris, 2012; Hill *et al.*, 2015).

From the 1980s, there was an increase in commercial SHC trade owing to the expansion of the international SHC trade in developing countries, particularly Africa, where used clothes constitute an effective market for the urban poor (Hansen, 2004). Many charitable organisations experience yearly increase in clothing donations as individuals donate large volumes of low-value or poor grade clothes which normally cannot be worn again into clothing bins, at vantage points of communities or in front of charity shops (Gregson and Beale, 2004). Approximately one million tonnes of household textiles (used clothes) are thrown away annually in the U.K. (WRAP, 2013) due to the transformations in the fast fashion production chain (Schor, 2005; Siegle, 2011).

These generous amounts of donated SHC are generated annually in the U.K. from household waste (WRAP, 2012) for humanitarian aid. Between 2.5 and 2.7 million tonnes of textiles are consumed annually in the U.K., with an average of 1.1 and 1.4 million tonnes comprising clothing waste (WRAP, 2013). SHC are collected and sold by charitable organisations to commercial re-processors of second-hand clothes or intermediary import-export firms such as Precycle in Reading, U.K. for reprocessing and exports (Wicks and Bigsten, 1996; British Heart Foundation, 2011). Most charitable organisations also have their own industrial processing export facilities such as Oxfam Wastesaver in Huddersfield, U.K. (Norris, 2005). Many charities see the collection of SHC as a convenient, professionally organised and vital way to raise income, hence their core activities include outsourcing clothing collection to commercial recyclers for overseas exports (Norris, 2012; Brooks, 2013).

The collection is a significant contribution to the textile-recycling (sustainable) policy governing the environmental and social sustainable use of textile resources and wastes (WRAP, 2011, 2012; Palm *et al.*, 2014; Watson *et al.*, 2014) in Northern Europe particularly in the U.K. According to Brooks (2015), considerable amounts of donated clothes are sold in each one of the U.K.'s 10,000 charity shops, while far more than 70% form part of the world's multi-million-pound SHC trade market which is characterised by very poor-quality, low-grade often non-wearable, usually stained, dirty and smelly clothing destined for the urban poor in developing countries including Ghana (Hansen, 2004).

There are, however, clearly competing claims as to what constitutes proper ethical or sustainable practice in the SHC trade (Norris, 2012). Proper ethical value for imported SHC objects requires that items meant for export are evaluated through environmental values in a completely new way, for example redesigning the low-grade or leftover materials into eco-materials and recycled products (Niinimäki, 2011; 2013). A sustainable value-based approach is critical to provide best practices in the existing SHC trade practices to increase the environmental and social value of imported SHC products at the consumption side of SHC. The prevention of environmental and social risks in developing countries requires dedication to an effective sustainable transformation process.

3.7. 3. Global Scope of SHC Trade

The global SHC trade is growing in staggering proportions propelled by rapid fashion circulation, consumption, disposal, collection and processing by firms and charities in the Western countries (Norris, 2010). About 3% of the weight of U.K. household waste is estimated as containing 1.5 million tonnes of discarded clothing (North, 2014). Global trade in SHC has grown steadily over the last decade and half, with worldwide exports reaching \$4.8 billion in 2015, according to UN Comtrade, the UN Commodity Trade Statistics Database. The United Arab Emirates (7.3%), Pakistan (5.0%) and India (4.4%) are the top importers. In 2015, East Africa imported \$151 million worth of used clothes and shoes, mostly from Europe and the United States. At least 70% of donated used clothes end up in Africa with a combined 36.1% of the

global share, the United States, the United Kingdom and Germany were the top three used clothes exporters in 2015.

Approximately 351 million kilogrammes of clothes are traded annually from the U.K. (Schor, 2005; Siegle, 2011; Brooks, 2015) with approximately one million tonnes of used clothes thrown away annually (WRAP, 2013). The U.K. is the second largest SHC exporter for profit after the U.S.A. with exports of more than £380 million (\$600m) to overseas markets in 2013 (Fashion United, 2014) and the highest exporter in Europe (Ouvertes Project, 2005). The U.K. Trade Association asserts that around 100 million was raised through charity shops in 2012 and 2013 as a result of the sale of donated SHC to textile collectors. The U.K. textile recycling industry is important to the economy locally, nationally and internationally with an estimated 5,000 people employed directly while 100,000 people volunteer in the charity retail sector.

SHC are sorted and graded into various grades:

- Grade A used clothes and are normally destined for Eastern European countries
- Grade B are exported to Africa
- Grade C are exported to the Middle East and
- Grade D are recycled for industrial use (Hansen, 1995; Brooks, 2013).

The SHC are fumigated and compressed, weighed, labelled and bound into tightly packed 55 kilo and 100 kilo bales, classically in white, green and yellow bales with the flags of their countries of destination printed on them. These sealed bales are normally sold unopened to local traders making their values particularly hard to judge (Hansen, 1995; Norris, 2005; Brooks, 2013). The present categorisation and revaluation of SHC into reprocessed clothing before their sale and export reveals the productive venture of importers, local market retailers and itinerant sellers (Hawley 2001, 2006). These used clothes are typically packed into 45kg or 55kg bales that are the industry standards with the bales containing same or similar garment types including t-shirts, jeans, blouses, shoes and many others (Hansen, 1995; Baden and Barber, 2005; Norris, 2012; Brooks, 2013).

The global SHC export from OECD countries stood at \$1.9billion in 2009 (UN Comtrade, 2011) representing about 5% of the total global trade and more than 25% of the value of all clothing imports (Baden and Barber 2005). The global trade value increased from \$1.26 billion in 2001 to an escalating US\$4 billion in 2012 (in Norris, 2015). According to Brooks (2015) the global wholesale of the SHC trade is valued at more than £2.8 billion. Exports of used textiles from the U.K. have grown nearly fivefold in the last 20 years or so: from around 75,000 tonnes in the mid-1990s to around 350,000 tonnes in 2014. The rest of the growth has come from exports to Pakistan, which contributed 25% of the 10-year increase and exports to sub-Saharan African, contributing another 25% of exports to the Ivory Coast, Togo, Ghana and Benin.

An estimated 64.5% of SHC exports are absorbed by developing countries through imports and the share of sub-Saharan Africa (SSA) in total world imports of used clothing was about 20% in the early 2000s (Baden and Barber, 2005). It is an important economic factor, providing livelihood for more than a hundred thousand people in developing countries as they are usually sold at 10-20% of the price of new clothes (Baden and Barber, 2005). Global SHC trade remains a perceived tangible disincentive consequence for the national economies of most developing countries where there are textile-manufacturing industries (Oxfam, 2011). The SHC sale prices average 3.7% of the costs of new comparable new clothes; hence over 70% of the world's population (4.2 billion people) use SHC (Brooks and Simon, 2012).

The SHC trade accounts for approximately 60% of clothing purchases in Ghana (Baden and Barber, 2005) which is among the top five destinations for SHC exports in the world (Brooks, 2015; UN COMTRADE, 2011). Ghana's import of used clothing is \$125 million with 3.0% import share of the global SHC making it among the top five in the world and the second highest importer of SHC from the United Kingdom (U.K.) (40%), Canada (9.9%), The Netherlands (9.8%), South Korea (7.7%), Germany (7.0%), the U.S.A. (5.2%), China (4.9%), and others (15.5%) (OECD, 2014) (See Table 3.1).

Table 3.3. Import Origins of Second-hand Clothing (SHC) to Ghana (2014)

GHANA'S SHC IMPORT ORIGIN	PERCENTAGE (%)
UNITED KINGDOM	40.0
CANADA	09.9
NETHERLANDS	09.8
SOUTH KOREA	07.7
GERMANY	07.0
UNITED STATES OF AMERICA	05.2
CHINA	04.9
OTHERS	15.5

Source: Adapted from OECD (2014).

About \$65 million was spent on importing SHC from the U.K. in 2013 as they are considered of higher quality, have more variety, and are better fitting than those from other originations (Wilde, 2014). During the last five years the imports of Ghana have decreased at an annualised rate of -100%, from \$13.7 billion in 2011 to \$11 billion in 2016 (OEC, 2018). The U.K. exports 13% of used clothing to Ghana with an export value of \$9.6 Million. Used Clothing is the 521st most traded product and the 860th most complex product according to the Product Complexity Index (PCI) (OEC, 2018). The top exporters of Used Clothing to Ghana are the United States (\$575M), the United Kingdom (\$477M), Germany (\$388M), South Korea (\$270M) and China (\$218M). Ghana operates a relatively free market with imports at \$12.5 billion, making it the 86th largest importer in the world in 2016 (OEC, 2018). The top importers are Pakistan (\$239M), Malaysia (\$148M), Russia (\$116M), Tunisia (\$104M) and the Netherlands (\$98.9M) (OEC, 2018).

SHC trade practices (collection, sorting, grading, baling and exportation) of Western textile recyclers impacts on markets in developing countries through the exigency of wearable clothes by the urban poor, the lack of clothing/textiles waste management policies/practices and ineffective trade regulations, fluctuating currency exchange rates (financial risks), external fluctuations and deprived quality control (lack of standardised goods) in the Ghana (Baden and Barber, 2005; Norris, 2012; Brooks,

2013). The declining quality of SHC imports in the West is attributed to the shortened product lifecycle resulting from excessive consumption of cheap fast fashion which evolves from the seasons in a year (Baden and Barber, 2005; Norris, 2012). These heterogeneous low-grade SHC imports offer low-income value and do not provide incentive for local traders and are usually discarded as municipal waste with a deficiency in recovery and reprocessing operations.

The global facet of the SHC trade has a direct bearing on the sustainable development of the SHC trade practices, therefore, the critical concerns about the integration of the sustainable development dimensions (*economically, environmentally and socially*) within developing countries require the effective *regulation, reuse systems and recycle* mechanisms, which are presented as *the three-R framework* to improve local trade systems. This three-R framework is discussed extensively in the next section.

3.8. Three-R framework for Sustainable Development

Shedroff (2009) explained Hunter Lovins' assertion that, stable economies (boom time) need to apply sustainable development as a competitive strategy, whiles for declining economies (down time), sustainable development should be a turnaround strategy and for collapse economies, sustainability should be the survival strategy. Sustainable development must form the basis of economic policy and should be applicable to all economies. From the United Nations Commission on Environment and Development's (U.N.C.E.D.) global Agenda 21 programme (the 1992 'Earth Summit') in Rio de Janeiro, to the European Union's (EU) 5th Environmental Action Programme, entitled '*Towards Sustainability*' to the national and local levels, there is a requirement to commit to sustainable development at all levels of policy making (C.E.C., 1992; UNCED, 1992, Gibbs, 1994a, 1996).

Robins and Humphrey (2000) argue that a policy that targets right at a national problem is effective and remains a critical determinant of economic, environmental and social performance at each stage of the clothing chain. The concept of sustainable development recognises the integration and interaction between economic growths, respect for the environment and social equity to influence the quality of life (Bansal, 2002; Robinson, 2004; Munoz, 2010). Therefore, implementing the concept of

sustainable development checks the impact on the present and future generations' wealth or economic growth (Lamming and Hampson, 1996). These arguments connect very appropriately to the Ghanaian SHC trade context, thereby giving credence to the suggestion that a sustainable turnaround strategy is promptly required.

A framework of eco-efficiency, which offers an easy understanding and foundation for sustainable development, as proposed by Shedroff (2009), illustrates four types of sustainable capital natural, human, manufactured and financial capital for sustainable design and development. This framework is further extended to a Five-R framework, which contains five critical processes recycle, reuse, reduce, re-design and re-imagine (Etsy and Winston, 2009). The EU Waste Framework Directive's primary goal to avoid creating waste by prioritising waste management procedures in a hierarchical order (Palm, 2011) provides an equal appreciation of the Five-R framework.

The "Waste Framework Directive" (2008), is based on two principles: first, wastes should be managed without harming human health and environment, and second, waste hierarchy should be considered when trade-offs entails priority decision (EC Directive, 2008). The European Commission acknowledges the necessity to simplify the waste legislation and integrating waste management into the wider perspective of global economy. The hierarchical order is represented as an overturned pyramid: which requires the most significant progress should be done at the prevention stage and managing the generation of waste. Prevention: (reducing the formation of waste; the preferred action (regulate) the generation of waste before re-use and recycling for material recovery and waste-to-energy, Reuse: (what is possible), Recycle: (waste that cannot be reused); Recover: (What cannot be recycled should undergo energy recovery); and Dispose: (final possibility should be disposal, in landfills or through incineration when alternative treatments are not available) (European Commission, 2008; EAP, 2016) (see figure 3.3).

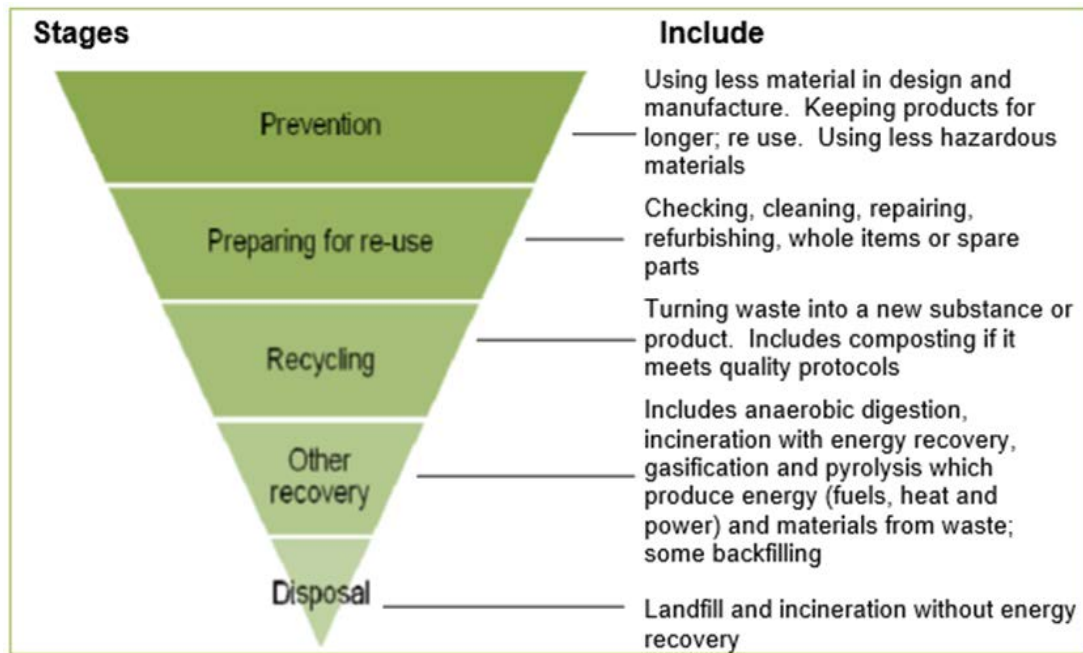


Figure 3.3. The Waste Hierarchy (Adapted from DEFRA, 2011a, p. 3).

In Europe about 15% to 20% of disposed textiles are collected (the rest is landfilled or incinerated), nearly 50% is downcycled into recycled material which are of lower value (or quality) than the original product, for example, industrial rags, low-grade blankets, insulation materials and upholstery (Schmidt et al., 2016). In contrast, if materials are recycled to a higher value (or quality) than the original product, it is termed upcycling. 50% is reused, mainly through exporting to developing countries (Textile Recycling Association, 2005). Used clothing/textiles are sorted and graded according to the quality (wearable and unwearable) fibre composition (e.g. woollen for cold countries and cotton for hot countries), and fabric type (i.e. t-shirts, jackets, trousers, color, women or men garments) by manual process or often supported by semi-automated systems, which include the use of mechanical tools, such as conveyor belts or little cranes to transport collected clothing bales (Hawley, 2006; Palm *et al.*, 2014).

These processes ensure reuse items are increasingly better in quality for the appropriate destination. These items are distributed into five main categories:

- Reuse - wearable items resold in the U.K. through retail shops (considered the 'cream' of used SHC).

- Export Reuse - wearable items exported for resale in SHC markets in developing countries.
- Wiper Grade - material suitable for use as rags and wipers with little or no further processing.
- Recycling Grade - material suitable for pulling or shredding into fibres for use in new end products.
- Waste - material that cannot be resold or recycled which is disposed to the waste stream.

There is increasing interest in reuse and recycling which is consistent with the increased attention being given to the circular economy concept in international and national policies. For example, the 2015 EU Circular Economy Action Plan (EC, 2015) and the 11th Chinese five-year plan issued in 2006 (Zhijun and Nailong, 2007). The England and Wales Waste Framework Directive, also brought into domestic law the Waste Regulations 2011, which instructs businesses to have a legal obligation to consider the five-step waste hierarchy when handling their waste (North, 2012).

Different practices have been recommended in the fashion industry to pursue sustainability objectives: which includes reduce, reuse and recycling of waste materials such as old clothes, vintage practices and second hand both old and new (Nieminen *et al.*, 2007). The catchphrase “*reduce, reuse, recycle*” is proposed to capture sustainability benefits by reducing and reusing and recycling clothing and textile products (Thomas, 2003).

This catchphrase equally applies to the processing and consumption of clothing/textiles waste (second-hand clothing), which is a post-consumption phenomenon. The catchphrase “*reduce, reuse, recycle*” fits and can be adopted as a **three-R framework “*regulate, reuse, recycle*”** for the sustainable development of the second-hand clothing (SHC) trade in the Ghanaian context. The framework links “*reduce*” to “*regulate*” as it fits the specific requisite for the Ghanaian SHC trade as a post-consumer sector. The “*regulate*” highlights the peculiarity of a regulatory framework crucial for the SHC trade practices in the Ghanaian context, which lacks regulation (Easterly and Levine, 1997; Collier and Gunning, 1999; Fafchamps, 2004; Hansen, 2004; Baden and Barber, 2005; Frazer, 2008). A detailed outline of the three-R framework “*regulate, reuse, recycle*” among stakeholders in the Ghanaian SHC trade - governmental agencies, local authorities, import and export companies (local

and foreign), and other interest groups/organisations (Traders Associations) - will play a critical role to develop the economic, environmental and social dimensions of the second-hand clothing trade. The three-R framework of “*regulate, reuse and recycle*” is reviewed in further detail in this section.

3.8.1. Regulate

The overall aim of “regulate” in the three-R framework is to identify and develop actions to enable achieve a continuous long-term improvement of quality through synergies within the SHC trade-offs, creation of sustainable environment and social well-being efficiently. A standard definition of the term “regulation” does not exist, however, regulation is founded on the institution of standards, rules, codes and restrictions that provide guidance for the implementation of acts or laws, making them a critical component of a country’s economic or trade system. Clark (1992, p. 625) articulated the basis of regulation and stated that:

...regulatory apparatus is not the same everywhere; its form and functions are local in one sense, and interpretation of its administrative rules and procedures are structured by history and geography in another sense.

Stiglitz (2008) asserts that economic or trade activities on their own are incapable to provide efficient results, therefore there is a need for regulatory instruments in facilitating the monitoring and follow-up for effective implementation of sustainable production and consumption patterns for the functioning of national economies. However, the widespread promotion of neoliberal policies since the late 1970s weakened several national regulatory contexts and resulted in the corrosion of protection, growing job insecurity and declining working conditions (Roberts and Dörrenbächer, 2014). Roberts and Fuller (2010) argued that global trade is constantly affected by free market capitalism- polarised wealth and an unsustainable deprivation of the environmental systems. The pursuit of profit through unethical (unsustainable) global trade activities is detrimental to environmental and social aspects of mainstream local economic activities in various nations or nationalities as observed by Bakan, (2004). Robins and Humphrey (2000) proposed that national and international regulations as well as institutional contexts are vital factors to influence development and the potential to operate efficiently and effectively as a government

is to recognise the need for a regulatory framework to ensure a level playing field to drive sustainable development.

Kaplinsky and Morris (2017) further contended that compliance with regulations play a critical function in global trade competitiveness and contribute to the achievement of many of the SDGs. Therefore, the role of regulation is one of the most significant issues across economic and policy discussions and they are indispensable for trade to function but should not undermine trade effectiveness to ensure sustainable development, which is usually consistent with regulation (Gandy, 1996; Lipietz, 1996; Bridge and McManus, 2000). According to Cocklin and Blunden (1998, p. 66):

The sustainability discourse is part of the continual re-regulation of society, economy and environment, and consequently the (re) production of space. While sustainability has become incorporated into the many discourses of our contemporary society, it is being regulated and articulated primarily through the hegemonic discourses that prevail at the national level, while the outcomes are then (re) negotiated at local levels.

It infers that regulation acts as a driver to identify sustainable goals at national levels and pushes various players towards the implementation of specific sustainable practices at local levels (Carter and Dresner, 2001; Vachon and Klassen, 2003; Zhu and Sarkis, 2007). Therefore, the key themes for implementing sustainable development include economic (e.g., taxes, charges, bounties, rebates, and targeted expenditure), regulatory (laws, codes, product certification and standards), education (communication, information and training), and institutional change (which is a combination of regulatory and economic instruments) (Diesendorf, 2000).

3.8.1.1. EU's regulatory policy on used clothing/textiles

The EU's core business is exploring policies and regulatory challenges in the areas of better regulated internal markets, competition policies, trade and a digital economy (CEPS, 2018). The European Commission recently announced its intention to mainstream the Sustainable Development Goals (SDGs) in its policy process, as part of its approach to implement the 2030 Agenda. This explicitly involves the EU's better regulation agenda. A summary of some relevant EU directives and English and Welsh legislation affecting the secondary textiles industry is set out in Table 3.2. The table reveals how legislation exists for used clothing/textiles from the textiles banks,

from door-to-door and at public sites where the original users discard them in the Western countries. Western charities are also regulated to resale only usable items particularly in the U.K. These examples of legislation or regulatory frameworks in the West (U.K. and EU) outlined in the table 3.4 below embolden the adaptation of regulation as a viable approach in consumption and improvement of the economic, environmental and social dimensions of SHC trade in the Ghanaian context.

Table 3.4. Summary of Legislation affecting the Secondary Textiles Industry (SHC)

Legislation	Information
Environmental Protection Act (1990), Part II	Waste textiles considered as ‘controlled waste’. Specifies collection, disposal and treatment of controlled waste.
Waste Minimisation Act (1998)	Powers to WDAs and WCAs to minimise the generation of controlled waste.
EC Council Regulation (EEC/259/93) Supervision and Control of Trans-frontier Shipments of Waste	Regulates the shipping abroad of used textiles.
Landfill (England and Wales) Regulations 2002	Imposed controls on inputs to landfill sites, specifically targets for diversion of biodegradable wastes from landfill.

Source: Adapted from WRAP (2013).

3.8.1.2. Hygienic regulation by Online Auction Giant (eBay)

The online auction giant eBay presents a sustainable example in establishing a hygienic regulation of SHC trade by not allowing the sale of used underwear and items that are inappropriate in nature. eBay requires both buyers and sellers to adhere to all the laws and government health codes. Their policy spells out explicitly the non-listing of items like cloth nappies, swim nappies, panties, G-strings, boxer shorts, children’s sized under wear, athletic supporter amongst others. All other SHC items are required to be cleaned according to manufacturer’s instructions and absolutely free off stains (eBay Customer Service, 2018). This example is worthy of emulation for the SHC trade particularly in the developing countries where substantial amounts

of used undergarments are usually sold in the open markets. Bazzi (2012) asserts that virusology and parasitology usually identified on second-hand underwear makes them prone to transferring infectious diseases. This is evidential that used undergarments have health risks that must not be over looked hence clear regulations and standards must be in place to ensure that traders preserve the health and safety of consumers.

3.8.1.3. Regulation on Insects and Pests (Fumigation)

General Purpose or Dry Freights with enclosed box-type containers are used in international trade for the transport of various types of commodities comprising dry foodstuffs, tobacco, wood products, woollen materials, feeds and textiles. It is required that these vessels and containers are fumigated in order to prevent the entry of exotic pests from arriving at the ports of destinations (Semple and Kirenga, 1994). Fumigation is a method of pest control that uses toxic gas to exterminate pests in an enclosed space (vessel or container). It also involves activities such as cleaning, repairing, servicing, and repacking that are required to take place at sites often outside the port area (Semple and Kirenga, 1994).

Fumigation can be carried out when containers or vessels are empty or loaded before shipment and if required upon arrival with appropriate fumigants. For example, Sulfuryl Fluoride; SO_2F_2 , TWA 5ppm, Phosphine; PH_3 ; TWA 0.3ppm, Methyl Bromide; CH_3Br ; TWA 5ppm (Fields and Jones, 1999). Vessels, containers and cargos are to be fumigated by qualified operators before shipment or arrival and a fumigation certificate is an essential proof at the clearance points of their destinations to assist in the quarantine clearance. The accompanying certificate must have a declaration of the details of fumigation including the name of the fumigant, the dosage, the date of fumigation and the precautions to be taken at the time of unloading at the destination specified (IMO, 1996). According to the United Nations Food and Agriculture Organization (FAO) it is a prerequisite for exporters to fumigate the containers to be free of diseases within 15 days prior to loading in compliance with the Quarantine Law.

However, a critical case of the porous nature of the ports of entry in many developing countries do not facilitate this mandatory or statutory obligation of strictly checking fumigation certificates as affirmed by Hansen (2004c). It is essential to introduce and enforce stringent regulations and accreditation schemes with regard to fumigation of

containers with bales of SHC items destined for developing countries like Ghana. There is also a necessity for concerted effort by SHC importers and enforcement officials at the ports of entry and quarantine department to communicate with ports/countries of origination to monitor basic packaging and cleanliness requirements and the status of fumigation of container ships as basic preventive process of microorganism and pest infestations to final consumers.

3.8.1.4. An Overview of East African Community (EAC) SHC Trade Bans / Tax Impositions

Most African countries are zealous to sustain their local textile manufacturing industries by trying to ban SHC imports (Kuwonu, 2017). The ideologies of SHC import ban as a quick fix to the local textiles and clothing manufacturing challenge is particularly widespread in the East African Community (EAC) (Krauß, 2018). The East African Community (EAC) states, which comprise Tanzania, Rwanda, Kenya and Uganda, recently announced that from 2019, second-hand clothes and shoes would be banned from their markets (Kubania, 2015). The rationale for banning SHC imports is to consequentially cause the disappearance of SHC from the local markets and create an increasing demand for locally made new clothes (Krauß, 2018).

However, EAC's complete ban on SHC imports came as a threat to local traders and consumers who are mainly low-income earners. International exporters and US lobbyists pushed back at the ban arguing that the ban violates international trade agreements. This compelled the EAC to reconsider the ban and rather imposed higher taxes on SHC imports as incentives to local clothing/textiles manufacturers who are unable to compete with the low price of used clothes from the West (Behme, 2018). Several experts have argued that high taxations and banning SHC importation could create deficit or demand for affordable clothes and lead to smuggle (evasion of tax) of SHC. Furthermore, the ban will promote the importation of cheap textile from China legitimately and clandestinely to fill the deficit as local clothing manufacturing cannot cover the significant deficit in cheap clothing for the urban poor (Krauß, 2018).

Patterns of illegal or smuggling (evasion of tax) of SHC as a result of complete ban on the trade are recounted by many authors. For example, in 2015, Zimbabwe prohibited the SHC trade, which was facilitated by the Southern African Development Community agreements on free trade (Mpofu, 2013). This led to a growing black

market and illegal cross-border trade as asserted by Mbiba (2014). Similarly, the Nigerian government banned the importation of SHC trade as a protectionist policy, however, SHC bales were been smuggled across neighbouring countries into Nigeria owing to its porous border check (Slotterback, 2007; Abimbola 2011). These examples amongst others support the argument that a ban on the SHC trade without requisite provision of basic low-cost clothing manufacturing locally to meet the deficit will rather promote illegal SHC trade activities.

The Rwandan context

Rwanda presents an ingenious example by establishing the textile industry to expand the country's almost non-existent manufacturing sector, which currently has only eleven textiles companies listed, along with seven shoe manufacturing companies (Krauß, 2018). For instance, the C&H Garments factory on the borders of Kigali is a Chinese partnership with the Rwandan government to train local people and employ about 1,400 Rwandans to produce police uniforms, safety vests and athletic wear (Gambino, 2017). Such a development gave the impetus to announce a complete ban of SHC trade to protect these clothing manufacturing industries.

The Rwandan Finance Minister, Claver Gatete, asserted that a ban on SHC trade will create about 25,655 new jobs by 2019. However, the announcement of the ban compelled the USA to suspend duty-free treatment for apparel products from Rwanda on 31 July 2018 (Kuwonu, 2017). The ban on SHC and counter USA sanctions on Rwanda sets a precedent for international trade agreements and the implications on protectionist policies particularly by developing countries. Some of these critical concerns and instructive arguments on Rwanda's ban of SHC trade and counter ban of Rwanda by the US President from AGOA benefits are captured from the social media (Facebook) in figure 3.4 below.

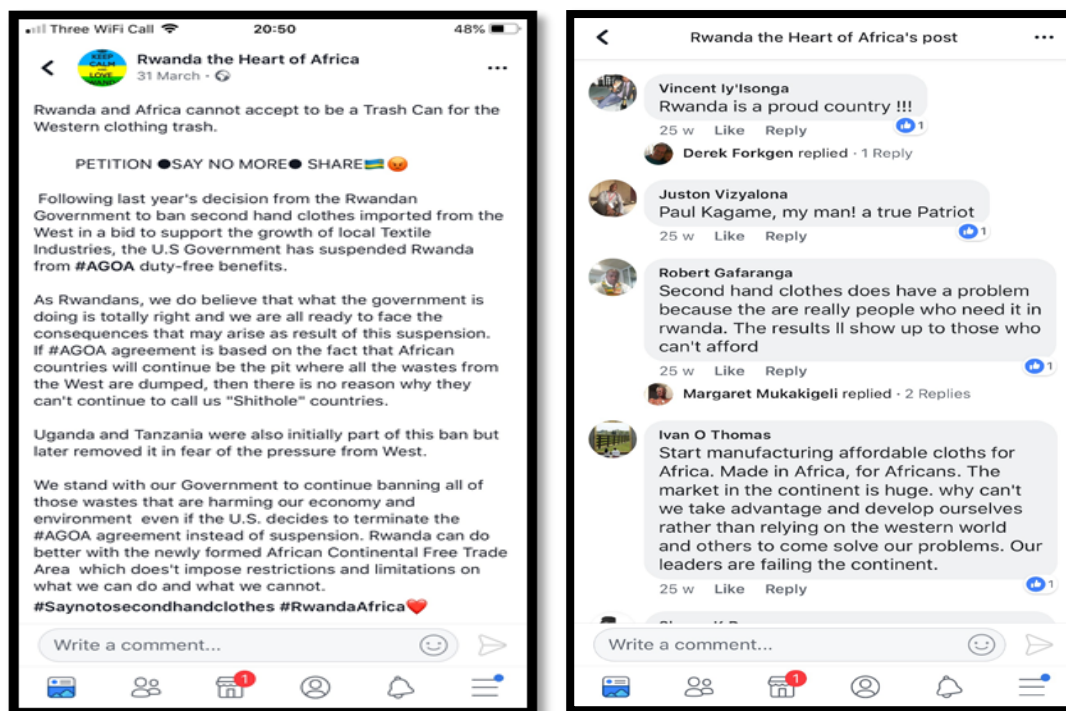


Figure 3.4. Local concerns about SHC trade ban on social media (Adapted from Facebook, 2018).

US objection to EAC's SHC trade ban and proposed tax impositions

US lobby groups have strongly objected to the EAC's import ban and proposed tax increases. They maintain that 40,000 American jobs would be at risk should the ban enter into force, therefore, African countries must eliminate barriers to USA trade and investment (Kuwonu, 2017). Following the petition filed by the Secondary Materials and Recycled Textiles Association (SMART), the American Association of Textile Companies, the USTR, agency that develops and recommends trade policy to the USA President reviewed the relationship with Rwanda, Uganda and Tanzania, and recommended their forfeiture of AGOA benefits (Kuwonu, 2017). According to Edward Gresser, who is in charge of trade policy and economics at the USTR, the loss of USA trade could be detrimental should AGOA be cancelled for the Rwanda, Tanzania and Uganda who made about \$43 million in 2016, up from \$33 million in 2015, with exports to the three countries at about \$281 million in 2016 (Kuwonu, 2017). Furthermore, their disqualification from AGOA could cause them to lose approximately 355,000 jobs and \$230 million in income with a potential to lose 219,000 full-time jobs derived from the trade preference program, leaving 500,000

people in the region without income as reported by the USA Agency for International Development (USAID) (Kuwonu, 2017).

Consequently, the USA in the Out-of-Cycle Review temporarily suspended Uganda, Rwanda and Tanzania from duty-free access to AGOA and US for all eligible exports until they reverse the ban to meet the AGOA eligibility criteria, which include eliminating barriers to US trade and investment. The USA insisted that the ban by EAC violates the objective of the African Growth and Opportunity Act (AGOA), which aims to expand trade and investment on the African continent (Kuwonu, 2017; Krauß, 2018). Following this decision by the USA, the Customs Union of the EAC countries made a joint decision on matters of foreign trade at a summit in Uganda's capital Kampala. Their harmonised regional position was toned down from their 2016 stance in completely banning importation of SHC into the region. The leaders agreed on a compromise in response to the pressure from Washington by increasing SHC imports taxes to promote their textile industry and also not to jeopardize the benefits of the AGOA membership.

According to Behme (2018) the countries in the EAC have taken different positions on the importation of SHC into their countries. For instance, Kenya will not impose a ban as it lacks the capacity to meet both domestic demand for clothing and the export demand for its textiles. Uganda has rather increased the environmental levy on used clothes from 15% to 20%, and Rwanda have increased taxes on imported used clothes to \$5 per kg thus ten times higher the price of locally manufactured textiles as a strategy to strengthen the domestic textile sector.

China and USA Politics in African SHC Trade

The persistently problematic implementation of the ban on importation, sale, and retail of SHC seem also to be generating US-China trade war or what appears to be a US-China rivalry in Africa, particularly in Rwanda as reported by Behme (2018). As noted by the China-Africa Research Initiative, China surpassed the US as Africa's top trade partner in 2009 with exports to Africa reaching about \$103 billion (€87 billion) in 2015, while the US exports to Africa amounted to only \$27 billion (€23 billion) the same year (Jalloh, 2018). Under the current circumstance, China would be the great leader in African markets owing to their low-cost new clothing which is an

ultimate substitution for the SHC from the West as asserted by Helmut Asche, Professor of Economy and African Studies at the Johannes Gutenberg University Mainz in Germany and Rodgers Mukwaya of the UN Economic Commission for Africa on DW in February, 2018 (Behme, 2018).

China's control in the global clothing industry creates a major challenge for the conventional clothing industrialization in Africa with a combination of direct impacts (bilateral country-country relations) and indirect impacts reflected in competition in developing countries (Kaplinsky, 2008). Imports of new counterfeit clothing items from China presents a real threat to most African textile industries. The importation of counterfeits from high end brands is believed by industry experts that China is using European and US intellectual property to produce mass cheap clothes and dump into African markets (Jalloh, 2018). China's engagement in Africa is aggressively debated due to the direct or indirect and complementary or competitive impacts triggering complaints by local businesses to apply restrictive rules to limit Chinese presence in Africa (Kaplinsky and Morris, 2008).

The eventual outcome of this political brawl between the World's two large economies is bound to affect African economies. Therefore, it is important to make policies to protect local African clothing/textiles industries in order to advance national development goals. An effective domestic growth strategy to build local clothing manufacturing in textiles is essential to provide affordable clothes to low income earners in developing countries. Tax measures and incentives should be applied to spur local manufacturing to leverage the domestic clothing/textiles sector. Also, support systems to strengthen regulatory agencies to curtail the importation of illegal garments into the local markets is significant for the development of the sector. These deliberate policy changes related to modifications in clothing/textiles manufacturing by African governments will boost an overall increase in employment and living standards arising from industrialization.

3.8.1.5. An Overview of the Indian SHC Trade Approach

India shares the notion of reconstructing used clothes into new products based on the belief that wearing used clothing makes one have contact with refuse which is deemed self-polluting which is affirmed as removing traces of biographical information are removed by Norris (2010a). Transforming used clothes into new products is to give memento to the creativity of recycling within the India context (Norris, 2012b). India forbids the importation of SHC, however, they allow the importation of wool fibers which includes ‘mutilated hosiery’ a term for shredded woollen garments popular in the West and developed in Britain during the 18th century (Hansen, 2000b). Northern India is noted for importing mutilated woollen garments or western rags as raw materials that are shredded and spun into recycled yarn for manufacturing new blankets, knitted yarns and woollen fabrics for the domestic and international clothing markets like south Asia and East Africa (Hansen, 2004b; Norris, 2012c; 2015).

Hansen (2004b) asserts that India is also involved in domestic recycling of Indian clothing. In this development, consumers donate their clothes in exchange for household goods for the purpose of recycling and thereby creating employment at many levels of the economy. This example demonstrates the growing of the informal economy by turning used clothes into new fabric that are multipurpose. The economic dynamics of this Indian approach ensures that:

1. Income is generated for local entrepreneurs (recyclers) in the short to long term and reduction in the demand for the SHC.
2. Customs and tariff regulations are implemented to affect the supply of SHC.
3. Informal SHC trade is formalized in the short to medium term and the SHC items are turned into new products for industrial uses.
4. The economy is turned into an export-oriented economy as new products are also exported.
5. Infrastructure is supported by the taxes and quotas on textiles and garment recycle and export.

On the contrary, Ghana’s deregulatory and growth programmes over recent years has weakened the importance on regulatory demands for sustainable development in the SHC trade sector. This has affected income generation, social equity, and

environmental preservation. Therefore, incorporating effective national regulatory systems and standpoints on global and local trade, labour and human rights standards in various sectors of the economy is essential to ensure relevant development. The India approach offers credible example of a pragmatic strategy for market protection and industrialization. However, it is crucial to develop such effective regulatory schemes against the backdrop of international voluntary codes of conduct and guidelines of the WTO, ILO and UN.

‘Regulation’ is therefore precise within the three-R framework to locally minimise the economic, environmental and social impact in the SHC importation and trade practices particularly within the Kantamanto market. Also, regulation considerations for implementation of sustainable development require the coordination of government and business stakeholders in the SHC trade sector. Considering the possible future of sustainable SHC trade, the incorporation of socio-economic and socio-environmental parameters in the importation and trade practices is critical in the Ghanaian context. The three-R framework seeks to improve a more integrated approach based on key priority-guiding principles for sustainable development of the SHC sector - controlling the environment (*re*) *production of space or social amenities* and preventing clothing waste (*unsellable or low-grade*) from causing visual pollution in the form of choking of drains, pollution of streams, and problems in landfills by synthetic products which do not decompose (Naturegrid, 2006; Waste Online, 2006).

3.8.2. Reuse

In academic literature, various forms of reuse have been conceptualised in terms such as collaborative consumption, product-service systems, commercial sharing systems and access-based consumption (Belk, 2014). Reuse is also part of the language of environmentalism, which originated from critics of capitalism from the late 1960s and countercultural opposition such as the anti-capitalism and globalisation movements (Franklin, 2011). According to Roos *et al.* (2017), there is a great potential to increase reuse of cloths as items are typically cast of long before the end of their technical service life. Reuse refers to a strategy of extending the use of products through repeating the usage of items in their original format or as part of a redesign process. Domina and Koch (1999) also argued that reuse facilitates the circumvention of the price in recycling by delaying the period before products go into municipal solid waste stream. In the reuse process, product components are easily exchanged to

enable it to stay in use and reused, or the usage life is extended rather than being discarded, thus making them more environmentally friendly (Shedroff, 2009).

Reusing of clothing saves an estimated 29kg CO₂e (carbon dioxide equivalent) per kilo of clothing compared to recycling, and 33kg CO₂e compared to disposal of clothing (Charity Retail Association, 2010; Norris, 2015). *“Every kilogram of virgin cotton preserved by reusing second-hand clothing saves 65 kilowatt-hours of energy, equivalent to about 32.5 kilograms of CO₂. For polyester, the savings rise to 90 kilowatt-hours per kilogram”* (Bristol Textile Recyclers, 2016). There are a number of links and overlaps (not always a clear distinction) between the direct reuse, preparation for reuse and recycling pathways; however, it is essential to explore direct reuse before considering recycling (Etsy and Winston, 2009). Ho *et al.* (2009) assert that the principal differences between reuse and recycle are the extent to which the features of the product are transformed. The physical features of a material are maintained in reuse, while in recycling, the features of the material including the chemical and physical traits are usually transformed.

It is estimated that about 70% of the potential lifetime of clothes remain when they are discarded, making reuse very significant to recover or repair, restore or improve the clothing/textiles material characteristics with the aim of extending the use possibilities after the collection-phase through particular procedures of waste management (Chertow, 2008; EEA, 2014). Clothing/textile reuse refers to various means for prolonging the practical service life of products by transferring them to new owners with or without prior modification (e.g. mending) (Fortuna and Diyamandoglu, 2017). The potential for reuse in this context is to ensure components like fastenings such as zippers, buttons, eyelets, hooks and eyes among others are available to enable easy reuse or suitable for reuse before they are fit for recycle.

Reuse has multifaceted pathways for household clothes and textiles including direct reuse within family/friendship networks; reselling locally, and sale to textile re-processors for export or distribution overseas (Oakdene, 2009; Fisher *et al.*, 2011). Further available reuse routes for businesses include; internet-based exchanges (either free or paid) or small ads and car boot sales/jumble sales; clothing banks at household waste recycling centres, supermarkets, car parks and other public sites; charity shops;

and kerbside collection by charities and other private organisations (Fisher *et al.*, 2011).

The rise of charitable donations and the second-hand clothing (SHC) trade is the origination of the ethics of reuse or the practice of continuing use of what is still useful (Franklin, 2011). Most of the recovered clothing textile items are exported for reuse in Africa and other key overseas markets in Eastern Europe (Morley *et al.*, 2009). These exports are as high as 85% in Africa, providing a significant mode of raising funds for the Western charities (Farrant, 2008).

One charitable organisation that handles over 100 tonnes of clothing donations a week is the Oxfam's Wastesaver Plant, in the United Kingdom (Oxfam, 2011). Oxfam operates its own sorting facility that sorts clothing and resells it through different routes: Oxfam shops; direct to public on Oxfam online shop and pop-ups at festivals; to designers who restyle garments; to recycling traders in bulk, for use as mattress fillers, carpet underlay, upholstery and car sound insulation and to textile wholesalers in the U.K. and overseas (Oxfam, 2011).

Technology-enabled reuse formats also provide interesting outlets for the reuse of fashion clothes. This format allows for clothing resale and rentals, particularly designer clothing and luxury items, to specific consumer segments. Examples of these online formats are *Twice*, *Fashion Project*, *Oxfam's Online Hub*, *Rent the Runway*, *Thredflip*, *The Real Real*, *ThredUp* and *Pose*. The online auction site eBay is, however, the largest digital reseller of second-hand clothing (Lewis, 2015).

Reuse in the three-R sustainable policy framework will expedite trading or reuse of wearable (sellable) imported SHC. Reuse will be critical to promote concepts of redesign and redress to meet the appeal of specific consumer (social) segments in Ghana and beyond. The development of interesting formats and outlets for reuse of the SHC mentioned above are perhaps not feasible for implementation in a developing country like Ghana. However, an implementation of reuse strategies specific to the national peculiarities of the Ghanaian situation will promote safe and healthy (equitable) SHC trade for present and future generations.

3.8.3. Recycle

Recycling is market-driven and recovers between 93% and 98% of the textile waste collected - hence it is usually referred to as the '*secondary textiles industry*' (DEFRA, 2006). Recycling is any recovery operation by which waste materials are re-processed into products, materials or substances whether for the original or other purposes (Tojo *et al.*, 2012). The Waste Resource Action Plan (WRAP) notes that there is scope for growth in re-use and recycling with end markets in the U.K. and abroad which will benefit from material security, CO₂ savings, employment creation, cost savings and economic growth (WRAP, 2013). The post-consumer clothing/textiles waste (SHC) trade contributes to the emerging textile-recycling policy governing the environmental and social sustainable use of textile resources and waste in Northern Europe (WRAP, 2011, 2013; Palm *et al.*, 2014; Watson *et al.*, 2014).

Recycling entails a substantial transformation of the clothing/textiles material that generally lowers the quality of the new products (by-products), meaning less softness and worse aesthetic appearance (Hawley, 2006). Recycling is a reprocessing of pre- or post-consumer clothing/textiles waste for use in new textile or non-textile products. Recycling is part of the ecosystem-inspired design approach and clothing waste elimination concept which is divided into two categories; pre-consumer and post-consumer waste. Post-industrial waste recycling is easier than recycling post-consumer waste, as the content and composition of the material is known at the post-industrial level. This section discusses the post-consumer waste, which is defined as second-hand clothing that is donated to charities (Fletcher, 2008; Domina and Koch, 2012).

Some important aspects of recycling composition and processes of post-consumer clothing/textiles waste includes silks, fleece, towels, corduroy, cotton, nylon, denim, wool, and linen that have already passed through the consumer market. According to Cupit, (1996), over 1million tonnes of post-consumer textiles waste are discarded annually, mostly from domestic sources, which consists of any type of garments or household article of which only 22.3% are recycled. In 2008, more than half of clothing purchases in the U.K. were thrown away and just a quarter of the collected clothes was reused and recycled (Morley *et al.*, 2009). Approximately 4.5 kilogrammes per capita or 1,136,363 tonnes of post-consumer textile waste comprising of all types of garments and household items are recycled annually

(Council for Textile Recycling, 2018). According to the European Commission (2018), clothing/textiles consumers in the European Union (EU) discard 5.8 million tonnes of textiles yearly and only 1.5 million tonnes representing 25% are recycled by charities and industrial enterprises. The remaining 75% ends up in the landfill or waste incinerators.

The growing excess of imported unsellable low-grade SHC is creating a new potential for recycling development and markets in developing countries (Oakdene Hollins Ltd *et al.*, 2006) as in the classic case of India's shoddy industry (Hansen, 2000b; Norris, 2012b). This growing industry is turning SHC into new fabrics that are multipurpose, creating 93% of India's employment and contributing 50% of the GDP (Jha, 2006). This illustrates the significance of recycling programmes for unsellable or low-grade SHC rather than disposing them into drains, pollution of streams and landfills (Naturegrid, 2006; Waste Online, 2006). The Salvation Army Trading Company in the table below explicates this assertion:

Table 3.5. Distribution of clothing/textiles waste qualities

DISTRIBUTION OF CLOTHING/TEXTILES WASTE QUALITIES		
Quality	Donations in kg	% Of Total
Wearable	31,400	71.3
Recyclable	9,800	22.3
Rubbish	2,800	6.4
Total	44,000	100

Source: Adapted from Salvation Army (2007).

The Council for Textile Recycling (2018) asserts that each year 750,000 tonnes of post-consumer clothing/textile waste are re-constituted into new product for the consumer market once again. The recycling process involves the conversion, which permits the clothing/textiles items to return raw materials and inputs for other usages. The categorisations for recycling routes are closed-loop and open-loop recycling. The closed-loop recycling ensures materials are recycled and used in more or less identical product, for example, a T-shirt recycled into a T-shirt of same size, colour and quality. Whereas open-loop recycling also known as cascade recycling, materials from a product are recycled into other products (Klopffer, 1996; Ekvall and Finnveden, 2001).

Clothing/textile recycling industries include shoddy producers, laundry and wiping rag producers, clothing sorted, shredders and garnet. Their stages of the recycling process involve pulling apart and reworking them into yarns for manufacturing into new products. Different clothing/ textiles types are recycled differently by shredding, compressing and combining with other similar fibres into a fibrous state for different end use products or for reuse in low-grade applications are illustrated in the table below. Also the table 3.4 below shows the separation of individual clothing/textiles types and how complex recycling processes like shredding and re-spinning according to quality and fibre type are applied to derive other end uses. Furthermore, the table 3.6 shows that recycling is critical in diverting SHC (post-consumer clothing/textile waste) from entering the solid waste stream through process that transform them into new products.

Table 3.6. Recycling of post- consumer clothing/ textiles materials

RECYCLING OF POST- CONSUMER CLOTHING/ TEXTILES MATERIALS		
Knitted/ Woven Wools	Cottons/ Silks	Denim (Jeans)
Fibre reclamation to make yarns or fabric for low-grade applications (e.g., car insulation or seat stuffing, and roofing felts).	Shred and spun for industrial and domestic use (e.g., wiping/ polishing cloths, rags or high-quality paper, mattress production, and panel linings).	Shredded and spun for fillers, linings, furniture padding, loud speaker cones and other paper products).

Source: Adapted from Stipp (1994).

Considerations in recycling in modern times have arisen due to rising waste disposal costs and the transformation of waste into new product industry (Stipp, 1994), and post-consumer clothing/textiles waste renders the recycling process very complex (more resources and capital-intensive) as the separation process of fabric are taken through many changes requiring technologies to be developed to regenerate the waste back into original fibre length and form (HKTDC, 2009b). Clothing and footwear account for 70% to 80% of consumption and require complex chemically or mechanically recycling processes into raw material for the manufacture of other apparel and non-apparel products (EIPRO, 2006). The clothing/textiles recycling routes typically classified include mechanical, chemical or thermal and often a mix of these processes.

Mechanical Recycling

Mechanical recycling of used clothing/textiles entails different process stages and likely outputs. The first phase is to cut or to shred fabrics to obtain fragments of textile fibres by the use of machines or mechanical dynamics (BIR, 2015). The shreds are either intertwined or spanned into fibrous elements or raw materials for manufacturing companies (BIR, 2015). This operation is performed by bonding the shredded materials through specific treatments, such as mechanical pressure or plastic filament insertion that are then heated (i.e. Thermoforming process). This creates

nonwoven fabrics which do not have a fixed structure (Herrero and Luz, 2013). The final products are composite materials, which could be used by manufacturing firms to create thermal or sound-proof insulation panels, like wall upholstery, roofing felt, furniture padding or car insulation, useful in the building, furniture or automotive sectors. These non-woven fabrics can be made of different types of textile fibres, but synthetic materials have often better proprieties compared to natural fibres (Herrero and Luz, 2013). Furthermore, Herrero and Luz (2013) assert that recycled clothing/textile panels composed of manmade fibre have better performances in terms of thermal insulation and resistance compared with virgin polyethylene foams. A different end product could be paper, when recycled compounds are cotton or silk, with alternative options like textile fibre regeneration, which can be used to make fabrics and new clothing or household items.

Thermal Recycling

Thermal recycling is often a conversion of PET flakes; pellets or chips into fibres by melt extrusion. In the thermal recycling process, clothing/ textiles waste is burnt in order to produce energy, ethanol or biogas. This option can be an alternative to landfill, however should be avoided, since the incineration of dyed or synthetic textiles produces toxic substances emissions (Palm *et al.*, 2014).

New Recycling Opportunities

New recycling opportunities also exist in the development and diffusion of chemical recycling for synthetic fibres, such as polyester. Chemical recycling is mainly used for post-consumption recycled PET bottles with the prospect of extending to clothing/textiles. The process involves an initial chemical breakdown of synthetic materials into monomers through chemical treatments and afterwards molecules are re-polymerised (Guignier, 2013). The result is recycled polyester fiber could be used for sportswear, sofa and car seat upholstery or temporary external covers and complex products, e.g., carpets. Chemical recycling process entails several steps and a combination of different recycling techniques to obtain raw materials for different applications, which are similar to mechanical and chemical recycling making it expensive and polluting (Palm *et al.*, 2014).

The narrative on recycling as sustainable behaviour provides knowledge on environmental approaches for the establishment of clothing and textiles recycling

systems in the Ghanaian economy. The establishment of recycling systems can contribute to the SDG 12 which captures how the world should approach waste management, including recycling. Key economic activities like the SHC trade should feed a recycling system with materials that are otherwise dumped into the stream without a waste segregation culture. Recycling unsalable SHC items is decisive in the development potential of recycling captured in the three-R sustainable framework as it is critical to offset the environmental impacts of current consumption rates of used clothing imported into the country.

3.9. Summary

This chapter discusses the various sections of the literature review. The chapter discusses the concept of sustainable development with key dates and timeline in the context of growing consciousness of improving the human environment for present and future generations by incorporating social and environmental benefits directly in economic or trading practices. The chapter presents insights into sustainable trading that ensures environmental and social safeguards in international trade-off agreements. The importance of sustainable policy in the transformation of trade patterns to promote environmental protection and social equity is also extensively reviewed in this chapter. Sustainable consumption is captured with the historical timelines in this chapter to emphasize the **superordinate** goal of combating environmental degradation and its threat to human welfare and change socio-cultural practices.

The chapter further explores the critiques that make genuine inferences to the ambiguity to the effectiveness of sustainable development policy frameworks, which fails to articulate specific and tangible ways to realization. The chapter also analyses the integration of the three dimensions (economic, environmental and social) of sustainable development, which is relevant for the second-hand clothing trade practices particularly in Ghana. It highlights the integration of the three dimensions of sustainable development to ensure economic productivity, improve environmental quality and protect social well-being.

The chapter also highlights some of the historical and contemporary perspectives of the SHC trade in the United Kingdom (U.K.) and Ghana. These historical and

contemporary perspectives enhance the understanding of sustainable development principles of the SHC trade in the West (U.K.) and its impacts on developing countries like Ghana. The economic liberalization policy implementations in developing countries are examined in-depth in this section. The basic relationship between economic and trade liberalization, the decline in clothing/textiles manufacture and SHC growth are discussed. The chapter examines the global supply networks of the SHC trade and the sustainable development challenges for developing countries. It presents the proficient economic, environmental and social impacts of the SHC processing in the U.K. on developing countries like Ghana. The chapter highlights the significance of sustainable textiles recycling and exchanges between the West and developing countries.

Furthermore, the chapter presents the three-R framework, which is important to achieve sustainable development goals. The three-R framework includes regulate. An expanded literature on the hygienic regulation by Online Auction Giant (eBay) and regulation on insects and pests are presented in this section. This section also presents an overview of the East African Community (EAC) SHC Trade bans / tax impositions and an overview of the Indian SHC trade approach. Literature on reuse and recycle are reviewed as part of strategies to enhance the implementation of sustainable development (support economic activity, foster working conducive environments and promote social well-being opportunities). The next chapter discusses the conceptual model and the proposition of the research study. It draws on the research proposition in the conceptual framework model and the theoretical context adapted in the thesis.

CHAPTER 4: CONCEPTUAL FRAMEWORK

4.0. Introduction

A conceptual framework is an incorporation of theories, beliefs and prior research findings to guide and inform a current research study (Maxwell, 2013). The objective of the conceptual framework is to categorise and analyse the concepts that are related to the sustainable development of the SHC trade in the Ghanaian context (Rocco and Plakhotnik, 2009). The epistemological basis of the conceptual framework is based on facilitating the integration of the *economic, environmental and social* dimensions of the SHC trade and an implementation of *regulate, reuse and recycle* (a three-R framework) for a sustainable SHC trade in a Ghanaian context. The conceptual framework defines the integration of the various themes in a basic graphic; conventional intersected circles which makes easy to clarify classifications.

The conceptual framework makes propositions of classifications drawn from two research questions stated in Chapter 1.

How can the integration of the three dimensions of sustainable development (economic, environmental and social) promote the successful sustainable SHC trade within the Kantamanto market?

To what extent would the three-R framework (regulate, reuse and recycle) influence the implementation of sustainable development dimensions of the second-hand clothing (SHC) trade practices in the Kantamanto market?

The first research question offers critical contribution to the study as it examines the effect of sustainable development principles of SHC processing in the West (U.K.) on the (SHC) trade practices within the Kantamanto market. However, the research question one is not distinctively featured in the conceptual framework as it offers theoretical and empirical relevance to the discussions on Proposition 2a (P2a), ‘Regulate’, under the classifications of imports controls and checks within the conceptual framework. Data on the first research question are significantly addressed in the overall thesis and have facilitated the conclusions drawn and recommendations made for the sustainable development of the SHC trade in Ghana. The key motivation of the conceptual framework is to bridge the existing gap in the integration of the economic, environmental and social dimensions of the SHC trade and contribute to the implementation of the sustainable development of SHC trade through effective

regulation, reuse and recycling systems. Therefore, the sustainable transformations of the SHC trade is reliant on the performances of integrated stakeholders in the Ghanaian context like, the Ministry of Trade and Industry (MOTI), the Ghana Standards Authority (GSA), the Accra Metropolitan Assembly (AMA), the Ministry of Railways Development (MORD), the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA).

The classifications in the conceptual framework are therefore constricted to these key stakeholders in the Ghanaian SHC trade context. The classifications are fashioned from existent multidisciplinary literature or theories derived from published literature in Chapter 3 of this thesis for the understanding of the key issues of sustainable development. The proposed classifications can be confirmed in the empirical study through a qualitative data analysis of the social reality of the SHC trade within the Ghanaian context. The conceptual framework offers a significant reference point for the thematic and descriptive interpretation of the research findings in Chapter 7 (Merriam and Simpson, 2000).

4.1. Propositions

4.1.1. Proposition 1 (P1)

Integration of the three dimensions of sustainable development, economic growth, environmental protection and social well-being, can positively influence the SHC trade in the Ghana.

Proposition 1 (P1) considers that the integration of the three dimensions of sustainable development (*economic, environmental and social*) will positively influence the SHC trade in the Ghana. Proposition 1 (P1) of the conceptual framework critically analyses the three essential features that traverse sustainable development (*economic, environmental and social*) (Holmberg, 1992; Reed, 1997; Harris *et al.*, 2001). This proposition presents broad integrated conceptual classifications for economic growth, environmental management and social development that are interdependent, and mutually supportive and reinforcing. It is important to seek integration of each of the three dimensions and overlap each of them within the Ghanaian SHC trade. P1 builds on the philosophies of the integration of the three dimensions of sustainable development as asserted by the United Nations Commission on Environment and Development (UNCED). Sustainable development

fits into SHC trade policymaking and it is aimed at fighting poverty in this modern era (The Global Agenda 21). Although the proposed integration of the sustainable development is universal, there is room for country and sector specifications. The integration of sustainable development dimensions has suggestions for a national planning strategy perspective as asserted by Ashford and Hall (2011, p. 272):

National governments must integrate their environmental, social, and economic policies, and this integration needs to be of a particular kind.

Furthermore, Muradian and Martinez-Alier (2000) assert that the adoption of positive integrations or interactions of *economic (P1a)*, *environmental (P1b)* and *social (P1c)* dimensions underlines policy gaps at national levels. The classifications based on the economic, environmental, and social components are derived from the dimensions of sustainable development in the literature, which allows for a large number of objectives to be synthesised into a smaller number to facilitate easier communication and comparison (see figure 4.1). These classifications are outlined in the section below:

Economic dimension (P1a) proposes the following classifications:

1) Sales and distribution methods:

- Facilitate access to market facilities as a key aspect about income-generation and the creation of sustainable livelihoods.
- Develop a universal code of practice and trading standards.

2) Trading practices:

- Develop trading practices or routines.
- Promote social and environmental integration simultaneously in the domestic market practices.

3) Market spaces:

- Commit to infrastructural planning to integrate people's basic social needs such as healthcare.
- Incorporate the needs of future generations in decision-making or planning of the market space.

Environmental dimension (P1b) proposes the following classifications:

1) Planned economic activities:

- Design a market space that is aesthetically pleasing and functional.
- Plan market activities or trade structures according to a sustainable policy.

2) Healthy environments:

- Highlight the attainment of the traders' and consumers' rights to a healthy environment (Peattie, 1992).
- Plan infrastructures that concurrently promote social and environmental integration.

3) Human and natural capital:

- Integrate society (traders and consumers) and natural capital protection programmes and sound management of resources (Shedroff, 2009).
- Avoid over-exploitation of environmental resources in ways that may result in irreparable damage to the environment and human development (Boon *et al.*, 2010).

Social dimension (P1c) proposes the following classifications:

1) Fairness of sales and distributions:

- Promote a system that achieves fairness in distribution, accessibility, safety, and development opportunities.
- Commit to equal economic participation particularly for vulnerable groups.

2) Provision of social services:

- Provide amenities that will deliver locally-based services and opportunities for social improvement.
- Encourage the integration of people's basic social needs such as healthcare and employment programmes with education, gender

equity, political accountability and participation (Holmberg, 1992; Reed, 1997; Harris et al., 2001).

3) *Equal participation and well-being:*

- Promote participation in collective groups and networks.
- Reduce consumption levels to protect future generations in the environmental planning processes.

4.1.2. Proposition 2 (P2)

The implementation of the three-R framework - regulate, reuse and recycle- can promote the integration of the three dimensions of sustainable development in the SHC trade.

Proposition (2) considers that the implementation of the three-R framework (*regulate, reuse and recycle*) will effectively promote the integration of the three dimensions of sustainable development in the SHC trade. To understand how sustainable development can be implemented in the Ghanaian SHC trade context, the **second proposition (P2)** presents the three-R framework ***regulate (P2a), reuse (P2b) and recycle (P2c)*** for implementation (Farrer and Fraser, 2011). The European Union (EU) Waste Framework Directive ranks the different paths in relation to their environmental impact, and the primary goals are to avoid creating waste (*regulate*) and improve quality of clothing items through reuse and recycle systems as a sustainable concept (European Commission, 2008; Palm, 2011; WRAP, 2011, 2012b; Palm *et al.*, 2014; Watson *et al.*, 2014).

In other discourses of sustainable development and in the EU Waste Framework Directive, *regulate* is also referred to as *reduction* or *prevention* of waste (importation of pollution). In the context of this thesis it refers to the regulation of imported clothing/textiles waste (SHC). It is imperative to stimulate efficient regulation in the Ghanaian SHC trade to be supported by well-organised reuse activities and closed-loop semi-formal recycling initiatives. The concept of *reuse (P2b)* is proposed to promote the effective practice of continuing the ‘use of what is useful’ (Franklin, 2011). The significance of the concept of reuse in the conceptual framework is to emphasise the multifaceted pathways of SHC such as re-design and re-dress (Etsy and Winston, 2009; Fisher *et al.*, 2011), which can be explored in the Ghanaian SHC

trade. *Recycling (P2c)* is also captured in the conceptual framework for waste elimination, which is an ecosystem-inspired approach (Fletcher, 2008). This theory is relevant for the sustainable environmental development in the Kantamanto market.

The focus of the three-R framework is to expand the economic, environmental and social dimension performance in the disproportionate, unorganised and unregulated SHC trade in the Kantamanto market. The classifications under ***regulate, reuse and recycle*** in P2 can offer effective support for the comprehension of the integration of economic, environmental and social dimensions. The classifications identified collectively represent distinctive aspects of the SHC trade that need to be tackled for the integration of sustainable development dimensions.

Regulate (P2a) proposes the following classifications:

1) Rules and standards:

- Provide regulatory a framework that entails the classification of restrictions, codes, import rules, standards, certification and accreditation programmes (Diesendorf, 2000).
- Effectively apply all laws, regulations, rules and restrictions on imports and sale or distribution as suggested by GATT.

2) Enforcements and restrictions:

- Enforce environmental and waste generation laws to meet social well-being without reducing the capacity of the economic performance.
- Enforce licensing of commercial companies and entrepreneurs.

3) Imports controls and checks:

- Implement strict import controls for economic survival that will effectively not lead to the importation of waste or pollution.
- Innovate checking systems of high-risk imports at points of entry.

Reuse (P2b) proposes the following classifications:

1) Sell wearable:

- Separate clean and sell reusable items.
- Retain stylish items for resale.

2) Re-design and Re-dress:

- Promote concepts of re-design and re-dress to meet the appeal or specifications of consumers (functional and aesthetic).
- Increase efforts to re-design and redesign for better quality for durability and longevity.

3) *Infrastructure:*

- Evaluate strategies for increasing infrastructure for reuse
- Develop potentials for effective reuse mechanisms.

Recycle (P2c) proposes the following classifications:

1) *Waste separation and collection:*

- Dispose of clothing/textiles waste in a way that can lead to alternate usage.
- Develop clothing/textile waste bins or banks (recycling stations) that make it easy to distinguish and sort textile materials or types (e.g., polyester and cotton) (zippers and buttons).

2) *Shred unsellable:*

- Remove metals and other contaminants (e.g., zips, labels, cords and snap fasteners) to make recycling straightforward.
- Shred low-grade or worn/ragged clothing/textiles for recycling purposes.

3) *Industrial/ domestic uses:*

- Develop technology for recycling clothing and textiles waste into the making of mattresses, furniture (upholstery) and rugs/wipers for industrial and domestic use.
- Develop market innovation for specific products to increase recycling or remanufacturing opportunities.

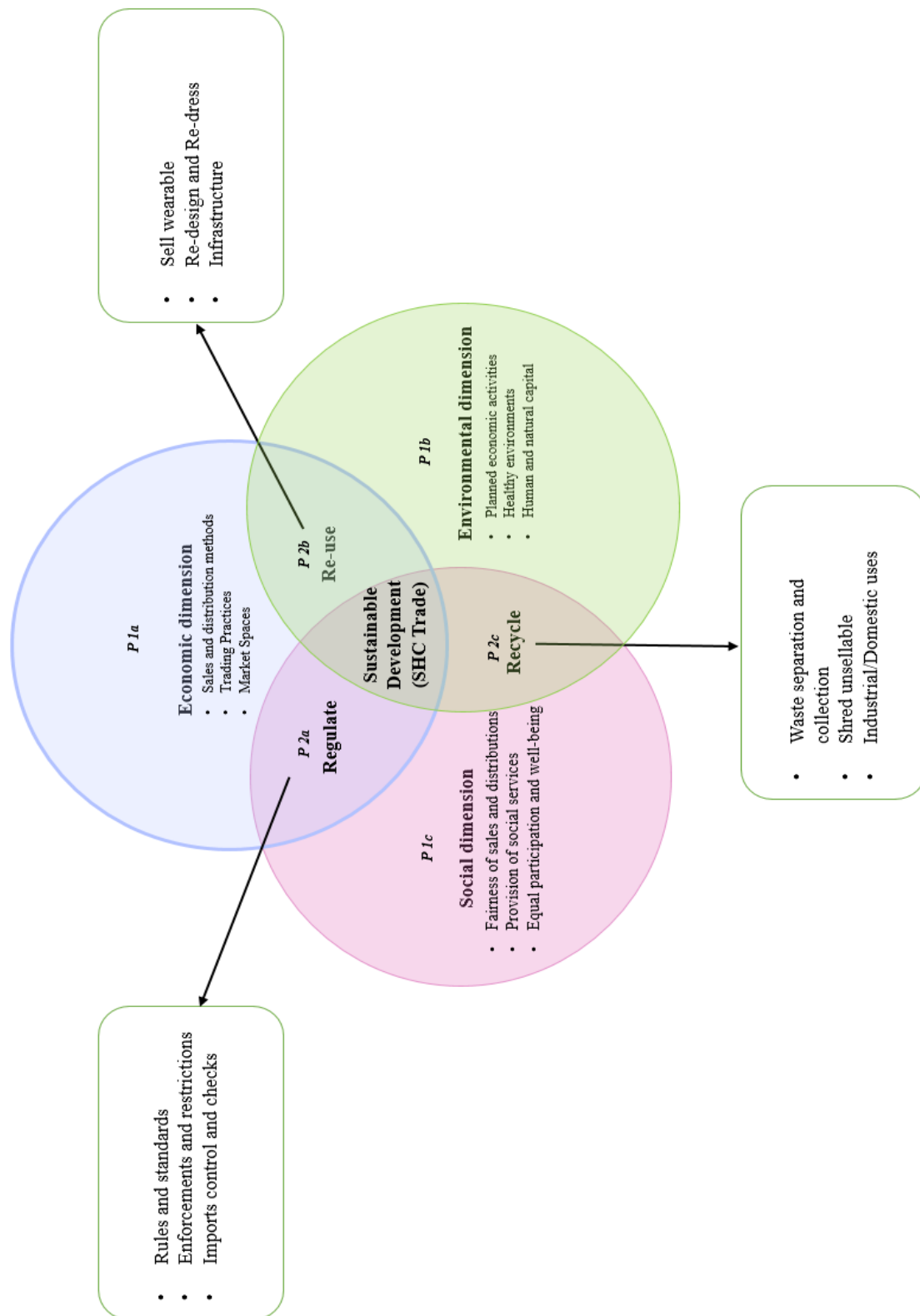


Figure 4.1: A Conceptual Framework related to the Literature Review.

4.2. Theoretical contribution

This research study acknowledges the theoretical contributions of key scholars such as Holmberg (1992); Peattie (1992); Reed (1997); Diesendorf (2000), Harris *et al.*, (2001); Strong and Hemphill (2006) Shedroff (2009), and Annamma, *et.al.*, (2012) whose expansion of the scope of knowledge on sustainable development, sustainable trade and sustainable development policy has given impetus to this research. The study investigates in-depth the second-hand clothing (SHC) trade practices in the United Kingdom (U.K.) which are narrated in various accounts of Hansen (2000), Brooks (2013), Brooks and Simon (2012), Lemire (2012) and Norris (2015).

A lack of in-depth research into the sustainable SHC trade in the Ghanaian context offers a major opportunity to bridge the academic and policy gaps. Also, the non-existence of this conceptual understanding of the Ghanaian SHC trade presents the motivation for the conceptual framework for the sustainable development of the SHC trade. Therefore, the focus of this thesis is primarily based on the concept of integrating the economic, environmental and social dimensions for the sustainable development of the SHC trade. Furthermore, the research offers relevant theoretical insights into the integration of the three dimensions (economic, environmental and social) of sustainable development of the SHC trade in developing countries like Ghana.

The links between the environmental and social dimensions afford a theoretical deepening of the economic dimensions of the global SHC trade. The contribution of the thesis to economic growth, environmental protection and safeguarding social well-being or the urban poor is ultimately significant to the premise of the establishment of sustainable development. The literature review directed at the SHC trade and the future position of the trade practices with current debates on clothing/textiles waste discarded, re-value and consumption (Palmer and Clark, 2005; Gregson *et al.*, 2010) is relevant to the sustainable development of the SHC trade within the Ghanaian context. These theories are of immense contribution to the expansion of the parameters of a three-R framework (*regulation, reuse and recycle*) in the Ghanaian SHC trade context. It is significant that this study closes the knowledge gap in the SHC trade and provides further opportunities for future investigation.

4.3. Summary

This chapter presents the conceptual model that draws on the development of the literature review in chapter 3 and the propositions of the research study. The chapter further highlights the theoretical contributions of the thesis to a sustainable development agenda that can integrate the economic, environmental and social dimensions and safeguard the domestic trade activities for present needs and future generations. This chapter also highlights the relevance of the three-R framework (regulate, reuse and recycle) to the sustainable development of the SHC trade practices in the Kantamanto market. The next chapter describes the research methodology in this thesis.

CHAPTER 5: RESEARCH METHODOLOGY

5.0. Introduction

This chapter discusses the methodology applied to gather the appropriate data to answer the research questions identified earlier. The research design was influenced by the gaps in the knowledge concerning sustainable second-hand clothing (SHC) trade in Ghana. The chapter explains the decision to use the philosophical perspective of the research processes, and the methodological approach, which was qualitative (interpretivist paradigm). A philosophical interpretive approach is employed to conduct the research and enable the researcher to answer the research questions (Elliott, 1995, 2000; Creswell, 2003; Cassell and Symon, 2004). The qualitative approach makes sense of other people's meanings about the world from their personal, cultural and historical experiences (Creswell, 2003). The qualitative approach inspired the researcher to analyse inductively by developing critical themes, theories or patterns from the data to make meanings and determine the validity and reliability of the research findings (Patton, 1990).

The chapter further explains in detail the two main data-collection techniques: semi-structured interviews and participant observations. These techniques were employed to establish the validity and reliability of the research findings. The functions of the researcher at each phase of the research process are also rationalised. The thesis explored how the second-hand clothing processes in the West (U.K.) impact on the SHC trade in developing countries like Ghana (Smith *et al.*, 2009). The thesis aims to examine the practices of the Textiles Recycling Association (TRA) in the United Kingdom (U.K.) and how their practices impact on the Ghanaian SHC trade. It also seeks to engage the Kantamanto Traders Association of Ghana (importers, wholesalers and retailers) in evaluating how their trade practices integrate the three dimensions (economic, environmental and social) of the SHC trade in the Kantamanto market in Accra, Ghana.

The research study seeks to develop a conceptual understanding of the sustainable SHC trade in Ghana, and recommendations arising from such understanding. The study is distinct from other SHC trade studies that focus on consumption and the commodities' geographical differentiation. This study offers conceptual

understanding (propositions) for the integration of the three dimensions (*economic, environmental and social*) of sustainable development for the SHC trade. The study also proposes the implementation of the Three-R framework (*regulate, reuse and recycle*) for a sustainable SHC trade in Ghana. These propositions are aimed at contributing to the knowledge of the SHC trade in the Ghanaian context. Therefore, the philosophical interpretive approach employed in this thesis seeks to obtain new knowledge for future research and sustainable second-hand clothing trade practices which has contributed to the current sensitive economic situation within Ghana (Carr and Kemmis, 1986; Walsham, 1993).

The figure 5.1 below further summarises research methodology employed for the thesis: the main philosophical perspective, the qualitative methods (data-collection techniques- semi-structured interviews and participant observations) and the data analysis approaches to establish the validity and reliability of the research findings. These are explained in detailed in various sections of this chapter.

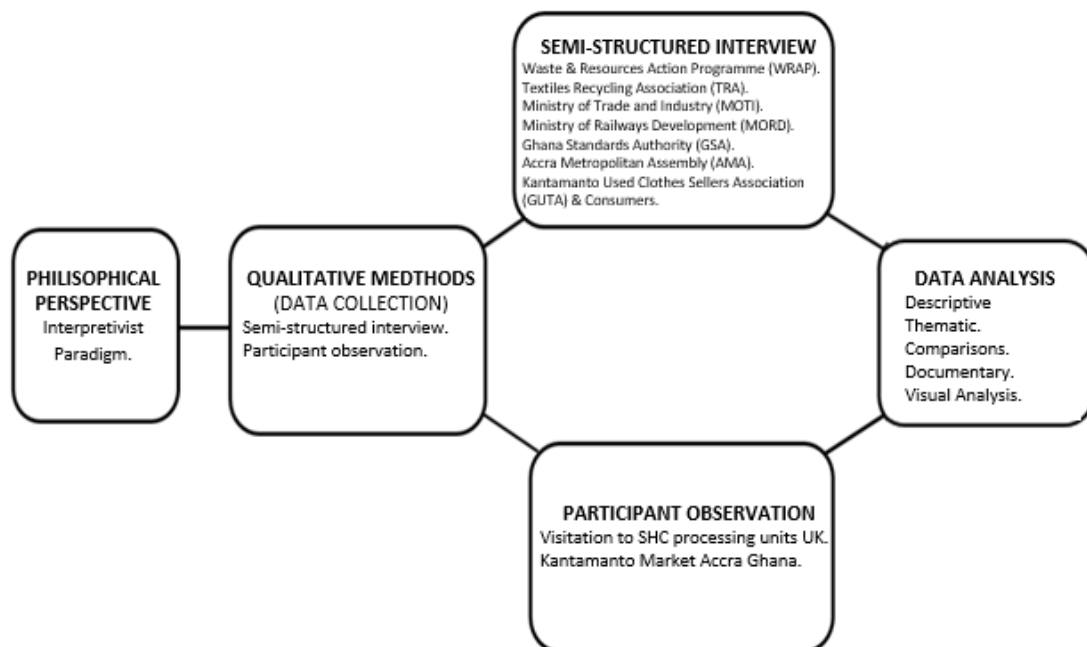


Figure 5.1. Methodology Outline.

5.1. Research Philosophical Perspectives

This thesis utilises an interpretive approach or method, which encompasses a view of complex human behaviour and social phenomena and has been found useful and pragmatic in interdisciplinary researches (Barker *et al.*, 2002; Yin, 2003, 2006; Collis and Hussey, 2013). Qualitative data collection and analysis provides intricate details of findings that are related to values and human experiences (Leedy and Ormrod, 2001). The determination of interpretive research is to deliver critical anthropological experiences in a specific context like the second-hand clothing trade (Burrell and Morgan 1979; Collis and Hussey 2013). The interpretivist approach is applied in this thesis to investigate, generate theory and share new knowledge in sustainable development, which will be applicable to a second-hand clothing (SHC) trade context (Glaser and Strauss, 1967; Lincoln and Guba, 1985; Walsham, 1995a; Travis, 1999; Cohen, *et al.*, 2000; Roode, 2003).

The interpretive approach helps us to understand the research participants' thoughts, ideas and experiences of the SHC trade. The interpretive approach reflects on the participants' perspectives concerning the sustainable development of the SHC trade in the U.K. and Ghana. The views and experiences of participants were gathered through the semi-structured interviews (Burrell and Morgan, 1979; Hill *et al.*, 1997; Smith *et al.*, 2009) to investigate the sustainable impact within the SHC processes in the West (U.K.) on developing countries such as Ghana. The interpretive approach also allowed the researcher to examine the integration of the sustainable dimensions (economic, environmental and social) of the SHC trade practices within the Kantamanto market in Accra, Ghana. The participants' observations were undertaken in order to understand the sustainable actions and activities in the SHC processing facilities of textile recyclers in the U.K. and the SHC trade practices within the Kantamanto market.

The table 5.1 below gives intelligibility to the philosophical perspectives of the qualitative research process and the methodological approach, which was qualitative (interpretivist paradigm). These philosophical perspectives are further explained thoroughly throughout this chapter.

Table 5.1. Philosophical Perspective of the Qualitative Research Process

RESEARCH PHILOSOPHICAL PERSPECTIVES	
BASIC PHILOSOPHY	INTERPRETIVISIM
ONTOLOGY (the nature of reality).	Multiple realities: the researcher provided quotes and photographs to illustrate the different research participants' perspectives of the reality (SHC trade).
EPISTEMOLOGY (the relationship between the researcher and the nature of reality).	Closeness: the researcher visited the research participants at their sites and also spoke to them on the phone to collect the data.
METHODOLOGY (the process of researching the reality).	Inductive: the researcher started with research participants' views and built up patterns, themes and generalisations using qualitative research methods.

Source: Author's interpretation for the research purposes (2017). (Adapted from: Patton, 1990; Elliott, 1995, 2000; Creswell, 2003; Yin, 2003; Cassell and Symon, 2004).

5.1.1. Qualitative approach

The research study adopted a qualitative approach to describe, interpret and facilitate a more engaging experience with the research participants. The qualitative approach sought the in-depth descriptions of participants' circumstances, attitudes, thoughts and beliefs, and direct quotes from participants' experience of the phenomenon and observations of trade practices and patterns (Patton, 2002). Qualitative research as an epistemological position is defined as an interpretivist approach where the emphasis is on understanding the social world through an examination of the interpretation of that world by its participants (Van Maanen, 1979; Bryman and Bell, 2015). Most authors recommend the qualitative approach as a valuable tool in social sciences and management studies (Borg and Gall, 1983; Denzin and Lincoln, 2000; Locke, 2001; Yin, 2003; Cachia and Millward, 2011; Silverman, 2013). According to Lofland and Lofland (1995), the epistemology underlying qualitative research *involves* face-to-face communication, which is considered as a form of participation in the mind of another person to acquire social knowledge.

This qualitative research as an interpretivist paradigm used methods of data collection that are flexible and sensitive to the social context in which data are amassed on patterns, trends and relationships between variables and developing theories (Grix, 2004). As defined by Strauss and Corbin (1990, p. 17), qualitative research is, "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification", and this research does not provide findings achieved via statistical procedures. This qualitative method offers non-numeric data such as texts or visuals (Bazeley and Jackson, 2013), which were gathered through verbal interactions with the research participants to facilitate in-depth views, perspectives and experiences of their social or anthropological and environmental experiences of the SHC trade (Miles and Huberman, 1994; Yin, 2003; Denzin and Lincoln, 2005; Berg and Lune, 2012).

The qualitative research approach is designed and applied in this thesis to achieve the aims of the research which is to develop sustainable SHC trade practices in the Kantamanto market in Accra, Ghana, based on the three-R framework (*regulate, reuse and recycle*). The use of a qualitative approach is appropriate due to the lack of quantitative (non-numerical) data descriptions concerning the SHC trade practices in

the locations focused on in this thesis (Silverman, 2000; Patton, 2002). The qualitative method was also applied to achieve in-depth understanding and to analyse the practical complications of sustainable imbalances in the SHC trade within the Ghanaian context. Furthermore, using the qualitative approach the researcher was able to build patterns and themes by organising data into units of information with a narrative method until a comprehensive set of themes was established (Strauss and Corbin, 1990; Brown, 1996; Creswell, 2009).

The qualitative research approaches complement the overall strategy of the thesis; the research questions; the literature review; the data collection, and the data analysis. Qualitative research evaluated the views and experiences of a small population samples via semi-structured interviews and participants' observations (fieldwork) to answer the research questions and objectives (Miles and Huberman, 1994; Denzin and Lincoln, 2005; Cooper and Schindler, 2011; Berg and Lune, 2012; Myers, 2013). Data were drawn from the world of experience of governmental and non-governmental agencies like trade associations of the SHC trade in the United Kingdom and Ghana. The participants included, Waste & Resources Action Programme (WRAP), the Textile Recycling Association in the U.K. (collectors, sorters, processors, and exporters), the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) (importers, wholesalers and retailers) in Ghana, the Accra Metropolitan Assembly in Ghana and the Ministry of Trade and Industry in Ghana, the Ghana Standards Authority, and the Ministry of Railways Development.

The qualitative approach allowed the researcher to scrutinise the SHC trade practices through semi-structured interview questions that were formulated using the research questions and the literature review (Ragin, 1994; Yin, 2003; Fischer, 2005; Berg and Lune: 2012; Bryman and Bell, 2015). The in-depth views and experiences of the research participants (governmental agencies and trade associations) relating to the economic, environmental and social dimensions were characteristically reflective, interpretive and descriptive and offered relevant experiences and perspectives (data) on the SHC trade practices in the areas researched (U.K. and Ghana).

The thesis employed the research samples in the U.K. gathered from organisations, which included the Waste & Resources Action Programme (WRAP), the Textiles

Recycling Association (TRA) and members of the association (collectors, sorters, graders and exporters) (see Table 5.1). The researcher contacted the research participants through direct e-mails and telephone contacts. He researcher sought to examine and explore the sustainable principles evident in the U.K. in the processing of SHC for exports and how the SHC processes (sorting, grading and baling) (sustainable principles) are transferred or imparted to developing countries including Ghana.

The integration of the sustainable dimensions (economic, environmental and social) in the SHC trade practices within the Kantamanto markets was critically examined by sampling the responses from directors of Ministry of Trade and Industry, Ministry of Railway Development, Ghana Standards Authority, Accra Metropolitan Assembly, Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA), and SHC traders and consumers (see Table 5.1). The participant observations were carried out in the processing facilities and the Kantamanto market to ensure data validity and reliability (Yin, 2003). The raw qualitative data from the semi-structured interviews and participant observation data were transcribed into 110 pages of written text for analysis. This qualitative approach allowed the researcher to determine the feasibility of sustainable trade practices in the research areas (Creswell, 2003).

The views and experiences (data) of the research participants were interpreted and analysed (measured) to answer the research questions and objectives and ensure that the research findings presented new knowledge about the sustainable development of the SHC trade. Data gathered from the fieldwork were transcribed and coded to identify the themes or patterns within the data that emerged as essential to the description of the sustainable development of SHC trade (Daly *et al.*, 1997) (see section 5.2). The process involved the identification of themes through “careful reading and re-reading of the data” (Rice and Ezzy, 1999, p. 258). The research participants’ views and experiences (themes) within the SHC trade contexts were analysed through a thematic analysis approach using direct quotations, pictures, tables and matrices. Major themes and sub-themes were analysed by an interpretive thematic analysis approach. These findings were analysed laterally using the dimensions (parameters) of sustainable development: economic, environmental, and social.

The triangulation of the views and experiences (themes) of the research participants strengthened the findings of the thesis (Yin, 2003). Triangulation is cross-checking the consistency of data collected at different times and by different methods for qualitative research. The logic of triangulation is founded on the principle that a single method of data collection may not adequately provide the explanations and interpretations of the data. Triangulation as an approach uses “multiple observers, theoretical perspectives, sources of data, and methodologies” Denzin (1970, p. 310).

The research focused on comparing observational data with interview data to ensure the consistency of participants’ perspectives in the second-hand clothing trade and validating the information obtained by checking documents and other written evidence that corroborated their reports. Multiple data collection methods are therefore likely to reveal diversity of the features of the empirical reality and provide further grist or authenticity to the research process (Patton, 1999). The combination of semi-structured interviews and participant observation in this thesis helped to counter the inevitable bias and incidence of untrue responses associated with this type of research. It also provided cross-data validity checks and drew conclusions to ensure dispassionate interpretations that contributed to new knowledge within the conceptual framework (Miles and Huberman, 1994; Perry, 1998; Creswell, 2003; Yin, 2003; Berg and Lune, 2012). Triangulating interviews and participant observations increased the validity and confidence in the final results.

5.1.2. Case study approach

A qualitative case study is an approach to research or explore a situation, event or phenomenon within its context using a range of data sources (Yin, 2003; 2009).

Writing and speaking about case studies for different purposes of research is acclaimed by popular authors like; Miles and Huberman, 1994; Glaser and Strauss, 1967 and Lincoln and Guba, 1985. A case study is a social phenomenon carried out within the limits of a particular (individual) social system (the case), or within the confines of different (numerous) social systems (the cases), such as people, organisations, groups, individuals, local communities or nations, in which a phenomenon to be studied exists (Glaser and Strauss, 1967; Yin, 1994; Miles and Huberman, 1994; Stake, 2006). Therefore, a case study presents a distinctive opportunity to focus on social interactions to develop meanings that participants attach to social processes, acts or contexts. The case study approach for this thesis was considered to cover the contextual conditions relevant to the SHC trade under study.

The case study approach was used as an intensive and systematic investigation of SHC trade in the U.K. and Ghana, in which the researcher examined in-depth data relating to sustainable development of the trade. This method allowed the researcher to narrow the broad topic of sustainable development down into manageable research questions relating to the SHC trade. By this approach, information was collected about the SHC trade practices within each case using semi-structured interviews and participant observations. Membership in trade unions and key stakeholders in the SHC trade determined the selection of participants in the U.K. and Ghana case studies (see Table 5.2).

The evaluation of the cases in the U.K. and Ghana provided answers to the research questions and a comprehensive exploration of theory (Stake, 2006). The multiple case study approach helped in determining the boundaries and development of the research questions (Yin, 2003, Miles and Huberman, 1994) as illustrated in Table 5.2. In this multiple-case study, the analysis chapter was structured as within-case analysis and cross-case analysis by comparing the themes emerging from the empirical evidence in the cases to compensate for the limits in the information of each other. Conclusions were drawn by putting together the data and interpreting the correlations between the SHC trade in the U.K. and Ghana. The study identified the sustainable principle

impact of the Western textiles recyclers on the SHC trade in developing countries, the integration of the three dimensions of sustainable development (economic, environmental and social) and the extent to which the three-R framework (regulate, reuse and recycle) can influence the implementation of sustainable development dimensions of the second-hand clothing (SHC) trade practices in the Kantamanto market.

Table 5.2. Definitions of the case studies for the thesis

Types of Case Study (Context)	Research Questions
<p>U.K.:</p> <ul style="list-style-type: none"> ▪ Waste & Resources Action Programme (WRAP) ▪ Textiles Recycling Association (TRA) ▪ LMB Textiles Recyclers ▪ Bristol Textiles Recyclers ▪ Chris Carey's Collection 	<p>1. How do the sustainable development principles of the second-hand clothing (SHC) processing in the West (U.K.) affect the local second-hand clothing (SHC) trade practices within the Kantamanto market in Accra, Ghana?</p>
<p>GHANA:</p> <ul style="list-style-type: none"> ▪ Ministry of Trade and Industry (MOTI) ▪ Ministry of Railways Development (MORD) ▪ Ghana Standards Authority (GSA) ▪ Accra Metropolitan Assembly (AMA) ▪ Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) ▪ Importer of Second-Hand Clothing ▪ Wholesaler of Second-Hand Clothing ▪ Retailers of Second-Hand Clothing ▪ SHC Consumers 	<p>2. How can the integration of the three dimensions of sustainable development (economic, environmental and social) promote the successful sustainable SHC trade within the Kantamanto market?</p> <p>3. To what extent would the Three-R framework (regulate, reuse and recycle) influence the implementation of sustainable development dimensions of the second-hand clothing (SHC) trade practices in the Kantamanto market?</p>

Source: Author's interpretation for the research purpose.

5.1.3. Semi-structured interview

A qualitative research interview is defined as “an interview, whose purpose is to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena” (Kvale, 1983, p. 174). Kvale and Brinkmann (2009, p. 2) also suggested that, an interview is a “professional conversation” where “inter-views” are exchanged and “knowledge is constructed in the inter-action between the interviewer and interviewee”. Further, “the interview is used to gather descriptive data in the subject's own words so that the researcher can develop insights on how subjects interpret some piece of the world” (Bogdan and Biklen, 1982, p. 135).

Semi-structured interviews are a fundamental element of qualitative research as they can be utilised in the data collection process together with other methods within the same research study (Brewerton and Millward, 2001).

“The semi-structured interview, therefore, has the advantage of being reasonably objective while still permitting a more thorough understanding of the respondent's opinions and the reason behind them than would be possible using the mailed questionnaire” (Borg and Gall, 1983, p. 442).

The semi-structured interview is therefore a fundamental tool in qualitative research and is characterised by features from both structured and unstructured interviews. Semi-structured interviews have a degree of structure in their implementation by using an interview guide (see appendix D). This constructed interview guide ensures that all the research participants receive questions in common. However, additional questions can be introduced to facilitate further exploration of the subject to enrich the data and fulfil the research aims.

An introductory letter describing the study was designed to establish contact with a targeted population and to increase the potential leverage for involvement. For a better response rate, the letter was sent out in advance prior to the survey. De Leeuw *et al.* (2007) asserts that advance letters are effective in increasing the average response rate by 11%. The letters provided information about the aim of the research study and the contacts via email (see appendix B). The contact email was used by respondents to cancel or re-arrange interviews therefore it was a valuable link

between the researcher and the participants (sample group). Written consent forms (protocol) (see appendix C) were also sent to the research participants who expressed interest in participation through e-mails they sent to the researcher. Thereafter, telephone communications were made with the interviewees specifying mutually scheduled days and venues. The telephone communications as a preliminary conversation built rapport with the participants and an appointment was scheduled for the semi-structured interview.

Representatives of the Waste & Resources Action Programme (WRAP) U.K. were interviewed to provide insights into the sustainable policy interventions in used clothing collection and processing in the United Kingdom. The Textile Recycling Association (TRA) U.K. and members of the association comprising SHC collectors, sorters, processors and exporters in the U.K. were interviewed to provide professional insights into the sustainable impacts (benefits) their trade practices bring to the economic, environmental and social aspects of the SHC trade in developing countries such as Ghana. This qualitative research employed semi-structured interviews to gain in-depth understanding of the views and experiences of the interviewees or participants in Ghana. The participants were the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) (importers, wholesalers and retailers); the second-hand clothing consumers in the Kantamanto market; the Accra Metropolitan Assembly (AMA); the Ministry of Trade and Industry (MOTI) in Ghana; Ghana Standards Authority (GSA), and the Ministry of Railways Development (MRD).

The semi-structured interviews were conducted as face-to-face interviews in Ghana and the U.K. with individuals who were geographically accessible. The semi-structured interview approach gave an understanding of their experiences and perspectives of the second-hand clothing trade practices in the Kantamanto market, which were analysed by qualitative techniques in this thesis. The semi-structured interviews were carried out over a period of three months (June to September 2017) allowing sufficient time for the researcher to gather the requisite data about the experiences and views for sufficient analysis (Berg and Lune, 2012). The semi-structured interview offered opportunities to change the words but not the meaning of questions and, in some cases, wordings from interviewees that were considered

inappropriate were omitted and additional ones included. However, all the participants were given the same key questions related to the themes, as it was important to standardise the semi-structured interviews and facilitate comparability and explore their views regarding the sustainable development of the second-hand clothing trade.

All semi-structured interviews were conducted in situations familiar to the participants and, as much as possible, without interference. The semi-structured interviews allowed the interviewees to discuss and give critical suggestions on the circumstances within the SHC trade, freely, in a comfortable manner over the telephone or during face-to-face interviews. The qualitative interview therefore provided an in-depth understanding of the research context (Silverman, 2013; Yin, 2013) and allowed the interviewees to provide rich insights regarding the concept of sustainable development of the SHC trade within the two research areas (U.K. and Ghana). The questions in the semi-structured interview were developed by listing a number of questions (and supplementary questions) (see appendix D) to solicit informative detailed and clear answers to the research questions stated in Chapter 1 of this thesis. A series of open-ended questions based on the topic provided opportunities for various major and sub-themes to emerge. The interview questions were sufficiently flexible to allow themes to emerge throughout the discussions. The interview questions were listed into different flexible sections; **economic, environment and social well-being** and supplementary questions on the sub-themes; **regulate, reuse and recycle**.

The semi-structured interview questions were leading, probing and closely related to the research questions established in the research study (Chapter 1), the literature review (Chapter 3) and the conceptual framework (Chapter 4). They aimed to prevent possible undermining of the validity of the researcher (Maxwell, 2013). The semi-structured interviews were conducted in English with identical wordings and topics (themes) for all the participants. However, there were variations in the interview questions for experts such as directors, supervisors and presidents of companies and organisations to ensure comparability of the research results (See appendix D). The semi-structured interviews were a valuable approach, as their use provided a space for

critical and probing discussions concerning the existing and practical situations of the research participants.

Using semi-structured telephone interviews in the qualitative data collection was relevant for participants who were not geographically accessible (Bryman and Bell, 2015). The participants of WRAP (U.K.), Director, Ministry of Trade and Industry and Director, Ministry of Railway Development, Ghana contributed their views and experiences to the research study via telephone interviews as attempts to meet them for face-to-face interviews were not feasible due to their work schedules. However, detailed information was drawn from these participants indicating the suitability of telephone interviews, and proved no better or worse than those conducted face-to-face. The semi-structured interviews were undertaken in an informal manner with interviewees given opportunity to make further comments through follow-up questions where it was appropriate. Higher response rates were obtained with the semi-structured interview technique; hence, the whole process involved keeping track of the rapidly growing volume of notes, tapes, and documents to develop and outline an analytic process and ongoing conceptualization.

The 20 semi-structured interviews were audio recorded and field notes taken during and after the interviews in the same order as set out in the interview guide (see appendix D). The responses of the interviewees (transcripts and documentations) from the participants were stored in a database securely and anonymously withholding the identities of the interviewees (Weiss, 1994; Yin, 1994; Van Maanen, 1995). The use of audio/ audio-visual recorders ensured an identical replication of the contents of each interview to facilitate analysis, reveal the transparent interactions between participants and researcher that helped validate the accuracy and completeness of the data collected and minimise subjectivity. The semi-structured interview is an effective tool to collect rich textual data for subsequent analysis by qualitative methods.

However, the drawback of the semi-structured interviews was the unwillingness of some traders and consumers in the Kantamanto market to participate in the research as they were concentrating on conducting their businesses. In similar fashion, a number of textiles recyclers contacted via email and telephone in the U.K. chose not to participate in the research study and their reasons were not explained or communicated in any correspondence.

5.1.4. Participant observation

Participant observation is based within the interpretivist/constructivist paradigm and it is a key method in anthropological and sociological research that acknowledges the importance of context and the construction of knowledge between researchers and the researched (Patton, 2002; Bryman and Bell, 2015). Participant observation is a natural qualitative data collection process mainly used to complement data gathered from interviews and provides further insights into participants' oral comments (Angrosino and Mays de Perez, 2000). The method of participant observation allows for very close proximity to a state of affairs or occurrence, which empowers the researcher to obtain qualitative data through participants' behaviours, expressions and other nonverbal suggestions in the same setting as interviews are conducted (Layder, 1993; Potter, 1996; Creswell, 2003). This approach guarantees that the researcher maintains a professional distance to ensure a balance in the participants researched and the research settings for proficient data collection and recording (Fetterman, 1998).

In this thesis, the participant observations were guided by the research objectives and within the parameters of the research purpose, which aimed to discover, describe and represent the sustainable practices of the current SHC trade. The participant observations were undertaken alongside the semi-structured interviews and captured the tacit knowledge to complement viewpoints of the participants about the setting or context of the SHC trade. The researcher was committed to ensure first-hand exploration of the trade practices in the research settings (U.K. and Ghana) based on sustainable development framework (Atkinson, *et al.*, 2002; Ellis, 2007). From the sustainable development perspective, the participant observations were fully based on the relevance of the socio-economic and socio-environmental circumstances of the SHC trade within each research setting (U.K. and Ghana). The participant observations were targeted at providing primary information about the integration of economic activities into the environmental and the social dimensions of the SHC trade.

Based on the sustainable development context, the participants' observations scrutinised the sorting and grading staff within the LMB Textiles Recyclers, Bristol Textiles Recyclers and Chris Carey's Collection in the U.K. The participants' observations is to examine how the SHC items are processed to guarantee resalable SHC qualities, ensure profits of local retailers in countries of destination (economic),

safeguard recyclable potentials (environment) and ensure wider reusable contents of SHC items (social) in developing countries. Participant observations in the Kantamanto market aimed at exploring how the physical characteristics are suitable to the economic setting/ market design (environment) and the extent to which reusable and recyclable value of bale contents and trade activities by the traders and consumers are interlocked in the environmental challenges (social). Participants' observations in the Tema Harbour in Ghana also focused on scrutinising the Ghana Standards Authority (GSA) personnel's capacity to check/regulate the quality of SHC imports (bales) that are wearable or sellable. These participants' observations are summarised in the table 5.3 below and further details of the researcher's role and activities in the participants' observations are explained in the subsequent section.

Table 5.3. Summary of Participants' Observations for the Thesis

Research Area (Setting)	Period (Month/ Year)	Duration (Hours)	Contextualisation (Focus)
U.K. SHC Processing firms (LMB Textiles Recyclers -London, Bristol Textiles Recyclers -Bristol and Chris Carey's Collection, Kent).	June, 2017	8:00am to 16:30pm daily (2 visits to each processing firm).	Sort/grade resalable qualities to ensure profits of retailers in countries of destination (economic). Ensure recyclable potentials in countries of destination (environment). Wider reusable/sellable contents of SHC items (social).
Ghana (Kantamanto market and Tema Harbour).	July and August, 2017	8:00am to 16:30pm daily (6 visits to Kantamanto market and 2 visits to Tema Harbour).	Capacity to check/regulate the quality SHC imports that is wearable/ sellable (economic). Physical characteristics of economic setting/ market design (environment). Reusable and recyclable value of bale contents and trade activities interlocked in the environmental challenges (social).

Source: Author's interpretation for the research purpose.

The participant observation took into account the potential researcher effects and the need to resist collecting data that is not relevant to the research study and potential ethical issues. The participant observation technique was used overtly as the researcher's identity was revealed based on the research ethics. In this regard, informed consent from the participants being studied was obtained which is similar to the consent received for the semi-structured interviews. The consent was obtained to avoid ethical repercussions and enhance the validity of the thesis (Denzin and Lincoln, 1994). Also, the researcher's identity was not concealed to ensure better interaction with participants and encouraged discussions on the sustainable development of the SHC trade. The distinctive contribution of the fieldwork was recognized and received support from the ethics review committee (Tope, *et al.*, 2005).

After obtaining ethical clearance from the University of Southampton Research Ethics Committee, a solo research work was embarked upon to three SHC processing firms in the U.K. within the month of June 2017. The research participants' activities were observed as they occurred e.g., sorting, grading and baling in the U.K. The participant observation took about two to three hours from Southampton to London, Kent and Bristol in the U.K. The participant observation started as early as 4:00am and ended around 17:30pm daily. The participant observation was conducted by taking notes, recording videos and taking photographs and interrogating the actions or practices of the research participants.

The participant observations undertaken in the SHC processing firms in the U.K. recorded workers sorting the SHC into different categories like adult trousers, ladies' jeans, blouses, men's cotton shirts, among others. Grading processes were also observed as the SHC items were graded for the different export markets and the processes of baling and labelling were all captured on video tape and in the field notes. The participants' observation enhanced the real-life data by providing critical insights into the SHC processing in the U.K. The activities were captured as snapshots to enrich the visual accounts of the SHC processing in the U.K. as recorded in the data analysis chapter of the thesis. The participant observation also established the raw facts about the sustainable principles of the SHC processing within the socio-cultural backgrounds of the U.K.

The researcher's role in the complexity and dynamics of the Kantamanto market was based on the non-intimacy of the researcher to the research setting. This involved a curious evaluation and recording of actions and events without the interference of any researcher's prior knowledge of the setting and activities. The field trips to the major SHC market in the central business district of Accra were undertaken from July 2017 to August 2017. The journey from home (Tema) to the Kantamanto market (Accra) took about one to two hours; while home (Tema) to the Port of Entry (Tema Harbour) took about 30 minutes. These participant observations started around 8:00 am and ended around 16:30pm daily. During the participant observation, retailers were captured purchasing bales of SHC from the warehouses of importers and wholesalers.

Activities of the participant researcher included observing trading activities, particularly buying of SHC bales, opening, sorting and reselling of individual SHC items in the Kantamanto market. This involved observing the participants based on the economic dimension of the SHC trade from the perspectives of the trade practices of importers, wholesalers, traders and consumers. The involvement of the research participants in the current spatial organisation of economic activities in the Kantamanto market and deprived social amenities or infrastructure was captured during the participant observation. The critical focus was on the adverse effect of the environmental arrangement of the Kantamanto market on the social-well-being of traders and consumers, which were equally captured in visuals (videos and photographs). The participant observation was significant for the determination of how the three dimensions (economic, environmental and social) of sustainable development are integrated in the Ghanaian SHC trade.

Data of the trading practices as seen and perceived in the Kantamanto market were recorded by the researcher on the spot and kept as journal. The data reflected the constructive and destructive experiences of the traders and consumers during each trip. Notes from the journal were condensed and expanded depending on the relevance of the practices and situations observed to ensure the structural and organisational features of data collected on the SHC trade practices. The participant observation highlighted the definition of the SHC trade based on sustainable development constructs as it uncovered the overlooked, marginalized sustainable principles in the SHC trading practices on day-to-day basis.

Various challenges were identified during the participant observation, as acquiring informed consent was a constant difficulty during the participant observation in the Kantamanto market. While the researcher tried to explain the study aim to the participants (traders), most of them were doubtful about the intent of the research because of previous controversies surrounding the allocation of the market. It was also challenging to explain the research to and obtain consent from consumers in the busy Kantamanto market setting. Again, it was very demanding to collect video recordings in the Kantamanto market as most of traders and consumers engaged in the SHC trade were not comfortable to be captured on tape. The difficulties in writing the field notes by standing in the overcrowded market space without the help of research assistants during the participant observation (taking video recordings), made it difficult to take notes, but this was however subjugated by the researcher's determination to collect the relevant data.

In reflection, the experience of the participant observation approach helped enrich the data by adding depth to the textual data on the sustainable challenges that exist in the research settings. The participant observation method ascertained the views and experiences (text) of the research participants to the actual happenings (visuals) within the contexts of the thesis (triangulation) (Denzin and Lincoln, 2005; Hammersley and Atkinson, 2007). Objects, acts, activities and spaces captured visually were aligned with direct quotations or verbal descriptions of the participants and included as part of the transcriptions. The written representation of the research study incorporated the collected visual data into textual form to give depth to the research findings.

Visual data from the participant observation approach facilitated greater understanding and captured representation of the current SHC trade practices and consistently yielded details of the uncovered universal challenges and inherent dilemma on the sustainable development in the global SHC trade perspective. Given the active evidences gathered through the participant observations, the researcher contends that the issues of sustainable development must be addressed beyond the simple considerations of local traders to a more thoughtful global stakeholder policy aimed at resolving the economic, environmental and social challenges identified in the SHC trade.

5.1.4.1. Visual Data Collection

Several qualitative researchers have encouraged the use of visuals (photographs) to give understandings of several disciplines, including cultural anthropology, visual culture, visual critical theory, visual sociology, marketing and consumer research, and social sciences (Collier and Collier, 1986; Heisley and Levy, 1991; Becker, 1995; Banks, 2001). Visual data (photographs and videos) of scenes are deemed meaningful and represent the researcher's key concepts of interest (Banks, 2001; Denzin and Lincoln, 2005). The major focus of visual data collection is to capture authentically the lived experiences of participants and create in the social context the researcher's representation of inescapable link between experience and text (Denzin and Lincoln, 2005).

Visual data collection pertaining to the sustainable SHC trade was to produce imagery that visualised the truth of the experiences within the different research areas (Denzin and Lincoln, 1994). The visual data were taken to illustrate the significance of the interviewees' views and experiences in the semi-structured interviews (Boyle, 1994; Van Maanen, 1995). The epistemological basis for undertaking the visual data collection from a qualitative perspective is grounded in the firm prerequisite to record the detailed social interaction, in order to ensure accuracy and not conjectures. Visual data collection has epistemological primacy over other methods, as it provides important interpretations that are ontologically dependent upon the researcher's moment of engagement with the participants. The visual data collection technique was used to gather various kinds of images that consciously constructed or represented the real world of the SHC trade.

The visual data recorded the actual activities being investigated as it provided a reflexive manner to the everyday practical economic, environmental and social engagements of the SHC sorters, graders and exporters (processing firms) in the U.K. The visual data offered the demonstration of how the sustainable principles (economic, environmental and social dimensions) by SHC processing firms in the U.K. are transferred to the sustainable development of the SHC trade in other parts of the world like Ghana as captured in the website of the Textiles Recyclers Association (TRA), U.K. Also, through the visual data collection, the research provided an analytic view of the sustainable development of the SHC trade in the Ghanaian context. Visual data collected during the participant observations allowed the

researcher to capture the physical settings (environment), the SHC trading practices and the current of informal scenes and the impact on the social well-being of the traders and consumers. It provided detailed depictions of contextualized economic, environmental and social realities of the SHC trade within the Kantamanto market. These visual imageries (photographs and videos) were evidentiary materials to effectively represent the experiences of the research participants. The visual data provided live and playback experience on how participants carried out their activities to enhance researcher's understanding of the SHC trade.

5.2. Research area

5.2.1. The United Kingdom

This research study selected the United Kingdom as a research area for the essential role it plays in the global SHC trade. More than 70% of the world's multi-million-pound SHC trade consists of donations of used clothes from the United Kingdom (U.K.) (Hansen, 2004a; Brooks, 2015). The U.K. also has the highest rate of SHC exports in Europe (Ouvertes Project, 2005) and is the second largest global SHC exporter after the United States of America. The U.K. exported more than £380m (\$600m) worth of discarded fashion to overseas destinations in 2013 (Fashion United, 2014). Focusing this research study on the U.K. is therefore both expedient and relevant for a U.K.-based researcher as a considerable amount of data can be easily collected.

The Waste & Resources Action Programme (WRAP) in the U.K. was sampled to provide insights into the sustainable policy interventions on used clothes collection and processing in the U.K. The Textiles Recycling Association (TRA) in the U.K. was also sampled as it shares similar core objectives of bringing environmental, social and economic benefits to the industry both in the U.K. and other parts of the world such as Ghana and is very significant to this research study's objective of exploring the Western (U.K.) economic, environmental and social impact of the trade on Ghanaian second-hand clothing trade practices. The Textiles Recycling Association (TRA), U.K. has a membership comprised of second-hand clothing collectors, sorters, processors and exporters and their experiences and perspectives on the second-hand clothing trade phenomenon are pertinent for the findings of this research.

The United Kingdom was also significant for the research as it has a historical, political and economic relationship with Ghana. The U.K. spent a significant \$65 million on exporting SHCs to Ghana alone (UNCOMTRADE, 2011; Wilde, 2014). According to the United Nations Comtrade (2013), Ghana is a major importer of SHC from the U.K. and therefore a suitable area for this research.

5.2.2. Ghana

Ghana serves as a sub-Saharan regional import and export hub for the SHC trade (Brooks, 2013). The capital city of Ghana, Accra has been selected as the research focus of this study as it has more business districts than any other town or city in Ghana and serves as an economic hub with important commercial, manufacturing and communications centres. The central business district in Accra has a wide variety of commercial activity relatively disorganised, unstructured and conducted in crowded open-air markets (Castells and Portes, 1989). Undertaking the research on the sustainable dynamics of the SHC trade practices in Accra seeks to provide appropriate answers for this study's research questions.

The Kantamanto Market is the heart of the SHC trade in Ghana and represents a prominent commercial centre in the central business district of Accra. Following pilot activities during the period of July 2015, July 2016 and July 2017, it was evident that the Kantamanto market could provide a range of research participants the majority of whom are importers, wholesalers and retailers of SHC in the market. The Kantamanto market is significant as a research area to be surveyed in depth to help determine the accurate research findings for this study. The sustainable impacts of Western SHC imports on developing countries are essentially investigated from the U.K. and Ghanaian perspectives. The study also investigates the integration of the three dimensions (economic, environmental and social) of sustainable development and the implementation of the three-R framework (*regulate, reuse and recycle*) for a sustainable SHC practices within the Kantamanto market in Accra, Ghana. The empirical research (semi-structured interviews and participants' observations) was therefore undertaken in the U.K. and Ghana as itemised in Table 5.4.

Table 5.4. List of Research Participants for the Thesis

Research Participant (Interviewee)	Research Area	Description of Role in the Second-Hand Clothing Trade	Data collection method/ Duration
Waste & Resources Action Programme (WRAP)	U.K.	Policy body for the U.K. government on the sustainable policy interventions on the second-hand clothing processing.	Telephone interview (30 to 45 minutes).
Textiles Recycling Association (TRA)	U.K.	Trade body for the textiles recyclers (collectors, sorters, graders and exporters).	Face to face interview (1 to 2 hours).
Second-Hand Clothing Processing Company 1	U.K.	LMB Textiles Recyclers (collector, sorter, grader and exporter).	Face to face interview (40 to 60 minutes).
Second-Hand Clothing Processing Company 2	U.K.	Bristol Textiles Recyclers (collector, sorter, grader and exporter).	Face to face interview (40 to 60 minutes).
Second-Hand Clothing Processing Company 3	U.K.	Chris Carey's Collection (collector, sorter, grader and exporter).	Face to face interview (40 to 60 minutes).
Ministry of Trade and Industry (MOTI)	GHANA	Provider of Government policy direction on the importation and trade of second-hand clothing.	Telephone interview (30- 45 minutes).
Ministry of Railways Development (MRD)	GHANA	Oversight Ministry of the leased the Kantamanto market location to the Kantamanto Used Clothes Sellers Association.	Telephone interview (30- 45 minutes).
Ghana Standards Authority (GSA)	GHANA	Mandated under (MOTI) Act 503 to regulate the importation of the second-hand clothes.	Face to face interview (40 to 60 minutes).

Accra Metropolitan Assembly (AMA)	GHANA	Planning and management of the trade activities of the capital city Accra.	Face to face interview (40 to 60 minutes).
Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA)	GHANA	Trade body for Second-hand clothing importers, wholesalers and retailers in the Kantamanto market, Accra –Ghana.	Face to face interview (40 to 60 minutes).
Importer of Second-Hand Clothing	GHANA	Second-hand clothing importer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
Wholesaler of Second-Hand Clothing	GHANA	Second-hand clothing wholesaler in the Kantamanto market.	Face to face interview (40 to 60 minutes).
Retailer of Second-Hand Clothing 1	GHANA	Second-hand clothing retailer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
Retailer of Second-Hand Clothing 2	GHANA	Second-hand clothing retailer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
Retailer of Second-Hand Clothing 3	GHANA	Second-hand clothing retailer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
SHC Consumer 1	GHANA	Second-hand clothing consumer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
SHC Consumer 2	GHANA	Second-hand clothing consumer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
SHC Consumer 3	GHANA	Second-hand clothing consumer in the Kantamanto market.	Face to face interview (40 to 60 minutes).

SHC Consumer 4	GHANA	Second-hand clothing consumer in the Kantamanto market.	Face to face interview (40 to 60 minutes).
SHC Consumer 5	GHANA	Second-hand clothing consumer in the Kantamanto market.	Face to face interview (40 to 60 minutes).

Source: Author's interpretation for the research purposes.

5.3. Research sample

The purposive sampling method was appropriate for the research and the data desired. This qualitative sampling technique allowed the researcher to engage with specific groups of participants with the requisite experience and knowledge vital for the research objective (Teddlie and Yu, 2007). The sampling technique identified and selected individuals who were particularly knowledgeable and experienced in the second-hand clothing trade (Patton, 2002; Creswell and Plano Clark, 2011). The vital factor for participation in the empirical study included the ability to communicate experiences and opinions about the subject in an articulate and reflective manner (Bernard, 2002).

This purposive sampling method set parameters of the population (Denzin and Lincoln, 2011; Silverman, 2013) in the U.K. and Ghana (see figure 8). The research sample was selected based on two main factors: the aims of the study and the number of participants willing to contribute to the project. To acquire a sufficient number of participants' self-administered online sampling tools such as emails and letters were sent to the specific participants, or they were contacted via personal phone calls (see appendix B). These sampling tools helped the researcher to collect information from the relevant research participants in a timely manner.

Waste & Resources Action Programme (WRAP) which is a policy body for the U.K. government was purposively sampled to provide views on sustainable policy interventions on the SHC processing and exportation of used clothing to markets in developing countries. The Textiles Recycling Association (TRA) in the U.K. was specifically sampled as it highlights the environmental, social and economic benefits that the industry brings both in the U.K. and in other parts of the world (Textiles Recycling Association, official website, 2018). This core objective fits into the research aim and conceptual model of developing a sustainable SHC trade in Ghana. Furthermore, to understand the current sustainable efforts of second-hand clothing firms in the U.K., members of the Textiles Recycling Association (TRA) specifically engaged in collecting, sorting, processing and exporting to developing countries like Ghana were purposely sampled. Members of the Textiles Recycling Association (TRA) in the U.K. include Bristol Textiles Recyclers, Chris Carey's Collections,

LMB Textiles Recyclers, Savanna Rags International Ltd, TIC International Ltd, Recycling Solutions (NW) Ltd and Tradeway Shipping, among others.

The Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) whose membership comprises of importers, wholesalers and retailers were also purposively sampled for the research, as were the consumers of SHC. The Kantamanto market where they mainly operate is identified in the research overview as the key hub in the SHC trade in Ghana and currently generates between US\$5 million to US\$10 million in daily sales (Oteng-Ababio *et al.*, 2015). The key governmental agencies who play critical roles in the development of the SHC trade in Ghana are the Accra Metropolitan Assembly (AMA) and the Ministry of Trade and Industry (MOTI), the Ministry of Railway Development (MRD), and the Ghana Standards Authority (GSA). The Accra Metropolitan Assembly (AMA) was purposively sampled because they are in direct control of the planning and management of the activities of the capital city and the business districts. The Ministry of Trade and Industry is also essential for the provision of data on the Government's policy direction on the development of the SHC trade in Ghana. The Ministry of Railways Development was sampled, as they are the governing body of the Ghana Railways Company Limited that leased the Kantamanto market location to the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA). The Ghana Standards Authority was also a relevant sample as they are mandated under the Ministry of Trade and Industry (MOTI) Act 503 to regulate the importation of SHC in the country.

5.3.1 Sample size

Qualitative data often focus on smaller numbers of people than quantitative data, yet the data tends to be detailed and rich through their interpretation and analysis (Miles and Huberman, 1994; Yin, 2003). The sample size in a qualitative research is usually required to be large and varied enough to determine the research context, analysis and findings (Marshall, 1996; Kuzel, 1999; Patton, 2015). Perry (1998) suggests that the number of participants needs to be valuable and represent an acceptable number for a research study and to offer good insights into the research objectives. Warren (2002) recommends that, a qualitative interview study requires a minimum number of between 20 and 30 qualitative interviews to be published. However, if theoretical saturation is achieved, the criterion for sample size is pointless. This implies that the criterion for sample size is everything it will take to achieve theoretical saturation and data are not generalised inappropriately (Bryman and Bell, 2015).

In this research, 20 participants were purposively sampled as a good round number for the semi-structured interviews, which were complemented with participant-observations. The sample size of 20 presented a satisfactory reflection of the real world of the SHC trade and helped the researcher to build and maintain a close relationship with the research participants to achieve honest, valuable theoretical data or responses from the participants who were required to answer the research questions. This is in line with data saturation in qualitative sampling and the emphasis on repetitive evidence, suggesting a discontinuation of the process (Ragin and Becker, 1992; Miles and Huberman, 1994).

The 20 research participants included 15 participants sampled from Ghana, comprising of consumers of SHC in the Kantamanto market, members of the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) (importers, wholesalers, and retailers), the Accra Metropolitan Assembly (AMA), the Ministry of Trade and Industry (MOTI), the Ministry of Railways Development (MRD) and the Ghana Standards Authority (GSA). The five participants sampled from the U.K. were from the Waste & Resources Action Programme (WRAP) U.K., The President of the Textiles Recycling Association (TRA) and three members of the (TRA) (sorters, collectors, processors and exporters of SHC).

5.4. Validity and Reliability

The notion of truth through measures of reliability and validity is exchanged for the notion of trustworthiness (Mishler, 1990). The problem of adequate validity or reliability requires authenticity and confidentiality of the viewpoints of participants (Thorpe and Holt, 2008; Denzin and Lincoln, 2011). The validity and reliability (trustworthiness) of this research was tested through a credible and defensible structure for undertaking and documenting high-quality qualitative research (Johnson, 1997). The validity and reliability of this research involved conducting face-to-face interviews and observing participants (in the U.K. and Ghana) to reflect the interpretivist [qualitative] conceptions (Seale, 1999).

5.4.1. Validity

In qualitative research, validity is the impartial truthfulness of research theory (secondary data) when it is compared with the empirical findings (Maxwell, 2005; Yin, 2009). Validity is an outcome of qualitative research that follows the precision of empirical study (fieldwork) which merges with secondary data through a triangulation technique for the plausible explanation, and achieves the research findings (Miles and Huberman, 1994). Joppe (2000, p. 1) explains that:

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are.

LeCompte and Goetz (1982) assert that validity (internal) is whether there is a decent balance between researchers' observations and the theoretical ideas they develop - i.e. *conceptual framework*. The design and implementation of this research process ensured reliability between the research question, literature review, data collection methods and analysis as data were systematically reviewed and checked with a focus maintained on achieving the research findings (Kvale, 1989; Creswell, 1997).

The validity necessitated the identification of the perspectives of the research participants and the theoretical propositions in Chapter 4 of the thesis (Miles and Huberman, 1994; Thorpe and Holt, 2008; Denzin and Lincoln, 2011). To explain and establish the validity of the qualitative research, the thesis employed semi-structured interviews (face-to-face) conducted among 20 research participants and participant observations within two research areas (U.K. and Ghana). These qualitative data were

collected from a sample size of 20 participants, which was satisfactory to represent the entire research areas; and falls in the recommended range of 20 to 50 (Perry, 1998).

The key theoretical understanding from secondary data and empirical study facilitated the triangulation of the three dimensions of sustainable development (*economic, environmental and social*) with the three-R framework of regulate, reuse and recycle to develop the empirical findings of the research study. The triangulation reinforced the validity by presenting a link between the propositions and the empirical findings (Denzin and Lincoln, 1994). The triangulation technique also reinforced the evidence from empirical study (primary) and literature review (secondary) data as it facilitated the explanation of the research findings through the propositions presented in the conceptual framework in Chapter 4, which represents a contribution to new knowledge.

5.4.2. Reliability

The term ‘reliability’ is similar to trustworthiness in qualitative research (Lincoln and Guba, 1985; Seale, 1999). Reliability in a qualitative research study fits between the findings recorded and events in the natural setting (Miles and Huberman, 1994; Yin, 2009). Bias and prejudices (subjectivity) are critical to constructing reliable (trustworthy) and appropriate knowledge for the research study. Reliability in qualitative research, therefore, establishes good-quality and trustworthy research findings. Parahoo (1997) asserts that, reliability is the consistency of a specific approach in measuring or observing and recording the exact activities or phenomenon. Reliability (consistency) is important as the researchers’ interpretations and observations being recorded can be influenced by their experiences and prejudices.

According to Waltz *et al.* (1991), the reliability of observations is reliant on the reliability and validity inherent in the observational guides or aids and the capability of the researcher to identify and record precise activities or events. The researcher ensured reliability in the participant observations by referring to the consistency with which the researcher matches activities or events within the observational plan and recorded them in the same way they transpired (Parahoo, 1997).

The researcher, therefore, recorded the research findings (verbal and nonverbal) precisely to achieve the research objectives and ensure reliability of the research

findings. Reliability was obtained through defining or recording the empirical findings (semi-structured interviews) accurately within the research settings to match the participant's observational realities or relevant evidence for the data analysis and discussions. The researcher's role also included videotaping, audiotaping and photographing (Adler and Adler, 1994) which was a triangulation strategy or methodological phenomenon for improving reliability, and regulates bias in the qualitative research study (Mathison, 1988).

5.5. Research Ethics

Research ethics involves the analysis of ethical issues that are raised when human participants are involved in a research study (Yin, 2003; Bazeley and Jackson, 2013; Maxwell, 2013; Silverman, 2013). Following research ethics guidelines ensures a successful research study and prevents or minimises harm using suitable ethical principles that maintain the rights and privacy of participants (Orb *et al.*, 2000). This study in the U.K. and Ghana involved human participants who presented distinctive ethical, economic, environmental and social issues that serve the interests of individuals, groups and/or society as a whole.

The research ethics ensured that participants were engaged willingly, not coaxed, and that their privacy and communication kept confidential. The researcher also safeguarded the public, government and society by facilitating participants to express their actions, opinions and experiences when considering the challenges and issues on the sustainable development of SHC trade practices (Yin, 2003; Silverman, 2013;). This research carefully considered appropriate regulations, guidelines, institutional and governmental policies to prevent any problem prior to data collection.

The research study promoted truth and avoided errors while collecting and analysing data by upholding ethical standards and values such as trust, mutual respect, fairness, accountability, respect for social values, and avoidance of harm and discrimination against participants (Denzin and Lincoln, 1994). This research was approved by the University of Southampton's ethical guidelines (e.g., the Ethics and Research Governance Online, ERGO form was submitted and approved by the Supervisors and Ethics Committee) (see appendix C).

5.6. Coding

Coding allows a qualitative researcher to analyse data by identifying the most significant meaning (Coffey and Atkinson, 1996). A qualitative research coding process involves openly generating themes or categories from raw data such as interview transcripts and participant observation (field notes/visual data) (Saldana, 2013). According to Cope (2010), coding is a way to reduce large amounts of qualitative data into meaningful clusters or concept maps. This qualitative research is undertaken to explore new knowledge through what is described as critical realist epistemology (Miles and Huberman, 1994). The study employed a qualitative coding process (axial coding), which involved breaking down, examining and comparing data (repeatedly re-reading the text in the transcripts) to confirm that participants' responses, opinions, experiences, ideas and experiences discovered in the interview data and participant observations of the SHC trade activities in the U.K. and Ghana are in line with the literature reviewed, research questions and conceptual framework (Patton, 1990; Strauss and Corbin, 1990; Morse and Field, 1995; Yin, 2003; Creswell, 2007; Saldana, 2013).

In this research, the qualitative data from semi- structured interviews (texts) and participant observations (field notes, visuals and audio visuals) were attached with supporting notes from the documentary sources (Hodder, 1994; Prior, 2004). The qualitative data (semi-structured interviews and participant observations) was transcribed and read through numerous times and thoroughly (line-by-line). The axial coding process involved significant theoretical inferences and analytic deductions from the empirical data through reading of the transcripts to confirm the themes are accurately represented by the interview responses. The interview transcripts of the 20 research participants were in a uniform black over white background. The idea of colour coding offered a way of moving quickly with the axial coding. In this study, the researcher created a table with columns for the interviews transcribed, initial major and sub themes, and participant observation (visuals). Key words, phrases, sentences and paragraphs encountered as suitable for a code (theme) were highlighted with different colours that were simply chosen by the researcher (please see Appendix E).

Each of the 20 transcripts were coded in same colour scheme, which made it consistently simple to compare the responses of the research participants based on a particular theme. The coding process was open as it captured words and paragraphs that did not feature in the framework of sustainable development as reviewed in the literature. This process of coding, comparison and linking of data was manually created into interconnected concept maps which was an extremely intimate and intense conversation between the researcher and the raw data for the ongoing interpretive, descriptive reporting and theory building (Basit, 2003) (please see an example of the mapping related to actual interview data in figure 6.10 of Chapter 6). The concept mapping ensured the interviewees' words and phrases carried inherent meanings, associations and perspectives which were theoretically relevant to the sustainable development of the Ghanaian SHC trade. The eventual outcome of the mapping process ensured that the body of data was reduced and more manageable for the analysis process, interpretation and organisation.

The featured major themes (economic, environmental and social) and sub themes (regulate, reuse and recycle) were copied and pasted as text passages with attached corresponding visuals/figures under each theme for further summary, explanatory information, narration and quotes (citations). The text passages of the themes were continuously refined through constant comparisons, reliability checks and reformulated as the remodelled conceptual framework in Chapter 7, which is coherent with the discussion of the research results as described by several writers (Miles and Huberman, 1994; McNabb, 2008; Silverman, 2013; Maxwell, 2013). An overview of the process of coding is illustrated in figure 5.2 below:

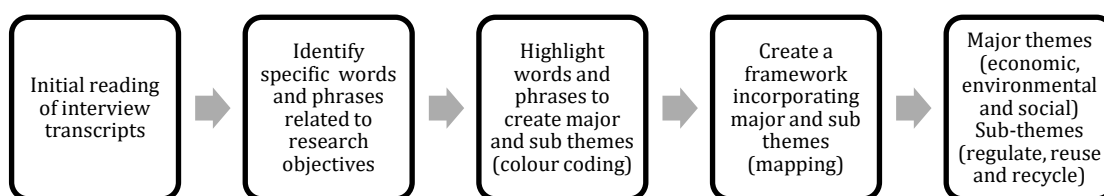


Figure 5.2. The Coding Process for the Major and Sub-themes (Adapted from Creswell, 2003).

5.7. Data Analysis

Qualitative data analysis is defined as “working with data, organising it, breaking it into manageable units, synthesising it, searching for patterns, discovering what is important and what is to be learned, and deciding what to tell others” (Bogdan and Biklen, 1982, p. 145). The qualitative data analysis is a critical interpretive data reduction and selection method for qualitative research (Miles and Huberman, 1994; Krueger, 1998; Richards, 1999; Silverman, 2013, Morse and Richards, 2002; Patton, 2002). Data analysis in this qualitative research involved methodically searching and organising interview transcripts, taking notes, and other non-textual materials that are gathered to increase understanding of the SHC trade (Bazeley and Jackson, 2013).

In this thesis, the qualitative analysis was undertaken to investigate whether the data collected were coherent with the sustainable development theories identified in the literature review (Chapter 3), which is consistent with Strauss and Corbin (1990). Subjective interpretation was minimised through the process of generating concepts and theories from the empirical data; hence, the descriptive or inferential evidence compiled during the fieldwork presented patterns and a framework for communicating the essential data (Patton, 2002). To ensure the reliability and validity of the research findings, data were interpreted (analysed), summarised and compared with the literature review and conceptual framework to reflect the research objectives and the research findings (Miles and Huberman, 1994; Yin, 2008).

Interpretive thematic analysis was used to identify, analyse and report themes (patterns) within the data. The thematic analysis provided explanations from the data collected - e.g., interview and observational data - to the research questions and relevant to understand the current sustainable principles in the SHC practices in the research locations. The researcher examined the data to discover common themes and thoughts from the research participants to present a narrative of the participants' thoughts and experiences (Crawford *et al.*, 2008). The thematic analysis process consisted of three linked stages - i.e. data reduction, data display and data conclusion-drawing/verifying which aided in organising and describing the themes or patterns of data in an inductive or bottom up approach (Miles and Huberman, 1994). The inductive approach ensured that the themes identified are strongly linked to the participants' interpretations of their behaviours, actions and thoughts (Patton, 1990).

The inductive analysis approach was employed to establish clear relations between the research objectives and the findings to ensure that the links are transparent and justifiable. The inductive approach was used to analyse the qualitative data as it provided an expedient, simple and nontechnical approach for deriving findings in the qualitative research. The inductive approach further provided an efficient way of analysing the qualitative data to facilitate the development of theory from the core organisation of experiences, which were obvious in the data collected from the research areas. Additionally, the inductive analysis approach guided the researcher to draw extensively on specific principles of sustainable development within the textiles recycling companies in the U.K. and the SHC trade within the Kantamanto market in Accra, Ghana.

The thematic analysis provided the researcher the opportunity to express the ideas and meanings of the situations of sustainable development in the context of SHC trade in the U.K. and Ghana. These ideas and meanings were captured in participants' meanings of the social context, rather than through manipulating data and testing hypotheses (Marshall, 1984). The major themes of sustainable dimensions (economic, environment and social well-being) and sub themes (regulate, reuse and recycle) emerged from the quotes and short phrases in the interview transcripts. The major themes were interconnected with the sub themes based on their interrelations within the overall theory of sustainable development and not on hierarchy. Both the major themes and sub-themes are embedded in the conceptual framework (see Chapter 4) and therefore are relevant to the research objectives.

The empirical data were descriptively analysed to reflect their consistency, dependability and transferability, as it was an essential criterion to project the quality views and experiences of the research participants (Lincoln and Guba, 1985). The data analysis (cross-analysis) was constantly compared with the literature review and the conceptual framework to establish reliability and objectivity of the thesis. The researcher also constructed the themes (categories) through an inductive approach described as the qualitative observations to contribute towards an in-depth understanding of the SHC trade.

5.7.1. Visual Data Analysis

The use of recorded visual data served as a control on the limitations and fallibility of researcher recollection. The videos and photographs of practices and operations by the research participants were compared to the literature review (Mason, 2002; Lomotey and Fisher, 2006; Morley *et al.*, 2006; Shea and Brennan, 2008) to formulate the themes, conceptual framework and establish the facts or conclusions of the research findings. Visual data was interpreted in a useful and insightful way by selecting visuals (photographs) that were specifically influenced by the pattern of data for clearer analysis of the SHC trade reality. The qualitative visual data analysis focused on relatively short number of videos and photographs in reasonable quality to give interpretation of the social reality, generate and share new knowledge about the SHC trade.

Visual contents were critically considered and entered into log sheets (tables). Video recordings were played over and over to afford the researcher the opportunity to transcribe what occurred in the settings. Video/photographic log sheets were based on the major and sub themes, context of each video/photograph, comments on the visual contents and the time/duration of each visual. The table 5.5 below shows an example of the video/photographic log sheets that formed the basis of the analysis process.

Table 5.5 Video/photographic log sheet for the Thesis

Themes	Visual Context/ setting	Content comments	Duration/date
Economic	(Video) Kantamanto market (Ghana).	SHC quality (high volume and low quality grade of SHC items).	0.11 mins /02.07.17
Environmental	(Video and Photograph) Kantamanto market (Ghana).	Environmental situation (SHC traders and consumers trading along open drains).	0.07 mins /12.07.17
Social	(Video and Photograph) Kantamanto market (Ghana).	Social well-being (impacts of the market infrastructure and environment on livelihood of traders and consumers).	0.19 mins /14.07.17

Source: Author's interpretation for the research purpose.

Using both visual materials (video and photographic data) yielded an unprecedented opportunity for the analysis and discussion on the sustainable development of the SHC trade in the research contexts. In the U.K., video and photographic data from the textiles processing firms were analysed based on the contents of the sustainable processing (sorting, grading, baling) of second-hand clothing items. The visuals (photographs) were selected with respect to the sustainable processing of SHC in the U.K. and the impact on developing countries like Ghana. The photographs and videos offered the researcher a continuous access to exactness and details in the SHC processing firms that were relevant to the study. The visuals were characterised by a strong focus on the economic, environmental and social impacts of the bales of SHC exported from the U.K. For example, the capacity to visually document the tacit procedures and productions of SHC items provided understanding of the performance of textiles recyclers in the U.K. and the connection to the economic returns for local SHC traders in developing countries.

Furthermore, the visuals aided in the added depth of the evaluations of the behavioural or attitudes of the textiles recyclers in the U.K. to the environment and how their processing is targeted at ensuring environmental sustainability. The visual data analysis provided an evidence of clear consciousness of trading practices in the U.K. that does not encourage dumping of the low-grades inappropriately in developing countries. The visuals also revealed a routine of evaluation or grading in finer details by sorters of the physical characteristics of the SHC items before baling and exports. The use of video/ photographic data and texts from face to face semi-structured interview transcripts offered an outcome of intense coordination of unsustainable practices by actors in the SHC trade, which added validity to the research findings.

The visual data (videos) facilitated the understanding of the local SHC trade structures and processes in the Kantamanto market as they were subjected to repeated scrutiny using slow motion facilities to guarantee analytic considerations.

Photographs of the SHC trading activities in the Kantamanto market were objectively analysed and complemented the descriptive accounts of participants. These were integrated in the discussion and findings chapters of the thesis. The multiple actions of SHC hawkers were photographed and video recorded and provided collective unfolding unsustainable practices such trading on the pavements and the railway

lines. This approach enabled the researcher to critically examine the principles of sustainable development within these realistic situations in the Ghanaian SHC trade context. The visuals revealed different situations of environmental pollutions, which are detrimental to the well-being of traders and consumers. The visual records gave a true testimony of a particularly challenging development in a complex milieu, which requires devote action from key stakeholders in the SHC trade.

5.8. Summary

This chapter discussed the research methodology highlighting the philosophical perspectives of the thesis, its interpretive paradigm, and exploratory perception related to the subjective approach. This chapter presented the qualitative research methods of data collection in the research areas (U.K. and Ghana). The case study approach used as an intensive and systematic investigation of SHC trade in the U.K. and Ghana is explained in this chapter. Furthermore, the chapter extensively discussed the qualitative research methods (semi-structured and participant observation) employed to explore the impact of sustainable processing of SHC exports from the West to developing countries. The chapter further explored how the validity and reliability of the research is guaranteed was discussed. The chapter presented the analytical approach used in the thesis, the coding process that juxtaposed the empirical data with the literature reviewed to present the theoretical relationships and the plausibility of the explanation of the core subject of sustainable development. The chapter further described how the coded interview transcripts were analysed and visual data analysed to ensure relevant answers to the research questions. The next chapter presents the in-case and cross-case analyses based on the empirical evidence.

CHAPTER 6: DATA ANALYSIS

6.0. Introduction

The thesis largely relied on a qualitative approach to analyse the qualitative data or to respond to the research questions through the qualitative analysis (thematic and narrative) of views, experiences and observations (Cohen and Crabtree, 2006; Creswell, 2007). The qualitative approach is a naturalist or anti-positivist paradigm, which involves interpretive and constructivist paradigms (O'Brien *et al.*, 2014). The thesis develops or constructs inductive theory or pattern of meanings with the objective to interpret the world of human experience (second-hand clothing trade) (Cohen *et al.*, 2000 and Creswell, 2007). The qualitative data analysis adopts an interpretative (thematic) perspective on the raw texts by interpreting the texts to construct realism with interpretations (Patton, 2002).

Interpretation is a complex and dynamic craft, with as much creative artistry as technical exactitude, and it requires an abundance of patient plodding, fortitude, and discipline. There are many changing rhythms; multiple steps; moments of jubilation, revelation, and exasperation ... The dance of interpretation is a dance for two, but those two are often multiple and frequently changing, and there is always an audience, even if it is not always visible. Two dancers are the interpreters and the texts (Crabtree and Miller, 1999, pp. 138–139).

This interpretive thematic analysis chapter conceptualises the raw qualitative empirical data (texts and visuals) collected in response to the research questions in Chapter 1, the literature review in Chapter 3 and the conceptual framework (interpreters) in Chapter 4 of the thesis. The essential part of the analysis in this thesis is to juxtapose the reviews of existing literature with evidence from the fieldwork (semi-structured interviews and participant observations). The researcher analysed the data collected by interrogating the impact of the sustainable development principles in the SHC processing in the U.K. on developing countries such as Ghana, the integration of the three dimensions of sustainable development (*economic, environmental and social*) in the SHC trade practices within the Kantamanto market and the implementation of the sustainable development in the SHC trade practices within the Kantamanto market through the establishment of the influential connections with the three-R framework (*regulate, reuse and recycle*).

6.1. WITHIN-CASE ANALYSIS

This within-case analysis describes the exact phenomena, processes and practices in each demarcated research context (Denzin, 1998; Creswell, 2007). The qualitative data analysis distinguishes the interrelated parts of the research contexts; these are the settings and the individual participants under investigation (the cases). This section therefore discusses the in-case analysis of the research processes (data collection) in the two research areas; the U.K. and Ghana. This section also provides a detailed description of the participants' views about and experiences of the sustainable development of the second-hand clothing trade (SHC) in the Ghanaian and U.K. contexts. The within-case analysis section remains sensitive to the sustainable values in the process of SHC in the U.K. and Ghana. It also provides interpretations from the Kantamanto market context, based on the actual situation or the exact institution in which the individual participants work.

6.1.1. Researching the processing of second-hand clothes in the U.K.

The collection of SHC is a significant contribution to the developing of textile-recycling (sustainable) policy governing the environmental and social sustainable use of textile resources and waste (WRAP, 2011, 2012a; Palm *et al.*, 2014; Watson *et al.*, 2014) in Western Europe particularly in the United Kingdom. The processing of SHC for reuse in the West (U.K.) is well documented by experienced authors like Brooks, (2013), (Norris 2010), Morley *et al.* (2006) and Hansen (2000) among others. This empirical study, however, interrogates how the fundamental principle of sustainable development is applied in the processing of recycled textiles before they are exported to developing countries like Ghana. The study explored how SHC are processed in the processing companies in the U.K. to establish the sustainable policy for processing SHC. The views and experiences of Waste & Resources Action Programme (WRAP) in the U.K., which is a research-driven, evidence-based policymaker for business intervention and market support was relevant for the thesis. WRAP is a policy delivery body for the U.K. government and works with businesses to ensure that they are safeguarded against the economic risks and that sustainable policies are adopted (European Projects Manager, WRAP).

The empirical study reveals that WRAP deals with the sustainable activities of the U.K. clothing market from the point of manufacturing to the export market and recycling market. They are part of the Sustainable Clothing Action Plan (SCAP) and their activities include tracking consumer behaviour towards their clothing from the point of purchase to the point of disposal and how much is going into landfill sites. Their work also involves encouraging consumers to care for their clothes more; washing and tumble-drying and ironing. In the interview with the European Projects Manager from WRAP, the participant emphasised that they are working with clothing retailers to make their care labels clear and encourage people to wash clothes at 30 degrees instead of 40 degrees as that can reduce the environmental impact. WRAP is also engaged in numerous consumer campaigns for example for example, the “Love your Clothes Campaign” which is web-based and works with large brands like Unilever and Tesco. The European Projects Manager also mentioned that WRAP, U.K. has a network of super crafters who are skilled at repairing, redesigning and up-scaling clothing items.

WRAP is engaged in a huge amount of evidence-based research like the Textiles Market Situation Report which concerns the economics of the clothing sector in the U.K. Additionally, WRAP has published guidelines for the local authorities in the U.K. about how to prepare the used clothing collection mechanism for the reuse market, which is a big part of their work. The European Projects Manager further stated that:

Our work with the reuse or recycling sector is around the collection and sorting mechanisms; we work to improve the economic viable methods of collection. We work to support growth in the sector by getting the best quality to add or recover more value through the sorting mechanisms (The European Projects Manager, WRAP).

The study identified that the core objective of WRAP is to reduce waste to the landfill or to incinerator by working with the textiles reuse or recycling sector, like the Textiles Recycling Association (TRA), which is mainly focused on the processing of SHC in the U.K. The TRA is the trade body that represents collectors, sorters, graders and exporters of SHC in the U.K. The empirical research examines the sustainability provision approaches directly linked to the core objective of the Textiles Recycling Association (TRA). The objective of the Textiles Recycling Association is to extend

the principles of sustainable development to other parts of the World (TRA, 2018). In the interview with the President of the TRA in U.K., he confirmed that:

Our principle is to strengthen the economic, environmental and social opportunities in the SHC trade in every part of the world through the promotion of various forms of recycling (The President of the TRA).

Our real objective is to keep clothing items out of the landfills in every part of the world and give resources for reuse, carbon benefits and water benefits and we entreat our members to do so (The President of the TRA).

Furthermore, the study indicated that the TRA (U.K.) has a code of practice to promote best practices and integrity, which obliges members to sort carefully only reusable clothes for exports. According to the President of the TRA in the interview, members of the Association recycle about 60% of the textiles and clothing waste in the U.K. Furthermore; the members follow the code by exporting only reusable SHC so that they do not create environmental challenges for the receiving countries. Members of the TRA are made up of collectors, sorters, graders and exporters of SHC. Two directors and one supervisor (textiles recyclers) in the three different SHC processing facilities in the U.K. (London, Bristol and Kent) were interviewed in the study.

These textiles recyclers work with local councils, authorities and charitable organisations in the U.K.; for example, Cancer Research, People's Dispensary for Sick Animals (PDSA), and The British Heart Foundation. The charitable organisations are recognised as part of the ecosystem of the textiles recyclers who mainly buy from charitable organisations what they are unable to sell. The textiles recyclers assist the charitable organisations to fundraise for beneficiary charities and keep their stockroom clear of used clothes donations that have been sitting on their shopping floors. Additionally, they work with Hospices and Parent Teacher Associations of schools as partners to sell clothes through their clothing banks to raise funds for various projects as stated in the interview with the Supervisor of the Bristol Textiles Recyclers U.K.

The three SHC processing facilities of these members of the TRA were observed to explore the impacts of the sustainable principles in the processing and exportation of SHC to developing countries like Ghana. The fieldwork revealed that the textiles recyclers are commercial organisations in the U.K. with established modern processing facilities and conveyor belts to augment and dictate the speed and boost processing or systematic production (sorting and grading) of the SHC (Brooks, 2013) as shown in figure 6.1 below.



Figure 6.1. Augmented conveyor belts in SHC processing facility 1.

The participant observation in the processing facility 2 as shown in figure 6.2 below illustrates the sorting of the textile waste into specific categories and grading done through an extensive and complex labour process. About twenty sorting and grading staff were observed in most of the textile recycling firms. Streams of clothes ranging from men's cotton shirts (short/ long sleeves), ladies' blouses (cotton/ silk polyester), women's wear (dresses, skirts, jeans, trousers and so on) t-shirts, bags, shoes and children's wear. Popular and trendy summer clothes, with characteristically vibrant colours, made of cotton and very lightweight silk polyester fabrics were observed being sorted and graded for the West African markets. These categories of clothes were observed moving on the conveyor belt which stretches about six kilometres. The workers were also observed judging the quality of the clothing items and moving

them into containers attached to the conveyor belt as labelled in the figure. This participant observation at the textile recycling firms reflect the dark shadows of fashion glamour and mirrors an increasing environmental cost to customers in the East African market, the West African market and the Asian market.



Figure 6.2. Labour-intensive process in SHC processing facility 2.

The empirical research further revealed that the textile recyclers ensure that good-quality used clothes are exported through their own factory structures and quality control procedures. Figure 6.3 below shows that the sorting and grading staff determine the quality standards by grading all the used clothes by hand, which is a labour-intensive process. The personnel sorting and grading the used clothes in the sorting process are in-factory quality controllers responsible for checking the quality standards of the SHC before they are baled.



Figure 6.3. Sorting and grading processes in SHC processing facility.

It is established from the fieldwork that the decisions about the reusability of the SHC are taken on the floor of the processing facilities where the volumes of the used clothes are sorted and graded basically by hand. In the interview with the Director of Chris Carey's Collections (textiles recycler, Kent, U.K.), she affirmed that;

Half a per cent of the 20 tonnes of second-hand clothes that come in daily is pulled for the U.K. market, which is like vintage clothing. Another half a per cent is pulled for the Eastern European market which are mostly brand new and flawless. The remaining is pulled for the African countries and for waste recycling (Director, Chris Carey's collections, Kent, U.K.).

She noted that the following categories are sorted and graded; Grade (A) SHC items intended for Eastern European countries like Poland, Grade (B) SHC exported to African countries such as Ghana, Grade (C) are exported to Pakistan, and Grade (G) are recycled for industrial use. She further noted that the approximately 40-50% of donated used clothes that come into their facilities are recycled i.e. cotton-based items are recycled for wipers and the synthetics are shredded for mattress linings (Grade G). It is affirmed in the interviews that there are no industry standards and no quality control network, hence every facility sorts differently from all the 50 members of the Textiles Recycling Association; however, the average quality is the same.

After the clothes are sorted and graded for the various destinations they are channelled to the baling unit. Figure 6.4 below shows the baling unit where the processed (sorted and graded) second-hand clothes are compressed and baled mechanically into 55kg and 100kg tightly packed bales for export. This machine compresses the clothes airtight to enable them to fit into the specified weight of the particular bales. The bale bags are made of strong material that protects the clothes from being affected by external impurities like dirt and water. These bales of SHC are exported from the U.K. and distributed with the names of the textiles recyclers on them. The Director of LMB, Textile Recyclers explained the rationale in the branding of the bales of SHC. He stated that:

Our labels on the bales have two barcodes, which is used to track the quality of the content of the bales; who baled it and when it was baled. This serves as a reference for our customers when there is any irregularity. It gives security to our customers (The Director of LMB, Textile Recyclers).



Figure 6.4. Mechanical baling in SHC processing facility 3.

From the empirical study, it was evident that African markets are the main reuse markets for these bales of SHC from the U.K. African markets are considered as part of the ecosystem of the textile recyclers in the U.K. the same way that the charitable organisations are part of their ecosystem. The textiles recyclers in the U.K. in the interview quotes below affirm this:

Our sustainable principle is to sort carefully, keep the business environmentally sustainable by eliminating clothing waste from the exports and to provide reusable clothes for our West African destinations (Director, Chris Carey's Collections).

Our objective is to send wearable second-hand clothing to customers so that they could also sell. We try to send the right quality so that our customers can rely on our company's quality (Supervisor, Bristol Textiles Recyclers).

African markets are important to the textiles recyclers in the U.K. as they ship container load of SHC worth about 50,000 GBP. These SHC imports are valued as empowering local African traders in their individual national socio-economic growth (Lomotey and Fisher, 2006). In the interview, the President of the Textiles Recyclers Association (U.K.) affirmed the claim that processed SHC empower the socio-economic lives of the developing countries.

Our members are doing very meaningful businesses with African customers thereby promoting employment and living standards of individual traders and their families... We provide lots of jobs along the second-hand clothing supply chain... It creates a lot of jobs and this is very good for the economies of the receiving countries. If the clothes are sorted properly it is great for the countries of destination (The President of the Textiles Recyclers Association).

The empirical study consequently investigates the impact of the SHC sustainable principles or practices from the West (U.K.) on the trading practices in the developing countries like Ghana. In the subsequent section the study establishes how SHC exports are contextualised in the sustainable development of local markets in developing countries like the Kantamanto market in Accra, Ghana. The views and perceptions of key stakeholders of SHC trade are presented in the next section.

6.1.2. Researching the SHC trade in the Kantamanto market

Global development in clothing production since the twentieth century and the liberalisation of African economies including the Ghanaian economy propelled the processing and exportation of SHC from the West including the U.K. to developing countries (Rivoli, 2009). According to Hansen (2000a), SHC trade is a system of provision that articulates complexities shaped by economic, political and cultural forces. The expansion of the global SHC trade has formed the basis of effective sustainable SHC markets in developing countries, particularly Africa (Hansen, 2004b).

This section analyses the views of the research participants on the impact of Western-imported SHC on developing countries where socio-economic factors including rapid population growth, insufficient incomes and generally low-skilled labour force thrive (Wilson *et al.*, 2006). The analysis of this is specifically focused on the sustainable impacts of processing (sorting, grading and baling) SHC by textiles recycling companies in the U.K. on the economic, environment and social dimensions of the

SHC trade in developing countries like Ghana. This section also scrutinises the integration of the economic, environmental and social dimensions within the informal Kantamanto market within the central business district of the capital city, Accra.

The Kantamanto market demonstrates multifaceted realities of the sustainable (economic, environmental and social) dimensions of the SHC trading activities as spelt out in Chapter 2 of the thesis. The SHC are imported into the Kantamanto market in standardised commercial 40-foot shipping containers, which usually contain approximately three hundred 55kg or 100 kg bales (Hansen, 2000a; Rivoli, 2009; Brooks, 2013) at budget price of \$20 per a 55kg. Observation in the Kantamanto market revealed the typical overcrowding, particularly on Mondays and Thursdays, which are the recognised market days when heavy-weight container trucks offload and reload the second-hand clothing bales. The bales are usually imported from the United Kingdom, the United States of America, Canada, China and Korea, and bear the emblem of the country of origin, the initials of the importers and the category of clothing.

The bales are stored in the warehouses (heavily protected in secure, locked metal cages) of importers and wholesalers who are specialist businesspersons in the Kantamanto market. The local importers and wholesalers in Kantamanto normally distribute the bales of the different categories of SHC to the local retailers in the Kantamanto market and others from elsewhere in the country. Figure 6.5 below shows a section of the warehouses and display of imported SHC bales in the Kantamanto market in Accra, Ghana. The figure also shows head porters serving as the main delivery networks for SHC retailers who buy bales from the importers and wholesalers.



Figure 6.5. Imported bales of the SHC in the Kantamanto market.

SHC importers and wholesalers in the Kantamanto market also benefit from re-exporting processes, which are well established by transnational networks of the importers and wholesalers from neighbouring countries. These re-exports to neighbouring countries increase their client base as it offers business opportunities for bulk purchases of SHC in Ghana. Figure 6.6 below illustrates trucks reloaded with bales of SHC from the warehouses in the Kantamanto market to be transported or re-exported to neighbouring landlocked countries like Burkina Faso and Mali.



Figure 6.6. Truck reloaded with SHC bales for re-export to neighbouring countries.

Interviews with the participants (retailers) in the Kantamanto market affirmed the quality (grade) of the SHC bales. The SHC that come into the Kantamanto market are usually graded as Grade A, B and C, which are normally determined by the SHC processing companies in the West and the local importers. Grade A, is considered very clean, nearly new and sometimes referred to as '*store rejects*' or '*moving items*'. Then grade B is of average quality. Grade C is classed as normally unwearable with lots of flaws and are normally sorted as wipes, sometimes referred to as '*unders*' or '*low-grade*' among the traders in the Kantamanto market. The bales normally have a standard mix of specific sorted SHC types so a mixture of bales of men's T-shirts, jeans trousers, cotton shirts, blouses and children's wear.

The participants (retailers) in the market asserted that significant variations in quality (grade) are normally identified in the contents of the SHC bales. The fieldwork discovered the importation of low-grade clothes that are not properly sorted, baled and exported to the local markets, which impacts negatively on the local trade. From observations in the Kantamanto market, it is evident that the low-grade usually have defects like tears, button falling off, broken zippers, sagging or overstretched necklines and colour fading requiring major mending which costs more for the retailers and the consumers. Some of these points are expressed in the quotes below:

The qualities vary, and significant quantities have defects, which make it difficult to recoup the cost price of the bales (Retailer 1, Kantamanto market).

The low-grade referred to as “unders” are normally over worn and have defects like broken zippers, faded and stained, so we sell them at reduced prices, what we call “dongomi” (Retailer 2, Kantamanto market).

The low-grade are more of waste; we must reduce their selling prices drastically to sell them or discard them into the bins (Retailer 3, Kantamanto market).

These substantial volumes of low-grade identified in the bales directly impacts on the sales of the SHC confirmed in the interview with one of the retailers. She stated that:

It is not profitable when the bale contents are of low-grade, because I have to mend them at an extra cost in order to sell, which affects my business as I have to pay taxes for the shed and daily toll (Retailer 2, Kantamanto market).

Unsalable low-grade are discarded in the market, which ultimately causes environmental pollution in the Kantamanto market. Figure 6.7 below shows how the SHC waste and other debris generated in the market clog the open drains resulting in constant overflows of sewage and flooding after the rains. The figure reveals that businesses or trading activities are halted when the market experiences such situations. Most of the participants (retailers) in the Kantamanto market affirmed that, this situation affects their livelihoods, as consumers are unwilling to come and shop in the market when it rains due to inadequate market infrastructures and shelter. This situation is affirmed by one of the retailers. She asserted that:

When it rains, our customers do not come, and we also lose a lot of our wares because we do not have good warehouses in the market (Retailer 2, Kantamanto market).



Figure 6.7. Clogged open drainage resulting in flooding in the Kantamanto market.

Observations in the Kantamanto market further show the characteristic scenes of hawkers and vendors peddling SHC on the streets, rail lines and pavements in the Kantamanto market location. The SHC hawkers are non-adherent to the market organisation of the Kantamanto Traders Association: Ghana Union of Traders Association (GUTA) whose requirement for registration as a member involves acquiring a temporary stall measuring between 2 to 10 metres constructed from wooden plunks or lengths of plywood and corrugated aluminum roofing. Noncompliant hawkers and vendors are the major reason for the massive congestion and overcrowding of the market with its typically narrow pathways, and dusty open areas. Some of the hawkers and vendors also regularly trade on the railway lines in the market's location.

Figure 6.8 below shows hawkers selling SHC along the railway lines causing immense deterioration to the rail facilities of the Ghana Railways Company Limited. Even though the rail lines are not operational, the activities of SHC hawkers and other vendors have encroached on rail facilities, rendering them dysfunctional causing a major setback to the development of the railways in the location.



Figure 6.8. Hawkers selling along the rail lines in the Kantamanto market location.

The study revealed that the Kantamanto market location is not properly constructed with appropriate amenities to meet the swelling population of SHC retailers, hawkers and vendors. Figure 6.9 below shows SHC (winter jackets) that are unsuitable for Ghana's tropical conditions. These coats on display are proof of the unsuitability of some of the contents of the bales imported into the country. Additionally, it portrays how the merchandise is displayed in the open to consumers who are also not protected from adverse weather conditions. The figure further demonstrates the characteristic draping on twisted metal coat hangers or basic wooden racks for retail adjacent to legal owner-occupied or rented stall. Also, it attests to the unorganised nature of the trading activities within the Kantamanto market.



Figure 6.9. SHC draped on wooden racks in the Kantamanto market.

The participants (e.g., retailers) in the Kantamanto market recounted how the haphazard and unprotected nature of the Kantamanto market does not support their well-being. Some of these points are illustrated in the quotes below:

We do not have good amenities that support our trading activities. For example, we do not have hygienic restrooms that are adequate (Retailer 1, Kantamanto market).

The Kantamanto market space is not well organised to support our trading activities and accommodate all the traders, the hawkers and the consumers (Retailer 2, Kantamanto market).

The Kantamanto location is a limited space and not well planned to support the trading activities of the growing population (Retailer 3, Kantamanto market).

The fieldwork confirms that the traders' association has autonomous mandate to regulate the trading activities in the market, which has led to an ambiguous relationship between the Kantamanto Traders Association and other governmental or city authorities, particularly the Accra Metropolitan Assembly (AMA). The empirical study revealed an incongruous relationship between the retailers and the Accra Metropolitan Assembly, which is evidenced by the collection of daily tolls from the retailers even though the assembly does not have an obligation towards the development of the market.

The foregoing also exposes that, the trading activities in the Kantamanto market are not within the control of a governmental agency like the Accra Metropolitan Assembly (AMA) who are mainly responsible for regulating trading practices in other local markets within the Accra Metropolis. This is affirmed in the interview with the Director of the Accra Metropolitan Assembly (AMA):

The Association executives oversee the market environment and trading activities. By the structure of the Kantamanto market and the ownership of the location, the Accra Metropolitan Assembly (AMA) is unable to contribute much to the second-hand clothing trading or the economic activities in the Kantamanto market (The Director of the Accra Metropolitan Assembly).

Furthermore, the empirical study shows that the Kantamanto Traders Association: Ghana Union of Traders Association (GUTA) governs the market by their own rules and regulations. These rules and regulations ensure that members abide by the trading practices in the market and do not engage in activities that will disturb the social well-

being of other traders, the consumers and the market environment. The President of the Kantamanto Traders Association: Ghana Union of Traders Association (GUTA) emphasised that;

The main objective of the Association is to ensure the social well-being of all traders; hence we have our own security personnel who maintain law and order in the market and we also have in place cleaners and refuse collectors who keep the market tidy daily (The President of the Kantamanto Traders Association: Ghana Union of Traders Association).

This assertion demonstrates that the association believes that modernising the Kantamanto market will properly integrate the economic, environmental and social dimensions of the SHC trade in the market. The President of the Kantamanto Traders Association, Ghana Union of Traders Association (GUTA) further disclosed that:

The association is engaging with major stakeholders to develop a sustainable Kantamanto market into a modern shopping centre (The President of the Kantamanto Traders Association: Ghana Union of Traders Association).

The next section (which is the cross-case analysis) explores the integration of the dimensions of sustainable development discussed in the literature review (Chapter 3) of this thesis, as an on-going interaction of economic, environmental and social dimensions simultaneously (Munoz, 2010). The empirical research investigates the three dimensions of sustainable development (*economic, environmental and social*), *which* are considered as the major- themes. The section also analyses the implementation of sustainable SHC trade practices considering the three-R framework (*regulate, reuse and recycle*), which are also considered as the sub-themes in this chapter.

6.2. CROSS-CASE ANALYSIS

The cross-case analysis presents in-depth analysis of the sustainable disproportions in the SHC trade across cases within the research contexts. The researcher made sense of textual and visual data collected by comparing the research participants' accounts or significant statements to form patterns that reconnect to the research questions through critical reflection and conceptual mapping. The concept maps were used to help create a coding system in this qualitative research. A mapping of each interview transcript was created to depict what the participants said about their knowledge, experience and context of the SHC trade practices. An example of the conceptual mapping drawn from a respondent' interpretations and summaries are presented in the figure 6.10 below. This graphical display helped the researcher to capture the research participants' views and experiences sorted based on their key word patterns across the cases. At the focal point of the map is the research objective of developing a sustainable SHC trade with nodes of major themes (economic, environmental, and social) that are linked to sub themes (regulate, reuse, regulate), which are intersected with plain circles capturing key words/phrases to represent the research participants' views and experiences. These themes form the essential structure for the analysis in this section and their applicability to the research findings and conclusions drawn in this thesis.

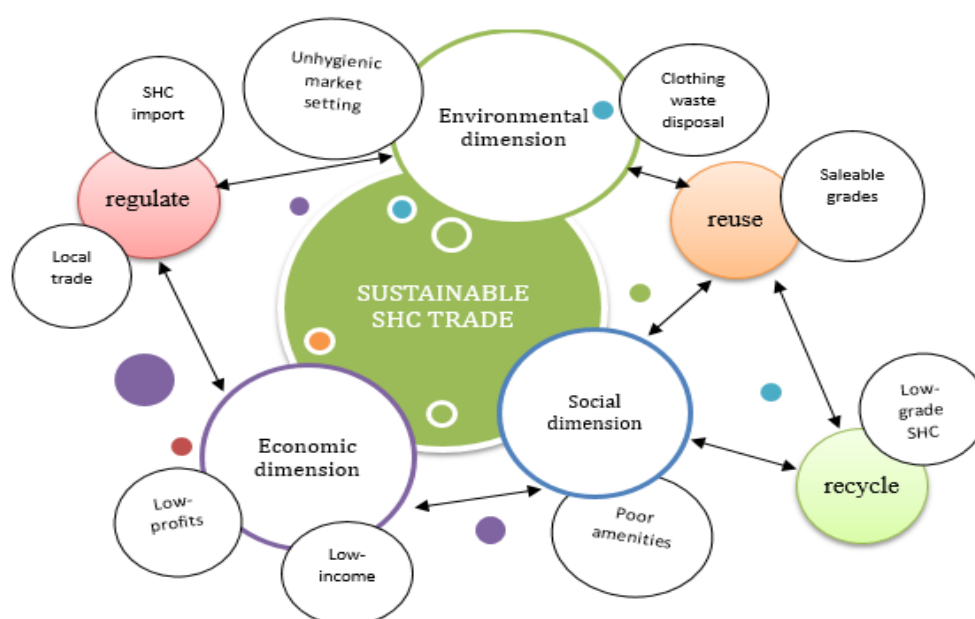


Figure 6.10. Mapping of participants' views, personal interpretation, June-September 2017.

6.2.1. Major themes

6.2.1.1. Economic Dimension

The global SHC trade is formed from the collection of clothing waste products by charitable organisations in Western countries like the U.K. to generate funding for their organisations (Hansen, 2000a; Brooks, 2013). Through SHC exchanges, Western charitable organisations develop networks with textiles recyclers and commercial entrepreneurs (importers) in urban African markets including the Kantamanto market (Bigsten and Wicks, 1996; Rivoli, 2009). The global SHC trade is built around perennial currency convection fluctuations of leading global currencies including British Sterling, United States Dollars, and Euros to purchase bulk containers of Western-imported SHC bales in developing countries (Brooks, 2013).

The collection of clothing waste provides commercial links between the rich in Western countries and the poor in developing countries (Brooks, 2015). The relationship between the West and Africa is also related to the export of SHC trade (processing and retailing). The African market has been in the SHC trade for years, at least since the 1950s and 1960s, and it is the largest destination for SHC exports from the West (Hansen, 2000b). The SHC trade provides beneficial transnational trade connections between the U.K. and developing countries particularly Ghana, which is the highest importer of second-hand clothing from the U.K. (OECD, 2014; Brooks, 2015).

The lack of employment opportunities and similar patterns of economic and social change in urban regions across developing countries particularly in Africa makes the SHC trade a major income-generating activity for the urban poor (Hansen, 2000a; Davis, 2006). The research participants in the U.K. generally reinforce this perception where the SHC trade creates sustainable income and wealth for a great number of people who operate along the SHC supply chain. Empirical study discloses that many of the textiles recyclers in the U.K. are long-established trading firms and have been exporting SHC to African markets for decades. This is affirmed in the interview with the research participants (textiles recyclers) in the U.K.:

Our African markets are important for us as they are part of our ecosystem, the same way as charities and textiles recyclers are part of our ecosystem. The market there helps us keep our business sustainable (Supervisor, Bristol Textiles Recyclers).

Our bales can be traced from the capital cities to villages and so money changes hand along the way and everyone gets to make profit, therefore, it helps build entrepreneurs in the developing countries (Director, LMB).

It creates a lot of jobs and this is very good for the economies of the receiving countries. If the clothes are sorted properly it is great for the countries of destination (Director, Chris Carey's Collections).

The empirical study further revealed that, the SHC trade has a significant favourable impact on the macroeconomics of the receiving markets like the Kantamanto market in Accra, Ghana as it generates substantial revenue. This view was evidenced in the interview with the Director of Ministry of Trade and Industry (MOTI) in Ghana. He confirmed that:

The Kantamanto market is one of the vibrant domestic markets in the capital city. We recognise its importance in our society as it provides affordable clothes for the low-income brackets. We have Legislative Instrument (LI) backing the importation and trading activities of imported second-hand clothing, therefore, it is important to the economy (The Director of Ministry of Trade and Industry, MOTI).

The Director of the Accra Metropolitan Assembly similarly underscored the economic importance of the sector by stating that:

The Kantamanto market is contributing very much to the economy through import taxes they pay and the employment of about 3,000 people in the informal sector (The Director of the Accra Metropolitan Assembly).

Two participants (retailers) in the interview in the Kantamanto market also buttressed the assertion that the SHC trade generates substantial revenue for the government.

Some of these points are affirmed in the quotes below:

When we purchase the second-hand clothes from the importers, we are paying import duties and taxes indirectly, as it trickles down to us, so we contribute immensely to the economic development of the country (Retailer 1, Kantamanto market).

We pay for permits and licenses regularly to the Ghana Revenue Authority (GRA) and the Accra Metropolitan Assembly (AMA), which generates sufficient revenue for the government (Retailer 2, Kantamanto market).

As explored in the theoretical overview in Chapter 2, most academic authors have argued that significant proportions of the population in the receiving countries continue to gain their livelihood from the SHC trade. In the literature review, some researchers argue that, the trade creates jobs for importers, wholesalers and traders in the recipient countries thereby providing self-employment opportunities for these informal traders (Hansen, 2000a; Norris, 2010; Brooks, 2013; see Chapter 3).

Figure 6.11 shows the engagement of young males in the SHC trade. The second-hand clothing trade is a source of livelihood for the teeming youth in the urban areas as it offers an easy start-up opportunity for many of them who are unable to gain formal employment or formal education. The figure also depicts the patronage of the second-hand clothes by the youth who consider the SHC items as cheap (affordable), of relative quality, and fashionable owing to the inclusion of Western (European) labels and imagery on many of the garments.



Figure 6.11. Retailers (male youths) engaged in second-hand clothing trade in the Kantamanto market.

The empirical evidence equally backs the contentions that the SHC trade promotes easy start-ups, as the retailers do not have to use formal bank loans to establish their businesses or have collateral to secure loans. Some of these points are illustrated in the quotes below:

The trade is a good opportunity for anyone to start-up with a small capital, and with diligence the business just flourishes (Retailer 1, Kantamanto market).

The economic turnover is great to be able to take care of the family (Retailer 2, Kantamanto market).

The trade is a good job opportunity because one does not need much capital to start up (Retailer 3, Kantamanto market).

The underlying social condition of poverty is a major influence for the importation of SHC trade in developing countries as low pricing is the determinant factor in the consumption of the SHC (Brooks, 2013). The SHC trade represents a crucial source of clothing for the urban poor, accounting for 60% of clothing purchases in Ghana (Baden and Barber, 2005). Most of the SHC consumers interviewed in the Kantamanto market confirmed these assertions. Some of these points are illustrated below:

The SHC are a cheaper option, trendier in the designs and they do last longer (Consumer 1, Kantamanto market).

I like to buy the SHC because they cost less for the family and the designs are attractive (Consumer 3, Kantamanto market).

The SHC trade is supportive of the economic situations of us who are low-income earners in our society (Consumer 4, Kantamanto market).

SHC imported into the Kantamanto market originate from Canada, the U.K., the United States of America, China and South Korea. These origins were disclosed by the observation of distinct national flags embellished on the packaging of the clothing bales. Bales of SHC are sold to the foreign and local retailers who purchase in cash or on credit at set prices that do not vary much among the different wholesalers and the importers. The consumers who participated in the empirical research affirmed that, they usually demand SHC that are trendy and fit well. Some of these points are illustrated in the quotes below:

I patronise the SHC because they are trendier, they last longer than the brand-new imports from China and are less expensive than the locally manufactured clothes (Consumer 2, Kantamanto market).

I normally purchase only the good-quality SHC because they are attractive and last longer (Consumer 3, Kantamanto market).

I buy jeans trousers, blouses and t-shirts from the Kantamanto market as the qualities are usually designer labels like New Look, Zara and H&M (Consumer 5, Kantamanto market).

The fieldwork also indicated that good-quality SHC are sought after; whereas low-grade clothing is unprofitable and causes net operational losses to the retailers. The retailers further stated that, the origin of SHC also defines the quality of the imported SHC. That from the U.K. was preferred (Wilde, 2014) compared to clothing originating from China and Korea. Two of the retailers interviewed explicitly stated that:

The SHC from the U.K. are good quality and productive as they sell quickly and help to build good customer loyalty (Retailer 1, Kantamanto market).

The grade (A) quality of SHC items are appealing to the youthful consumers who usually request trendy clothes for work and social programmes (Retailer 3, Kantamanto market).

The quantity of fashion consumed in the West affects the quality standards of SHC processed for imports into African markets (Schor, 2005; Siegle, 2011; Brooks, 2015). From the empirical study, it was also evident that, the quality of SHC is determined by the consumption patterns of fashion in the West. In the researcher's interview with the Supervisor in the processing facility 2 (Bristol Textiles Recyclers) in the U.K., she acknowledged that:

Lots of clothing consumers in the West are buying more fast fashion which means trends are changing quickly and the qualities are getting poorer. Fast fashion is not built to last so after they are worn for a couple of times, and washed; they stretch, fade and sag. This situation results in the fluctuating qualities or grades of SHC we export to the reuse markets.

This empirical evidence advances the argument that, the importation of low-grade SHC creates an economic inequity for the local retailers in the Kantamanto market who ultimately do not make a return on their investment. The retailers asserted that, the volumes of unsalable SHC in the bales do not guarantee them returns on the investments as the different qualities contained in the bales determine varied selling prices. Most of the retailers interviewed vocalised their discontentment with the exploitative distribution of irregular and unwanted low-grade SHC. Some of these views are illustrated below:

The importation of low-grade SHC have a bad impact on our businesses, as the contents are not sellable, therefore, does not make much profit (Retailer 1, Kantamanto market).

Very often the low-grade must be mended at an extra cost to be able to sell or sell them out cheaply as “dongomi” or even discard them (Retailer 2, Kantamanto market).

The low grade does not sell profitably so the prices are drastically reduced for the seamstresses and tailors to redesign them into other clothing items (Retailer 3, Kantamanto market).

The foregoing reveals that the processing of SHC in the West has a crucial impact on the trading practices in African markets like the Kantamanto market in Accra, Ghana. However, the Textiles Recycling Association (TRA) U.K. advocates that its members do not engage in the dumping of clothing waste (unsorted) into African markets. The TRA further affirmed that low-grade SHC do not promote economic sustainability for traders in the African markets. The President of the TRA stated that:

The SHC trade is a consumer-led sector, we are only exporting an alternative garment to the new garments and we can argue that we offer better quality clothing products that last longer at less price. This is economically sustainable for the recipient countries (The President of the TRA).

In the interviews with members of the Textiles Recycling Association (TRA) (textiles recyclers) in the U.K., they stated that:

We ensure that we sort according to the criteria of our customers, because we acknowledge that the trade gives a lot of economic empowerment to most families (The Director, LMB Textiles Recyclers).

It is not a good business to send bad quality to our customers, it is a bad reputation in business. We ensure that our customers are

guaranteed good qualities in the bales (Supervisor, Bristol Textiles Recyclers).

If we do not sort correctly, it will impact negatively on the receiving countries... unsorted items are regarded as rubbish and have unsustainable impacts on countries of destination (Director, Chris Carey's Collections).

However, the Director of Chris Carey's Collections, who is one of the members of the TRA (textiles recycler) pointed out that:

The occurrence of excessive importation of low-grade second-hand clothing into African markets is the development of unregistered members of the Textiles Recycling Association (TRA) in the U.K. (Director, Chris Carey's Collections)

Additionally, the empirical study in the Kantamanto market revealed that, the importers of SHC are generally liable for the importation of the fluctuating grades (qualities) or low-grade. One of the retailers interviewed in the Kantamanto market made this assertion:

The importers are unable to insist on importing good quality second-hand clothes according to the requirements of the market (Retailer 3, Kantamanto market).

This assertion is, however, disputed and attributed to amateur importers who have not studied the ethics of importing quality SHC from recognised textiles recyclers abroad. These low-grade imports risk the cost-effectiveness of the retailers and the consumers in the Kantamanto market. Figure 6.12 below highlights a small section of the excessive importation of low-grade second-hand foot-wear displayed on bale wrappers on the ground and pavements in the Kantamanto market.



Figure 6.12. Low-grade second-hand foot-wear in the Kantamanto market.

Traders in the Kantamanto market were of the common opinion that low-grade SHC impact on their sustainable incomes. Some of the SHC consumers in the interview also expressed their views on the impact of importing low-grade SHC on their clothing purchases. Some of these points are expressed in the quotes below:

The importation of low-grade SHC portrays a very negative perception that we are a poor country; therefore, poor quality of items can be dumped into our country (Consumer 1, Kantamanto market).

The importation of excessive low-grade impact on the buying choice of the SHC as one will have to rummage thoroughly to discover a good or wearable quality (Consumer 2, Kantamanto market).

It was evident during the observations in the fieldwork that the hawkers in the Kantamanto market normally peddle these low-grade goods, most of which are unsellable and therefore discarded for onward collection to the landfills. This view is expressed by one of the retailers in Kantamanto market:

The low-grade clothing imports are mainly waste making the Kantamanto market unattractive and disparaging the second-hand clothing trade (Retailer 3, Kantamanto market).

The Kantamanto market is typically structured with planks forming the stalls of the retailers and is enormously vibrant and frenzied. These commercial undertakings create congestion, which makes it obstructive for the consumers to rummage through the SHC to discover the wearable quality items. Some of the consumers interviewed expressed their experiences about the commercial structure in the Kantamanto market:

It is quite appalling to see consumers rummaging through these rags (low-grades) piled on the bare floor of the market (Consumer 2, Kantamanto market).

The unorganised and overcrowded nature of the Kantamanto market is a challenge (Consumer 3, Kantamanto market).

It is time consuming and exhausting to go through a lot of hawkers and vendors to get a wearable clothing item (Consumer 5, Kantamanto market).

The unstructured commercial nature of the SHC trade in the Kantamanto market portrays an economic inequality, which has interconnections with or overlapping influences on the environment and the social well-being of traders and consumers within this context. The subsequent section throws light on the environmental dimension of the sustainable processing of the second-hand clothing in the U.K. and how it impacts on the trade in the Kantamanto market and its influence on the other sustainable development dimensions in the market.

6.2.1.2. Environmental Dimension

Urban populations in developing countries grow by more than 150,000 people every day (UNDESA, 2005). The haphazard and unplanned growth associated with urbanisation in developing countries results in numerous environmental problems such as public space encroachment, pollution and solid waste generation (UNEP, 2000). The haphazard infrastructure and governmental organisation, which is the characteristic feature of urban markets like the Kantamanto market in developing countries (Ghana), encourages/leads to unsafe commercial environments (Oteng-Ababio *et al.*, 2015).

The SHC trade is frequently cited as providing many jobs for people in developing countries; however, the impact of the trade on the environment, health and well-being (the core social conditions) of the patrons of the trade leaves little to be desired in

many African markets (Hansen, 2000a; Rivoli, 2009). The empirical study reveals the objective of the Textiles Recycling Association (TRA) in the U.K. The President of the TRA reiterated that:

Our real objective is to keep clothing items out of the landfills in every part of the World and give resources for reuse, carbon benefits and water benefits and that is what our members are entreated to do...The environmental sustainability is very critical to the global supply chain. The global clothing supply chain is the worst environmental polluter as it causes huge environmental damage (The President of Textiles Recycling Association).

In the interviews with the participants (textiles recyclers) in the U.K., they affirmed their commitment to conserving a sustainable environment in the countries of destination for their second-hand clothes. Some of these points are expressed in the quotes below:

Our sustainable principle is to sort carefully, keep the business environmentally sustainable by eliminating clothing waste from the exports and to provide reusable clothes for our West African destinations (Supervisor, Bristol Textiles Recyclers).

Our sustainable principle is that donated clothes are still fashionable and exported rather than sent into the landfills (Director, LMB).

It is very expensive for the receiving countries, so we try to sort properly to ensure our products are environmentally sustainable wherever they go (Director, Chris Carey's Collections).

Varying qualities of SHC from the West are imported into the country and are off-loaded in the Kantamanto market in Accra. These variable grades of SHC are sold while the unwearable or poor quality ones end up as waste and are dumped or discarded into bins, and eventually into landfill sites. The empirical evidence shows that, most of these low-grade items create pollution in the Kantamanto market environment. Figure 6.13 below shows the residue of low-grade second-hand foot wear that is unsalable and discarded in the market for onward collection into the landfill. When this waste is not collected in good time it also eventually clogs the drains and causes flooding. These low-grade items affect the cost-effectiveness of the traders and consequentially deplete the environment in the Kantamanto market. These are the typical scenarios in the Kantamanto market that reveals the unsustainable environmental dimensions of the SHC trade.



Figure 6.13. Residues of low-grade discarded in the Kantamanto market.

The empirical study further proved that SHC retailers sell in the polluted environment of the Kantamanto market, which is a microcosm of the domestic markets in the Accra metropolis. This undoubtedly accentuates the man-made hazards as asserted by Oteng-Ababio *et al.* (2015). In an interview with the Director of the Ministry of Trade and Industry (MOTI), he stated that:

We have identified the environmental challenges of most of our domestic markets including the Kantamanto market. With very bad sanitary and waste collection conditions in the market, it is evident that most of the markets are not environmentally safe for trading activities...The local markets will have to be of clean environment always. This is to be directed by the MMDAs who are mandated to ensure clean and safe domestic markets (The Director of the Ministry of Trade and Industry, MOTI).

This position is also admitted in the interview with the President of the Kantamanto Used Clothes Sellers Association (GUTA). He stated that:

Our trading activities do impact on the environment. The congestion or the overcrowding in the market causes excessive environmental pollution in the market (The President of the Kantamanto Used Clothes Sellers Association, GUTA).

The empirical study indicates that the infrastructure and the environment in the Kantamanto market are managed by the Kantamanto Used Clothes Sellers Association executives. The executives have in place cleaners and refuse collectors who keep the market environment clean and they only call on the Accra Metropolitan Assembly (AMA) for support during major clean ups and following disasters. The observations revealed that the performance of cleaners and refuse collectors is not efficient because of the overcrowding and constant littering. The waste generated is enormous and the methods of waste collection in the Kantamanto market are unpleasant which requires well-resourced personnel.

The aisles in the Kantamanto market are narrow, dusty and filthy with the traders occupying the aisles with their merchandise, preventing easy movement. The activities of hawkers and vendors complicate the obstruction in the restricted passages in the Kantamanto market as they usually sell along the entrances of the market. Figure 6.14 shows scenes of the clustering of customers rummaging through the irregular qualities of second-hand clothing on the floor of the Kantamanto market. Furthermore, the figure reveals the burden of rummaging consumers have to go through to identify wearable qualities in the piles of second-hand clothes.



Figure 6.14 Consumers rummaging through SHC in the Kantamanto market.

Traders in the Kantamanto market pay annual permits and daily tolls to the Accra Metropolitan Assembly; however, it was evident from the observation that, not much is done in managing the infrastructure and the environment. In the interview with the participant from the Accra Metropolitan Assembly (AMA), she stated that:

The infrastructure at the Kantamanto market is a challenge, however, the Accra Metropolitan Assembly (AMA) does not collect enough revenue to provide improvement in the market... By the structure of the Kantamanto Used Clothes Sellers Association (GUTA) and the ownership of the market location, we (AMA) are unable to contribute significantly to the maintenance of the environment (The Director, Accra Metropolitan Assembly).

Social amenities in the Kantamanto market are unable to support the growing population of traders. The market is characterised by open, clogged drainage systems with regular sewage bursts and flooding, which negatively affect trading in the market. This environmental pollution does not encourage customers' patronage of the market. The observation of the Kantamanto market shows that the market space is overwhelmed with clothing waste and other generated waste products. Most of the

clothing waste (unsellable clothing) lingers and eventually finds its way into the open drains in the market consequently causing flooding which brings trading activities to a halt. The retailers in the interviews confirmed that the poor infrastructure affects their trading activities negatively in the Kantamanto market. Some of these points are illustrated below:

Our trading activities are usually halted when it rains, because the drains overflow and floods the market. This deters potential consumers from buying (Retailer 1, Kantamanto market).

The unstructured nature of the market and the lack of good amenities does not support our trading activities and the population of traders in the market (Retailer 2, Kantamanto market).

The market is not well constructed, and the open gutters are usually full of rubbish, which are not cleared regularly posing health risks to us (Retailer 3, Kantamanto market).

The consumers in the Kantamanto market also articulated their views and experiences in the interviews. They generally admitted that the Kantamanto market is not well planned, there are no proper waste management systems, and open gutters are usually filled with debris. They further noted that the market space is small, and the increasing population makes buying difficult. Three of the consumers interviewed in the Kantamanto market specifically stated that:

The sewages in the market are habitually outpouring into the market streets and aisles making walking around to buy items very challenging (Consumer 1, Kantamanto market).

We are compelled to buy from the traders who sell in this polluted environment of heaped rubbish and bad smell from open drains around the market (Consumer 3, Kantamanto market).

The market has open gutters, which are usually full of rubbish that are not cleared regularly and poses health risks to us (Consumer 4, Kantamanto market).

Figure 6.15 below shows the Kantamanto market flooded with traders and other squatters still going about their businesses. From the observations, the environmental conditions make it difficult for consumers and the traders to go about their trading activities in this informal and unregulated setting. The figure shows a collapsed environment that is not supporting the economic and social well-being of the traders and consumers. The trading environment further reveals a lack of environmental and social or governmental welfare schemes for the Kantamanto market location.



Figure 6.15. Traders carrying out their businesses in the flooded environment of the Kantamanto market.

Over three decades, the Kantamanto market has increased vastly and the trading practices of SHC hawkers and other squatters have outgrown the designated railway location. From the observations, the trading activities of the hawkers and vendors in the railways location are a major encroachment on the facilities of the Ghana Railways Company Limited. The hawkers form an informal cluster of unregulated businesses that usually do not have a trading license and, therefore, are not involved in social or government welfare schemes (Haan *et al.*, 1998). Figure 6.16 depicts filth generation in the Kantamanto market, which is to the detriment of the health of the traders and consumers. The figure below also shows the hawkers carrying out their businesses over the rail lines and rendering the rail lines non-operational and deteriorated.



Figure 6.16. Hawkers trading on the rail lines in the Kantamanto market.

The Director of the Ministry of Railways Development emphasised that:

We have conducted a survey on the activities of the second-hand clothing traders and other squatters in the Kantamanto market location. We have found out that the rail facilities have been encroached on so much and that they have rendered them almost deteriorated (The Director, Ministry of Railways Development).

SHC trade in the Kantamanto market has a damaging effect on the environment, which reduces the social capital of the traders and consumers. The next section of this analysis chapter further presents the effectiveness of the social dimensions as against the economic and environmental dimensions of the trade practices in the Kantamanto market. The social discourse on the livelihood opportunities of the traders will provide holistic integration of the three dimensions (economic and environmental and social well-being) of the SHC trade within the Kantamanto market.

6.2.1.3. Social Dimension

The SHC trade in the Kantamanto market, Accra, Ghana occupies the same socio-economic contexts as most developing countries. As an informal sector, the SHC trade offers livelihood prospects for many of the urban population and it is typically gendered in favour of women who own and run most of the businesses. However, equal numbers of females and males sell second-hand clothing in the Kantamanto market, which is borne out by the overpopulation and impoverishment among the urban dwellers.

The Export and Import Act instituted by the Ministry of Trade and Industry (MOTI) governs the second-hand clothing trade and Industry Act 503 was first passed in 1995 and amended in 2000 by the Ghanaian Parliament. The Director of the Ministry of Trade and Industry (MOTI) expresses the challenges associated with the importation of SHC into the country. Some of these points are illustrated in the quote below:

Our core challenge is to ensure that the second-hand clothes imported into the country are low health risk to the consumers in Ghana... We ensure that goods coming into the country are not cheaper than the production cost and they are of acceptable health standards for the consumers (Director, male, Ministry of Trade and Industry in Ghana).

The empirical study revealed that, the textiles recyclers in the U.K. ensure that the SHC they are exporting to developing countries are of acceptable standards and meet the specific requirements of their consumers. In the interviews, two of the textiles recyclers in the U.K. stated that:

Our company exports our branded bales of SHC and we ensure that our products are quality and everyone in developing countries that buys our product is buying good-quality clothes (Director, LMB).

We give our customers their specific requirements; we do not export containers of wrong quality SHC. Our customers will not be able to make their money and will not be happy with our company (Director, Chris Carey's Collections).

Observations of the processing facilities in the U.K. reveal that the qualities and grades of the SHC are simply sorted based on the discernment skills of the workers and therefore lack standardisation, which increases risks of unsustainability (Abimbola, 2011; Norris, 2012). The poor quality of the SHC that comes into the Kantamanto market throws doubt on the efficiency of the sorting and grading

processes of second-hand clothes in the countries of origin before they are exported. The SHC trade in the Kantamanto market features the grading of irregular stock quality leading to fluctuating profits for the traders. Two of the research participants in the Kantamanto market in the interviews stated that:

Our trade practice is to provide good-quality SHC that are wearable and dignifying at cheaper prices for the consumers (Retailer 2, Kantamanto market).

I do not import-banned items to safeguard the health of consumers; I always provide all the required health and safety documents to the officials at the port of entry (Importer, Kantamanto market).

However, the excessive importation of low-grade items poses business risks for the retailers who are mainly supporting the livelihood of their families. Some of the retailers interviewed expressed the challenges they encounter when trading low-grade clothing. Some of these points are illustrated in the quotes below:

Some of the importers do not request or insist on good-quality SHC from the countries of origin, which is at the detriment of our profitability (Retailer 1, Kantamanto market).

It is difficult to sell the low-grade clothes quickly as the consumers do not patronise them and this ultimately affect our profits negatively (Retailer 2, Kantamanto market).

The importation of low-grade SHC corrodes our turnover or profitability in the business. It is really a threat to the capital and the entire investment you make (Retailer 3, Kantamanto market).

The rate of sale of the low-grade quality is slow and affects capital circulation and the profitability of the retailers. The phenomenon of importing low-grade clothing creates difficulty for retailers to be able to define the exchange value of the contents of the bales until they are opened, hence they only retail the contents based on their own discretion or previous experience or comparable values of other retailers. Figure 6.16 shows a broader trend in open and unprotected trade where the second-hand clothing retailers in the Kantamanto market are unable to return the unsellable low-grade SHC to the wholesalers and importers. This situation raises questions about the concept of equal distribution or social equity and fairness within the global SHC trade. It further highlights the precondition that the activities of buying and selling commodities, goods and services need to meet the criteria capable of benefiting all actors involved to foster global sustainable development (Persio, 2015). Figure 6.17 illustrates some

of the low-grade SHC items (ladies' hand-bags) that were unsellable owing to their poor quality.



Figure 6.17. Low-grade second-hand-bags observed in the Kantamanto market.

The SHC trade is a crucial social paradigm for the over three thousand individuals trading in the Kantamanto market as the rising population is contributing significantly to congestion in the market making them vulnerable to the outbreak of disease. The fieldwork confirms that the health of the traders and consumers is a major social inequality in the Kantamanto market. The broad range of interviews conducted in the Kantamanto market indicates that the second-hand clothing trade is risky and socially unsustainable. The temporary market structures do not provide adequate shelter; hence the businesses and health of the retailers are not safe guarded. This assertion is confirmed in an interview with one of the retailers in Kantamanto market:

I think our health and safety is impacted on negatively by our trading activities. Our trade practices are carried out under sheds that do not provide much shelter for us in the scorching sun (Retailer 2, Kantamanto market).

Furthermore, the study reveals that, the market is not well endowed with basic health amenities such as a clinic or a health post and restrooms that are sufficiently hygienic for traders and consumers. It was further disclosed that the market also lacks good canteens or restaurants and the traders must buy food from vendors, but the hygienic conditions under which the food is prepared cannot be determined. Their health and safety are obviously compromised by their trade activities in the market. The President of the Kantamanto Used Clothes Sellers Association (GUTA) in the interview confirms this assertion:

We do not have a health facility nearby and there is no access for ambulances and fire services tenders into the market. Our social well-being is really at stake in case of any eventuality (The President of the Kantamanto Used Clothes Sellers Association).

Some participants (particularly retailers) also confirmed this assertion:

The lack of a health post does not support our health, as we do not have access to first aid in the Kantamanto market (Retailer 1, Kantamanto market).

The congestion in the market is a recipe for the outbreak of diseases that can rapidly affect the traders and consumers (Retailer 3, Kantamanto market).

Evidence gathered from the empirical study indicates that the objective of the Kantamanto Traders Association (GUTA) is to ensure that the social well-being of all retailers is safeguarded. It is therefore required of all the retailers to register as members of the Association and rent a shed in the market and operate in the temporary structures. In ensuring the security of the traders in the market, the Association has security personnel who constantly maintain law and order in the market. The security personnel are also responsible for opening the market gates at 6:00 am and closing them at 5:30pm to ensure that the properties of the traders in the market are protected against theft and arson. However, the empirical study revealed that the Kantamanto market is lacking in goods storage or warehouse facilities and the temporary wooden sheds of the retailers expose their bales of clothes to any form of damage, particularly rainstorms.

Most of the retailers do not have adequate capital to purchase or rent stalls. Therefore, they operate in the Kantamanto market as hawkers and vendors on the streets, pavements and rail lines. This segment of hawkers and vendors are exposed to the sun

and rain, sometimes with very inadequate shelter from umbrellas. A glimpse of their activities shows that their health and well-being is compromised as they try to make their living. A large proportion of the Kantamanto market is comprised of these hawkers and street vendors who mainly sell low-grade SHC “*dongomi*” on the bare floor of the market.

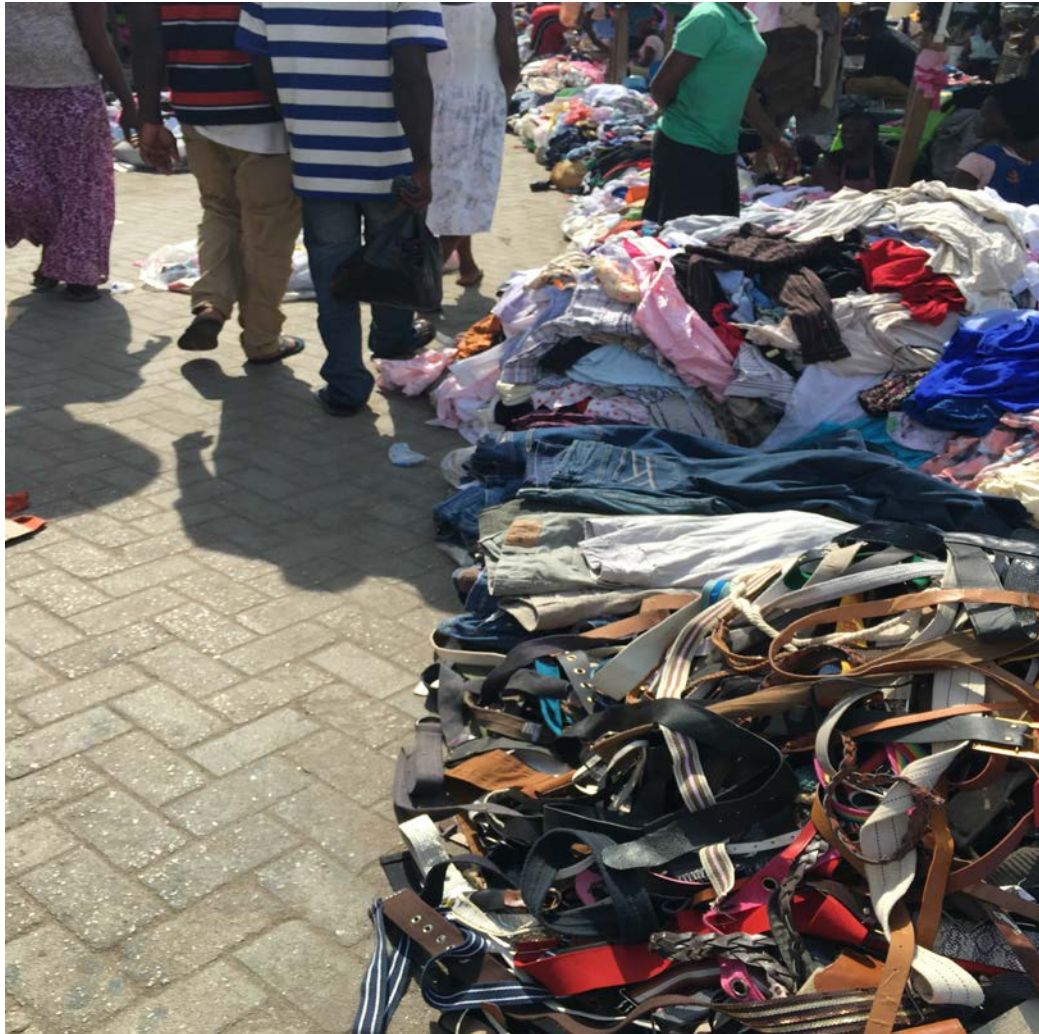


Figure 6.18. Hawkers selling low-grade second-hand clothes on the market floor.

Figure 6.18 above shows hawkers piling up their merchandise on the bare floor of the market to be rummaged through by consumers. Usually, the prices of these low-grade items are reduced drastically to sell them off. Many perceive the practice of rummaging through rags as demeaning. The participants (consumers) in the interviews have alluded to how they feel discontented about the experiences of rummaging through SHC on the market floors; however, they are compelled to do so because of the low prices.

From observation, the Kantamanto market space is haphazardly organised; therefore, the trade is carried out in an uncongenial environment. The market is accentuated with man-made hazards like the open gutters, which are visibly full of rubbish. It is clear from observation that these open drains are not cleared regularly, thus posing significant health risks to the traders. This social phenomenon is unfavourable to the well-being of the traders and consumers who patronise the Kantamanto market. The retailers in the interviews stated that:

Our trading activities are carried out in this polluted environment and it is not suitable for business as we are prone to disease outbreaks (Retailer 1, Kantamanto market).

With garbage and stench from open polluted gutters in the market, our health and that of consumers is not safeguarded (Retailer 2, Kantamanto market).

The open gutters are choked with wastes, which open us up to diseases and epidemics and can be easily transmitted to the consumers as well (Retailer 3, Kantamanto market).

The empirical evidence demonstrates that the economic activities (SHC trade) in the Kantamanto market do not provide a desirable infrastructure, which would facilitate the social well-being of the retailers and consumers who patronise the market. There is therefore a lack of integration of the three dimensions of sustainability in the Ghanaian SHC trade. There is clearly a requisite for a comprehensive sustainable framework to recognise the integration and interaction between economic growth, respect for the environment, and social equity to influence the quality of life (Bansal, 2002; Robinson, 2004; Munoz, 2010) within the Kantamanto market.

6.2.2. Sub-themes

Implementing the concept of sustainable development influences both present and future generations' economic growth (Lamming and Hampson, 1996). These sub-themes (e.g., regulate, reuse, recycle) are specific to the Ghanaian context as well as most economies of developing countries particularly within sub-Saharan Africa.

6.2.2.1. Regulate

The sustainability discourse is part of the continual re-regulation of society, economy and environment, and consequently the (re) production of space. While sustainability has become incorporated into the many discourses of our contemporary society, it is being regulated and articulated primarily through the hegemonic discourses that prevail at the national level, while the outcomes are then (re) negotiated at local levels (Cocklin and Blunden, 1998: p. 66).

Regulation acts as a driver to decide sustainable development goals, which is essential to push various actors towards the implementation of specific sustainable practices (Carter and Dresner, 2001; Vachon and Klassen, 2003; Zhu and Sarkis, 2007). It is with this understanding that the empirical study sought the views and experiences of expert bodies responsible for the regulation of the SHC trade in both research areas (the U.K. and Ghana).

The Ministry of Trade and Industry (MOTI) in Ghana is the policy-setting institution for trade and industry. The Export and Import Act, emanates from the Ministry of Trade and Industry Act 503, which mainly governs all trading activities. By the Legislative Instrument (LI) 538, the Ministry of Trade and Industry (MOTI) mandates the Ghana Standards Authority (GSA) to regulate the standards of the SHC to be imported into the Ghanaian market and to conduct market surveillance to ensure the products in the market are safe or healthy for consumption.

The LI 1586, Section 22 of the Imports and Exports Act, 1994 (Act 418) categorises SHC as high-risk goods and contains health and safety concerning the potential health hazards to the populace and the ecosystem. The LI bans imports of second-hand handkerchiefs; men, women's and children's undergarments which include brassieres, boxers and briefs; and mattresses and sanitary ware for commercial purposes or in any commercial quantities in the Ghanaian market.

The Ghana Standards Authority (GSA) is also mandated to seize and destroy products that are unsafe and unfit for public consumption. Although there are no strict laid-down standards for SHC, imports are required to be of reasonable quality, not rags or rubbish. In the interview with the Director of the Ghana Standards Authority (GSA), he revealed that:

The Ghana Standards Authority ensures that second-hand clothing that do not meet reasonable standards are confiscated and destroyed by burning... The importers of the sub-standard goods are also liable to pay a penalty of about Five Hundred-Ghana Cedis or imprisoned for up to one year (The Director of the Ghana Standards Authority).

Facts from the fieldwork also sought to identify the regulatory systems in place to ensure that the processed second-hand clothes in the U.K. are of reasonable standard for export to developing countries like Ghana. The Waste & Resources Action Programme (WRAP) in the U.K. is a policy delivery body for the U.K. government and works with businesses to ensure that they are safeguarded against the economic risks and that sustainable policies are adopted. In the interview with the European Project Manager of WRAP, she stated that:

WRAP has published textiles collection guidelines for the local authorities and textiles recyclers to follow in the processing of second-hand clothes for the reuse market (the European Project Manager of WRAP).

In the interview with the President of TRA, he specified that:

The trade body has a code of practice that is to promote best practices and integrity, which is a form of regulation that request textiles recyclers to label and communicate the contents of the bales adequately to the customers to ensure the reliability of their supply (The President of TRA).

By this code of practice, the Association is confident that it will be a form of guarantee for good-quality standard bales for their customers in the countries of destination like Ghana. The empirical study further probed how the processing of the second-hand clothes is regulated in the textiles recycling facilities in the U.K. to ensure that the bales are of good standard (sustainable). These points are illustrated in the quotes below:

There is no quality control network or industry standard; however, we have Société Générale de Surveillance (SGS) inspectors who inspect what we are exporting; however, they do not check the quality of the used clothes (Director, LMB).

As members of the Textiles Recycling Association, we ensure that we sort correctly to our customers' specifications (Supervisor, Bristol textiles recyclers).

We do not load into the customer's own container, we handle all the shipping to ensure everything is done right and our bales go out with our company name on them (Director, Chris Carey's Collections).

It was evident from the empirical study that the textiles recyclers registered under the Textiles Recycling Association (TRA) abide by the code of conduct. Countries of destination require good systems of inspection in place to ensure that good-quality clothes are brought into their countries and bad-quality items are not dumped in the unprotected environment. The textiles recyclers in the countries of origin abide by all the regulations of exporting SHC, pay all the legal duties and customs charges, and meet all statutory obligations in the receiving countries. This ensures that their activities do not cause any socio-economic and environmental problems for the receiving countries (Glasmeier *et al.*, 1992; Schoenbaum, 1997).

The study discovered that the Ghana Standards Authority (GSA) officials are located at all the entry points of the country to check for the health and safety standards of the baled SHC that come into the country. The main points of entry for the SHC are; the Tema Harbour, Takoradi Harbour and the Kotoka International Airport. The western border entry point is in Elubo and the eastern border entry points in the country include Aflao, Akanu, Kpoglu, Shia, Ave, Hatome, Nyive, and Honuta. The entry point along the northern border is in Paga.

The Tema port is strategically located as the Sub-Saharan Africa hub for the importation of SHC from the U.S.A. and Western Europe. Container loads of imported SHC bales normally come into Ghana through the Tema Harbour, as it is the most popular entry point. Observations at the Tema Harbour revealed that the Tema Harbour is resourced with contemporary scanners to inspect the containers that come into the country including the second-hand clothing containers.



Figure 6.19. Scan facility for scanning containers of SHC at the Tema Harbour point of entry.

Figure 6.19 shows the scanners at the Tema Harbour which check the densities of the products in the containers and indicate whether there are multiple items in the containers. The scanner augments the inspection process of the officials at the harbour by checking the densities of items that may be hidden in the second-hand clothing bales. This helps the Ghana Standards Authority personnel to conduct specific inspection by offloading the bales indicated and cutting them open for physical inspection. However, the scanners are limited as they only identify densities of the goods in the container without registering their exact contents.

Figure 6.20 shows the Ghana Standards Authority (GSA) officials inspecting second-hand clothing imports by relying merely on the physical smell of the fumigation chemical on the clothes in the bale to ascertain that the clothes are fumigated. Checking for the characteristic smell of the fumigation and examining the fumigation certificates accompanying the imported second-hand clothes from the country of origin constitutes the physical inspection. Products that are not fumigated from the

country of origin are confiscated and the importers have to pay a penalty and ensure that the bales are fumigated before they go into the market. However, the GSA officials' physical inspections are limited as it is an enormous task to physically inspect the over two hundred bales of second-hand clothing in each container.



Figure 6.20. Physical examination of the SHC at the port of entry in Tema.

The Ghana Standards Authority (GSA) focuses more on inspections at the points of entry to prevent sub-standard imported SHC from being distributed into the local markets rather than conducting market surveillances. The market surveillances are undertaken to ensure that the SHC items that end up for sale in the market are safe and healthy for consumption. The GSA is obligated to seize and destroy substandard (unwholesome) SHC items. In the interview with the Director of the Ghana Standards Authority, he indicated that following up into the markets is challenging

because of the lack of personnel in the GSA and the usual confrontations they have with the traders in the market. Therefore, they prefer to focus on inspection at the points of entry and to engage in educational campaigns to encourage the public not to patronise banned SHC items for health reasons.

Many governments of developing countries have banned imported SHC to protect their markets against cheap SHC imports and to facilitate the development of domestic textiles and garment manufacturing (Baden and Barber, 2005; Rivoli, 2009). Ghana has not banned SHC import absolutely. In 1994 the Ghana Standards Authority (GSA) banned the sale of imported used underwear, which are perceived to be capable of transmitting venereal diseases; sexually transmitted diseases (STDs) and skin diseases (Amanor, 2010). In 2010, directives from the Ministry of Trade and Industry (MOTI) and the Ghana standards Authority (GSA) for the ban of imported second-hand under-wear such as bras, pants, boxer shorts, bikinis on health grounds proved futile, however, as significant proportions of imported used under wear was still to be observed in the Kantamanto market during this research.

Figure 6.20 shows that second-hand underwear is still finding its way to the Kantamanto market including women's brassieres hanging for sale as seen during the author's field observations. This reveals a lapse in the regulatory efforts of the governmental officials at the points of entry. This situation also clearly shows the lack of market surveillance by the Ghana Standards Authority (GSA) who are mandated to check that banned second-hand clothing items are not brought to the market for consumption.



Figure 6.21. Banned second-hand underwear on sale in the Kantamanto market.

In an interview with the Director of the Ministry of Trade and Industry (MOTI) on banning imported SHC, which can be defined as a trade regulation or barrier, he stated that:

Ghana is a founding member of the free trade agreement by the World Trade Organisation (WTO), which encourages the removal of barriers to free trade. However, as an independent nation, we have a right to protect our economy from dumping, which is our core challenge when it comes to regulating the second-hand clothing trade (The Director of the Ministry of Trade and Industry).

The specific question of banning the importation of the SHC in developing countries was clearly critical to all the participants in the empirical study. In the interview, the President of the Textiles Recycling Association (TRA), U.K. stated that; the real issues are whether African countries can compete on the global market with China, Bangladesh, India, and Sri Lanka. He believed that banning the SHC importation to various African countries would not promote textiles production. He emphasised that:

If African countries want to ban second-hand clothes to build a textiles production, they will have to be prepared to compete with the very poor standards of labour and low wage practices in these Asian countries (The President of the Textiles Recycling Association).

The directors of the textiles recycling companies in the U.K. were generally of the view that most developing countries do not have well-established textiles industries, cotton production, or the infrastructure to move cotton for processing. Additionally, the irregular electricity supply would be difficult for governments in developing countries to develop factories. One of the participants (textiles recycler, U.K.) shared his view by stating that:

.... if Africa wants to go into production it would probably have to compete with India, Turkey, Bangladesh and China where they have been doing it for so long or North Africa where they grow a lot of cotton... Cotton is not a good crop to grow; there are lots of other cash crops that are far more profitable than cotton... So why will Africa pick cotton? (Director, LMB).

It was also discovered that a possible ban on the importation of SHC in Ghana would probably have an impact on the increased productivity of the SHC and the distribution of profit along the supply chain in the West (U.K.). The European Projects Manager from WRAP affirmed that a ban on SHC in Africa would be a real problem for the U.K. as the second biggest global exporter of SHC, as it will affect the commerciality of textiles recyclers. The European Projects Manager added that a ban on the imports will create a potential vulnerability of the textiles recycling frameworks in the U.K. Therefore, the U.K. government will be in the position of having to pay more in order to avoid clothing going to the landfill. The European Projects Manager disclosed that WRAP was working on the possibility of a ban. She stated that:

We are putting a research around the vulnerability of the reuse market. If the export markets in Africa were not available to us what would be the impact? (The European Projects Manager, WRAP).

Additionally, the general view of the textiles recyclers in the U.K. was that, a ban on the importation of the SHCs in Africa will be detrimental to their business. They expressed the uncertainty of where they would sell their second-hand clothing. The empirical study further established that banning SHC imports would not essentially improve the local clothing manufacture in Ghana, as there are no efficient systems of textiles production to advance improvement and leverage against Asian capitalists. This position was underscored in the interview with the Director of the Ministry of Trade and Industry (MOTI). He stated that:

As a country we must cultivate cotton adequately, and have textiles and garment factories running without interruptions and producing at affordable costs... Currently, it will not be prudent for government to ban the importation of second-hand clothes entirely (The Director of the Ministry of Trade and Industry).

Most of the participants (traders) affirmed that inefficient power supply is propelling the cost of locally manufactured new textiles and garments as against the low cost SHC imports. The empirical study revealed that, the Ghanaian economy without the importation of SHC is injurious to the economic prospects of over three thousand individual entrepreneurs in the Kantamanto market and the masses who patronise the imported SHC as a cheaper clothing option in Ghana. The views of the retailers in the Kantamanto market are expressed in the quotes below:

A ban on second-hand clothing import will affect the economy because the trade generates taxes from the ports right to the market (Retailer 1, Kantamanto market).

If the government bans the importation of second-hand clothes what can we do as our livelihood to take care of our children? (Retailer 2, Kantamanto market).

Unemployment in the country is huge and a ban on the importation of second-hand clothing trade in Ghana will affect our employment (Retailer 3, Kantamanto market).

The ineffectual co-ordination and regulation of the SHC trade in the Kantamanto market is also a critical subject as it represents the right of countries to implement measures to facilitate economic growth, protect human health and safety and create a

conducive or protective trading environment (Vorley *et al.*, 2002). The research demonstrated that, there is an ambiguous relationship between the Kantamanto Traders Association (KTA) and the Accra Metropolitan Assembly (AMA). Their cooperation does not go beyond the collection of business permits; the executives of GUTA rather have significant influence over the structures and regulation of the trade. The Director of the Accra Metropolitan Assembly (AMA) affirms this:

The Accra Metropolitan Assembly regulates the trading activities in all the markets within the Metropolis except for the Kantamanto market, which is directly under the watch of the Kantamanto Traders Association...The challenge in the Kantamanto market is that the market is in an area earmarked for Railways Company, so it is difficult for any sustainable development of the trade (The Director of the Accra Metropolitan Assembly).

The formal ownership rights are leased by the Ghana Railways Company Limited to the Kantamanto Used Clothes Sellers Association for 50 years before the formation of the new Ministry of Railways Development. By the lease agreement, the traders' association executives are mandated to control the Kantamanto market space; however, the President of the association bemoans the active presence of itinerant hawkers plying their trade outside the Kantamanto market space and on the rail lines which is a cause for the congestion in the Kantamanto market space. The decades of economic activities by the SHC hawkers and other squatters have caused enormous damage to the rail lines. This is affirmed in the interview with the Director of the Ministry of Railways Development; who specified that:

The Kantamanto market location is strategic, so the activities of the traders and other squatters on the rail lines cannot not continue to interfere with our development or rehabilitation... We need to consider the lease agreement in the past and make the appropriate review of such agreements with regards to current circumstances of the sector (The Director of the Ministry of Railways Development).

Evidence gathered from the fieldwork revealed that the Area Management of the Ghana Railways Company Limited in Accra with the support of the Accra Metropolitan Assembly (AMA) is creating public awareness to encourage the traders carrying out economic activities on the rail lines in Kantamanto market location to look for different locations for their trade. The Ministry is also educating the traders and the other squatters to be aware that the rail lines are public property, and nobody has the right to misuse them. However, there are revelations of conflicting assertions

by the President of the Kantamanto Traders Association (GUTA) concerning the sustainable development of the Kantamanto market. He stated that:

We are in talks with government and the Ghana Railways Development Authority to build a modern shopping centre. We hope the current government will give a green light so that we can start work (The President of the Kantamanto Traders Association).

It is evident that an institutional difficulty accounted for by the lease agreement between the Ghana Railways Company Limited (GRCL) and the Kantamanto Traders Association: Ghana Union of Traders Association (GUTA). It is apparent that the Kantamanto market lacks regulation by statutory organisations like the Accra Metropolitan Assembly (AMA), resulting in the ineffective and unprotected trade in the Kantamanto market location belonging to the Ghana Railways Company Limited. However, the Ministry of Trade and Industry (MOTI), who are the direct overseers and regulators of the domestic markets, claimed that there are plans to improve the domestic trade and distribution. Part of these improvements will be to set up modern markets across the country that will include sanitary facilities to improve the trading activities in the local markets including the Kantamanto market. This development - according to the director of the MOTI in the interview- will incorporate wider consultations with the Metropolitan Municipal and District Assemblies (MMDAs) and the Kantamanto Traders Association: Ghana Union of Traders Association (GUTA) who are the actual beneficiaries of the policy.

6.2.2.2. Reuse

Continuous conspicuous affluent clothing (fashion) consumption in Western countries is directly linked to the practice of clothing disposal after it becomes old-fashioned, torn, worn-out, or loses its lustre (Gregson and Crewe, 2003). These clothes are castoffs from individual closets and passed on to charities and textile recyclers in the West, where they are then destined for the commercial complex of reuse (Norris, 2010). In the reuse process, product components are easily exchanged to enable it to stay in use and reused or the usage life is extended rather than being the items being discarded, thus making them environmentally friendly (Shedroff, 2009). Western governments have framed the disposal of clothing as an environmental act and identified the role of developing countries as reused clothing destinations (Shea and Brennan, 2008).

This section explores the direct reuse of the imported SHC (Etsy and Winston, 2009) as reviewed in Chapter 2 of this thesis. According to Domina and Koch (1999), reuse lengthens clothing product life and delays the period when the clothing waste enters the municipal solid waste stream. Reuse also extends the life of available waste management facilities, which helps to circumvent the cost of recycling. They also emphasised that the obligation for increasing clothing product life depends on consumers as well as clothing manufacturers and, therefore, educating households on the significance of recycling and reusing textile products should be a central element of any educational campaign.

The empirical study in the U.K. intended to investigate the sustainable principles (environmental act) of the reuse concept and its impact on the developing countries (reuse markets). To understand the policy on the reuse markets, the empirical study sought the views of a participant from WRAP, U.K. The rise in fast fashion consumption in the U.K. has meant large quantities of used clothes going into the reuse stream, which is a core objective of WRAP, to reduce clothing waste from going into landfill by working with the reuse or the recycling sectors in the U.K.

WRAP's flagship, Sustainable Clothing Action Plan (SCAP), serves as a communications programme to educate the British public on buying clothes that last longer and that perform better. The programme aims to educate the public to wash clothes at 30 degrees instead of 40 degrees to reduce the environmental impact and to extend their lifespan in a more sustainable way. Furthermore, WRAP runs consumer campaigns; for example, "*Love your Clothes Campaign*". The aim of this campaign is to encourage U.K. consumers to care for their clothing more; to repair their clothing, to ensure that people understand the care labels on their clothes; and working with retailers to make these care labels clearer.

Furthermore, the study shows that, as a policy delivery body for the U.K. government, WRAP also works with businesses and has published textiles collection guidelines for the local authorities to collect better-quality used clothes through working more on the sorting processes. These guidelines are in place to ensure that value is added or

more value is recovered through better sorting mechanisms. These guidelines also centre on collection, sorting and grading through economically viable methods that can be used to get the best-quality reusable clothes, which will support growth in the sector.

WRAP is further engaged with businesses in the reuse or recycling sector to improve their collection mechanisms. This includes collectors, sorters, graders and exporters who are members of the Textiles Recycling Association (TRA), U.K. The members of the Textiles Recycling Association (TRA), U.K. are encouraged to sort carefully to ensure that only reusable clothes are processed for exports. In an interview with the President of the TRA, he explained that:

We reuse in the U.K. and we are one of the best reuse countries in the World and much higher than our continental counterparts and America... Our members follow a principle of exporting only reusable SHCs to Africa (The President of the Textiles Recycling Association).

During the visits to the SHC facilities of the textiles recyclers sampled in this study, it was observed that, the used clothing donations come in bags which are opened, and every single item checked to see whether they are wearable and where they can go. Half a per cent of the 20 tonnes of SHC that come in daily to the textiles recyclers are sorted and graded for the U.K. market; these are classed as vintage clothing. Another half a per cent is sorted for the Eastern European market; these are mostly brand new and flawless items. The remaining is sorted for the African countries and for waste recycling. SHC bales for the African markets normally contain adults' and children's used clothes and accessories such as shoes, bags and belts. The participants (textiles recyclers) asserted that, the used clothes are well sorted for reuse in African destinations. Some of these points are illustrated in these quotes below:

We grade quite complexly in order to send good products abroad. Our standard for export is to send reusable clothes to our customers (Supervisor, Bristol Textiles Recyclers).

We process only wearable SHC so that consumers in the developing countries have good-quality clothes to buy (Director, LMB).

We recognise that the trade provides economic empowerment to most families in developing countries, so we export quality reusable SHC (Director, Chris Carey's Collections).

The upshot of the excessive disposability of clothes in the West (U.K.) is interconnected with the reuse value of imported SHC in African markets (Norris, 2010) including the Kantamanto market. The European Projects Manager of WRAP, U.K. upholds this viewpoint, which is illuminating concerning the excessive importation of low-grade SHC to developing countries like Ghana. She stated that:

If low-quality clothing is going to the textiles recyclers, it is as result of consumers in the U.K. using clothes much longer. Therefore, if low-quality clothing is going into the export markets, this could also affect the quality of the SHC available for reuse in the export markets (European Projects Manager, WRAP).

This position is further buttressed by one of the participants (textiles recycler) in the U.K. She stated that:

Consumers in the U.K. are buying more fast fashion, which means trends are also changing quickly, and the qualities are getting inferior (Supervisor, Bristol Textiles Recyclers).

SHC trade is continuing to rise owing to its usefulness (Franklin, 2011). However, significant amounts of unsalable or unwearable imports create the unsustainable systems and erode the reuse market in developing countries like Ghana. From the observations in the Kantamanto market, the reuse value of each single item in a bale does not have equal reuse value and consequently there is unequal trade value. The textiles recyclers in the U.K. affirm this observation. Some of these points are expressed in these quotes below:

We put in the bales a balance of everything our customers want, however, like t-shirts vary from Primark and Marks and Spencer, the qualities will differ in a bale (Director, LMB).

The situation of fluctuating qualities of SHC affects our labour process. However, it affects our African markets more because the grades are declining (Supervisor, Bristol Textiles Recyclers).

There would not be same quality of SHC coming in to us always; therefore, it will really affect our sorting or grading to our customers' specifications (Director, Chris Carey's Collections).

The study further ascertained that the reusable value of the bale contents is not usually disclosed to the retailers who only discover their actual value once the bales are opened. The contents normally have defects like tears, stains, missing buttons, broken zippers, sagging or overstretched necklines or faded colours and are often too large to fit the average Ghanaian figure. These defects, therefore, result in a significant

amount of the contents being classed as low-grade. Although some are repairable in the Kantamanto market, others are not. This assertion is generally supported by the participants (retailers) in the Kantamanto market who usually find the situation unpleasant as they must engage the services of pressers and menders at extra cost to fix various parts of the clothing before they can be reusable.

The literature review suggests that it is important that some portions of high-quality garments should be replaceable to enable easy reuse; hence, the unwearable and unsellable contents do not give optimal reuse value to particularly the youthful consumer segment (see Chapter 3). These segments of young professional women and men usually have a taste for high-quality, standard SHC items. This segment aspires to Western fashion styles that are immaculate, of high quality and at relatively low price points. In the interview with the participants (consumers) they specified that:

I buy ladies' wear; jeans, shoes, bags, purses, blouses and t-shirts. I look for the clothes that are good quality and last longer (Consumer 2, Kantamanto market).

I like the trendy qualities of the SHC, so I buy the first grades, which are more like store rejects (Consumer 3, Kantamanto market).

I select SHC with excellent cut, trendy styles, ones that are in vogue and are durable (Consumer 5, Kantamanto market).

Following the observations in the Kantamanto market, it was also evident that, most of the imported SHC are usually mended, washed, and ironed by the retailers to sell quickly and sometimes upon the request of the consumers. The Kantamanto market has an established system of tailoring services. The provisions of tailors in the Kantamanto market are interconnected with the SHC trade. There are approximately hundred self-employed and skilled professional tailors located among the SHC retailers' stalls.



Figure 6.22. Self-employed seamstresses located in the Kantamanto market.

Figure 6.22 shows the activities of the tailors and the seamstresses which involves complex alterations, mending or repairing of SHC by reducing the size of used jackets and making new trousers, reducing the sleeve lengths of shirts, cutting the length of trousers and hemming, turning trousers into shorts, reducing the sizes of shirts, trousers, blouses and skirts, and fixing zippers and buttons on trousers. The repair of the clothes is highly expensive, and the cost of repairs or alterations is normally negotiated with the customer and added to the price, thereby increasing the cost of the SHC purchase. The altering and repairing of SHC with flaws prolongs its reuse life by meeting the consumer's fit preferences and enhancing its aesthetic value.

SHC imports have been documented as a phenomenon, which was enabled by the development strategies associated with the free-market economy (see Chapter 3). The system of provision of seamstresses and tailors offers a sustainable trade in most recipient countries. The retailers and the consumers usually request these services. In the interviews with the consumers, they stated that:

The tailors and dressmakers repair the clothes to fit properly and that make the clothes to last longer (Consumer 1, Kantamanto market).

There are seamstresses and tailors within the Kantamanto market who repair the clothes to our specifications. We even dye the clothes to look new again (Consumer 2, Kantamanto market).

The seamstresses and tailors in the Kantamanto market is a good system that ensures that we can reuse what we buy from the market directly (Consumer 4, Kantamanto market).

Although the tailors do not create entirely new clothing items, small design modifications like fixing up of removed labels, logos, buttons, and zippers on SHC items facilitate the reuse process. Their labour activities harmonise the global supply chain of the SHC by adding to the reuse value and reducing clothing waste going into the landfills. Some of the tailors also engage in the redesign or re-fashioning of SHC items in addition to the main process of alterations and repairing. This segment of tailors and seamstresses offers opportunities for employment and continuing consumption of the SHC in developing countries through many connections between the direct reuse, preparation for reuse and recycling pathways (Etsy and Winston, 2009).

The empirical evidence shows that dying of used clothes is also a method applied in the reuse process of SHC imported into Ghana. This is a method whereby used cloths are transformed into a new one by dying. For example, blue jeans trouser are dyed to a black or dark blue colour. The dye is prepared with hot water and some chemicals of different colours. The dyed clothes are then spread or hanged to dry and pressed for a new look. This dying method influences both the active life of the SHC and their suitability for reuse by consumers.

Figure 6.23 shows pressers who belong to the category of ‘preparation for reuse’. These agents mainly remove the creases from the imported SHC that were compressed and creased in the bales. This group of pressers do not use technological systems to press the SHC. They use metallic presses that are heated on charcoal fires before they are hung up for sale; however, they contribute vastly to the reuse value of the imported SHC as their activities add aesthetic value to the clothes.



Figure 6.23. Segment of pressers preparing the second-hand clothes for sale in the Kantamanto market.

6.2.2.3. Recycle

The principal difference between reuse and recycle is the extent to which the features of the product are transformed (Ho *et al.*, 2009). The physical features of a material are maintained in reuse, while in recycling the features of the material including the chemical and physical traits are usually transformed. This section critically examines recycling of the SHC in the two research areas. Recycling is any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes (Tojo *et al.*, 2012). According to the Council for Textile Recycling (2018) almost 4.5 kilogrammes per capita representing 1,136,363 tonnes of post-consumer clothing and textiles waste is recycled yearly. These 4.5 kilogrammes of the clothing and textile waste represent less than 25% of the overall waste generated. The European Commission (2018) affirms that clothing/textiles consumers in the European Union (EU) discard 5.8 million tonnes of textiles yearly and only 1.5 million tonnes representing 25% are recycled by charities and industrial enterprises - the remaining 75% ends up in the landfill or waste incinerators. Charitable organisations sell about 40%, representing 454,545 tonnes of

the projected 1.14 million tonnes they collect in their shops while they sell the remaining to textiles recyclers (sorters, graders and exporters) (Riggle, 1992). The empirical study shows that charitable donations are a universal method of discarding unwanted clothing and textiles products in the West. The donation banks and recycling schemes run by the charitable organisations in the U.K. motivate the donations of volumes of clothing from the British public (Brooks, 2015). The donations usually overwhelm the capacity of the charitable organisations; therefore, they sell off the surplus to the textiles recyclers or commercial organisations (capitalists). The commercial organisations buy from the charitable organisations what they are unable to sell in their shops, which helps the charitable organisations to clear their stockrooms and shopping floors of donations of used clothes. The textiles recyclers or commercial organisations also collect used clothes from councils, local authorities and the public through their textiles banks. These facts were substantiated in the interview with the President of the Textile Recycling Association (TRA) in the U.K. He confirmed that:

Our real objective is to keep clothing items out of the landfills in every part of the world and give resources for reuse, carbon benefits and water benefits and our members are entreated to do (President, Textile Recycling Association).

Clothing and footwear account for 70% to 80% of the environmental impact of consumption and therefore require chemical or mechanical recycling into raw material for the manufacture of other apparel and non-apparel products (EIPRO, 2006). From the observation, volumes of used clothing and footwear come to the textiles recyclers in the U.K. for sorting, grading and exports. The participants (textiles recyclers) in the empirical studies explain how they categorise the used clothes into reusable and recyclable. Some of these points are illustrated in these quotes below:

We sort out low-grade items for wipers and mattress linings, which is a huge contribution to the recycling process here in the U.K. and abroad (Director, LMB).

About 40 to 50 per cent of what comes in gets recycled; cotton based are recycled for wipers and the synthetics are shredded for mattress linings (Director, Chris Carey's Collections).

The textiles recycling industry in the U.K. has very attractive campaigns that makes us sort carefully to ensure that bad qualities are recycled (Supervisor, Bristol Textiles Recyclers).

Explicit disparities exist between recycling in the West and the developing countries. Most research on recycling in developed (Western) countries focuses on technical applications such as models and tools (Daskalopoulos *et al.*, 1998). They also focus on policy analysis such as command-and-control, and social-psychological and economic incentives (Barlিশen and Baetz, 1995; Taylor, 2000). Recycling is therefore a forefront activity in broad frameworks of waste management and environmentalism in most Western countries. However, research on recycling in developing countries is centred on the direct practical motives or factors influencing waste collection institutions and systems relating to waste management. The fieldwork suggests that there are only informal clothing waste collection systems such as small-scale, labour-intensive, unregulated and unregistered, low technology services in the Kantamanto market. This situation requires a sustainable policy that integrates recycling systems in the SHC trade.



Figure 6.24. Low-grade SHC piled on the floor of the Kantamanto market.

Figure 6.24 above illustrates scenes of unwanted clothes and other waste that will eventually find its way into the open drains. The deficient phenomenon observed in the Kantamanto market revealed that low-grade SHC are usually piled on the floor of the market for collection to the landfills. The improper disposal of clothing waste in the open by retailers, uncontrolled market space littering by hawkers and insufficient clothing waste collection systems for recycling. The figure above shows the low-grade “unsellable” SHC items heaped in the market to be collected by needy people while the majority will go into the landfills. The clothing waste in the market can be of potential benefit for commercial recycling systems that transform them into other products. The relevant step is to recognise the economic, social and environmental benefits from clothing and textiles recycling as it has the potential for income generation, improving working conditions and social status. The clothing waste

collected by recycling systems can be traded locally with end-users who represent local industries, including craftsmen and artisans.

Figure 6.25 below shows that the low-grade SHC imports are also sold cheaply to a segment of seamstresses who are engaged in transforming them into other clothing articles. The figure depicts how SHC items like trousers are redesigned into skirts to be resold. This re-design activity is an extension to the lifespan of the imported SHC in the Kantamanto market.



Figure 6.25. Segments of seamstresses engaged in redesigning of the SHC.

According to Franklin and Associates (1996) post-consumer textiles account for 4% of the waste streams, which is related to the empirical evidence in the Kantamanto, market. The Kantamanto market has no recycling facility for reprocessing of these clothing wastes generated from the low-grade clothing “unders” into new raw materials. The retailers in Kantamanto market stated emphatically that recycling processes are difficult as they lack resources such as machines and high-tech equipment. Some of these points are illustrated in these quotes below:

We do not have a recycling facility or system to cater for the low-grade “unders” here in the Kantamanto market (Retailer 1, Kantamanto market).

There are no recycling companies owing to the lack of technologies to recycle textiles waste (Retailer 2, Kantamanto market).

We do not have any recycling system, so the clothing waste are collected into the bins and sent to the landfills (Retailer 3, Kantamanto market).

The Kantamanto market evidently does not have a recycling system for these low-grade SHC. Recycling in the Three-R framework is therefore imperative to offset the environmental impact of current consumption rates of clothing/textiles waste collected and processed into reusable forms from the West. Recycling unsalable SHC requires a new strategy to promote a sustainable SHC market in Ghana.

6.3. Summary

This chapter presented an analysis of the empirical study of the SHC trade practices in the U.K. and Ghana. The participants are drawn from across the many activities within the SHC trade over the research areas (U.K. and Ghana). Their exceptional characteristics enabled them to be selected to participate in the research study. The research pursued the sustainable principles applied in the processing of SHC in the U.K. and how these impacts on the trading practices in developing countries like Ghana. As shown from the empirical study, the SHC processing activities (collection, sorting, grading and baling) of the textiles recyclers in the U.K. are focused on sustainable principles, which are beneficial for the economic, environmental and social circumstances of their jurisdiction.

CHAPTER 7: DISCUSSION OF RESEARCH FINDINGS

7.0. Introduction

This chapter discusses the results of the empirical data collected from the stakeholders in the second-hand clothing (SHC) trade networks, which were presented as major themes and sub-themes. The major themes are identified as *economic, environmental and social*, while the sub-themes are *regulate, reuse and recycle*. This discussion chapter is based on the research findings, research objectives and the literature review (theoretical context) of sustainable development. The chapter seeks to answer the research questions and develop a conceptual framework for the sustainable development of the Ghanaian second-hand clothing (SHC) trade. The main sections of the discussion chapter are; sustainable development impacts, integration of the three dimensions of sustainable development, sustainable policy and the three-R framework for sustainable second-hand clothing (SHC) trade in Ghana. These critical areas in the second-hand clothing trade are core global network activities in the trade from the Western (U.K.) and developing countries' (Ghana) perspectives. The thesis therefore seeks to bridge the knowledge gap in the sustainable development of the SHC trade from these two perspectives.

The West (U.K.) is faced with environmental, economic and social challenges because of the excessive disposal of used clothes (textiles and clothing waste) (Norris, 2012b; Brooks, 2013). These environmental, economic and social difficulties are resolved considerably by processing donated used clothes for reuse in domestic and foreign markets. The processing of SHC usually by commercial textiles recyclers in the United Kingdom (U.K.) is distributed to developing countries like Ghana. The distribution of SHC presents economic relief in developing countries, which are the main reuse markets as asserted by Baden and Barber (2005) and Norris (2012). The global SHC trade offers livelihood or employment opportunities for poverty alleviation for a majority of the populace in developing countries who are low-income earners (Hansen, 2000). Therefore, the consumption of second-hand imported clothing (textiles waste) in developing countries is typically high due to its affordability and presents a cheaper clothing purchase option for the people.

Furthermore, the global SHC trade is multidimensional with established processing and supply networks in the West, and complex consumption networks in developing countries (Hansen, 2000b and Brooks, 2013, 2015). As indicated in the data analysis chapter, the processing networks in the West (U.K.) involve key stakeholders, like policymaking bodies, charitable organisations and textiles recyclers. Similarly, the complex SHC consumption network in developing countries like Ghana include stakeholders such as Government Ministries, Authorities, and Assemblies, SHC traders' associations, importers, wholesalers, retailers, and consumers. This chapter provides a discussion of the results obtained from the SHC processing in the U.K., and the consumption networks in Ghana based on the views and experiences of the research participants.

7.1. Sustainable development impact on developing countries.

A key objective of this thesis is the sustainable development impact of the SHC processing by the West (U.K.) on developing countries. Sustainable impact arises when the valued systems, objects, processes and attributes put trade under threat of quality with risk of decline if not well maintained (Dasgupta *et al.*, 2002; Sutton, 2004; Vallance *et al.*, 2011). The fieldwork provides evidence of the sustainable impacts (benefits) of the SHC processing in the West on the trade practices in Ghana. These key sustainable benefits or impacts are juxtaposed with the outlined objective of the Textiles Recycling Association (TRA), which is the recognisable textiles recycling trade body in the U.K. According to the TRA official website, the objective of the association is to extend the benefits of sustainable principles in the processing of SHC to markets around the world including the Kantamanto market in Accra, Ghana.

The fieldwork revealed that the SHC processing (collection, sorting, grading, and baling) by members of the TRA (textiles recyclers) in the U.K. is based on sustainable principles. These sustainable principles seek to ensure that processed SHC provide sustainable incomes, social developments, and preservation of the environment (natural capital) in export markets. These sustainable development principles are significant for the economic success of the SHC trade practices in the developing countries; the inference is that the sustainable development of the SHC in developing countries is reliant on the sustainable processing of the SHC (sorting, grading, baling

and exporting) in the West, and vice versa. This sustainable mutual impact is affirmed in the empirical study by one of the research participants (textiles recyclers) in the U.K.:

Our African markets are important for us as they are part of our ecosystem, the same way as charities and textiles recyclers are part of our ecosystem. The market there helps us keep our business sustainable (Supervisor, Bristol Textiles Recyclers).

The quote above portrays the mutual benefits of the trade to both the textiles recyclers in the West and the SHC traders in developing countries. The fieldwork indicates that the commerciality of the textiles recyclers in the U.K. is a result of the thriving SHC trade in local markets like the Kantamanto market. The Kantamanto market generates substantial revenue and boosts livelihoods of local traders, which is a significant macroeconomic advantage to the Ghanaian economy (Oteng-Ababio, *et al.*, 2015). Therefore, the economic impact of imported SHC from the West cannot be over-emphasised as it seeks to address the challenges of poverty in developing countries as asserted by experts like Hansen, (2000a); Baden and Barber, (2005); Norris, (2012) and Brooks, (2015).

The above assertion is also consistent with the fact that the existence of the Kantamanto market is critical to the economic and social well-being of the poor urban earners who are engaged in the market daily as SHC traders and consumers. The contributions of the SHC trade to the national economy and alleviation of poverty is significant. The economic benefits of the SHC trade in Ghana are admitted by the Director of Ministry of Trade and Industry (MOTI), which is captured in the quote below:

The Kantamanto market is one of the vibrant domestic markets in the capital city. We recognise its importance in our society as it provides affordable clothes for the low-income brackets. We have Legislative Instrument (LI) backing the importation and trading activities of imported second-hand clothing (SHC), therefore, it is important to the economy (Director of Ministry of Trade and Industry, Ghana).

By the Legislative Instrument (LI), the importation of SHC is acceptable as a cheaper alternative source of clothing for the low-income earners in the Ghanaian society. It affirms that importation of SHC is an approach to alleviate poverty amongst the low-income earners owing to the low prices of the SHC.

Outcomes from the research support the argument that the SHC trade practices within the Kantamanto market are threatened by the excessive distribution of imported low-grade (unwearable and unsalable) SHC from the West. This situation presents critical economic, environmental and social challenges that demonstrate an indictment on the sustainable objectives and activities of the TRA in the U.K. The disparity in the quality of imported SHC has been attributed to the activities of non-registered members of the TRA. The undertakings of non-registered members misrepresent the U.K. as a marketplace for legitimate business and contribute to issues concerning the disposal of unwanted items that are not properly sorted before being exported to developing countries. This is confirmed in an interview with a textiles recycler and a member of the TRA (U.K.). She stated that:

The occurrence of excessive importation of low-grade second-hand clothing (SHC) into African markets is the development of unregistered members of the Textiles Recycling Association (TRA) in the U.K. (Director of Chris Carey's Collections).

The literature review confirms that illegal operators are posing as recognised charities and offering false impressions as charitable organisations involved in the collection of used textiles collected in the U.K (see Chapter 3). There is also large-scale theft of clothing from textile banks (run by both charities and commercial firms) resulting in estimated revenue losses (McVeigh, 2009; British Heart Foundation, 2011) As the TRA commented:

Theft of used clothing left for collection at the kerbside and in collection banks is on the increase and is helping to fund more serious criminal activity, such as drug trafficking and people smuggling (Mann, 2011).

The (2009) DEFRA report also emphasised a heightened increase in the shipment of unsorted or partially sorted textiles to developing countries, causing prices to fall cyclically. The operations of these non-registered second-hand clothing operators exporting low-grade SHC (unwearable and unsalable) to reuse markets present a significant economic falloff of SHC from the U.K. Evidently, the activities of these segments of illegal operators and non-registered members contextualise how the global rationale of the SHC trade is curtailed by the distribution of uneven qualities of SHC into the Ghanaian market is volatile with insignificant economic value. The activities of these illegal networks also demonstrate a lack of capacity by the TRA

(U.K.) and other related agencies to regulate illegal trade. Also, it is imperative for the TRA to encourage quality sorting to promote robust SHC markets in developing countries without international trade barriers. Low levels of sorting and direct shipping of unsorted SHC to developing countries will minimise the dependence of U.K. textiles recyclers on overseas trading patterns and significant import declines by U.K. recycling industries.

Furthermore, the findings confirm the accounts of Abimbola, (2012) and Norris, (2012a) that qualities and grades of the SHC are usually sorted based on the discernment skills of the workers in the textiles recycling companies in the West. These workers also have the arduous task of sorting and grading manually from huge piles of used clothing in the processing companies of the textiles recyclers as observed during the fieldwork. This practice in the textiles recycling companies demonstrates the lack of regularisation in the SHC grades and accounts for the increases in low-grade (low-quality standard) identified in SHC bales imported into developing countries. The mode of processing also contributes to the critical economic, environmental and social development drawbacks in the global SHC trade. The sustainable development of the SHC trade in developing countries is therefore reliant on the careful sorting and grading processes in the U.K. just as textiles recyclers depend on the availability and commerciality of the reuse or export markets in developing countries.

However, persistent influx of low-grade SHC evidently does not guarantee the commerciality of the trade as the low-grade impact on the profitability of the retailers. The prospect of the trade to alleviate poverty among the urban poor in developing countries like Ghana is fundamentally challenged as the influx of low-grade affects the circulation of capital and profitability of the traders. The ability of the local traders to make profits on their investments (economic growth) is critical to attainment of SDG 8 (please see P. 46). The current situation of excessive import of low-grade SHC is inconsistent with the global rationale for promoting the reuse of the used clothes which is a theory of sustainable consumption (please see P. 81). Moreover, exporting low-grade SHC items from the West does not promote the transferability of sustainable development principles to developing countries, which is a major objective of the Textiles Recycling Association (TRA) U.K.

Additionally, the patronage of SHC in developing countries reveal definitive environmental and social impacts, however, promotes the environmental quality in the U.K. as significant quantities of SHC, which could have ended in the landfills, are exported to developing countries. This development is supported by the assertions of local SHC consumers in the Kantamanto market. One of such views is captured in the quote below:

The importation of low-grade second-hand clothing (SHC) portrays a very negative perception that we are a poor country; therefore, poor quality of items can be dumped into our country (Consumer 1, Kantamanto market).

The above quote exhibits the negative perceptions about the trade as a result of the excessive importation of the low-grade SHC considered as waste (with no reuse value) dumped into the country. However, the empirical evidence reveals that the importation of low-grade (waste) is not only attributed to the processing of textiles recyclers in the West. It is also attributed to the inexperienced local importers in developing countries engaged in importing poorly sorted and graded SHC from unrecognised textiles recyclers in the West. The fieldwork indicated that local importers bring in these low-grade to make brisk sales and recover their investments. Therefore, there is the need to facilitate or streamline the global trade networks between recognised textiles recyclers in the West and SHC trade associations in developing countries like Ghana to avert trade bans/tax impositions and counter trade restrictions.

The non-existence of trade relationships between trade organisations in the U.K. and Ghana is a missed opportunity, which has impacted negatively on the sustainable development of the trade. This missed opportunity has also sufficiently misrepresented the SHC trade. For example, the Ghanaian perception of the second-hand clothing trade is that of dead white people's "*Obroni wewu*" clothes dumped in the country. The President of the TRA, U.K., has identified this missed opportunity. He stated that:

I know they use the term 'dead white man's clothing'. That is something we need to change because it is not dead white man's clothing. It is clothing that people have hardly worn and how do you overcome such impression? (President of Textile Recycling Association, U.K.).

It is imperative that the economic dimensions of the SHC trade be regulated and guided at both international and national levels through prudent environmental protection principles and ethical considerations for the social well-being/welfare in both the Western and developing countries. The concentration of the sustainable principles and activities should not be limited within the West but should be consciously transferred and engaged with stakeholders in the developing countries where these SHC items are mainly accepted.

7.2. Integrating the three dimensions of sustainable development in the SHC trade.

This section of the discussion chapter focuses on the results from the fieldwork that revealed the specific problem of developing integrated sustainable development dimensions of the SHC trade in the Ghanaian context, which is significant to the objective of this thesis. The section seeks to explain how the social dimension can direct or control the economic activities and at the same time submit to environmental protection. The interdependencies between the economic activities and the environmental dimension in the Kantamanto market are prevalently complex with adverse effects on the social well-being and health effects on the individuals (traders and consumers). Therefore, any one of the dimensions addressed in isolation could result in a deficient resolution of the sustainable imbalances within the Kantamanto market in Accra, Ghana.

The economic growth, environmental protection and social well-being as identified in the fieldwork are critical issues of complexities that raise questions of how the sustainable dimensions can be balanced within the SHC trade contexts. The Brundtland Report is emphatic about deepening the integration (interconnection) between the three (economic, environmental and social) dimensions of sustainable development, which is the main rationalisation for the establishment of the Commission (WCED, 1987). The integration of economic, environmental and social dimensions of the SHC trade in Ghana should be sought jointly and simultaneously through the planning system.

7.2.1. Economic dimension

The research demonstrates that environmental and social conditions in the Kantamanto market do not measure up to the vibrant SHC trade (economic) activities carried out in the market. The environmental dimension of the Kantamanto market is undoubtedly not integrated into the vivacious SHC economic dimension and feasibly does not meet the diverse social needs of the local traders and consumers in Kantamanto. This evidence is not supported by Hamrin (1983) argument that economic activities (present and future) should sustain the integrity of the natural resources or the environmental base as illustrated in figure 7.1. Likewise, economic dimension or trading activities should be influenced by the social well-being that is safeguarded by the environment and which is indispensable for human survival (Lehtonen, 2004). In this context, the environmental preservation and the social well-being should form an essential act of sustainable consumption of all goods and services in the Kantamanto market. The scope of economic growth and importance associated with the SHC trade is crucial for the balance and integration of environmental and social dimensions of the trade, which are significantly challenged in the Kantamanto market.

Furthermore, the haphazard or unplanned economic organisation and growth is the cause of the environmental problems such as solid waste generation, air and water pollution, lack of infrastructure (sheds, toilets, canteens, and others) and encroachment of the Kantamanto space. The presence of hawkers peddling their wares also creates massive congestion in the central business district of Accra. The results of the research demonstrate an unassertive integration of economic principles to deliver environmental protection and social well-being for the traders and consumers in the Kantamanto market. This lack of integration of the sustainable development dimensions also reveals the inactivity of governmental agencies like the Ministry of Trade and Industry (MOTI) and the Accra Metropolitan Assembly (AMA) in the economic arrangements of the Kantamanto market. The situation remains a major sustainable development challenge for domestic trade in Ghana. It further contradicts sharply with the European Union (EU) principle of integration of economic, social and environmental components, and their mutual reinforcement.

7.2.2. Environmental dimension

The environmental dimension is interpreted in this section to include human-made environments – specifically, the Kantamanto market space or habitat in the central business district of Accra. The market space demonstrates a continuing economic system with complex ecological systems and social implications. According to the Aalborg Charter and Agenda 21, sustainable environments are places where people want to live and work, now and in the future. They are places where people live and work to contribute to a high quality of life, or renewable and non-renewable environments (see Chapter 3). This assertion shows that it is essential the Kantamanto market (physical space and systems) is developed to meet the needs of the growing population of about 3000 traders (Oteng-Ababio *et al.*, 2015).

The environmental dimension of the SHC trade in the Kantamanto market is both conceptually and operationally challenging and opposed to the assertion that the maintenance or preservation of the qualities and values of the physical environment improves social (human) well-being or welfare (Kohn *et al.*, 2001; Moldan *et al.*, 2012). The fieldwork is suggestive of a destructive market space environment, with evidences of immense waste generation and significant environmental pollution. This situation is devoid of environmental policy/ regulations and socio-economic incentive schemes to stimulate transformation in the environment as proposed by Taylor (2000).

As noted, the informal or haphazard nature of the Kantamanto market is mainly flooded with excessive importation of low-grade or unsalable SHC, which evidently cause visual pollution and contribute to the choking of drains or find their way to the landfills (Naturegrid, 2006; Waste Online, 2006; Birtwistle and Moore, 2007). This infers that the environmental quality of the Kantamanto market is compromised for the excessive importation of low-grade SHC and for economic survival (growth). This effective importation of pollution (low-grade SHC) raises questions of the lack of ethical decisions by stakeholders in the SHC trade about the use and care of the immediate environment (Blunt, 2005). This is evidence of a lack of strategy for sustainable consumption; continuous economic and social progress that respects the Earth's ecosystems (please see P.81). The Director of the Ministry of Trade and Industry (MOTI) also establishes this observation as he affirms that:

We have identified the environmental challenges of most of our domestic markets including the Kantamanto market. With very bad sanitary and waste collection conditions in the market, it is evident that most of the markets are not environmentally safe for trading activities (Director of the Ministry of Trade and Industry, Ghana).

Visible discard of low-grade SHC items and deplorable market environment reveal an uncontrollable or unmanageable capabilities of the Kantamanto Used Clothes Sellers Association and the Accra Metropolitan Assembly (AMA) and a non-performance of other key stakeholders like the Ministry of Trade and Industry (MOTI), which is a deficiency in the attainment of SDG 8.8; decent work for local traders and their livelihood (ILO, 2018). The integration of the integrity of the environmental dimension in the Kantamanto market is critical and requires the support of the economic dimension to safeguard the social well-being (Munoz, 2010) (see figure 7.1).

Another key challenge identified concerning the sustainable development of the SHC trade is the allocation of the Kantamanto market in the Ashiedu Keteke area, which is earmarked for railway development. The Director of the Accra Metropolitan Assembly (AMA) supports this assertion in the empirical study:

The location of the Kantamanto market and the unstructured nature of the market make it difficult to undertake any sustainable environmental development (Director of the Accra Metropolitan Assembly, Ghana).

The medium-term sustainable development of the SHC trade is challenged by relative absence of appropriate facilities in the Kantamanto market such as storage for retailers, security provisions, and proper sanitation facilities, canteens, and a clinic to support the growing population. As a result, the SHC trade practices in the Kantamanto market presents a lack of environmental goals, which has led to significant social issues for traders and consumers. It is imperative that key stakeholders of the trade like; the MOTI, AMA and the Kantamanto Used Clothes Sellers Association of the Ghana Union Traders Association (GUTA) guarantee the sustainable development of domestic markets by ensuring that they are well planned, well built, well run, and safe and inclusive to offer good services for all. This critical role by government and businesses is important to reconstruct an eco-efficient SHC market for sustainable consumption to satisfy local consumers.

7.2.3. *Social dimension*

Integration of the three dimensions of sustainable development represents a rational approach of thinking as it focuses on managing the economic processes and natural capital in an effective way to maintain individual needs, health, well-being and shelter (Gilbert, 1996; OECD, 2001b). The social dimension of sustainable development in the context of this thesis is to promote people-oriented development of the SHC trade that supports the stability of social systems not affected by destructive environmental and economic practices. The research findings are consistent with the assertions of Agyeman *et al.* (2002:77), who opine that:

Wherever in the world environmental despoliation and degradation are happening, they are almost always linked to questions of social justice, equity, rights and people's quality of life in the widest sense.

The social dimension of the SHC trade reveals current trade practices impair the prospects of maintaining and improving living standards triggered by destructive healthy environment over a long-term as supported by Torjman (2000). The SHC trade in Ghana lacks an integrative framework or approach that prioritises the maximisation of economic growth for poverty alleviation among the urban poor for the attainment of SDG 8. It is evident that, there is inconsequential attention by stakeholders to link the social well-being of traders to the environmental situation in the Kantamanto market which reveals a superficial non-attainment of decent work, a requirement for societies to create conditions that allow people to have quality jobs to stimulate the economy by 2030.

The Kantamanto Used Clothes Sellers Association (GUTA) as the organised body of the traders in the Kantamanto market with a mandate to develop a social cohesion to improve quality of life, pleasant work, social networks and opportunities is not working consistently with the three indicators of the social dimension: (i) membership in local associations and networks, (ii) adherence to norms or regulations, and (iii) collective action (Grootaert and van Bastelaer, 2002). GUTA's challenges are mainly associated with non-adherent SHC hawkers and peddlers whose activities do not promote the social cohesion and pragmatic preventive and restorative environmental schemes to ensure orderliness by collective action.

Furthermore, the research reveals that the social dimension of the SHC trade in Kantamanto market is challenged by the inefficient implementation of codes of conduct, guidelines, and conventions to maintain a healthy environment to support healthy and productive social (human) life. This supports the argument that there is a lack of adequate infrastructure or amenities for social services, population stabilisation and equitable distribution. Lack of basic social amenities like sheds, toilets, clinics and canteens among others in the Kantamanto market highlight failed societal arrangements that need to be addressed to correspond with the rate of population growth of traders and consumers in the market. The research participants in the Kantamanto market indicate that the poor market structure does not adequately safeguard their health and well-being. This assertion is captured in the interview quotes of the three retailers in Kantamanto market:

The lack of a health post does not support our health, as we do not have access to first aid in the Kantamanto market (Retailer 1, Kantamanto market).

I think our health and safety is impacted on negatively by our trading activities. Our trade practices are carried out under sheds that do not provide much shelter for us in the scorching sun (Retailer 2, Kantamanto market).

The congestion in the market is a recipe for the outbreak of diseases that can rapidly affect the traders and consumers (Retailer 3, Kantamanto market).

Based on the above quotes, the various perspectives of the research participants reveal the disproportionate (non-integrative) nature of the SHC trade in the Kantamanto market, which is basically a consequence of the lack of a comprehensive sustainable development policy by key stakeholders. These assertions require the essential promotion of social protection and environmental objectives simultaneously to promote economic growth within the Kantamanto market. Figure 7.1 captures the critical issue of integrating the three dimensions of sustainable development. The figure illustrates how the three dimensions of sustainable development are critically required to overlap each other and be interconnected in any national endeavour to safeguard higher socio-environmental standards (healthy environment and social well-being), improve the socio-economic activities and standards (valuable economic prospects for traders and consumers) within the Ghanaian context.

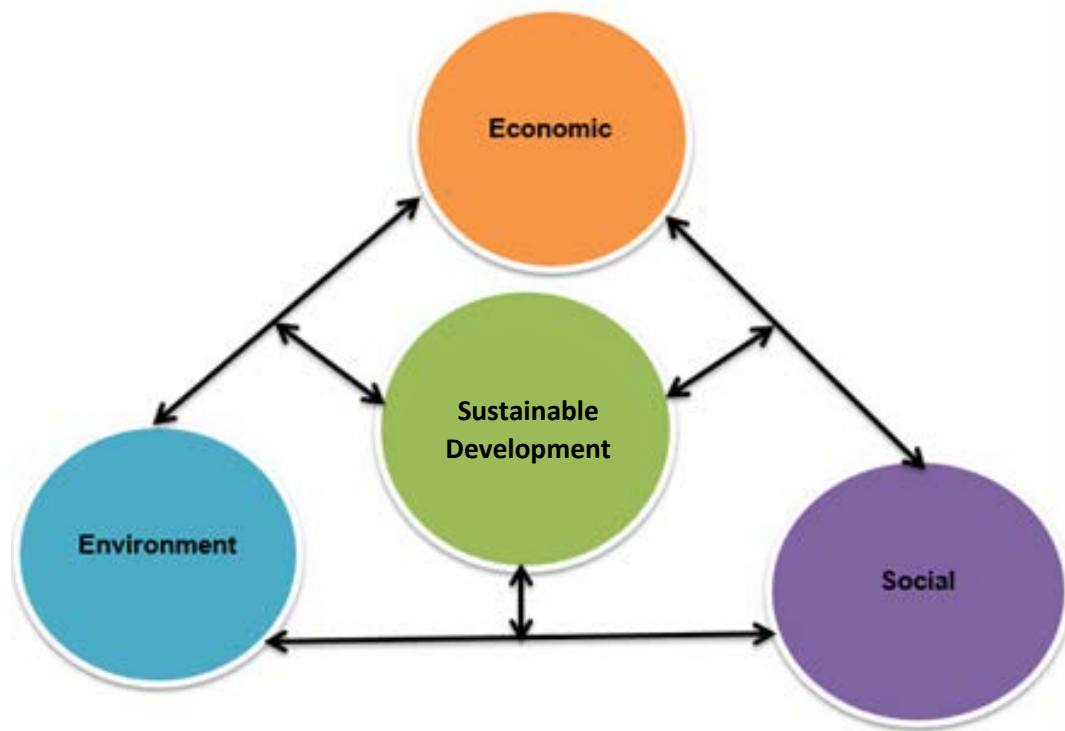


Figure 7.1. Integrating Sustainable Development Dimensions

7.3. Three-R framework for sustainable SHC trade in Ghana

The three-R framework presents an analytical scope of the three dimensions of sustainable development based on their characteristics and rationality within the SHC trade in the Kantamanto market setting. The research aims to develop a conceptual understanding of the three dimensions (economic, environmental and social) of sustainable development in the Ghanaian second-hand clothing (SHC) trade using the three-R framework (*regulate, reuse and recycle*) which shares the ideologies with the EU Waste Hierarchy (Reduction, Reuse, and Recycling) and also reordered into law in the U.K. under the revised Waste Framework Directive (DEFRA, 2011b).

The three-R framework is a key objective of this thesis, which seeks to propose an effective, workable approach to achieving sustainable development of the Ghanaian SHC trade. The three-R framework links regulate, reuse and recycle as a workable approach to integrate environmental preservation, social protection and economic growth in a more comprehensive strategic perspective. The significance of the three-R framework is to offer a possible basis for the achievement of sustainable development in the SHC trade in the Ghanaian context.

The three-R framework tries to demonstrate how the SHC trade can be conducted through effective regulation of the SHC importation and trading practices. The framework proposes effective reuse practices that can encourage an extended useful life of imported SHC. The analysis of the framework also shows the significance of maximising and recovering low-grade or textiles waste to save the natural resources through recycling options. The concept of the three-R framework is to reduce the excessive textiles waste in the SHC trade for the present and future generations. The framework is also essential to stimulate the informal economy, protect the environment, and provide social benefits of the SHC trade especially for the urban poor in the Ghanaian context.

7.3.1. Regulate

In this thesis ‘regulate or regulation’ is based on a circuit of formulation, enactment, and interpretation that plays a fundamental role in mitigating the complexity of the activities and interactions required to achieve sustainable development (Rachuri *et al.*, 2010) within the specific socio-economic background of Ghana. The views and experiences gathered from the research participants provide important sets of evidence of how regulation has not spurred or nurtured sustainable development of the SHC trade in the Ghanaian context. The research argues that inefficient regulatory frameworks are contributing to the non-integration of economic activities with the environmental resources and social well-being of the traders and consumers. Thus, implementing an efficient regulation can lead to improve the environmental quality and protect the social welfare and health of traders and consumers, which is non-existent in the Kantamanto market.

Imported SHC items from the West into the Ghanaian market are not totally banned as affirmed by the Director of the MOTI. He stated that:

Currently, it will not be prudent for government to ban the importation of second-hand clothes entirely. We can ban high risk second-hand clothing items based on health and safety reasons and ensure that the imports meet the health and safety standards (Director of Ministry of Trade and Industry, Ghana).

The quote above endorses the contribution of the SHC imports for poverty alleviation among the urban poor as well as increase national revenue through customs charges and tariffs, market levies and tolls and business licenses. However, it affirms that a wide spectrum of SHC items like second-hand handkerchiefs; men’s, women’s and children’s undergarments (brassieres, boxers, and pants; and mattresses and sanitary ware) for commercial purposes or in any commercial quantities are banned from the Ghanaian market. The importation of these high-risk (low-grade) SHC items are perceptible challenges to the SHC trade practices, processes and systems in Ghana.

In line with this, the Ghana Standards Authority (GSA) is mandated by the Ministry of Trade and Industry (MOTI) through the Legislative Instrument (LI) 538, to regulate the standards of the SHC that are imported into the Ghanaian market. The duty of the GSA is to promote quality trading practices at various stages of the SHC trade through effective implementation of the regulatory mandate. The GSA,

therefore, has the responsibility to conduct market surveillance to ensure that the SHC items in the Ghanaian local markets are safe and healthy for consumption according to Section 22 of the Imports and Exports Act, 1994 (Act 418), which categorises SHC as high-risk goods that bring health and safety concerns with the potential to harm the health of the populace and the ecosystem. This mandate is critical as it focuses on prevention, compliance, and conformance among the SHC importers and retailers.

It is evident the LI 538 is not enforced holistically due to challenges of inadequate GSA personnel and resources for effective surveillance and controlling of the local markets and poor educational campaign or projects on healthy economic practices for the environmental protection of the local market. The fieldwork revealed prohibited SHC items displayed and patronised in the Kantamanto market, a situation which indicates lapses in the market surveillance and enforcement of the regulation by the Ghana Standards Authority (GSA). For example, the GSA is required to seize and destroy products that are not safe and unhealthy for public consumption. The quote below reveal unjustifiable challenges to the GSA mandate as the Director of the Ghana Standard Authority (GSA) stated that:

Our main challenge is that we do not have enough personnel to be able to go inspecting the banned items in the markets because we aware banned SHC items find their way into our markets. Also, we do not have enough resources to carry out our educational campaigns on the health and safety risks of banned second-hand clothing (SHC) items (Director, Ghana Standard Authority, Ghana).

The prevailing Ghanaian Legislative Instrument (LI) 1586 under which SHC are to be imported is commendable. However, the LI lacks efficient features for checking the grade quality of SHC imports at the points of entry to guarantee the economic and social benefits of the trade. The results from the research demonstrate a lack of appropriate resources for GSA personnel to identify banned items in containers at the Tema Harbour, which is the main point of entry. The existing electronic scanners lack the capacity to identify high-risk SHC items in a container load of bales. Therefore, personnel rely mainly on physical inspections of the SHC bales in the containers. The exercise of physically checking the SHC bales in containers at the points of entry is evident that the quality standards of imported SHC are clearly compromised by the absence of adequate mechanisms to identify unsafe SHC items. This situation requires an effective system of checking SHC bales at the points of entry.

Furthermore, the research findings show that the mode of allocation of Kantamanto market space is a major threat and complexity to the sustainable development of the SHC trade. The allocation of the Kantamanto market as outlined in the lease agreement between the Ghana Railways Development Limited (GRDL) and the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) (see appendix A) shows inefficient allocation terms. The terms do not allow for synchronised or parallel development for both the railway sector and the SHC trade. The main problem associated with the terms of the lease agreement is that it inhibits any development of the location for over half a century. This means the market will be devoid of any long term transformation and development over the period of lease. The lease agreement also highlights inadequate provision of conditions necessary for alternative allocations of the SHC trade into other markets. This current situation does not provide the capacity to maintain or develop a permanent market structure and economic productivity or growth.

By the terms of the lease agreement, encroachment on the property of the Ghana Railways Company Limited (GRCL) by the activities of SHC hawkers and other vendors is inevitable. This development of encroachers in the Kantamanto market area indicates a clear ambiguity in the developmental agenda of the new governing body; the Ministry of Railways Development (MORD). The emergence of the Ministry also presents a unique challenge to the sustainable development of the Kantamanto market and the SHC trade. The empirical study reveals a dichotomy in the sustainable development agenda of the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) and the Ministry of Railways Development (MORD). Thus, the independent GUTA who have shown the strong desire to develop the current Kantamanto market location into a shopping complex and the preparedness of the new MORD to develop the location into an ultra-modern rail station. The AMA is evocative that the SHC trading should be contained into new markets they are building in other parts of the Accra Metropolis. These disconnects in the development of the SHC trade presents a critical concern for stakeholder integration to achieve the sustainable development.

The SHC trade patterns in the Kantamanto market show obvious informal business development from the central business district of Accra with a lack of integrative

approach with the key governmental agencies like the Accra Metropolitan Assembly (AMA). The study shows that the Kantamanto Used Clothes Sellers Association (GUTA) executives are responsible for the day-to-day management of trade practices in the Kantamanto market. This assertion is stated in the interview with the Director of the Accra Metropolitan Assembly (AMA), 2017, below:

The Kantamanto Used Clothes Sellers Association (GUTA) executives oversee the market environment and trading activities. By the structure of the Kantamanto market and the ownership of the location, the Accra Metropolitan Assembly (AMA) is unable to contribute much to the second-hand clothing (SHC) trading or the economic activities in the Kantamanto market (Director, Accra Metropolitan Assembly, Ghana).

The above assertion exposes the autonomy of the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) in regulating the SHC trading activities to accomplish sustainable goals. Therefore, conceptualising effective regulation in the SHC trade practices in the market is not organised in a holistic regulatory framework to be implemented by governmental agencies like the Accra Metropolitan Assembly (AMA), responsible for domestic market structuring and allocation in the Accra Metropolis. The SHC trade is undertaken as an informal market with regulatory obstructions which has resulted in plausible unhealthy, unsafe, and filthy environments in the Kantamanto market as affirmed by the research participants. There is satisfactory evidence of lack of regulation resulting in an induced hazard owing to the lack of proper fashioning of regulations, which negatively affects economic productivity, environmental preservation, and social benefits.

The Kantamanto market is completely lacking in suitable market infrastructure, which has social effects on traders and consumers. The social (health and safety) policies are not structured appropriately in regulations to aid significant economic growth. More importantly, socially driven policies or regulations are non-existent to create motivations that will pull the SHC trade in Ghana towards sustainable development. In this context, however, it can be argued that the lack of efficient regulation has generated negative influences on the SHC trade in Ghana. Ineffective regulation instrument by governmental agencies is not promoting desired growth in the local market arrangements as in the case of Kantamanto market.

Regulation is therefore justifiable in the three-R framework as domestic trade regulations are critical to effectively ensure poor standards or low-grade or textiles/clothing waste are not imported into the country. The regulatory frameworks for the SHC trade can be enforced simultaneously with effective reuse and recycling schemes in the Kantamanto market. The approach of regulation is the means of institutionalising legitimate balance between trade and consumption within the Kantamanto market organisation. From a regulation perspective, the important issue is the extent to which social, environmental and economic can move towards sustainable development. Local SHC trade sustainable development can be interpreted as part of an emergent mode of efficient regulation.

Effective regulation is important to shape or radically impact upon the conditions of existing SHC trade regime in developing countries like Ghana. Sustainable development is the guiding principle or radical change to the SHC trade practices within the current free market procedures that have gained grounds in many developing countries. The full integration of key stakeholders is important to enforce local regulations that are not ambiguous or difficult to apply due to injudicious global policies. A strong regulatory framework based on local laws with possible collaborations with international trade protocols is crucial to check the excessive importation of low-grade SHC from the West.

7.3.2. Reuse

Extending the useful life of clothes supports the key concept of sustainable development, and reuse structures are preferable for environmental considerations with important social and economic benefits (UNEP, 2003). The increasing environmental concerns regarding the effect of the textile and clothing industries producing clothes for obsolescence and with short life cycles escalates environmental impacts and affects the reuse life of imported SHC in Sub-Saharan Africa which is the world's largest destination (Hansen, 2004). These environmental concerns are key to the objectives of textiles and clothing policymakers and researchers like the Waste & Resources Action Programme (WRAP) (U.K.) (Blackburn, 2005), who are consistently pursuing efficient ways of reducing the impact textiles waste on the environment. A significant part of the work by WRAP in the U.K. is to promote durability of clothes.

The disposed used clothing offers economic opportunities for textile recyclers who sort and grade SHC through labour-intensive processes. The labour-intensive sorting and grading is carried out by the discretion of the labour force in the processing companies which is a significant weakness for standardised quality SHC to developing countries as affirmed by Abimbola (2012). The significance of the reuse value of SHC can be guaranteed by effective processing of quality reusable clothes to promote long-range socio-economic advantages for the developing countries. However, the development of the cheap fast fashion consumption is associated with the short lifespan of low-quality clothes and the massive export of low-grade SHC into developing countries. The Supervisor, Bristol Textiles Recyclers and the European Projects Manager of WRAP in the U.K further buttress this position:

Consumers in the U.K. are buying more fast fashion, which means trends are also changing quickly, and the qualities are getting inferior (Supervisor, Bristol Textiles Recyclers).

If low-quality clothing is going to the textiles recyclers, it is as result of consumers in the U.K. using clothes much longer. Therefore, if low-quality clothing is going into the export markets, this could also affect the quality of the second-hand clothing available for reuse in the export markets (The European Projects Manager of WRAP).

Findings from the fieldwork reveal inserted sections of tailors and seamstresses engaged in the repairing and redesigning of imported SHC in the Kantamanto market. The market has a well-connected segment of tailors and dressmakers who are strategic to the economic development of the SHC trade in Ghana. Their operations play a significant role in the excessive importation of the SHC. The tailors and dressmakers are engaged in the redesign or re-fashioning of low-grade clothes in the Kantamanto market to increase the reuse value and reduce textiles and clothing waste from going into the landfills locally. Reuse of SHC delays the period clothing waste take to go into the solid waste stream as argued by Domina and Koch (1999). Consumers of the SHC in the Kantamanto market benefit from this established system of tailors mending clothes according to consumer specifications and social status. The engagements of the tailors and dressmakers also provide an extended lifespan or upgrading of the SHC to assume new-use lives to support the economic and social needs of the urban poor in Ghana.

The SHC reuse system in the Kantamanto market also provides employment opportunities to a significant number of the urban population particularly the youth. These tailors and dressmakers are formed of segments of the Ghanaian population who have difficulties in entering the formal job markets or have been unemployed over a long- term. As self-employed, semi-skilled tailors and dressmakers, they offer alteration and repair services, which is of socio-economic benefit to the Ghanaian population. Their activities also complement the global SHC supply chain and contribute to safeguarding the environment (ecosystem) in the West as admitted by the Supervisor, Bristol Textiles Recyclers. She stated that:

Our African markets are important for us as they are part of our ecosystem, the same way as charities and textiles recyclers are part of our ecosystem. The market there helps us keep our business sustainable (Supervisor, Bristol Textiles Recyclers).

Additionally, the considerable contribution of the tailors and dressmakers in the Kantamanto market to ensure the continuing consumption of the SHC in developing countries subsequently promotes the profitability of the commercial textiles recyclers in the West (U.K.). The reuse market in Ghana promotes the effectiveness of the concept of reuse markets in developing countries and critical to the sustainable development of the global SHC trade. The existing network of the tailors and dressmakers in the Kantamanto market affirms the fact that most of the SHC imports are only wearable after undergoing considerable alteration and mending.

Reusing imported SHC items from the West involves extra efforts by traders and consumers who engage the services of tailors and seamstresses in the market at additional costs. The fundamental existence of mending and alterations also supports the argument that poor quality SHC items are exported from the West, which is further evinced by the significant quantity of used pieces of cut out SHC items left on the market floor as observed during the fieldwork. Reuse in the three-R framework is therefore relevant in the Ghanaian context and the promotion of effective reuse systems in the Kantamanto market will play a critical function in lengthening the lifespan of SHC items and preserving the biophysical environmental health by ensuring that the cost of recycling is circumvented.

7.3.3. Recycle

Recycling is part of the ecosystem inspired design approach and clothing waste elimination concept which is divided into two categories - pre-consumer and postconsumer waste. Most Western governments have positioned the international second-hand clothing (SHC) trade as a form of environmental recycling phenomenon (Norris, 2010). The three-R framework presented in this thesis discusses the significance of recycling as the modeled objective of the sustainable development of the second-hand clothing (SHC) trade in the Kantamanto market. Low-grade SHC management and pollution prevention for the long-term goal of sustainable development in the Ghanaian SHC trade is a significant objective of the three-R framework.

Recycling is a manufacturing process with environmental impacts, which can be promoted by the separation of clothing waste to lessen the effects on the landfill and incineration (Daniel, 2003; Jasem, 2005). The consumption of textiles in the U.K. is estimated at 24.16m tonnes at an average of 35kg per capita (Domina and Koch, 1999; DEFRA, 2006; Madsen *et al.*, 2007). An average consumer in the U.K. throws away 30kg of clothing and textiles per year (Allwood *et al.*, 2006) of which textiles and shoes represent about 2% to 3% of municipal solid waste. The U.K. global footprint of consumption of clothing generates waste up to approximately 1.8million tonnes according to the WRAP report “Valuing our clothes” (WRAP, 2012a), hence the significantly high volumes of SHC items imported to developing countries like Ghana.

Excessive imports of SHC from the West (U.K.) are largely consumer products with recycling potentials, which is the reason why there is the need to expand the awareness of recycling clothing/textiles waste in Ghana where little is achieved in this direction. The research discovered that recycling is limited in scope in Ghana with limited developments in the options of imported SHC items. Recycling of SHC is lacking in the Kantamanto market based on the lack of clear transformative mechanisms to recapture the volumes of clothing/textile waste produced daily for spinning into usable raw material, new fabrics or other products for a sustainable SHC trade in the Kantamanto market. The low-grade SHC generated in the Kantamanto

market are not extracted from the general waste for economic value due to the lack of recycling infrastructure.

The non-existence of recycling activities in the Kantamanto market has impacted negatively on the market environment. It is evident that the Kantamanto market is confronted by enthusiastic commercial interactions between traders and consumers who generate enormous volume of waste that end up in the main waste streams. This situation has led to the environmental breakdown and social threats in the Kantamanto market. It is crucial to adopt non-transformative (recycling) approaches that will bridge the sustainable development of the SHC trade practices in Ghana. Recycling systems need to be separated from waste collection and management, as the economic value of waste requires the removal of contaminants from a commercial quality (Scheinberg *et al.*, 2011).

There is a complete lack of clothing/textile waste disposal collectives and recycling systems for effective separation of potential recyclable clothing waste in the Kantamanto market. Therefore, clothing/textile waste in the Kantamanto market is not homogenous regarding fabric types and even colours, thus making it difficult to separate for recycling. Primarily, the traders and the segment of tailors and dressmakers do not separate the different fabric types like cellulose, cotton, and others accordingly for recycling. These substantial volumes of clothing/textile waste that are no longer suitable for reuse observed in the Kantamanto market are normally heaped into piles and collected by individuals engaged by the traders to dispose of them into the landfills. The situation demonstrates an environmental nuisance and health impacts owing to the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association's (GUTA) lack of expertise in handling clothing/textile waste. This is evident in the absence of guidelines and infrastructure (bins) for the separation of clothing/textile waste in the market.

It is essential to deal with the clothing waste generation in the Kantamanto market by developing a small-scale informal recycling infrastructure that is less technological and decentralised for traders' participation. An informal recycling infrastructure will deliberately recover between 15% to 35% of generated waste in low-income developing countries like Ghana (UN-Habitat, 2010). This development of an informal recycling system has the potential to provide a livelihood for individuals and

entrepreneurs. It will also serve as essential prospects of clothing reuse for an environmentally sustainable economy. Therefore, it is critical that the Accra Metropolitan Assembly (AMA) collaborates with the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) by placing collection bins out for recycling to prevent clothing/textiles waste from being mixed with other forms of waste. This collaboration is critical in implementing and promoting a nationwide clothing/textiles recycling system.

Efficient regulation, rules and procedures for the collection and handling of clothing/textile waste for recycling with economic incentives are crucial for the sustainable development of the SHC trade in the Kantamanto market. Relevant key stakeholders with varying levels of knowledge and experiences about waste handling, waste laws concerning the environment and recycling should be appropriately engaged in determining sustainable recycling frameworks for the Ghanaian SHC trade. The implementation of recycling approaches and measures to salvage low-grade SHC identified in the fieldwork is most important.

7.4. Result of Propositions

The propositions in the Conceptual framework; Chapter 4 focused on a gap found in implementing sustainable development of the SHC trade in Ghana. The conceptual framework in Chapter 4 shows how the sustainable development theories drawn from literature reviewed are not supported by the findings of sustainable development patterns in the empirical study. The results of propositions evince the reverse '*negative*' or complex realities in achieving sustainable development of the SHC trade in the Ghanaian context. The present trade situations require reveal a significant need for multidimensional approaches which are identified based on patterns and theories within the literature review (Chapter 3) and discussed in the conceptual framework (Chapter 4) of the thesis.

This section presents explicit articulation and graphic display of the results of propositions based on the empirical evidences. The analytical process expounds the classifications in the conceptual framework and their specific implications or specified long-term outcomes. Fundamental strategies needed to develop a sustainable SHC trade within the Kantamanto market in Accra, Ghana has not been established as theories of sustainable development espoused in the literature review have yet to be identified in the Ghanaian SHC trade practices. The relevant overlaps and contradictions in the current trade practices are illustrated in the remodelled framework, which reveals how the SHC trade is not developed sustainably '*positively*' in figure 7.1 below.

The two propositions in the remodelled conceptual framework are linked with sets of interconnected classifications in the conceptual framework (Chapter 4) to represent the different patterns of the SHC trade confirmed in the empirical study. The epistemological foundation of the remodelled conceptual framework is based on the sustainable development paradox of the Ghanaian SHC trade practices, which has not received considerable attention from the key stakeholders. As evident from the empirical study, the key stakeholders of the SHC trade lack integrative capabilities to implement sustainable development frameworks in the prevailing SHC trade.

Proposition 1, (P 1): Integration of the three dimensions of sustainable development - economic growth, environmental protection and social well-being - can positively influence the SHC trade in Ghana.

PIa. Economic dimension

1) Sales and distribution methods

Sales and distribution of imported SHC lack definite sales formats and standards of presentation in the Kantamanto market. The research revealed that current trade practices does not permit retailers to operate in permanent structures, consequently, SHC items are only draped on wooden structures or piled up on the market floors. Additionally, numerous hawkers and peddlers sell illegally along the pavements, streets and rail station at the Kantamanto market. These characteristic sales and distribution methods of SHC exhibit poor local market arrangements, which triggers social and environment breakdown. The current sales and distribution methods affirm an unsustainable SHC trade.

2) Trading practices

The fieldwork reveals that SHC retailers in the Kantamanto market buy bales of SHC with varying qualities (grades), which does not guarantee returns on their investment, and demonstrates a lack of equitable value of SHC qualities imported from the West. This inequity or disproportionate profitability for susceptible retailers in Kantamanto market is traced to the non-existence of clearly laid-out trading global standards to facilitate reliable economic value in global SHC trading practices.

3) Market spaces

Kantamanto market in the central business district of Accra is a space that is basically haphazard, lacks proper physical structures and embraces a wide range of informality. This is apparent from the non-existence of domestic trade policy initiatives or guiding solutions for economic reorganisation and restructuring for the Kantamanto market specifically. Also, the deprived market space poses complexity in promoting environmental quality, safeguarding social capital and reorganising to support sustainable incomes (livelihoods).

P1b. Environmental dimension

1) Planned economic activities

Trade structures or patterns of SHC consumption in the Kantamanto market exhibit poor maintenance and preservation qualities and values of the physical environment. The market is devoid of planned aesthetic and functional values for economic activity and sustainable growth in the central business district of Accra. For example; major infrastructure setbacks like temporary sheds and narrow isles suggest an uncoordinated future economic planning. This major chaotic market with unregulated presence of the peddlers and hawkers makes it arduous to maintain a well-planned environmental integrity that can promote sustainable socio-economic development.

2) Healthy environments

Absence of health/sanitation facilities and security provisions illustrate a clear deficit of the basic needs of the growing population in the Kantamanto market space. The lack of basic infrastructure defies the landmark sustainable development and does not promote traders' and consumers' rights to a healthy environment as asserted by Peattie (1992). It is evident from the fieldwork that the health of humans and environment is negotiated for the expansion of the economic activities in the Kantamanto market.

3) Human and natural capital

The Kantamanto market exposes the over-exploitation or degeneration of the natural and human capital by the economic activities. The empirical evidence clearly shows the deterioration of the ecosystem due to lack of commitment to socio-environmental principles and laws. The human and natural capital (location) in the Kantamanto market is not boosted or recreated for economic growth to alleviate poverty and social inequity.

P1c. Social dimension

1) Fairness of sales and distributions

The findings of the research reveal that the premise of the instituting concept of sustainable development is challenged by the lack of a framework that prioritises guaranteed participation in the maximisation of economic livelihood, basic clothing needs, social safety and alleviation of poverty. There is vulnerability in the participation of sales within and distribution and ownership of the Kantamanto market

based on terms of the Kantamanto market lease agreement, which provides no conclusive ejection plan of the retailers by Ghana Railways Company Limited (GRCL). Additionally, membership in the local Kantamanto Used Clothes Sellers Association (GUTA) is mainly open to the ability of traders to purchase stalls in the market. This system does not achieve fairness for SHC hawkers and peddlers who are marginalised based on their inability to afford a stall.

2) Provisions of social services

The SHC trade practices in the Kantamanto are not socially protected as services and opportunities like healthcare facilities, professional programmes and education are inaccessible to the traders. Furthermore, the market structure lacks adequate basic social services like sanitation and waste management, which does not correspond with the rate of population growth and their social well-being.

3) Equal participation

The Kantamanto Used Clothes Sellers Association (GUTA) as the organised body of the SHC traders in the Kantamanto market does not promote equal participation among members and unregistered members of the association. For instance, SHC hawkers and peddlers trading outside the market without an owned or rented stall operate as a vulnerable group without equal economic and social development opportunities.

In conclusion, the results of the proposition established a non-integration of the three dimensions of sustainable development in the Ghanaian SHC trade within the Kantamanto market. The results also provide a basis for a conceptual framework that can facilitate the integration of economic activities of the SHC trade with environmental quality and protect the social well-being of both present and future generations (Liberatoe, 1997).

Proposition 2, (P2): The implementation of the three-R framework in the SHC trade can promote the integration of the three dimensions of sustainable development.

P2a. Regulation

1) Rules and standards

The Kantamanto market environment reveals that the non-existence of environmental laws and standards or principles is a major basis for the unsafe commercial environment and social insecurity to effectively redirect sustainable development. The lack of regulations by governmental agencies like the Accra Metropolitan Assembly (AMA) has affected the economic standards of traders and consumers, which has resulted in the significant deterioration of the environmental values (both natural and human-constructed). Furthermore, the absence of trade incentives to induce high environmental protection is accountable for the uncontrolled trade activities going on in the Kantamanto market. Also, ineffectual implementation of licensing of SHC retailers and hawkers has resulted in the challenges of enforcing regulations and restrictions for sustainable economic growth, environmental protection and social well-being in the central business district of Accra, Ghana.

2) Enforcements and restrictions

There is minimal support for environment-related governance and MOTI restrictions on imported SHC. Weak enforcement of regulations, certification and authorisation programmes is mainly attributed to the current disorganized trade situations in the Kantamanto market. The Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) is ineffective in enforcing or implementing effective sustainable development guidelines to mitigate the current trade imbalances. Also, it is evident that there is a lack of resources for the Ghana Standards Authority (GSA) to effectively apply restrictions or bans on imported high-risk SHC (underwear, towels and other items).

3) Import controls and checks

There are limited guidelines and conventions in the Ministry of Trade and Industry's Legislative Instrument (LI) to control and checks of imported of low-risk (low-grade) SHC into Ghana. The study reveals that the GSA lacks capacity in the scheme and

resources to improve controls and checks on imported SHC from the West at the country's points of entry. The fieldwork underscores this significant deficiency in import controls and checks for quality standards of the imported SHC, which is a key factor contributing to the lapse in the integration of the economic, environmental and social dimensions in the SHC trade practice of in Ghana.

P2b. Reuse

1) Sell wearable

Kantamanto market projects the enormous demand for cheap wearable imported SHC items owing to the high low-income levels in Ghana. Wearable items are normally sorted from the bales, and cleaned to retain stylish features for the consumers. This moral helps to promote sustainable consumption and, people's livelihoods and prevents clothing/textiles products from ending up in the landfills. There is sufficient evidence from the fieldwork that significant quantities of SHC imports are irreparable, thus affecting the sustainable consumption or sales. The significant numbers of unwearable or unsalable products observed in the Kantamanto market justifies the above assertion.

2) Re-design and Re-dress

A significant number of tailors and seamstresses are engaged in the re-design or repair to extend the durability or functional and aesthetic lifespan of individual SHC in Kantamanto market. However, their operations and trade engagements are limited due to inadequate resources or machinery for quality re-designing or refashioning of the SHC items. The study also confirms that costs of re-designing and re-fashioning services affect the overall cost of SHC items, which consequently affect the socio-economic benefits to traders and consumers.

3) Infrastructure

The poor physical infrastructure and deplorable working conditions in the Kantamanto market similarly affect the operations of the tailors and seamstresses engaged directly in reuse systems. These tailors and seamstresses are poorly housed and lack basic protective structures. Their working conditions affect their ability to contribute appreciably to the socio-economic development of the consumers who prefer reusing SHC items.

P2c. Recycled

1) Waste separation and collection

Clothing/textiles waste generation is an embedded societal problem in the Kantamanto market as less emphasis is placed on the concept of recycling. There is a lack of understanding of clothing/textiles waste collection for resources and other products. The lack of waste bins or banks (recycling stations) does not guarantee appropriate disposal of low-grade SHC. The absence of clothing/textiles waste disposal and recycling guidelines is a major challenge in distinguishing and sorting according to textile materials like polyester and cotton. Clothing/textiles waste are mixed with other forms of waste and hauled to dumping sites or landfills. Clothing/textiles waste management is mainly carried out by informal waste service providers who lack a viable system for removal of metals and other contaminants (e.g., zips, labels, cords and snap fasteners) from the SHC items.

2) Shred unsellable

There is not the demand for mass volumes of low-grade or worn/ragged clothing/textiles from tailors and seamstresses as raw materials for other products. There are no available systems to shred (reduce) these low-grade clothing/textiles for raw materials and remanufacture them into either new clothes or different products to start a new useful life.

3) Industrial/ domestic uses

The Kantamanto market lacks cooperatives and facilities to recycle which is a critical theory and practice of sustainable development. Evidence from the fieldwork revealed the non-existence of small-scale recycling industries and technologies for recycling developments to transform clothing/textiles materials into products like mattresses, furniture (upholstery) and rugs/wipers for industrial and domestic uses. Lack of such recycling opportunities does not facilitate the recovery of clothing/textiles waste from the environment to generate sustainable livelihoods, which is a social advantage for a developing country like Ghana.

7.4.1. Remodelled Conceptual Framework

The remodelled conceptual framework is situated in the contexts of the views and experiences of research participants within the Ghanaian context. The remodelled conceptual framework illustrates the results of Proposition 1 (P1) and Proposition 2 (P2), which are shown in Figure 7.2 below. The intersected rings/cycles figure focuses on the gap in the existing theories of integrating the three dimensions of sustainable development and the ineffective implementation of the three-R framework for the sustainable development of the SHC trade in the Ghanaian context. The gaps in the practice of the SHC trade are illustrated by the broken lines encapsulating the intersected rings/cycles which were arrived at by juxtaposing theories drawn from the literature reviewed to the research findings. The figure shows the three-R framework (regulate, reuse, recycle) embedded within the intersected ring/cycles which is a depiction of the integration of the three dimensions of sustainable development. The remodelled framework demonstrates that achievement of sustainable development of the SHC trade is at the heart of an integrated relationship between the three dimensions of sustainable development and an effective implementation of the three-R framework which is interleaved in the intersections of the three main rings/cycles.

The remodelled conceptual framework supports the argument of this thesis that the SHC trade in the Kantamanto market is unsustainable and requires a broad-spectrum approach to the sustainable challenges associated with the trade. The result of the propositions support the argument that the economic, environmental and social dimensions are not integrated to achieve sustainable goals. The evidences also divulge the ineffective implementation of a three-R framework (regulate, reuse, recycle) to influence a sustainable development of the SHC trade. Additionally, the findings demonstrate that the interviewees in the study are the promoters of the unsustainable SHC trade practices in the Kantamanto market as their capacities and competencies do not support sustainable trade practices. Furthermore, there are ample evidences to constitute a valuable assertion that the Conceptual framework in Chapter 4 is not supported by the research outcomes. The remodelled conceptual framework presents negative implications for the SHC trade in the Ghanaian context which are further explained below.

P1a. The three critical classifications of the *economic dimension* are not promoting P1b (environmental) and P1c (social). Current economic practices reveal significant gaps and increasing complexities in integrating the sustainable development dimensions in the SHC trade.

P1b. The classifications of the *environmental dimension* are not enhanced to positively stimulate (P1a) economic and P1c (social), which has resulted in unsustainable situations in the Kantamanto market.

P1c. The classifications of the *social dimension* are not safeguarded owing to the lack of contributions of the classifications of P1a (economic) and P1b (environmental), which has resulted in deprived social well-being of SHC traders and consumers in the Kantamanto market.

P2a. The three key classifications of *regulate* are deficient owing to lack of a culture of effective regulation to positively influence the classifications in P1a (economic), P1b (environmental) and P1c (social).

P2b. The classifications of *reuse* are not effectively exploited to build sustainable P1a (economic), P1b (environmental) and P1c (social) in the Kantamanto market.

P2c. The critical lack of the three classifications of *recycle* do not support the integration of P1a (economic), P1b (environmental) and P1c (social) dimensions.

The empirical evidences reveal Propositions 1 and 2 do not support the theories drawn from the literature reviewed. The in-depth investigation has helped to uncover a prerequisite for broader policy approach that is focused on basic enhancements in the implementation of the three-R framework by key stakeholders to provide the sustainability of the Kantamanto market. The all-encompassing economic, environmental and social dimensions must be given necessary structural reforms or sectoral transformation through the implementation of effective regulatory structures supported by proficient performance of reuse methods and recycling technologies. In line with contemporary global issues of *Reduce, Reuse and Recycle* implemented in many European countries, it is essential to promote the three-R framework (*Regulate, Reuse and Recycle*) within the Ghanaian context for a more responsible inhabitable behaviour among local SHC traders to stimulate a greener economy. The conceptual framework in Chapter 4 therefore, provides a critical resource theories, policy and practice suggestions for the sustainable development of the SHC trade in Ghana.

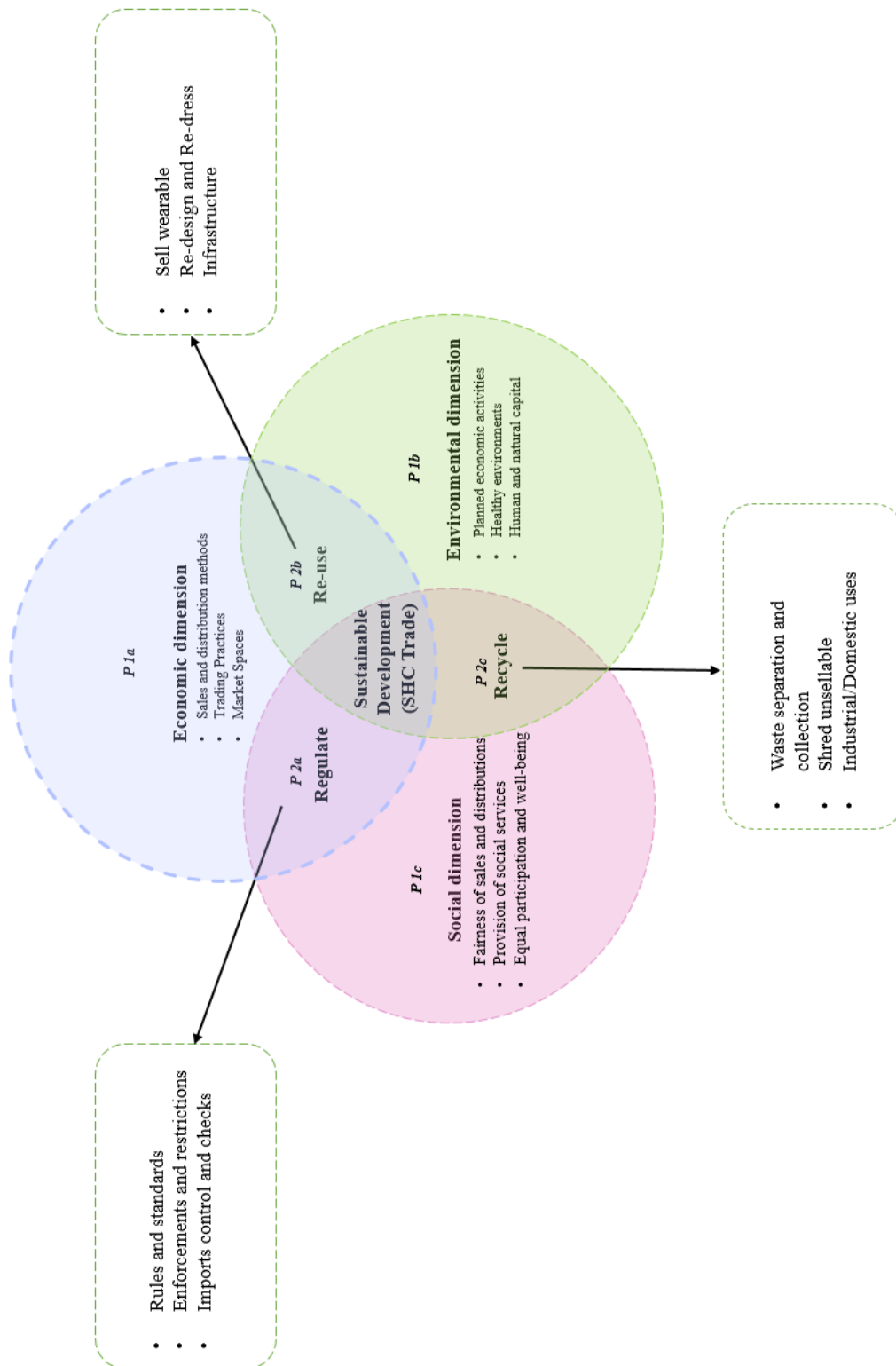


Figure 7.2. Remodelled Conceptual Framework related to research findings.

7.5. Contribution to knowledge

The thesis aims to bridge the conceptual gap in sustainable development by proposing an integration of the three dimensions (economic, environmental and social) of sustainable development in the SHC trade. The proposition of the three-R framework (regulate, reuse and recycle) aims to define a crucial implementation framework for the sustainable development of the Ghanaian SHC trade. Therefore, the thesis introduces a holistic approach for stimulating the sustainable development in the Ghanaian SHC trade context.

Developing a sustainable trade requires the evaluation of the three dimensions of sustainable development (economic, environmental and social) as the economic performance and environmental effects are subject to influence the social well-being concerns as reflected in the Kantamanto market. It is imperative not to deal with the individual dimensions in isolation. The thesis argues for a sustainable framework that integrates the three dimensions is critical for sustainable development. Therefore, the thesis adds new knowledge to the theory on the sustainable development of the SHC trade particularly within the Ghanaian context.

The research also provides a guide for a rational, participatory and evaluating process wherein values, goals and requirements are determined to help the holistic development of the SHC sector. Presenting a sustainable development framework, therefore, requires streamlining the overall value of the trade, and its impacts on the environment and society. It has been argued that the current economic systems of the SHC trade do not reflect efficient environmental and social protection - hence the need to encourage environmental and social equity. It is essential when modifying existing market infrastructure to support the economic activities in the market and enhance the social well-being of the traders and consumers. Hence, the urgent need for the three-R framework (*regulate, reuse and recycle*) that can assist the implementation of sustainable development in the SHC trade context.

Furthermore, the thesis argues for the achievement of sustainable development through key stakeholders (e.g., policy developers, politicians, civil servants, city planners, trade associations, traders, and consumers). A collaborative effort should reflect on the strength of all key stakeholders to achieve the sustainable goal. The thesis highlights the crucial role and values of key stakeholders in the execution of the three-R framework for the achievement of a sustainable development of the SHC trade in Ghana. This systematic review of sustainable development impacts highlights the significance of the collaboration between textiles recycling associations in the West like the Textiles Recyclers Association (TRA) in U.K. and SHC traders' associations in developing countries like the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA). This collaboration can positively influence the application of sustainable principles of the West on the sustainable development of the SHC trade in developing countries like Ghana.

7.6. Summary

This chapter discussed the results of the qualitative study. The chapter also focused on the impact of the processing of the SHC on the trade practices in the Kantamanto market in Accra, Ghana. The chapter also investigated the integration of the economic, environmental and social dimensions of the SHC trade within the Ghanaian context. Additionally, the chapter provides an in-depth discussion of the implementation of the three-R framework (regulate, reuse and recycle) in the sustainable development of the SHC trade, and also discussed the results of the two propositions in the conceptual framework in Chapter 4 of the thesis. Based on the results of the proposition, the conceptual framework is remodelled to reveal current status of the non-integration of the three dimensions of sustainable development and the non-effective implementation of regulation, reuse and recycling systems to achieve sustainable development of the SHC trade in Ghana. The chapter finally presents broader perspectives on the contribution the thesis has made to new knowledge on the sustainable development of the SHC trade in the Kantamanto market in Ghana. The next chapter presents the conclusion, recommendations and limitations of the thesis.

CHAPTER 8: CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

8.0. Introduction

This chapter presents the conclusion, recommendations and limitations of the thesis. First, the researcher draws upon the conclusions based on the purpose of the study in Chapter 1 and the research findings presented in Chapter 7 of this thesis. Based on review of a multidisciplinary body literature on sustainable development, which cut across knowledge in urban studies, geography and architecture, government and public policy, environmental studies, economy, politics and ethics, the thesis covered sustainable development across all fields, which are interrelated with the study on SHC trade. The research methodology sought the opinions of the participants in the United Kingdom (U.K.) and Ghana on the sustainable development of the SHC trade. The conclusions follow an organised way of comparing the research findings to the research questions and the conceptual framework in Chapter 4. The researcher accordingly made recommendations for the development of the sustainable SHC trade and practice and for future academic research. The chapter also describes realistic limitations encountered in the research processes and how the researcher overcame the limitations.

8.1. Conclusion of the thesis

By the arrangement of the global SHC trade, the economic dimension of the trade is positioned to help alleviate poverty in the developing countries. In contrast, the finding suggested that local SHC traders in Ghana are unable to manage or optimise the return on their investments owing to the disparity in the grade quality of the imported SHC. The economic dimension of trade is not supportive of the environmental quality and social well-being of the traders and consumers. The empirical study revealed that the SHC trade in the Kantamanto market is mainly business-driven or focused on the economic dimensions while concerns of social well-being and environmental protection have received less attention. The capabilities of the Kantamanto market environment to protect the social well-being of traders and consumers are delusional due to the lack of infrastructural development to accommodate the swelling population.

New construction of markets like the 31st December Market, the Rawlings Park market and the Salaga market in the Accra metropolis is intended to absorb the SHC traders in the Kantamanto market. This explains that isolating and dealing with only one of the dimension cannot address sustainable development. There is a critical requirement for frameworks that can promote the sustainable development in the long term. It can be concluded that the SHC trade in Ghana is considerably constricted in the integration of environmental and social dimensions of sustainable development. The inability to sustainably develop the SHC trade in an integrative and a holistic framework is a major challenge.

Arguments highlighted in the thesis are also very relevant for an efficient integration of the economic, environmental and social dimensions in short-to-long-term integration of the supply networks (importations) and consumption practices. The lack of commitment to address the sustainable development in a holistic and balanced way is very threatening to sustainable livelihood, environmental protection and social equity in developing countries like Ghana. The thesis yielded understandings that add to the effective integration of the three dimensions (*economic, environmental and social*) of sustainable development and promote the Ghanaian SHC trade. The conceptual framework on the interaction and integration of the *economic, environmental and social* dimensions in the Kantamanto market illustrate originality of theory which links to the present trade practices.

The thesis provided a theoretical and applicative value of the three-R framework (*regulate, reuse and recycle*) and makes a theoretical contribution in understanding the implementation of sustainable development of the SHC trade. The three-R framework provides the valuable implementation phase of sustainable development of the unplanned or haphazard SHC trade in Ghana. The findings indicate that the three-R framework (*regulate, reuse and recycle*) made in the propositions of the conceptual framework for the implementation of a sustainable development of the SHC trade in the Kantamanto market in Accra Ghana can prevent the rapid deterioration of the natural environment, growing informal economic activities, and lack of basic services in the Kantamanto market.

This thesis also contributes to the current debate on sustainable development as it identified regulation, reuse, and recycling models to improve the levels clothing/textiles waste that goes into the landfills. The interpretation of the three-R framework presents guidelines or schemes to improve the importation of SHC and integrate the economic, social and environmental dimensions in the trade. The SHC trade in Ghana should be based on effective enforcement of regulations in the imports and sales and distribution schemes outlined in the conceptual framework (Chapter 4). The classifications in the conceptual framework require local authorities, trade unions, and individual traders or businesses to become involved in a continual process of improving the quality of the SHC trade activities to maintain a sustainable trade in Ghana. It is critical to communicate the values, decisions and actions of the SHC trade regulation, reuse and recycle (three-R framework) ethos to the stakeholders through consultations to ensure that they are knowledgeable about the three-R framework for the reorganisation or reformation of the SHC trade in the short-to-long-term future.

Propositions in the conceptual framework focus on the gap identified in existing theories about the implementation of the sustainable development of the Ghanaian SHC trade. Existing theories of reuse and recycling works are derived from the Western countries' context while very little theory is available in the Ghanaian context. The findings and propositions from the thesis bridge the gap of knowledge and strengthen economic, environmental and social opportunities in the SHC trade. The three-R framework is inherently goal-oriented for implementation by key stakeholders and expands knowledge concerning the role of governmental organisations and trade associations in the sustainable development of the Ghanaian SHC trade. The non-existence of sustainable development frameworks to standardise existing SHC trade practices in Ghana embed the significance of this research. Therefore, the development of a sustainable SHC trade in Ghana hopes to ensure that SHC imports generate economic value, reinforce environmental protection, meet health and safety standards, reduce poverty and safeguard social well-being.

The findings from the research study further confirmed that key stakeholders (governmental agencies and traders' associations) are not effectively interlocked in a sustainable development framework of the SHC trade. In the Kantamanto market situation, the various dimensions are far less developed due to the challenges of meaningful communication and attribution of stakeholder responsibilities at the local levels particularly in the SHC trade. The research produced a greater understanding that on-going interaction, integrative relationships, deliberate interactions, partnering of diverse stakeholders are essential to facilitate the sustainable development dimensions (economic, environmental and social) in the Ghanaian SHC trade. The conceptualisation of the relationships between key stakeholders - i.e. governmental agencies, local authorities, import and export companies (local and foreign), and local traders' association - are applicable to the unique characteristics of the SHC trade to ensure sustainable development of the trade in the Ghanaian context. Therefore, it is imperative to bring the goal of sustainable development in the SHC trade through governmental agencies' partnership with the local authorities, private sector, labour unions, and business collaborations with national and international organisations.

Key stakeholders at the local level do not identify the exhibition of unsustainable practices and situations. This subsequently is not promoting effective integration or collaborative system of key stakeholders in the SHC trade to positively implementation regulation, reuse and recycling (the three-R framework). Results of the research therefore suggest the requisite stakeholder integration across the SHC trade for the achievement of sustainable development. Furthermore, sustainable development goals and objectives do not integrate the stakeholders in the overall framework of regulations specific to the SHC sector. It is critical that the Ghana Standards Authority (GSA), and the Kantamanto Used Clothes Sellers Association of Ghana Union of Traders Association (GUTA) collaborate on the importation of quality grade SHC items with minimal defects and not high risk SHC items identified on the market for consumption. The Ghana Standards Authority (GSA) and Kantamanto Used Clothes Sellers Association (GUTA) should focus much more on the social dimension to create equal opportunities for the local traders and reduce the amount of clothing/textiles waste generated in the market.

The finding indicates a disjunction between the Accra Metropolitan Assembly (AMA) and the Kantamanto Used Clothes Sellers Association (GUTA), which justifies the deficiency in maintenance of the environment and general waste collection. It is essential that they play these integrative roles in providing efficient waste collection schemes. Furthermore, meeting sustainable development targets should be a priority concern of governmental agencies at every point in time irrespective of the political leaning of the initiator of the sustainable development policy. The collaboration of the Ministry of Trade and Industry (MOTI) and the Accra Metropolitan Assembly (AMA) in the local market allocations and reorganisation is essential in ensuring the sustainable development of the local markets like the Kantamanto market.

Results of the research highlight the uncertainty of the development of the railway's sector and the future of the SHC trade in Ghana. This muddle of the two sectors brings to the fore the government's lack of commitment, which is often the bane of those trying to execute government sustainable development programmes. The Ministry of Railways Development is unable to supervise the activities of the Ghana Railways Company Limited and the Ghana Railways Development Authority. Plans to rehabilitate existing rail lines including the existing ones in the Kantamanto market location conclude that the sustainable development of SHC trade in the Kantamanto market location requires integrative stakeholder consultations among the Ministry of Railways Development, the Kantamanto Used Clothes Sellers Association of the Ghana Union of Traders Association (GUTA) and the Accra Metropolitan Assembly (AMA). However, the research shows that the executives of the Kantamanto Used Clothes Sellers Association are not assertive in negotiating for sustainable trade policy with Ministry of Trade and Industry (MOTI) and other state agencies like the Accra Metropolitan Assembly (AMA) and the Ghana Standards Authority (GSA) for the development of the Kantamanto market location. The conflicting assertions revealed in the findings highlight the contradictions in the sustainable development of the SHC trade in the Kantamanto market location. The findings further demonstrate that the Ministry of Railways Development's desire to develop the railways in the Kantamanto market location with associated infrastructure and added services will not appropriately fit with the current informal market situation of the SHC traders and squatters.

The nonexistence of infrastructure for industrial scale recycling and no naturally organised textile collection or systemic statistics about SHC recycling is a major limitation to the attainment of sustainable development. There is a substantial technological gap in clothing/textiles recycling in Ghana. Though the magnitude of the clothing/textiles waste presents a potential size of employment and development in the recycling sector, the current lack of logistical and big investments in specialty machines to recycle clothing/textiles waste into new fibres poses a challenge to the economic viability of recycling on a massive scale. Besides, absence of specialised personnel to operate such machines to sort into fractions based on fibre composition and colour or deliver the heterogeneous materials for recycling is constrained. This means the sector can only recover low-grade SHC items generated in the market through small scale or by informal players who can recover clothing/textiles waste materials to be reprocessed manually into products for other purposes in the short to medium term.

Evidence on the negative impact of sustainable development principles of SHC processing in the West suggest collaborative policy and business interventions and business support between Textiles Recycling Associations in the West (U.K.) and SHC trade associations in developing countries (GUTA). It can be concluded that these collaborations - if adopted - can safeguard the SHC economy against the vulnerability of the consumers and traders. A collaborative work between policy institutions/ trade bodies in the West can further provide motivation for a sustainable policy framework for the Ghanaian SHC trade. The missed opportunity to develop the reuse markets sustainably is based on a lack of effective execution of sustainable principles transfer from the Western trade bodies to developing countries. The effective transfer of knowledge on sustainable SHC processes can influence or foster more profound social benefits for SHC traders in developing countries like Ghana. The non-existence of such collaborations presents a gap that needs to be bridged.

Furthermore, the lack of these collaborative initiatives is also accountable for the disparity in the qualities of SHC exported into developing countries. Evidence from the findings support the argument that Western textiles recycling associations have developed their own schemes and reuse marketplaces dynamics to manage their environmental challenges. They have also adapted processes to manage the social aspects of the industrial concern by exporting SHC to developing countries. However,

the drawbacks are that the TRA sustainable frameworks is limited to their jurisdictions and they have discounted the implementation of the sustainable principles in the developing countries (the key reuse markets). Through collaborations, the structures and approaches to implementing sustainable development can be adopted by the local SHC traders. Such collaborations can also address the critical component of non-registered members of textiles recyclers in the West who implement unsustainable principles in the SHC supply networks. Evidence of unregistered members of the Textiles Recycling Association (TRA) U.K. needs to be restructured to adhere to high-quality SHC exports and re-orient international economic focus on the impact of SHC imports from the West on developing countries. In conclusion, the research results show a significant contribution to bridging the growing gap in the sustainable development theory in a developing countries like Ghana.

8.2. Recommendations

*.... I PLEDGE to act to the best of my ability to help make the Earth
a secure and hospitable home for present and future generations*

(“The Earth Pledge” UNCED, 1992).

The background research and interviews with different stakeholders brought to the fore broad recommendations to be highlighted or legitimised in the Ghanaian SHC trade through realistic, effective and lasting approaches. Such broad recommendations are articulated below:

1. Commitment to international conventions

Ghana’s continuous commitment to international conventions on sustainable development approaches and SDG goals should be encouraged for local trade development. In the context of broader international linkages, there is a need to formulate and implement policies that regulate economic activities with the rest of the world to facilitate and safeguard the environment, which is a key determinant of economic growth and poverty reduction. Of high priority is the formulation and enforcement of environmental laws or regulations to control the local trading systems in the Ghanaian perspective to meet the SDGs Target 8.8, which aims at protecting labour rights including safe and healthy working

conditions in the national SDG processes: from planning, to implementation, to monitoring, to review and to reporting on country achievements in implementing the SDGs.

The considerations for the sustainable development are far from exhaustive. There should be detailed and frequently updated primary data about the importation and trade in the country by appropriate authorities such as the MOTI. For example, a provision of annual trade data should provide information on trade status and activities including the SHC trade which is currently not well planned out. An available annual trade data or systemic statistics about SHC trade will promote the appreciation of the scope of trade and help organise the informal sector for future development to achieve the sustainable development goals (SDGs).

2. Implement an integrative stakeholder approach

The focus of SDGs is on systemic implementation that requires an integrative approach across sectors or ministries. In the Ghanaian SHC context, stakeholder network or dialogue or an integrative approach are required across the MOTI, GSA, the Ministry of Railways Development, the AMA, and the GUTA. It is important for these stakeholders to build or strengthen trade-related infrastructure to facilitate a safe market environment for consumers and generate equal economic growth opportunities for businesses in the Kantamanto market. The MOTI should plan for and exercise control over the location and design of the Kantamanto space through a framework that coordinates or forges consensus between the AMA, the GUTA and the Ministry of Railways Development. The sustainable SHC trade should be coordinated across and among these key stakeholders.

The plan to revamp the railway station in the Kantamanto area should foster a convergence of stakeholder interests to achieve broader positive public impact. A relocation of the SHC trade would have a huge negative impact on the economic productivity of the traders, as they have significant investments in the establishment of the Kantamanto market; therefore, these traders are strongly attached to their current location.

3. *Capacity building/ Collaboration*

The SHC trade pattern in the Kantamanto market should build a stronger local capacity in the sustainable SHC trade through routine workshops and seminars. The local association must spearhead a capacity-building initiative for local SHC traders in collaboration with international associations like TRA in the U.K. for an effective and efficient implementation of a sustainable SHC trade. This collaboration will build the right competencies among the local SHC traders to actively engage in international treaties relating to sustainable SHC processing and quality standards of imports, which will also serve as a feedback mechanism for international textile recycling associations in the West. Furthermore, it will offer a platform to strongly advocate for stricter sorting systems and apply fines or impose taxes for socio-environmental liabilities by textiles recyclers in the West. Also, this will help the local trade unions to participate actively in national follow-up and review processes on the SDGs with a view to promoting and defending workers' rights and the interests of the poor and vulnerable, and campaign for a corporate social responsibility among textiles recyclers in the West, which are all in line with the WTO recommendation.

A strategic approach of regular forums and workshops for local SHC trade association (GUTA) will provide a better implementation of educational programmes via formal and informal education systems to create awareness about non-threatening environmental trade practices or actions, which are explicitly laid out in UN documents such as WCED, (1987); UNCED, (1992); and WSSD, (2002).

4. *Provision of basic social amenities*

Additionally, there is a significant need to improve the socio-environmental aspect of the Kantamanto market environment by prudently providing basic social amenities. There should be significant commitment to incorporating infrastructural planning essentially for the social well-being of traders and consumers. Therefore, social policies should be incorporated or funded through daily tolls (taxes) collected in the Kantamanto market. This social

policy should be targeted towards addressing the decent work deficits in the Kantamanto market and offer traders a chance to escape situations of working poverty.

Another recommendation is that the collection shops that are conveniently organised and that nurture the dignity of local consumers must dominate the Ghanaian SHC retail scene. It is essential that SHC traders adopt innovative retail display system that fit the shopping convenience and experience of consumers and attract potential customers. Like the charitable shops in the U.K., the core activities of the local Ghanaian SHC importers should include outsourcing SHC clothing collection from overseas commercial recyclers to operate on a consignment basis, selling fairly worn designer clothes to target specific consumers like young professionals who have a taste for high-quality clothes at modest prices, or young people desiring retro and vintage fashion and rave styles which will boost their income levels. SHC markets should incorporate health and environmental conscious (fumigated) storage spaces to forestall health risks of stored SHC.

5. Regulation/enforcement

A critical prerequisite for good-quality SHC importation in Ghana should be the existence of regulations and stronger enforcements. For example, licensing of importers of SHC by the local authority (AMA) should be an appropriate method of enforcing order among traders. Only holders of SHC import licenses should be allowed to bring SHC imports into Ghana for re-sale. There should be good environmental label set specifically as criteria for imported SHC to encourage quality standards and accreditation for importing SHC to Ghana.

Full penalty or confiscation for importation of high-risk and low-grade SHC must be imposed on importers to serve as a deterrent and help to reduce the occurrence of unregulated importers who import unsorted SHC items. Total or partial bans and high tariffs for over-quota SHC imports should be enacted in the long term to minimise the trade and to support Ghana's indigenous garment sector.

Furthermore, there is a basic need for reorganising or launching the GSA task force that are already part and parcel of the organogram of government (MOTI). The task-force should be adequately resourced to identify common issues for sustainable development, strengthen their regulatory regimes at the ports of entry, provide a repository of information on market standards, control or inspect trading standards in the local markets, and vigorously control the conduct of the daunting number of hawkers in the Kantamanto market area. The taskforce should combat illegal trading activities and prevent the creation of local gridlock to ensure formalisation of the informal trading practices in the capital city.

Ghana Standards Authority (GSA) should tighten inspection procedures and restrictions of imported under garments. The GSA officials should ensure that all the basic packaging and cleanliness requirements are adhered to strictly. It is also very important that governments regulate the trade particularly when there are suspected cases of an epidemic or outbreak of plague in countries of origin. There must be standard cleaning measures in various domestic markets prior to their selling to help prevent disease infection the SHC pose. Specific laws and regulations on cleaning of imported SHC before sale to the public is critical.

Adequate education on washing and disinfecting of second-hand clothes before wearing should be embraced on national and district levels to obviate the transmission of diseases. End users should be really educated on washing second-hand clothing in hot water (hotter than 60c) with detergents to exterminate potential disease causing the organisms on the used clothes. Consumers should examine thoroughly the second-hand clothes and should be entreated to discard items that are grossly soiled or contaminated for its cleanliness and quality.

Additionally, in the medium to long term, MOTI should advocate for the SHC to be imported as mutilated or shredded SHC items for raw material to be regenerated into yarns for low weaving blankets, shawls and fabrics to meet domestic and international needs.

6. *Development of reuse/ recycling systems*

It is important to support independent reuse micro-enterprises (tailors and seamstresses) through local and regional workshops with respect to delivering high-quality services and understanding for end-user needs. This will also promote collaborative networks and functions between these reuse micro-enterprises and other stakeholders in the Kantamanto market. Also, this approach could maximise the social value of local reuse activities such as exploring or developing additional practical support or training to assist individuals improve their working skills or capacities in (re)-manufacturing or repairing in the Kantamanto market. This will in turn create more (re)-manufacturing or upcycling value additions particularly for the low-grade SHC imports.

The AMA as the local authority should offer a scheme to operate textile banks/containers and provide multiple ways to recycle low-grade SHC items. SHC items should be separated from the general waste stream in the Kantamanto market. For example, buttons, zips and other metallic accessories from SHC items should also be recaptured as by-products to save the landfill and improve recycling. A blend of different fibre materials (a poly-cotton mix is common) in one main waste stream will challenge SHC recycling.

Used clothes that are imported into the country should be properly sorted and moisture-free before they are sold for reuse. Low-grade items should be offered to closed drop off-boxes in a systemised or demarcated recycling catchment area within the Kantamanto market. Demarcated recycling sections with coloured containers for the different fibre contents in the market (secondary collection points) to recover appropriate raw materials will enhance the separation of the different fibres to degrade (down-cycling) individual fibres for other new products. This will also help in disposing of the low-grade items properly by influencing the traders to divert post-consumer clothing/textile waste from the landfills rather than being disposed of in the market stalls.

A mechanical fibre recycling programme to manufacture new or first-hand products will be more commercially viable for the Ghanaian market in the short to medium term than a chemical textile recycling technology. Furthermore, to bridge the recycling gap in the SHC trade, policies that provide circular economy incentives such as tax benefits for pioneering business models of mid-sized companies can be helpful to integrate them into the SHC supply chain.

8.3. Recommendations for future work

- This thesis has highlighted several issues on which future research would be valuable. This thesis can be extended to investigate the vulnerability of SHC markets in developing countries and the extensive competitiveness of low cost Asian (Chinese) fashion items in developing countries such as Ghana.
- The rise of China to the second largest economy in the world (IMF, 2015) has significant implications for the shifting away from sustainable development principles in the world trade. Given the significance of China's economic and geopolitical growth in developing countries including Ghana, it is imperative to engage in critical scrutiny of their relationship with particularly African countries and their varied influences on the SHC trade. There is much to be investigated in this context.
- An additional area for further research includes an investigation into the working practices of non-members of the Textiles Recycling Association (TRA) in the U.K. and other Western countries, and their effect on the perspectives of dumping.
- There is an important role to be played by scholars to develop and extend the appreciation of sustainable development because of the changing trade and consumption practices and perceptions of sustainability in the SHC trade in the context of developing countries. Future research into the consumption lifestyles of Ghanaian consumers will be relevant for the development of the global SHC trade and sustainability of the clothing supply chain.
- Targeted research is needed to explore the notions for clothing disposal options used by Ghanaian consumers and the recycling potentials from environmental and economic perspectives.

- There is also a gap in addressing a sustainable end-of-life point of fashion items within the product lifecycle. Therefore, comprehensive investigation of the clothing lifecycle (raw materials to end-of-life) would inspire practices for sustainable fashion futures and product development in the global context.

8.4. Limitations

The literature or theory for the thesis relied on fragmented multidisciplinary theories of sustainable development. The literature review on sustainable development SHC trade lacked latest academic records, which was a major difficulty and must be considered in data-gathering for further research.

The survey was conducted in both the U.K. and Ghana and the background of these regions carefully interrogated; however, the two regions have significant differences in terms of their culture, population, education, and income. It was difficult to compare the data directly as detailed research has been carried out into the SHC processing in the U.K. whereas this is not the case in the SHC imports in Ghana. Therefore, the overall data accuracy was influenced by the data from the West. Data on sustainable development particularly in the case of an informal sector like the SHC trade in Ghana were very limited.

Furthermore, the thesis was limited by time and resources to expand discussion of the trade practices or the commerciality of non-members of the Textiles Recycling Association (TRA) in the U.K. and their provision of SHC to developing countries like Ghana. The investigation of the activities of non-registered members of the TRA might have discovered the impact of their trade connections with the Ghanaian SHC importers.

Appendices:

Appendix A: LEASE LETTER (KANTAMANTO MARKET)

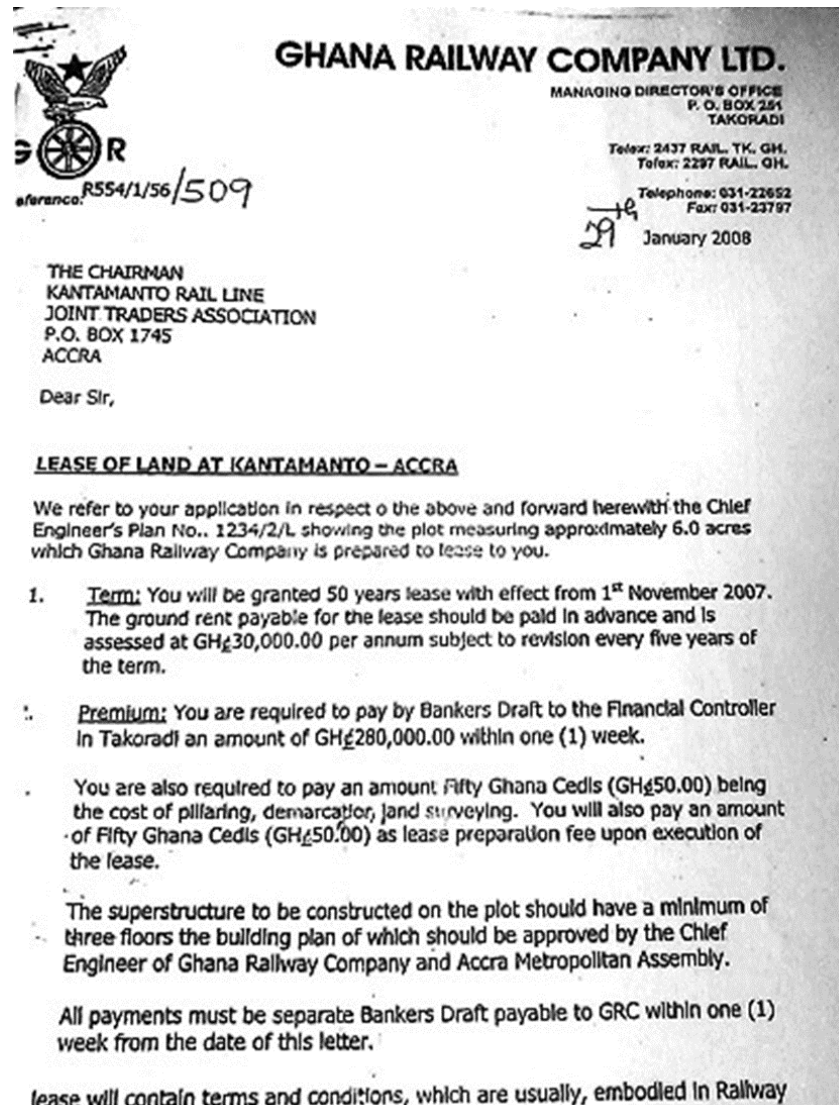


Figure A.1: A copy of a supposed lease letter (Adapted from Ghana News Agency, GNA, 2013).

Appendix B: PERMISSION LETTER

Winchester School of Art
University of Southampton
Park Avenue
Winchester, Hampshire
SO23 8DL
United Kingdom

Dear Sir/Madam,

I am a Ph.D. student at the University of Southampton expecting to defend my thesis in January 2018. The thesis is about Developing a Sustainable Second-Hand Clothing Trade in Ghana. The research is exclusively for academic purposes and the perspectives, views, opinions, names of respondents and data will be strictly treated as such.

I wish to ask for an appointment to meet you for a semi-structured interview and observation of your trade activities. This appointment will take a short time, approximately 60 minutes, with a possibility of follow-up phone calls regarding further information on the subject.

Your help would be a major contribution to the success of my study. Please do not hesitate to send me any questions or concerns about the interview. You may contact me at ka6v07@soton.ac.uk.

You may also contact my supervisors: j.faiers@soton.ac.uk and Y.K.Sekhon@soton.ac.uk.

Many thanks.

Sincerely,

Kenneth Amanor

PhD. Candidate.

Faculty of Business, Law and Art

University of Southampton

Appendix C: INTERVIEW PARTICIPANT INFORMATION SHEET

Study Title: Developing a Sustainable Second-Hand Clothing Trade in Ghana.

Researcher:

Ethics number:

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

Thank you for your time to contribute to this research.

My thesis is about *Developing a Sustainable Second-Hand Clothing Trade in Ghana*. This research is an essential part of the requirements for the PhD degree at the University of Southampton, United Kingdom. The research is exclusively for academic purposes; the perspectives, views, opinions, names of respondents and data will be strictly treated as such.

This research study seeks to develop a conceptual understanding of a sustainable second-hand clothing trade based on the integration of the three essential features that traverse sustainable development; (economic, environmental and social dimensions).

Why have I been chosen?

I wish to involve you in a semi-structured interview and observation based on the critical role you play in the global second-hand clothing trade. Your involvement is also essential based on your huge experience and in-depth knowledge about the second-hand clothing trade.

What will happen to me if I take part?

Your help would be a major contribution to the success of this research study. The data you will provide will be preserved securely and confidentially in accordance with the ethical considerations. The name of your organisation and your name and any other information will be changed to keep it confidential and anonymous. The data obtained in this study will exclusively be used for this study and not passed on to the third parties. The information obtained from this semi-structured interview and participant's observation of your trading activities is strictly confidential and it will take a short time, approximately 60 minutes, with a possibility of follow-up phone calls regarding further information on the subject. If you wish I will share the final analysis expected in 2018 with you. Meanwhile, you can reach me on my personal email.

Are there any benefits in my taking part?

This research seeks to close the gap in existing knowledge about sustainable second-hand clothing trade. Current knowledge in the subject based on the final analysis and results will be shared if you wish in 2018.

Are there any risks involved?

There are no risks involved with your participation. The data obtained from this interview is integrated into a doctoral thesis and published following the ethical consideration.

Will my participation be confidential?

Your organisations and your name and any other information will be changed to keep it confidential. The information will be coded and kept on a password protected computer. Complete anonymity

cannot be promised because participants can be identified; data may be coded so that participants are not identified by researchers, but the information provided to participants could be linked to their data. The data obtained in this study will exclusively be used for this study and not passed on to the third parties. This study will comply with the Data Protection Act/University policy.

What happens if I change my mind?

You have the right to withdraw at any time without any legal rights if you are affected during your participation.

What happens if something goes wrong?

You can contact the research support officer or the research governance officer if you have further concerns about the research study and your participation: Dr Jennifer Sarha (risethic@soton.ac.uk) or Head of Research Governance (02380 595058, rgoinfo@soton.ac.uk).

Where can I get more information?

Please do not hesitate to also contact my supervisors: Professor Jonathan Faiers (j.faiers@soton.ac.uk) and Assistant Professor Yasmin Sekhon (Y.K.Sekhon@soton.ac.uk) regarding the information provided.

Appendix D: SEMI-STRUCTURED INTERVIEW QUESTION SAMPLES

Interview questions for the Accra Metropolitan Assembly (AMA), Ghana.
1) What is the specific role of the AMA in the SHC trading activities within the Kantamanto market?
2) How do the SHC trading activities in the Kantamanto market contribute to the economy?
3) What are the critical challenges of the SHC trade in the Kantamanto market?
4) How is the Kantamanto market space and infrastructure impacting on the SHC trading practices?
5) To what extent is the infrastructural provision a challenge to the SHC trade in the Kantamanto market?
6) How does AMA ensure that the SHC trading activities in the Kantamanto market space are done in an organised manner?
7) How is the AMA redressing the impact of low-grade SHC disposal in the Kantamanto market?
8) What are the main factors hindering the sustainable development of the SHC trade in the Kantamanto market?
9) What are the critical economic inequities of the SHC trading activities in the central business district of Accra?
10) What are the critical environmental inequities of the SHC trading activities in the Kantamanto market?
11) What are the critical social inequities of the SHC trading activities in the Kantamanto market?
12) How does the AMA manage the environmental dimension of the Kantamanto market?
13) How does the AMA manage the economic dimension of the Kantamanto market?
14) What initiatives are undertaken by the AMA to ensure that the Kantamanto market is socially equitable for the SHC traders and consumers? Please give me examples.
15) How does the AMA plan to develop a sustainable SHC trade in the Kantamanto market? Please can you give me examples? e.g., Development policy/ Strategic Plan.
16) How can the AMA effectively regulate the SHC trade activities in the Kantamanto market?
17) How can the AMA facilitate an effective reuse system for the sustainable development of the SHC trade?
18) How can the AMA effectively facilitate a recycling system for the sustainable development of the SHC trade?
19) How can the AMA facilitate the integration of economic, environmental and social dimensions of the SHC trade in the Kantamanto market?
20) What is AMA's medium to long-term sustainable development policy for the location of the Kantamanto market?

Interview questions for the Ministry of Trade and Industry (MOTI), Ghana.
1) What is the MOTI's role in the importation and trading of SHC in the country?
2) How beneficial is the SHC trade in the Kantamanto market to the Ghanaian economy?
3) What is the standardised grade of SHC allowed into the country?
4) How does the MOTI regulate the importation of SHC into the country?
5) What quality controls does the MOTI implement to improve the local markets like the Kantamanto market?
6) How does the MOTI regulate the unorganised nature of the SHC trade in the Kantamanto market?
7) What are the core challenges to the economic dimension of the SHC trade in the Kantamanto market?
8) What are the core challenges to the environmental dimension of the SHC trade in the Kantamanto market?
9) What are the core challenges to the social dimensions of the SHC trade in the Kantamanto market?
10) To what extent can the economic inequities in the Kantamanto market be addressed by the MOTI?
11) To what extent can the environmental inequities in the Kantamanto market be addressed by the MOTI?
12) To what extent can the social inequities in the Kantamanto market be addressed by the MOTI?
13) How does the MOTI facilitate effective reuse and recycling as a sustainable development measure of imported SHC?
14) Does the MOTI consider banning of the SHC trade as a sustainable measure for the development of the SHC trade?
15) What is the MOTI's sustainable development plan for the SHC trade in Ghana? Please can you give me evidence?

Interview questions for the Ghana Standards Authority (GSA).
1) Please can you tell me a bit about what is the specific mandate of GSA in the SHC trade?
2) What are the core activities of the GSA personnel at SHC entry points?
3) What is the standardised grade of SHC allowed for importation into the country?
4) What categories of SHC items are banned in Ghana?
5) What is the GSA's punitive measure for the importation of banned second-hand clothing items in the country?
6) What are the prevailing causes of the excessive importation of SHC in the country?
7) How does the GSA ensure that banned SHC are not imported into the country?
8) What are the challenges faced by the GSA in carrying out its mandate in the SHC trade?
9) Does the GSA consider the banning of SHC imports as a sustainable measure?
10) What is GSA's medium-to-long-term outlook of the SHC trading activities in Ghana?

Interview questions for the Ministry of Railways Development – Ghana.
1) Please can you tell me the Ministry of Railways Development's objective in the railways sector in Ghana?
2) What has been the main developmental challenge of the railways sector in the country?
3) What is the Ministry of Railways Development's position on the Kantamanto market location?
4) How often are the rail lines operational in the Kantamanto market location?
5) To what extent are the trading activities of second-hand clothing traders in the Kantamanto location affecting the development of the railways sector?
6) What regulations are in place to restrict the trading activities of the SHC traders on the rail lines?
7) What constitutes the 50 years permanent lease agreement between the Ghana Railways Company Limited and Kantamanto Used Clothes Sellers' Association?
8) What is the stance of the Ministry of Railways Development on the Kantamanto Used Clothes Sellers Association plan to build a modern shopping complex on the location?
9) How is the Ministry of Railways Development collaborating with the Kantamanto Used Clothes Sellers Association to develop both sectors sustainably?
10) What is the Ministry of Railways Development's sustainable development plan for the Kantamanto market location?

Interview questions for the Kantamanto Used Clothes Sellers Association of Ghana Union of Traders Association (GUTA).
1) Please can you tell me a bit about what you do in terms of SHC trade?
2) What are your core activities in the Kantamanto market?
3) What are the impacts of importing excessive low- (fluctuating) grade SHC on the trade?
4) What are the impacts of importing excessive low- (fluctuating) grade SHC on your livelihood?
5) What is the standardised grade of SHC allowed for importation into the country?
6) What are the prevailing causes to the excessive importation of low-grade SHC? Please give me examples.
7) What is your position on banning imported second-hand clothes coming into the country?
8) How does the Kantamanto market space support your SHC trading activities?
9) How do the Kantamanto market amenities support your SHC trading activities?
10) What is the current economic state of the Kantamanto market?
11) What are the core constraints to maximising the profits of the SHC trade in the Kantamanto market?
12) How does your trading practice impact on the environment in the Kantamanto market?
13) How does the Kantamanto Used Clothes Sellers Association contribute to the improvement of the environmental dimension of the Kantamanto market?
14) How does the Kantamanto Used Clothes Sellers Association improve the social well-being of SHC traders and consumers?
15) How can the Kantamanto Used Clothes Sellers Association facilitate the integration of economic, environmental and social dimensions of the SHC trade in the Kantamanto market?
16) What is the role of the Kantamanto Used Clothes Sellers Association in maintaining a regulated SHC trade in Ghana?
17) What regulations are in place to ensure the development of the SHC trade in the Kantamanto market? Please give me examples.
18) How can the Kantamanto Used Clothes Sellers Association support effective reuse practices in the Kantamanto market?
19) How can the Kantamanto Used Clothes Sellers Association support effective recycling systems to promote sustainability in the Kantamanto market?
20) What relationships exist between the Kantamanto Used Clothes Sellers Association and other foreign SHC trade associations (e.g., TRA U.K.) to sustainably develop the trade?

Interview questions for Importers of second-hand clothing in the Kantamanto Market, Accra-Ghana.
1) Please can you tell me a bit about what you do in terms of SHC trade?
2) What are your core activities in the Kantamanto market?
3) What are the causes for the importation excessive low-grade SHC into the country?
4) What are the impacts of importing excessive low-grade SHC on the trade?
5) What is the standardised grade of SHC allowed for importation into the country?
6) What are the prevailing causes to the excessive importation of low-grade SHC?
7) How can the importation of low grade SHC into the Kantamanto market be minimised?
8) What is the current economic state of the Kantamanto market?
9) What are the core constraints to maximising the profits of the SHC trade in the Kantamanto market?
10) How does the Kantamanto market space support your SHC trading activities?
11) How do the Kantamanto market amenities support your SHC trading activities?
12) What is the impact of your trading practices on the environment in the Kantamanto market?
13) How does your trading practice impact on your social well-being and that of consumers?
14) How can the economic, environmental and social dimensions of the SHC trade be integrated in the Kantamanto market?
15) What regulations are in place to ensure that the SHC trade in Ghana is sustainably developed?
16) How will an imposition of high tariffs and bans affect the SHC trade in Ghana?
17) What are the effective reuse practices in the Kantamanto market?
18) What recycling systems are available to promote sustainability in the SHC trade?
19) What is your view on the future of the SHC trade sustainable development in Ghana?

Interview questions for Wholesalers of second-hand clothing in the Kantamanto Market, Accra - Ghana.
1) Please can you tell me a bit about what you do in terms of SHC trade?
2) What are your core activities in the Kantamanto market?
3) What are the impacts of importing excessive low-(fluctuating) grade SHC on the trade?
4) What are the impacts of importing excessive low- (fluctuating) grade SHC on your livelihood?
5) What is the standardised grade of SHC allowed for importation into the country?
6) What are the prevailing causes to the excessive importation of low-grade SHC?
7) How do you ensure that low-grade SHCs are not imported into the country?
8) How does the Kantamanto market space support your SHC trading activities?
9) How do the Kantamanto market amenities support your SHC trading activities?
10) What is the current economic state of the Kantamanto market?
11) What are the core constraints to maximizing the profits of the SHC trade in the Kantamanto market?
12) How does your trading practice impact on the environment in the Kantamanto market?
13) How does the Kantamanto Used Clothes Sellers Association contribute to the improvement of the environmental dimension of the Kantamanto market?
14) How does the Kantamanto Used Clothes Sellers Association improve the social well-being of SHC traders and consumers?
15) How can the Kantamanto Used Clothes Sellers Association facilitate the integration of economic, environmental and social dimensions of the SHC trade in the Kantamanto market?
16) What is the role of the Kantamanto Used Clothes Sellers Association in maintaining a regulated SHC trade in Ghana?
17) What regulations are in place to ensure the development of the SHC trade in the Kantamanto market? Please give me examples.
18) How can the Kantamanto Used Clothes Sellers Association support effective reuse practices in the Kantamanto market?
19) How can the Kantamanto Used Clothes Sellers Association support effective recycling systems to promote sustainability in the Kantamanto market?
20) What relationships exist between the Kantamanto Used Clothes Sellers Association and other foreign SHC trade associations (e.g., TRA U.K.) to sustainably develop the trade?

Interview questions for Retailers of second-hand clothing in the Kantamanto Market, Accra – Ghana.
1) Please can you tell me a bit about what you do in terms of SHC trade?
2) What are your core activities in the Kantamanto market?
3) What are the causes for the importation excessive low-grade SHC into the country?
4) What are the impacts of importing excessive low-grade SHC on the trade?
5) What is the standardised grade of SHC allowed for importation into the country?
6) How can the importation of low-grade SHC into the Kantamanto market be minimised?
7) What is the current economic state of the Kantamanto market?
8) What are the core constraints to maximising the profits of the SHC trade in the Kantamanto market?
9) How does the Kantamanto market space support your SHC trading activities?
10) How do the Kantamanto market amenities support your SHC trading activities?
11) What is the impact of your trading practices on the environment in the Kantamanto market?
12) How does your trading practice impact on your social well-being and that of consumers?
13) How can the economic, environmental and social dimensions of the SHC trade be integrated in the Kantamanto market?
14) What regulations are in place to ensure that the SHC trade in Ghana is sustainably developed?
15) How will an imposition of high tariffs and bans affect the SHC trade in Ghana?
16) What are the effective reuse practices in the Kantamanto market?
17) What recycling systems are available to promote sustainability in the SHC trade?
18) What is your view on the sustainable development of the SHC trade in Ghana?
19) What relationships exist between the Kantamanto Used Clothes Sellers Association and other foreign SHC trade associations (e.g., TRA U.K.) to sustainably develop the trade?

Interview questions for Consumers of second-hand clothing in the Kantamanto Market, Accra-Ghana.
1) Please can you tell me how often you patronise second-hand clothes in the Kantamanto market?
2) What are your reasons for patronising second-hand clothes?
3) What are the used clothing types you usually buy from the Kantamanto market?
4) What are the causes for the importation excessive low-grade SHC into the country?
5) What are the impacts of excessive low-grade SHC imports on your clothing purchase?
6) What is the standard grade of SHC that you usually purchase?
7) What is your view of the economic activities in the Kantamanto market?
8) What are the challenges you face when purchasing in the Kantamanto market?
9) How does the Kantamanto market space support your SHC purchases?
10) How do the Kantamanto market amenities support your SHC purchase?
11) What is the impact of the trading practices on the environment in the Kantamanto market?
12) What is the impact of the SHC trade in the Kantamanto market on the social well-being of consumers and traders?
13) How can the economic, environmental and social dimensions of the SHC trade be integrated in the Kantamanto market?
14) How can regulations ensure that the SHC trade in Ghana is sustainably developed?
15) How will an imposition of high tariffs and bans affect the SHC trade in Ghana?
16) What are the effective reuse practices in the Kantamanto market?
17) What recycling systems are available to promote sustainability in the SHC trade?
18) What is your view on the sustainable development of the SHC trade in Ghana?

Interview questions for second-hand clothing processing companies (Textiles recyclers) in the U.K.
1) What are the key SHC sorting and processing procedures followed by your organisation for exports?
2) How does your organisation ensure that low-grade SHC are not exported to developing countries like Ghana?
3) What SHC clothing quality is standardised for export to developing countries like Ghana?
4) How reliable or guaranteed is the quality of baled SHC and how is that communicated to local traders?
5) How do fluctuations in the quality of SHC affect your organisation's processing and exportation?
6) How does the sorting, processing and exportation of SHC impact on the countries of destination like Ghana?
7) How does your organisation redress the impact of bans on SHC importation to developing countries?
8) What sustainable principles/ approaches does your organisation apply in sorting, processing and exporting SHC?
9) How do you determine that the SHC trade practices in developing countries like Ghana are economically sustainable?
10) How does your organisation ensure that the SHC trade practices in developing countries like Ghana are environmentally sustainable?
11) How does your organisation determine that the SHC trade practices in developing countries like Ghana are socially sustainable?
12) What benefits does Bristol Textile Recyclers bring to the economic dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
13) What benefits does Bristol Textile Recyclers bring to the environmental dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
14) What benefits does Bristol Textile Recyclers bring to the social dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
15) What is Bristol Textile Recyclers' outlook on critical resolutions of unsustainable SHC trade practices in developing countries like Ghana?
16) How would SHC regulations/ tariff restrictions from developing countries impact on the sustainable development of the SHC trade?
17) How does Bristol Textile Recyclers extend sustainable principles/ approaches and strategic alliances to maintain sustainable SHC trade practices in countries of destination?
18) How does your organisation promote reuse practices in countries of destination like Ghana? Please give me an example.
19) How does your organisation promote recycle frameworks in countries of destination like Ghana? Please give me an example.
20) What is the current state of the relationship between Bristol Textile Recyclers and other local SHC trade associations like the KTA?

Interview questions for the Textiles Recycling Association (TRA) in the U.K.
1) How does the sorting, processing and exportation of SHC impact on the countries of destination like Ghana?
2) How does the TRA ensure that low-grade SHC are not exported to developing countries like Ghana?
3) What SHC clothing quality is standardised for export to developing countries like Ghana?
4) How reliable or guaranteed is the quality of baled SHC and how is that communicated to local traders?
5) How do fluctuations in the quality of SHC affect your processing and exportation?
6) How does the TRA redress the impact of bans on SHC importation to developing countries?
7) What sustainable principles/ approaches does the TRA apply in sorting, processing and exporting SHC?
8) How does the association determine that the SHC trade in developing countries like Ghana are economically sustainable?
9) How does TRA ensure that the SHC trade practices in developing countries like Ghana are environmentally sustainable?
10) How does the TRA determine that the SHC trade practices in developing countries like Ghana are socially sustainable?
11) What benefits does TRA bring to the economic, dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
12) What benefits does TRA bring to the environmental dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
13) What benefits does TRA bring to the social dimensions of the SHC trade in countries of destination like Ghana? Please give me an example of some of your sustainable successes.
14) What is TRA's outlook to critical resolutions of unsustainable SHC trade practices in developing countries like Ghana?
15) How would SHC regulations/ tariff restrictions from developing countries impact on the sustainable development of the SHC trade?
16) How does the TRA extend sustainable principles/ approaches and strategic alliances to maintain sustainable SHC trade practices in countries of destination?
17) How does TRA promote reuse practices in countries of destination like Ghana? Please give me an example.
18) How does TRA promote recycle frameworks in countries of destination like Ghana? Please give me an example.
19) What is the current state of relationship between the TRA and other local SHC trade associations like the Kantamanto Used Clothes Sellers Association?

Interview questions for the Waste & Resources Action Programme (WRAP) in the U.K.
1) What are the core activities of WRAP with regards to SHC trade activities in the U.K.?
2) What is the work of WRAP in the Sustainable Clothing Action Plan (SCAP)?
3) What are the factors that account for the excessive exportation of SHC from the U.K. to developing countries?
4) What sustainable policies do WRAP have in place to develop SHC exports to developing countries?
5) How does WRAP determine that SHC trade policies in the U.K. do not impact negatively on the economic dimension of the trade in developing countries?
6) How does WRAP determine that SHC trade policies in the U.K. do not impact negatively on the social dimensions of the trade in developing countries?
7) How does WRAP determine that SHC trade policies in the U.K. do not impact negatively on the environmental dimensions of the trade in developing countries?
8) How would SHC regulations/restrictions in developing countries influence or impact on the sustainable policies in the U.K.?
9) How does WRAP redress the impacts of bans on SHC importation to developing countries?
10) How does WRAP extend sustainable policies to governments, businesses and other stakeholders in the SHC trade?
11) Are there strategic alliances between WRAP and other policy makers in Europe and other parts of the world regarding SHC trade?
12) Are there strategic alliances between WRAP and other policy makers in developing countries regarding SHC trade?

Appendix E: COLOUR CODING OF TRANSCRIPT

Interview transcript for Accra Metropolitan Assembly (AMA)	Initial major and sub themes	Participant Observations (visuals)
<p>1) What is the specific role of the AMA in the SHC trading activities within the Kantamanto market?</p> <p><i>We are a non-profit organisation and we have cordial relationship with the Kantamanto Used Clothes Sellers Association executives. We take decisions with them on their activities in the Kantamanto market. We also collect revenue from them that is, their business operating licence which is annual and daily tolls from traders or hawkers. We ensure that sanitation activities in the Kantamanto market are working.</i></p>	<p>Stakeholder politics Regulation Environment</p>	<p>ACTION OBSERVED (attach fig 1)</p> <p>ACTION OBSERVED (attach fig 2)</p>
<p>2) How does the SHC trading activities in the Kantamanto market contribute to the economy?</p> <p><i>The Kantamanto market is contributing very much to the economy through import taxes they pay and the employment of about 3,000 people in the informal sector. However, when it comes to generating revenue in the market, the traders pay less than 30 Ghana Cedis annually as traders licence even though this is woefully inadequate for running a huge market as the Kantamanto market.</i></p>	<p>Economic Regulation</p>	<p>ACTION OBSERVED (attach fig 3)</p>
<p>3) What are the critical challenges of the SHC trade in the Kantamanto market?</p> <p><i>By the structure of the Kantamanto Used Clothes Sellers Association and the ownership of the location, the AMA is unable to contribute much to the second-hand clothing trading/economic activities in the Kantamanto market. It limits us as to what we can do in maintaining a very conducive environment for the traders.</i></p>	<p>Regulation (challenge) Economic Environment</p>	
<p>4) How is the Kantamanto market space and infrastructure impacting on the SHC trading practices?</p> <p><i>The Kantamanto Used Clothes Sellers Association executives have a special arrangement so they provide and manage the infrastructure and the environment in the Kantamanto market. However,</i></p>	<p>Environment</p>	<p>ACTION OBSERVED (attach fig 2b)</p>

<p>they fall on us for support when there is a disaster, for example we provide trucks for them to collect waste. We assist them by draining the sewage in the market when there is a sewage problem.</p>		
<p>5) To what extent is the infrastructural provision a challenge to the SHC trade in the Kantamanto market?</p> <p>We find the infrastructure at the Kantamanto market to be a challenge but the Accra Metropolitan Assembly (AMA) does not collect enough revenue to be able to provide infrastructural development in the market. The AMA is limited by the operations and structure of the Kantamanto Used Clothes Sellers Association who are mainly in charge of providing and maintaining the infrastructure in the market.</p>	<p>Environment</p> <p>Regulation (challenge)</p>	<p>ACTION OBSERVED (attach fig 4)</p>
<p>6) How does AMA ensure that the SHC trading activities in the Kantamanto market space are done in an organized manner?</p> <p>I wonder how the Kantamanto market can be organised because the location of the market belongs the Ghana Railways Development Authority (GRDA). If the GRDA and the Government of Ghana want to revamp the sector, the Railways cannot co-exist with the trading activities of the Kantamanto market. The Accra Metropolitan Assembly (AMA) will eventually be confronted with the challenge of finding a suitable market for the second-hand clothing traders. It is very complicated as the Kantamanto Traders Association executives are keen of operating independently.</p>	<p>Regulation (challenge)</p> <p>Stakeholder politics</p> <p>POLICY</p> <p>Stakeholder politics</p>	
<p>7) How is the AMA redressing the impact of low grade SHC disposal in the Kantamanto market?</p> <p>The Kantamanto Used Clothes Sellers Association executives are fully responsible for redressing the collection and disposal of the waste they generate through their market trading activities. They have their own arrangements, however, our responsibility is to provide them with the bins.</p>	<p>Regulation</p> <p>Environment</p>	<p>ACTION OBSERVED (attach fig 5)</p>

<p>8) What are the main factors hindering the sustainable development of the SHC trade in the Kantamanto market?</p> <p><i>The challenge in the Kantamanto market is that the market is located in an area earmarked for railway development, so it is difficult for any sustainable development of the trade. As long as the trading activities are carried out within and around that location there is not much to be done about the development of the second-hand clothing trade.</i></p>	<p>Regulation (challenge)</p> <p>Stakeholder politics</p>	<p>ACTION OBSERVED (attach fig 6a)</p>
<p>9) What are the critical economic inequities of the SHC trading activities in the central business district of Accra?</p> <p><i>The second-hand clothing trade is mainly a petty trading activity and majority of the traders peddle their wares around the central business district. As they do not earn much in the sales of the second-hand clothes, the assembly takes daily tolls of only 50 pesewas. This revenue is woefully inadequate for the development of projects like sanitation to support the economic activities in the Kantamanto market.</i></p>	<p>Economic</p> <p>Regulation (challenge)</p> <p>Environment</p>	<p>ACTION OBSERVED (attach fig 3b)</p> <p>ACTION OBSERVED (attach fig 4b)</p>
<p>10) What are the critical environmental inequities of the SHC trading activities in the Kantamanto market?</p> <p><i>The location of the Kantamanto market and the unstructured nature of the market make it difficult to undertake any sustainable environmental development. The association executives are in charge of keeping the market environment and trading activities, however, they call on us when they encounter problems with the sewage and other disasters like the fire out breaks.</i></p>	<p>Environment</p> <p>Regulation</p> <p>Environment</p>	<p>ACTION OBSERVED (attach fig 4c)</p>
<p>11) What are the critical social inequities of the SHC trading activities in the Kantamanto market?</p> <p><i>We are fully in charge of all the markets in the Accra Metropolis and we are much concerned about the health or social well-being of the traders and consumers in all these markets. Our responsibility is rather limited when it comes to the Kantamanto market since the location belongs to the GRDA. The association executives have the total control of the management of the market; we only make sure we assist them when they call on us.</i></p>	<p>Regulation</p> <p>Social well-being</p> <p>Regulation (challenge)</p>	

<p>12) How does the AMA manage the environmental dimension of the Kantamanto market?</p> <p><i>The AMA used to carry out the waste management activities in the Kantamanto market, however, the cost of waste management is now a polluter pay. Periodically, when they make request for bins we make them available to help them manage the waste generated there.</i></p>	<p>Regulation</p> <p>Environment</p>	<p>ACTION</p> <p>OBSERVED (no evidence)</p>
<p>13) How does the AMA manage the economic dimension of the Kantamanto market?</p> <p><i>We do not manage the economic activities in the Kantamanto market; we only take annual business operation license fees and daily tolls.</i></p>	<p>Economic</p> <p>Regulation</p>	<p>ACTION</p> <p>OBSERVED (attach fig 1b)</p>
<p>14) What initiatives are undertaken by the AMA to ensure that the Kantamanto market is socially equitable for the SHC traders and consumers? Please give me examples.</p> <p><i>Even though we are not in absolute control of the market, we are usually called upon when there are disasters. Our security personnel also assist in maintaining general security like we do in other markets in the Accra Metropolis.</i></p>	<p>Regulation</p> <p>Social well-being</p>	<p>ACTION</p> <p>OBSERVED (no evidence)</p>
<p>15) How does the AMA plan to develop a sustainable SHC trade in the Kantamanto market? Please can you give me examples? E.g. Development policy/ Strategic Plan.</p> <p><i>Currently, we are developing or reconstructing most of the markets within the Accra Metropolis. The Accra Metropolitan Assembly (AMA) is reconstructing a number of other markets like the 31st December Market, the Rawlings Park market and the Salaga market that can absorb the second-hand clothing trade. This can develop the second-hand clothing trade more sustainably. However, with the present situation at the Kantamanto market it will be impossible to reconstruct the market unless they relocated or absorbed into these developed markets. This relocation can also free the Kantamanto location for the railways development, which the government is considering seriously.</i></p>	<p>POLICY (ongoing)</p> <p>POLITICS</p> <p>POLICY (sustainable development)</p>	

<p>16) How can the AMA effectively regulate the SHC trade activities in the Kantamanto market?</p> <p><i>The Assembly regulates the trading activities in all the markets within the Metropolis except for the Kantamanto market, which is directly under the watch of the trade association. However, our security personnel are employed to maintain law and order in the Kantamanto market.</i></p>	<p>Regulation (challenge)</p> <p>Social well-being</p>	<p>ACTION OBSERVED (no evidence)</p>
<p>17) How can the AMA facilitate an effective reuse system for the sustainable development of the SHC trade?</p> <p><i>The Accra Metropolitan Assembly does not facilitate any reuse system. Our mandate could extend into reuse areas in future when we have adequate personnel and resources.</i></p>	<p>Regulation (challenge)</p> <p>Reuse</p>	
<p>18) How can the AMA effectively facilitate a recycling system for the sustainable development of the SHC trade?</p> <p><i>Unfortunately, we don't have the capacity for recycling clothing waste. It would be a good venture to consider.</i></p>	<p>Recycling</p>	<p>ACTION OBSERVED (attach fig 7)</p>
<p>19) How can the AMA facilitate the integration of economic, environmental and social dimensions of the SHC trade in the Kantamanto market?</p> <p><i>The new markets under construction in the metropolis will absorb the second-hand clothing trade into a more conducive market setting. Thereby addressing the lack of integration of economic, environmental and social inequities that exist in the Kantamanto market.</i></p>	<p>POLICY (integration of 3 dimensions)</p>	
<p>20) What is AMA's medium to long-term sustainable development policy for the location of the Kantamanto market?</p> <p><i>We do not have a medium term sustainable development policy for the second-hand clothing trade in their present location. The AMA intends that the newly constructed markets in the metropolis will absorb the second-hand clothing trade into a much more conducive facility which has warehouses, security provisions, and proper sanitation facilities amongst others. This is how we believe the trade can be sustainably developed in the medium term.</i></p>	<p>POLICY (sustainable development)</p>	

References:

- Abimbola, O. (2011). *Does Secondhand Clothing Kill Local Textile Industries?* Blog on *betterplacelab*. Available from: <http://www.betterplace-laborg/en/blog/does-second-handclothing-kill-local-textile-industries>, [Accessed 19 June 2016].
- Abimbola, O. (2012). The International Trade in Secondhand Clothing: Managing Information Asymmetry between West African and British Traders. *Textiles*, 10 (2), 184-199.
- Ackah, C., Turkson, F. and Adjasi, C. (2014). *Scooping Study on the Evolution of Industry in Ghana*. World Institute for Development Economics Research. Available from: <https://www.wider.unu.edu/sites/default/files/wp2014-075.pdf>, [Assessed 3 November 2015].
- Adams, W. M. (1995). *Green development theory? Environmentalism and sustainable development*. In J. Crush (Ed.), *Power of Development* (pp. 87-99). New York and London: Routledge.
- Addo-Tetteh, R. (2013). *AMA Boss Rushed in Announcing Building of New Ultramodern Kantamanto Market* - Kwaku Baako. Available from: <http://elections.peacefmonline.com/pages/politics>, [Accessed 13 December 2015].
- Adler, P. A. and Adler, P. (1994). Observational Techniques. In Denzin, N. K. and Lincoln, Y.S. (Eds) *Handbook of Qualitative Research*. California: Sage.
- Affum, H.A.; Oduro-Afriyie, K.; Nartey, V.K.; Adomako, D.; Nyarko, B. J.B. (2008). Bio-monitoring of airborne heavy metals along a major road in Accra, Ghana. *Environ. Monit. Assess*, 137, 15–24.
- African Urbanism (2013). After the Kantamanto Market fire, an Opportunity for Participatory Planning Emerges. Available from: <http://africanurbanism.net/kantamanto-fire-future-planning>, [Accessed 12 October 2015].
- Africa Sustainable Development Report (2017). Tracking Progress on Agenda 2063 and the Sustainable Development Goals. Available from: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/2017_Africa_Sustainable_Development_Report_EN.pdf [Assessed 12 December 2017].
- Aforo, A. (1997). Report of the miniconsultation on street trading and hawking in Accra. Accra Sustainable Programme, Accra. Photocopy.
- Agyeman, J., Bullard, R. D. and Evans, B. (2002). Exploring the nexus: Bringing together sustainability, environmental justice and equity. *Space & Polity*, 6 (1), 77-90.
- AMA/WMD, (2010). AMA/WMD, Accra Metropolitan assembly/waste management department. Annual report from the WMD Accra: Unpublished data from Various Internal Reports.
- Amankwah, A. M., Howard, E. K., and Sarpong, G. D. (2012). Foreign Fashion Influence on the Ghanaian Youth and its impact on the local fashion industry. *The International Journal of Innovative Research and Development*, 1(11), 562-575.
- Amanor, D. (2010). Ghana Bans Second-hand Knickers. BBC Network Africa Programme. Available from: <http://www.bbc.co.uk/news/world-africa-11845851>, [Accessed 3 November 2015].

- Andr , G. and Beckman, B. (1998). *Union Power in the Nigerian Textile Industry*. Uppsala: Nordiska Afrikainstitutet.
- Anane, M. (2004). Towards sustainable development in Ghana, non-governmental liaison service UN-NGL. *Voices from Africa*, (2), 6, New York, USA.
- Annamma, J., Sherry, J. F., Venkatesh, A., Wang, J. and Chan, R. (2012). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*, 16 (3), 273 – 296.
- Angrosino, M. V., and Mays de Perez, K. A. (2000). *Rethinking observation: From method to context*. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 673–715). Thousand Oaks, CA: Sage.
- Africa Sustainable Development Report (2017). Tracking Progress on Agenda 2063 and the Sustainable Development Goals. Available from: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/2017_Africa_Sustainable_Development_Report_EN.pdf [Assessed 12 December 2017].
- Anyemedu, K. (2000). *Trade union response to globalization: case study on Ghana*. Labour and society programme Discussion Papers. 1-16.
- Appiah-Kubi, K. (2007). Poverty Reduction, GPRS and the Informal Sector in Ghana. In Youth Employment Network and International Youth Foundation (2009). *Private Sector Demand for Youth Labour in Ghana and Senegal: Ghana and Senegal Findings*. World Bank with support from Department for Work and Pensions (DWP).
- Akyeampong, E. (2000). ‘‘WO pe tam won pe ba’’ (‘‘you like cloth but you don’t want children’’): urbanization, individualism and gender relations in colonial Ghana c. 1900–39’, in Anderson, D. M. and Rathbone, R. (Eds), *Africa’s Urban Past*. Oxford: James Currey, pp. 222–34.
- Alkire, S. and Santos, M. E., (2011). Acute multidimensional poverty: a new index for developing countries. In: *Proceedings of the German Development Economics Conference*. Berlin, 2011, No.3. Available from: <http://www.econstor.eu/bitstream> [Accessed on 20 November 2015].
- Allerston, P. (2000). Clothing and early modern Venetian society. *Continuity and Change*, 15, 367-390.
- Allwood, J. M., Laursen, S. E., Malvido de Rodriguez, C. and Bocken, N. M. P. (2006). *Well Dressed? The Present and Future Sustainability of Clothing and Textiles in the United Kingdom* (Cambridge, UK: University of Cambridge Institute for Manufacturing. Available from: www.ifm.eng.cam.ac.uk/sustainability/projects/mass/UK_textiles.pdf, [Accessed 2 June 2016].
- Arku, J. (2013). GNFS warns of fires at Kantamanto Market. Available from: <https://www.graphic.com.gh/news/general-news/gnfs-warns-of-fires-at-kantamanto-market.html>. [Accessed 7 January 2018].
- Aryeetey, E. and Harrigan, J. (2000). ‘Macroeconomic & sectoral developments since 1970’. In Aryeetey, E., Harrigan, J., and Nissanke, M (Eds), *Economic Reforms in Ghana: The Miracle and the Mirage*, pp. 5–31.
- Ashford, N. A. and Hall, R. P. (2011). The Importance of Regulation-Induced Innovation for Sustainable Development. *Sustainability*, 3, 270-292.
- Asiedu, A. A. (2013). Don’t Build Permanent Structures - Minister Warns Kantamanto Traders. Available from: http://www.adomonline.com/news_details.php?article=638, [Accessed 3 November 2015].

- Atkinson, P., Coffey, A., Delamont, S., Lofland, J. and Lofland, L. (2002). *Handbook of ethnography*. London: Sage.
- Aubert, J. C. (2004). *Promoting Innovation in Developing Countries: A Conceptual Framework*. World Bank Institute. Available from: <http://info.worldbank.org/etools/docs/library/137729/03097AubertPaper%5B1%5D.pdf>, [Accessed 2 June 2016].
- Baden, S. and Barber, C. (2005). The Impact of the Second-hand Clothing Trade on Developing Countries. Available from: <http://policy-practice.oxfam.org.uk/publications/the-impact-of-the-second-hand-clothing-trade-on-developing-countries-112464> [Accessed 2 December 2015].
- Bakan, J. (2004). *The Corporation: The Pathological Pursuit and Power*. London: Constable.
- Bank of Ghana (2017). 2017 ANNUAL REPORT. Available from: https://www.bog.gov.gh/privatecontent/Publications/Annual_Reports/Annual%20Report%202017%2012th%20July.pdf [Accessed 21st August, 2018].
- Banks, M. (2001). *Visual methods in social research*. London, England: Sage.
- Bannerman, R. R. (2000). Conflict of technologies for water and sanitation in developing countries. *Schriftenreihe des Vereins für Wasser-, Boden-, und Lufthygiene*, 105, 167-170.
- Bansal, P. (2002). The Corporate Challenges of Sustainable Development. *Academy of Management Executive*, 16 (2), 122–131.
- Barker, C., Pistrang, N. and Elliott, R. (2002). *Research methods in clinical psychology: An introduction for students and practitioners*, 2nd eds. Chichester, England: John Wiley and Sons.
- Barlisen, K. D. and Baetz, B. W. (1995). Development of a decisions support system for the planning of municipal solid waste composting and recycling programs. *Canadian Journal of Civil Engineering* 22, 637-645.
- Barton, H. (2000a). Conflicting perceptions of neighbourhood. In *Sustainable Communities: The Potential for Eco-Neighbourhoods*, Barton H (Ed.). Earthscan: London; 3–18.
- Basit, T. N. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, 45 (2), 143–154.
- Bazeley, P. and Jackson, K. (2013). *Qualitative Data Analysis with NVIVO*. Sage Publications Ltd: London.
- Bazzi, K. (2012). Review of the socio-economical effects of second hand clothing smuggle to Iran. *Journal of Basic and Applied Scientific Research*, 2(3), 2530–2540.
- Beard, N. D. (2008). The Branding of Ethical Fashion and the Consumer: A Luxury Niche or Mass-Market Reality? *Fashion Theory: The Journal of Dress, Body & Culture*, 12, 447-468.
- Becker, H. S. (1995). Visual sociology, documentary photography, and photojournalism: It's (almost) all a matter of context. *Visual Sociology*, 10, 5-14.
- Behme, P. (2018). Secondhand clothes, smuggling and the US-China trade war in Africa. Available from: <https://www.dw.com/en/secondhand-clothes-smuggling-and-the-us-china-trade-war-in-africa/a-45260082> [Accessed 27 November, 2018].
- Belk, R. (2014). You are what you can access: sharing and collaborative consumption online. *J. Bus. Res.* 67 (8), 1595 -1600.

- Berg, B. L. and Lune, H. (2012). *Qualitative Research Methods for the Social Sciences*, (8th edition). Pearson.
- Bernard, H. R. (2002). *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. CA: 3rd Alta Mira Press.
- Bhowmik, S. K. (2005). Street vendors in Asia: A review. *Economic and Political Weekly* 28 May - 4 June 2005.
- Bigsten, A. and Wicks, R. (1996). Used-clothes Exports to the Third World: Economic Considerations. *Development Policy Review*, 14(4), 379-390.
- Birtwistle, G. and Moore, C.M. (2007). 'Fashion Clothing: Where Does It All End Up?' *International Journal of Retail & Distribution Management*, 35 (3), 210-16.
- Blackburn, R. S. (2005). Biodegradable and sustainable fibres, *Woodhead Textiles Series* No. 47, Frank, E.N., Hick, M.V.H. and Adot, O. (2007). Descriptive differential attributes of type of fleeces in Llama fiber and its textile consequence. 1-Descriptive aspects. *The Journal of the Textile Institute* 98 (3), 251-259.
- Blunt, A. (2005). Cultural geography: cultural geographies of the home. *Progress in Human Geography*. 29 (4), 505-515.
- Boadi, K. O. and Kuitunen, M. (2005). Environment, wealth, inequality and the burden of disease in the Accra metropolitan area, Ghana. *International Journal of Environmental Health Research*, 15 (3), 193-206.
- Bogdan, R. C. and Biklen, S. K. (1982). *Qualitative Research for Education: An Introduction to Theory and Methods*. Allyn and Bacon, Boston:
- Boon, E., Ahenkan, A. and Domfeh, A. (2010). Placing the environment in the core of Ghana's development agenda: sustainability and stakeholder analysis, in Kendie, S.B. (Ed.): *Rethinking Development in Africa*, pp.81–105, University of Cape Coast, Cape Coast.
- Borg, W. R. and Gall, M. D. (1983). *Educational Research, an Introduction*, Longman: New York.
- Boyle, J. S. (1994). *Style of Ethnography. Critical Issues in Qualitative Research*. Thousand Oaks; CA: Sage.
- Brandon, P. and Lombardi, P. (2005). *Evaluating Sustainable Development in the Built Environment*. Blackwell Science, Oxford.
- Brewerton, P. and Millward, L. (2001), *Organizational Research Methods: A Guide for Students and Researchers*, Sage: London.
- Bridge, G. and McManus, P. (2000). Sticks and Stones: Environmental Narratives and Discursive Regulation in the Forestry and Mining Sectors, *Antipode*, 32, 10–47.
- Bristol Textile Recyclers (2016). Why Recycle. Available from: <http://btr-ltd.co.uk/why-recycle>. [Accessed 22 May 2016].
- British Heart Foundation (2011). *Our Clothing Banks are Being Raided*. Available from: <http://www.bhf.org.uk/shop/donating-goods/stolendonations.aspx>. [Accessed 22 May 2016].
- Broadbent, E. (2011). Research-Based Evidence in African Policy Debates: Case Study of Decongestion in Accra, Ghana. Evidence Based Policy Development Network (EBPDN) Working Paper 1; Overseas Development Institute-London.
- Brooks, A. (2013). Stretching Global Production Networks: The international Second-Hand Clothing Trade. *Geoforum*, 44, 10–22.

- Brooks, A. (2015). The Hidden Trade in Our Second-Hand Clothes Given to Charity. Available from: <http://www.theguardian.com/sustainable-business/sustainable-fashion-blog/2015/feb/13/second-hand-clothes-charity-donations-africa> [Accessed 23 November 2015].
- Brooks, A. and Simon, D. (2012). Unravelling the Relationships between Used-Clothing Imports and the Decline of African Clothing Industries. International Institute of Social Studies. *Development and Change*, 43(6), 1265- 1290.
- Brown, D. C. (1996). Why ask why: patterns and themes of causal attribution in the workplace. *Journal of Industrial Teacher Education*, 33(4), 47-65.
- Bryman, A. and Bell, E. (2015). *Business Research Methods*. Oxford University Press: Oxford.
- Bureau of International Recycling (BIR) (2015). Available from: <http://www.bir.org/industry/textiles/?locale=en> [Accessed 28 March 2016].
- Burrell, G. and Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis*. London: Heinemann.
- Burkert, W. (1997). *Impact and limits of the idea of progress in antiquity*. In: Burgen A, McLaughlin P, Mittelstrab J (Eds). *The idea of progress*. Berlin: Walter de Gruyter, pp.19–46.
- Cachia, M. and Millward, L. (2011). “The telephone medium and semi-structured interviews: a complementary fit”. *Qualitative Research in Organizations and Management: An International Journal*, 6 (3), 265 – 277.
- Calaprice, A. (2000). *The Expanded Quotable Einstein*. Princeton University Press: Princeton.
- Carboo, D. and Fobil, J. N. (2004). Physico-chemical analysis of municipal solid waste (MSW) in the Accra metropolis. *West African Journal of Applied Ecology*, 5 (2), 116-117.
- Carr, W. and Kemmis, S. (1986). *Becoming Critical: Education, Knowledge and Action Research*. London: Falmer.
- Carter, C. R. and Rogers, D. S. (2008). A Framework of Sustainable Supply Chain Management: Moving Toward New Theory. *International Journal of Physical Distribution and Logistics Management*, 38 (5), 360-387.
- Carter, C. R. and Dresner, M. (2001). Environmental Purchasing and Supply Chain Management: Cross-Functional Development of Grounded Theory. *Journal of Supply Chain Management*, 37 (3), 12–27.
- Casimir, G. and Dutilh, C. (2003). Sustainability: A gender studies Perspective. *International Journal of Consumer Studies*, 27, 316-325.
- Cassell, C. and Symon, G. (2004). *Essential Guide to Qualitative Methods in Organisational Research*. Thousand Oaks: Sage.
- Castells, M. and Portes, A. (1989). World underneath: the origins, dynamics and effects of the informal economy, in A. Portes, M. Castells & L. A. Benton, eds., *The Informal Economy: studies in advanced and less developed countries*. Baltimore, MD: Johns Hopkins University Press, 11–37.
- Centre for European Policy Studies (CEPS) (2018). Thinking ahead for Europe. Available from: <https://www.ceps.eu/research-areas/regulation> [Accessed 2 September 2018].
- Chapman, J. (2009). *Emotionally Durable Design: Objects Experience and Empathy*. London: Earthscan.
- Charity Retail Association (2010). *Stock Analysis Survey*, unpublished.
- Chen, M.A. (2006). Rethinking the Informal Economy: Linkages with the Formal Economy and the Formal Regulatory Environment. In Godfrey, P. C. (2011).

- Toward a Theory of the Informal Economy. *The Academy of Management Annals*, 5 (1), 231–277.
- Chertow, M. R. (2008). Industrial Ecology in a Developing Context. In (Pp. 335-349): Sustainable Development and Environmental Management: Experiences and Case Studies by Clini, C., Musu, I., Gullino, M.L., Springer Edition.
- City FM Online (2018). Ghana's population hits 29.6m – Statistical Service (March 12, 2018). Available from: <http://citifmonline.com/2018/03/12/ghanas-population-hits-29-6m-statistical-service/> [Accessed 20 August, 2018].
- Clark, G. (1992). 'Real' regulation: The administrative state. *Environment and Planning A*, 24, 615-627.
- Clark, G. (2000). Mothering, work, and gender in urban Asante ideology and practice, *American Anthropologist*, 101 (4), 717–29.
- Claeys, G. (2000). The "Survival of the fittest" and the origins of social Darwinism. *Journal of the History of Ideas*, 61 (2), 223-240.
- Cobbinah, P. B., Black, R., and Thwaites, R. (2011). Reflections on six decades of the concept of development: Evaluation and future research. *Journal of Sustainable Development in Africa*, 13(7), 134-149.
- Cocklin, C. and Blunden, G. (1998). Sustainability, Water Resources and Regulation. *Geoforum*, 29 (1), 51–68.
- Coffey, A. and Atkinson, P. (1996). *Making sense of qualitative data: complementary research strategies*. Sage Publications.
- Cohen, M. J. (2011). *(Un) sustainable Consumption and the New Political Economy of Growth*, in Beyond the Consumption Bubble, Karin. M. Ekstro and Kay Glans, (Eds). New York, NY: Routledge.
- Cohen, D. and Crabtree, B. (2006). Qualitative Research Guidelines Project. Available from: <http://www.qualres.org/HomeEval-3664.html> [Accessed 21 January 2017].
- Cohen, L., Manion, L. and Morrison, K. (2000). *Research Methods in Education*. (5th Ed.). London: Routledge Falmer.
- Collier, J., Jr. and Collier, M. (1986). *Visual anthropology: Photography as a research method (rev. edition)*. Albuquerque, NM: University of New Mexico Press.
- Collier, P. and Gunning, J.W. (1999). Explaining African Economic Performance, *Journal of Economic Literature*, 37, 64–111.
- Collis, J. and Hussey, R. (2013). *Business Research (4th edition.)*. A Practical Guide for Undergraduate and Postgraduate Students. Palgrave.
- Comte, A. (1893). *The Positive Philosophy (3rd edition)*. English translation by Harriet Martineau. London: Paul, Trench, Trubner.
- Cooper, D. R. and Schindler, P.S. (2011). *Business Research Methods (12th edition.)*. New York: McGraw-Hill/Irwin.
- Cope, M. (2010). Coding Qualitative Data. In I. Hay (Ed.), *Qualitative Research Methods in Human Geography* (3rd edition. pp. 281–294). Don Mills, Ontario: Oxford University Press.
- Commission of the European Communities (C.E.C.) (1992). Charter for Sustainable Development. ICC, Paris. 'Towards Sustainability' - a European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development. COM 92(23), CEC, Brussels.
- Council for Textile Recycling (2018). Home. Available from: <http://www.weardonaterecycle.org/> [Accessed 1 January 2018].

- Constanza, R., Audley, J., Borden, R., Ekins, P., Folke, C., Funtowicz, S.O. and Harris, J. (1995). Sustainable Trade: A New Paradigm for World Welfare. *Environment* 37(5) 16-44.
- Crabtree, B. and Miller, W. (Eds.) (1999). *Doing Qualitative Research* (2nd edition). London: Sage.
- Crawford, P., Brown, B. and Majomi, P. (2008). Education as an Exit Strategy for Community Mental Health Nurses: A Thematic Analysis of Narratives. *Mental Health Review Journal*, 13(3), 8–15.
- Creswell, J. (1997). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. London, Sage Publications.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rd edition.)*. Thousand Oaks, CA: Sage.
- Creswell, J. W. and Plano Clark, V.L. (2011). *Designing and Conducting Mixed Method Research*. CA: 2nd Sage.
- Crewe, L., Gregson, N. and Brooks, K. (2003). The discursivities of difference: Retro retailers and the ambiguities of ‘the alternative’. *Journal of Consumer Culture* 3(1): 61–82.
- Cuc, S. and Vidovic, M. (2011). Environmental Sustainability through Clothing Recycling. *Operations & Supply Chain Management*, 4 (2/3), 108-115.
- Cunguara, B. and J. Hanlon (2012). Whose Wealth Is It Anyway? Mozambique’s Outstanding Economic Growth with Worsening Rural Poverty. *Development and Change* 43, (3), 623.
- Czaga, P. (2002). Analysis of non-tariff measures: The case of prohibitions and quotas. OECD Trade Policy Working Papers No. 6, OECD, Paris. Available from: www.oecd.org/ech/tradepolicy [Accessed 21 January 2015].
- Daly, H. and Goodland, R. (1996). Environmental Sustainability: Universal and Non-Negotiable. *Ecological Applications*, 6(4), 1002-1017.
- Daly, J., Kellehear, A. and Gliksman, M. (1997). The public health researcher: A methodological approach. Melbourne, Australia: Oxford University Press.
- Daily Graphic (2013). Kantamanto Market to be reconstructed after devastating fire. Available from: <http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel> [Accessed 30 December 2015].
- Daniel, K. B. (2003). Eight Great Myths of Recycling. In Jane S. S. (Eds). *The Center for Free Market Environmentalism*, p. 1- 26. Available from: <http://www.perc.org> [Accessed 30 December 2015].
- Daskalopoulos, E., Badr, O. and Probert, S. D. (1998). Municipal solid waste: a prediction methodology for the generation rate and composition in the European Union countries and the United States of America. *Resources, Conservation and Recycling*, 24(2), 155-166.
- Dasgupta, S., Laplante, B., Wang, H. and Wheeler, D. (2002). Confronting the environmental Kuznets curve. *Economic Perspective*. 16, 147-168.
- Davis, G.G. and Hall, J.A. (2006). Circular Economy Legislation: The International Experience. World. Bank Edition.
- De Brito, M. P., Carbone, V. and Blanquart, C. M. (2008). Towards a sustainable fashion retail supply chain in Europe: Organization and performance. *International Journal of Production Economics*. 114, 534-553.

- De Leeuw, E., Callegaro, M., Hox, J., Korendijk, E. and Lensvelt-Mulders, G. (2007). The influence of advance letters on response in telephone surveys: a meta-analysis. *Public Opinion Quarterly*, 71 (3), 413-43.
- Decorse, C. R. (1992). Culture Contact, Continuity and Change on the Gold Coast, AD 1400-1900. *The African Archaeological Review*, 10, 163-196.
- Demeritt, D. (2002). What is the “social construction of nature”? A typology and sympathetic critique. *Progress in Human Geography*. 26 (6), 767-790.
- Demetriou, D. (2003). Consumers embrace ethical sales, costing firms 2.6bn a year. *Independent* 9 December p. 6.
- Denzin, N. K. and Lincoln, Y. S. (2005). Introduction: The Discipline and Practice of Qualitative Research. In: Denzin, N.K. and Lincoln, Y. S., Eds., *Handbook of Qualitative Research*, 3rd Edition, Sage, Thousand Oaks, 1-32.
- Department for Environment, Food and Rural Affairs (DEFRA) (2003). *Changing Patterns: UK Government Framework for Sustainable Consumption and Production* (London: DEFRA) Robertson, J. (1990). *Future Wealth: A New Economics for the 21st Century*. London: Cassell.
- Department for Environment Food and Rural Affairs (DEFRA) (2006). Recycling of Low Grade Clothing Waste Conducted by Oakdene Hollins Ltd, The Salvation Army Trading Company Ltd and Nonwovens Innovation & Research Institute Ltd.
- Department for Environment Food and Rural Affairs. (DEFRA) (2007). Sustainable Clothing Roadmap Briefing Note - Sustainability Impacts of Clothing and Current Interventions. Available from: <http://www.defra.gov.uk/environment/business/products/roadmaps/clothing/documents/clothing-briefing> [Accessed 24 March, 2016].
- Department for Environment Food and Rural Affairs (DEFRA) (2008). Waste Strategy for England 2007. Department for Environment, Food and Rural Affairs 2007. Available from: <http://www.defra.gov.uk> [Accessed 10 May, 2016].
- Department for Environment Food and Rural Affairs (DEFRA) (2009). Sustainable Clothing Roadmap: Industry Initiative part 1. *Textiles*, 4, 20-22.
- Department for Environment Food and Rural Affairs. DEFRA, (2011a). Department for Environment Food and Rural Affairs. *Sustainable Clothing Roadmap: Progress Report 2011*. London.
- Department for Environment, Food and Rural Affairs (DEFRA) (2011b). Environmental Permitting Guidance the Waste Framework Directive for the Environmental Permitting (England and Wales) Regulations 2007. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69353/pb13569-wfd-guidance-091001.pdf [Accessed 25 August, 2017].
- Department of the Environment, Transport and the Regions (DETR) (1999a). *A Better Quality of Life: A Strategy for Sustainable Development for the United Kingdom* (London: DETR).
- Diesendorf, M., (2000). ‘Sustainability and sustainable development’, in Dunphy, D, Benveniste, J, Griffiths, A and Sutton, P (Eds) *Sustainability: The corporate challenge of the 21st century*, Sydney: Allen & Unwin, chap. 2, pp. 19-37.
- Dodds, H. S. (2000). Pathways and paradigms for sustaining human communities. In: Lawrence R.J. *Sustaining human settlement: A challenge for the new millennium* (pp. 28-54). Great Britain: Urban International Press.

- Domfeh, K. A. and Bawole, J. N. (2009). Localising and sustaining poverty reduction: experiences from Ghana. *Management of Environmental Quality: An International Journal*, 20(5), 490–505.
- Domfeh, K. A., Ahenkan, A. and Bawole, J. N. (2012). Is sustainable development achievable in Ghana? An analysis of Ghana's development policy achievements and challenges. *International Journal of Environment and Sustainable Development*, 11(3), 304-317.
- Domina, T. and Koch, K. (1999). Consumer reuse and recycling of post-consumer textile waste. *Journal of Fashion Marketing and Management*, 3(4), 346-359.
- Domina, T. and Koch, K. (2002). Convenience and frequency of recycling: implications for including textiles in curbside recycling programs. *Environment and Behaviour*. USA: Sage Publications. pp. 216-238.
- Douthwaite, R. (1992). *The Growth Illusion*. Bideford: Green Books.
- Dreby, E. and Lumb, J. (2012). Beyond the Growth Dilemma: Toward an Ecologically Integrated Economy. Quaker Institute for the Future, Producciones de la Hamaca, Belize.
- Dun and Bradstreet, (2012). Textile Industry, Industry Overview, Cp 2, Sec B, Research Report, D&B India. Available from: http://www.dnb.co.in/SME_cluster_series2012_Indore/PDF/IndustryOverview.pdf [Accessed 20 January, 2018].
- Du Plessis, C. (2000). Cities and sustainability: sustaining our cultural heritage. In *Cities and Sustainability: Sustaining Our Cultural Heritage*, Conference Proceedings, Brandon P, Lombardi P, Perera S (Eds). Kandalama: Sri Lanka.
- Easterly, W. and Levine, R. (1997). Africa's growth tragedy: policies and ethnic divisions, *Quarterly Journal of Economics*, 112(4), 1203–50.
- EBay Customer Service (2018). Adults items Policy. Available from: <https://www.ebay.com/help/policies/prohibited-restricted-items/adult-items-policy?id=4278#section2> [Accessed 28 November 2018].
- Ekins, P., Folke, C. and Costanza, R. (1994). Trade, environment and development: the issues in perspective. *Ecological Economics*, 9, 1-12.
- Ekvall, T. and Finnveden, G. (2001). Allocation in ISO 14041 - A Critical Review. *Journal of Cleaner Production*, 9 (3), 197 – 208.
- Elliott, J. A. (1999). *An Introduction to Sustainable Development*, (2nd edition). London: Routledge.
- Elliott, R. (1995). Therapy process research and clinical practice: Practical strategies. In M. Aveline and D.A. Shapiro (Eds) Research foundations for psychotherapy practice, pp. 49–72. Chichester, England: John Wiley and Sons.
- Elliott, R. (2000). *Rigor in psychotherapy research: The search for appropriate methodologies*. Unpublished paper, Department of Psychology, University of Toledo.
- Ellis, C. (2007). Telling secrets, revealing lives: Relational ethics in research with intimate others. *Qualitative Inquiry*, 13, 3-29.
- Environment Action Programme (EAP) (2016). The 7th Environment Action Programme: Environment Action Programme to 2020. Available from: <http://ec.europa.eu/environment/action-programme>, [Accessed 18 July 2016].
- Environmental Assessment of Textiles (EDIPTEx) (2007). Danish Ministry of the Environment, Environmental Protection Agency.
- Environmental Impact of Products (EIPRO) (2006). Analysis of the life cycle environmental impacts related to the final consumption of the EU-25.

- European Commission, Joint Research Centre, Institute for Prospective Technological Studies.
- Epstein, S. R. (1998). Craft Guilds, Apprenticeship, and Technological Change in Preindustrial Europe. *Journal of Economic History*, 58(3), 684-713.
- Escobar, A. (1995). Encountering development: The making and unmaking of the Third World. Princeton: Princeton University Press.
- Etim, F. (2012). Environmental Philosophy for Sustainable Development. *International journal of Asian Social Science*, 2 (4), 479-487.
- Etsy, D. and Winston, A. (2009). *Green to Gold*, Yale University Press, New Haven, CT.
- European Commission (EC) Directive (2008). Directive no. 2008/98/EC of 19/11/2008 on “Waste and Repealing certain Directives”.
- European Commission (EC), (2015). Circular Economy. Available from: http://ec.europa.eu/environment/circulareconomy/index_en.htm [Accessed 5 June 2017].
- European Commission. (EC) (2008). Waste Framework Directive (2008/98/EC). <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0098&from=EN>, [Accessed 20 June 2016].
- European Commission (EC) (2018). Recycling post-consumer textiles. Available from: https://cordis.europa.eu/result/rcn/80681_en.html, [Accessed 1 January 2018].
- European Environment Agency (EEA) (2014). Environmental Indicator Report 2014: Environmental impacts of production consumption systems in Europe. European Environment Agency. Copenhagen, Denmark.
- European Union. (2004). Sustainable trade. Available from: <http://www.euractiv.com/section/social-europe-jobs/linksdossier/sustainable-trade/#ea-accordion-issues>, [Accessed 22 June 2016].
- Fafchamps, M. (2004). *Market Institutions in Sub-Saharan Africa*. Cambridge, MA: MIT Press.
- Faiers, J. (2013). *Dressing Dangerously: dysfunctional fashion in film*. Congress Cataloguing in Publication Data US.
- Fair Trade Alliance (2006). *Nationalist Development Agenda: A Road Map for Economic Revival, Growth and Sustainability*, Quezon City: Fair Trade Alliance.
- Farrant, L. (2008). *Environmental Benefits from reusing clothes*. Available from: <http://www.uffnorge.org/files/Laura%20Farrant-environmental%20benefits%20from%20reusing%20clothes.pdf>, [Accessed 15 June 2016].
- Farrer, J. and Fraser, K. (2011). Sustainable vs. Unsustainable: Articulating division in the fashion and textiles industry. Anti-po-des *Design Journal*, November 4 2011.
- Fashion United. (2014). UK Fashion Industry Statistics. Available from: <https://fashionunited.uk/uk-fashion-industry-statistics>, [Accessed 22 June 2016].
- Fernando, J. L. (2003). The power of unsustainable development: What is to be done? *The Annals of the American Academy*. 590, 6-31.
- Fetterman, D. M. (1998). *Ethnography Step by Step* (2nd Ed.). Thousand Oaks, CA: Sage Publications.

- Fianu, A. G. and Zentey, E. A. (2000). Problems of large-scale fashion designers in Accra, Ghana. *Journal of Consumer Studies and Home Economics*, 24(2), 128-136.
- Fields, P. and Jones, S. (1999). Efficacy of three fumigant methods for empty ship holds against stored product insect adults and eggs. In 1999 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions. November 1999, San Diego, California, USA.
- Fineman, S. (2001). Fashioning the Environment. *Organization*, 8 (1), 17-31.
- Fisher, K., James, K. and Maddox, P. (2011). *Benefits of Reuse Case Study: Clothing*. Available from: <http://www.wrap.org.uk/benefitsofreuse> [Accessed 29 May, 2016].
- Fischer, C. T. (2005). Qualitative Research Methods for Psychologists: Introduction to Empirical Studies. [Online] Burlington, USA: Academic Press. Available from: <http://site.ebrary.com.lib.costello.pub.hb.se/lib/boras/home.action> [Accessed 3 May 2016].
- Fletcher, K. (2008). *Sustainable Fashion and Textiles*. Earthscan. London.
- Fobil, J. N. (2000). Municipal Solid Waste Characterization for Integrated Management in the Accra Metropolis, (MSc. Thesis.), University of Ghana, Legon, Accra.
- Fobil, J. N., Armah, N. A., Hogarh, J. N. and Carboo, D. (2008). The influence of institutions and organizations on urban waste collection systems: an analysis of waste collection system in Accra, Ghana (1985–2000) *Journal of Environmental Management*, 86 (1), 262-271.
- Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C. S. and Walker, B. (2002). Resilience and sustainable development: Building adaptive capacity in a world of transformations. *A Journal of the Human Environment*, 31(5), 437–440.
- Fontaine, L. (2008). *Alternative Exchanges: Second-Hand Circulations from the Sixteenth Century to the Present*. US: Berghahn Books.
- Fortuna, L. M. and Diyamandoglu, V. (2017). Optimization of greenhouse gas emissions in second-hand consumer product recovery through reuse platforms. *Waste Manag.* 66, 178-189.
- Frankel, C. (1998). *In Earth's Company: Business Environment and the challenges of sustainability*. Canada: New Society Publishers.
- Franklin, A. (2011). The Ethics of Second-hand Consumption (in) Ethical Consumption: A Critical Introduction (Eds) Tania Lewis and Emily Potter. Routledge. London.
- Franklin and Associates (1996). Characterization of the Municipal Solid Waste Stream in the US: 1995 Update, Municipal and Industrial Solid Waste Division, Office of Solid Waste, US EPA, US Government Printing Office, Washington DC.
- Frazer, G. (2008). Used-Clothing Donations and Apparel Production in Africa. *The Economic Journal*, 118, 1764–1784.
- Frick, C. C. (2005). The Florentine Rigattiere: Second Hand Clothing Dealers and the Circulation of Goods in the Renaissance. In: Palmer, A. and Clark, H (Eds). *Old Clothes, New Looks*, 13-28. Oxford: Berg/Bloomsbury.
- Gambino, L. (2017). 'It's about our dignity': vintage clothing ban in Rwanda sparks US trade dispute. Available from: <https://www.theguardian.com/global-development/2017/dec/29/vintage-clothing-ban-rwanda-sparks-trade-dispute-with-us-united-states-secondhand-garments> [Accessed 27 November, 2018].

- Gandy, M. (1996). The Making of a Regulatory Crisis: Restructuring New York City's Water Supply. *Transactions of the Institute of British Geographers*, 22, 338–358.
- Ghana News Agency (GNA) (2012). UN says Ghana's track record on sustainable development is mix achievement. May 11, 2012. Available from: <https://www.ghanabusinessnews.com/2012/05/11/un-says-ghanas-track-record-on-sustainable-development-is-mix-achievement/> [Assessed 5 January 2018].
- Ghana News Agency (GNA) (2013). Kantamanto Traders Proves ownership of Land. Available from: <http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Kantamanto-traders-prove-ownership-of-land-273556> [Accessed 3 November 2015].
- Ghana Statistical Service (GSS) (2002). 2000 Population and Housing Census. Special Report on Urban Localities.
- Ghana Statistical Service (GSS) (2004). Ghana Statistical Service Information.
- Ghana Statistical Service (GSS) (2008). Ghana Living Standards Survey. Report of the Fifth Round (GLSS 5).
- Ghana Statistical Service. (GSS) (2012). 2010 population and housing census: Summary report of final results. Accra, Ghana:
- Ghana Statistical Service (GSS) (2012). Greater Accra Regional Report, 2010 Population and Housing Census Report, Ghana Statistical Service, Accra.
- Ghana Statistical Services (GSS) (2013) Millennium Development Goals in Ghana. 2010 Population & Housing Census Report, Ghana Government.
- Ghana Statistical Service (GSS) (2014). 2010 Population and Housing Census. District Analytical Report, Accra Metropolitan.
- Ghanaian Times (2009). The Famous Seven Year Development Plan of Dr Kwame Nkrumah. Available from: <http://www.ghanaculture.govgh/index1>. [Accessed 13 November 2017].
- Gibbs, D. (1994a). Towards the Sustainable City: Greening Paper. The Local Economy. *Town Planning Review*, 65, 99-109.
- Gibbs, D. (1996). Integrating Sustainable Development and Economic Restructuring: A Role for Regulation Theory? *Geoforum*, 27(I), 1-10.
- Gilbert, R. (1996). Making cities work. In: The Role of Local Authorities in the Urban Environment. Earthscan, London.
- Ginsburg, M. (1980). Rag to Riches: The Second Hand Clothes Trade 1700-1978. *Costume*, 14 (1), 121-135.
- Girdner, E. J. and Siddiqui, K. (2008). Neoliberal Globalization, Poverty Creation and Environmental Degradation in Developing Countries. *International Journal of Environment and Development* (5) 1, 1–27.
- Google (2018a). Map of Accra Metropolitan Area. Available from: https://www.bing.com/images/search?view=detailV2&ccid=nvxP7lb0&id=D4C10883D619AAEBE2B6DE17D451EC8BF4D9CC81&thid=OIP.nvxP7lb0Z_XwGYV49L5OvQHaKe&mediaurl=https%3A%2F%2Fgeoheads.files.wordpress.com%2F2015%2F06%2Famanima.jpg&exph=1123&expw=794&q=map+of+accra+metropolitan+area&simid=608056290855096081&selectedindex=33&ajaxhist=0 [Accessed 28 January 2018].
- Google Map (2018b). The Kantamanto Market Location. Available from: <https://www.google.co.uk/maps/place/Kantamanto+Market,+Accra,+Ghana/@5.5484512,0.2145487,17z/data=!4m5!3m4!1s0x0fd90bba982d705:0xaeef576c29728c64!8m2!3d5.5484014!4d-0.2123034> [Accessed 28 January 2018].

- Government of Ghana (2005b). The Budget Statement and Economic Policy of the Government of Ghana for the 2006 Financial Year. Ministry of Finance and Economic Planning, Accra.
- Government of Ghana (2012). National Urban Policy Framework. Ministry of Local Government and Rural Development. Accra, Ghana.
- Government of Ghana. *The Sustainable Development Goals (SDGs)* Available from: <http://www.ghana.gov.gh/index.php/media-center/press-release/1958-the-sustainable-development-goals-sdgs>, [Accessed 22 June, 2016].
- Glaser, B. G. and Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine.
- Glasmeier, A., Thompson, J. W. and Kays, A. J. (1992). The geography of trade policy: trade regimes and location decisions in the textile and apparel complex. *Transactions of the Institute of British Geographers*. 18 (1), 19-35.
- Granata, F. (2010). "Fashion and Memory", in Fox, S., Marcuse, T. and Clark, J. (eds), *Fashion Projects: On Fashion and Memory*, Granata, NY: NYFA.
- Grant, R. (2000). Liberalization Policies and Foreign Companies in Accra, Ghana. *Environment and Planning A* 2001, 33, 997-1014
- Grant, R. and Oteng-Ababio, M. (2012). Mapping the invisible and real "African" economy: urban e-waste circuitry. *Urban Geography*, 33(1), 1–21.
- Grant, R. and Yankson, P.W.K. (2003). City Profile: Accra. *Cities*, 20 (1), 65–74.
- Gregson, N. (2007). *Living with Things: Ridding, Accommodation, Dwelling*. Wantage: Sean Kingston Publishing.
- Gregson, N. and Beale, V. (2004). Wardrobe Matter: Sorting, Displacement and Circulation of Women's Clothing. *Geoforum*, 35, 689-700.
- Gregson, N., Crang, M., Ahamed, F., Akhter, N., Ferdous, R. (2010). Following things of rubbish value: end-of-life ships, 'chock-chocky' furniture and the Bangladeshi middle-class consumer. *Geoforum* x (x), x.
- Gregson, N. and Crewe, L. (2003). *Second-hand Cultures*. New York: Berg.
- Grix, J. (2004). *The Foundations of Research*. London: Palgrave Macmillan.
- Grix, J. (2004). *The Foundations of Research*. London: Palgrave Macmillan.
- Grootaert, C. and van Bastelaer, T. (2002). *Understanding and Measuring Social Capital: A Multi-Disciplinary Tool for Practitioners*. Washington: World Bank.
- Grossman, G. M. and Krueger, A. B. (1993). Environmental Impacts of a North American Free Trade Agreement, in *The U.S.-Mexico Free Trade Agreement*, P. Garber, ed. Cambridge, MA: MIT Press.
- Guignier, C. (2013). Textile Recycling: An Overview on Technologies and Tendencies Applications. *International Textile & Apparel Association*. (24) 3, 1–14.
- Guiot, D. and Roux, D. (2010). A Second-hand Shoppers' Motivation Scale: Antecedents, Consequences and Implications for Retailers. *Journal of Retailing*, 86 (4), 355–371.
- Gunder, M. (2006). Sustainability planning's saving grace or road to perdition? *Planning Education and Research*, 26 (2), 208-223.
- Gwilt, A. and Rissanen, T. (2011). *Shaping Sustainable Fashion: Changing the Way We Make and Use Clothes*. Earthscan. London.
- Haan, H. C., Coad, A. and Lardinois, I. (1998). *Municipal waste management: Involving micro-and-small enterprises. Guidelines for municipal managers*. Turin, Italy: International Training Centre of the ILO, SKAT, WASTE.

- <http://www.skaf-foundation.org/publications/waste.htm> [Accessed 20 June 2017].
- Haggblade, S. (1990). The Flip Side of Fashion: Used Clothing Exports to the Third World. *Journal of Development Studies*, 26(3), 505-521.
- Hammersley, M. and Atkinson, P. (2007). *What is ethnography? Ethnography, Principles in Practice (3rd edition)*. New York: Routledge.
- Hamrin, R. D. (1983). *A Renewable Resource Economy*, Praeger, New York.
- Hansen, T. K. (1995). Transnational Biographies and Local Meaning; Used Clothing Practices in Lusaka. *Journal of Southern African Studies*, 121 (1), 131-145.
- Hansen, T. K. (2000a). *Salaula: The World of Second Hand Clothing in Zambia*. London: The University of Chicago Press Ltd.
- Hansen, T. K. (2000b). Other People's Clothes? The International Second-Hand Clothing Trade and Dress Practices in Zambia. *Fashion Theory*, 4 (3), 245-274.
- Hansen, T. K. (2004a). Helping or hindering? Controversies around the International Second-hand Clothing Trade. *Anthropology Today*, 20 (4), 3-9.
- Hansen, T. K. (2004b). The World in Dress: Anthropological Perspectives on Clothing, Fashion, and Culture. *Annual Review of Anthropology*, 33, 369-392.
- Hansen, K. T. (2008). Charity, Commerce, Consumption: The International Second-hand Clothing Trade at the Turn of the Millennium— Focus on Zambia. In L. Fontaine (ed.) *Alternative Exchanges: Secondhand Circulations from the Sixteenth Century to the Present*, pp. 221–34. New York and Oxford: Berghahn Books.
- Harris, J. M., Wise, T. A., Gallagher, K. P. and Neva, R. G. (2001). *A Survey of Sustainable Development: Social and Economic Dimensions*, Washington, D.C.: Island Press.
- Harms, E. (1938). The Psychology of Clothes. *American Journal of Sociology*, 44 (2), 239-250.
- Hart, K. (1973). Informal Income Opportunities and Urban Employment in Ghana. *Journal of Modern African Studies*, 2 (1), 61–89.
- Harvey, D. (1996). *Justice, nature and the geography of difference*. Oxford: Blackwell.
- Haughton, G. (1999). Environmental Justice and the Sustainable City. *Journal of Planning Education and Research*, 18(3), 233–243.
- Haughton, G. and Counsell, D. (2004). *Regions, Spatial Strategies and Sustainable Development*. London: Routledge.
- Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability*. New York: Harper Business.
- Hawley, J. M. (2006a). Digging for Diamonds: A Conceptual Framework for Understanding Reclaimed Textile Products. *Clothing and Textiles Research Journal*, 24(3), 262–75.
- Hawley, J.M. (2006b). Textile recycling: a system perspective. In Y. Wang (Ed) *Recycling in Textiles*. Woodfield Publishing Press. Cambridge, England.
- Heisley, D. D. and Levy, S. J. (1991). Autodriving: A photoelicitation technique. *Journal of Consumer Research*, 18, 257-272.
- Hentschell, R. (2008). *The Culture of Cloth in Early Modern England: Textual Constructions of a National Identity*. USA: Ashgate.
- Herrero, C. and Luz, P. (2013). Thermal Insulation Properties of Recycled Textile Materials. AIMEN Technology Centre. Available from:

- http://www.iswa.org/index.php?eID=tx_iswaknowledgebase_download&documentUid=3678 [Accessed 15 September 2014].
- Hethorn, J. and Ulasewicz, C. (2008). *Sustainable Fashion: why now?* Fairchild, New York.
- Hill, C. E., Thompson, B. J. and Williams, N. E. (1997). A Guide to Conducting Consensual Qualitative Research. *The Counselling Psychologist*, 25(4), 517-572.
- Hill H., Taylor R. and St. John-James, A. (2015). Global Perspectives and Translations of Consuming Waste in the Present. Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.712.1547&rep=rep1&type=pdf#page=154> [Accessed 8 June 2016].
- Hilson, G. and Potter, C. (2005). Structural adjustment and Subsistence Industry: Artisanal Gold Mining in Ghana; *Development and Change*, 36 (1), 103-131.
- HKTDC (2009b), “*Green in vogue*”, Hong Kong Trader: International Edition, April, available at: www.hktdc.com/info/mi/a/hkti/en/1X00QZAT/1/Hong-Kong-Trader---International-Edition/Green-in-Vogue.htm [Accessed 8 May 2016].
- Ho, J., Shalishali, M., Tseng, B. and Ang, D. (2009). Opportunities in green supply chain management. *The Coastal Business Journal*, 8 (1), 18-31.
- Hodder, I. (1994). *The interpretation of documents and material culture*. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 393–402). Thousand Oaks, CA: Sage.
- Holden, E. and Linnerud, K. (2007). The sustainable development area: satisfying basic needs and safeguarding ecological sustainability. *Sustainable Development*, 15, 174–185.
- Holdren, J. P., Daily, G. C. and Ehrlich, P. R. (1995). The meaning of sustainability: biogeo-physical aspects. In: Munasingha, M., Shearer, W. (Eds.), *Defining and Measuring Sustainability*. The World Bank, Washington, D.C.
- Holmberg, J. (1992). *Making Development Sustainable: Redefining Institutions, Policy, and Economics*. Washington, D.C.: Island Press.
- Hopwood, B., Mellor, M., and O’Brien, G. (2005). Sustainable Development: mapping different approaches. *Sustainable Development*, 13, 38–52.
- Horne, S. (2000). The Charity Shop: Purpose and Change. *International Journal of Nonprofit and Voluntary Sector Marketing*, 15 (2), 113-124.
- Hove, H. (2004). Critiquing sustainable development: a meaningful way of mediating the development impasse? *Undercurrent* 1 (1), 48–54.
- International Council for Local Environmental Initiatives (ICLEI) (1996). *The Local Agenda 21 Planning Guide* (Toronto).
- International Labour Organization (ILO) (2018). Relevant SDG Targets related to Informal Economy. Available from: <http://www.ilo.org/global/topics/dw4sd/themes/informal-economy/lang-en/index.htm> [Assessed 30 August, 2018].
- International Maritime Organization (IMO) (1996). Recommendations on the Safe Use of Pesticides in Ships. *International Maritime Organization*, pp. 29.
- International Monetary Fund (IMF) (2009) ‘Ghana: poverty reduction strategy paper – 2006 annual progress report IMF Country Report No. 09/237’, Available from: <http://www.imf.org/external/pubs/ft/scr> [Accessed 15 February 2016].
- International Monetary Fund (IMF), (2015). World Economic Outlook Database October 2015. International Monetary Fund. Available from: <http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/weorept.aspx> [Accessed 18 September 2017].

- Jacoby, J., Berning, C.K. and Dietvorst, T. F. (1977). What about disposition. *Journal of Marketing*, 41 (2), 22-8.
- Jackson, T. (2009). *Prosperity without Growth: Economics for a Finite Planet*. London, England: Earthscan.
- Jalloh, A. (2018). *Africa needs unified regulations against cheap Chinese imports*. Available from: <https://www.dw.com/en/africa-needs-unified-regulations-against-cheap-chinese-imports/a-43981996> [Accessed 27 November 2018].
- Jasem, M. A. (2005). Municipal Solid Waste Recycling in the Gulf Co-Operation Council. *Resources, Conservation and Recycling*, 45(2), 142- 158.
- Jha, K. (2006). Organizing Migrant Workers. AITUC in Cooperation with ILO India, New Delhi.
- Jimu, I. M. (2005). Negotiated economic opportunity and power: Perspectives and perceptions of street vending in urban Malawi. *Africa Development* 30(4), 35-51.
- Johnson, K. K. P. and Lennon, S. J (Eds) (1999). *Appearance and Power*. Berg.
- Jomo, K. S. and Von Arnim, R. (2011). Economic Liberalization and Constraints to Development in Sub-Saharan Africa. In: A. Noman, K. Botchwey, H. Stein and J. Stiglitz, (eds). *Good Governance and Growth in Africa: Rethinking Development Strategies*. Oxford University Press: 499-535.
- Jones, A. R. and Stallybrass, P. (2000). *Renaissance Clothing and the Materials of Memory*. UK: Cambridge University Press.
- Jost, J. T. (2006). The End of the End of Ideology. *American Psychologist*, 61(7), 651-670.
- Kannan, K. P. and Raveendran, G. (2009). Growth Sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing. *Economic and Political Weekly*, XLIV, (10), 80-91.
- Kaplinisky, R. (2008). What Does the Rise of China Do for Industrialisation in Sub-Saharan Africa? *Review of African Political Economy* 35 (115), 7-22.
- Kaplinisky, R. and Morris, M. (2008). Do the Asian Drivers Undermine Export-Oriented Industrialization in SSA? *World Development* 36 (2), 254-73.
- Kaplinisky, R. and Morris, M. (2017). Do Regulations and Standards Support Dynamics in Global Value Chains? Available from: <https://www.ictsd.org/bridges-news/bridges-africa/news/do-regulations-and-standards-support-sustainability-dynamics-in> [Accessed 4 September 2018].
- Kasi, S. and Chitra, I. (2016). Employment Growth in Indian Textile Industry during Pre and Post Liberalization Period. *College Journal* 1 (1), 08- 19.
- Kinyanjui, M., Lugulu, P. and McCormic, D. (2004). Clothing and Footwear in Kenya: Policy and Research Concerns. In *Clothing and Footwear in Africa*. African Institute of South Africa.
- Klopffer, W. (1996). Allocation rule for open-loop recycling in life cycle assessment. *Int. J. Life Cycle Assess*, 1 (1), 27-31.
- Kohn, J., Gowdy, J. and Van der Straaten, J. (Eds) (2001). *Sustainability in Action: Sectoral and Regional Case Studies*. Cheltenham: Edward Elgar.
- Koptyoff, I. (1986). The Cultural Biography of Things: Commoditization as Process. Chapter 2, in Appadurai, A. (ed.). *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press, pp. 64-94.
- Krauß, S. M. (2018). *East Africa pushes second-hand clothing ban*. Available from: <https://www.dw.com/en/east-africa-pushes-second-hand-clothing-ban/a-42747222> [Assessed 21 November, 2018].

- Krueger, R. A. (1998). *Analyzing and Reporting Focus Group Results*. Thousand Oaks, CA: Sage.
- Kubania, J. (2015). *How second-hand clothing donations are creating a dilemma for Kenya*. Available from: <http://www.theguardian.com/world/2015/jul/06/second-hand-clothing-donations-kenya> [Assessed 27 November, 2018].
- Kumar, A., (2014). Urban poverty. In: Tyler, E. (Ed.), *Forum on Development and Mitigation: Provocateur Briefings*. MAPS (Mitigation Action Plans and Scenarios), Cape Town, pp.48–50.
- Kuwonu, F. (2017). *Protectionist ban on imported used clothing. US threatens East Africa with AGOA expulsion*. Available from: <https://www.un.org/africarenewal/magazine/december-2017-march-2018/protectionist-ban-imported-used-clothing> [Assessed 21 November, 2018].
- Kuzel, A. (1999). *Sampling in Qualitative Inquiry*. In W. Miller & B. Crabtree (Eds.), *Doing qualitative research* (2nd ed., pp. 33–45). Thousand Oaks, CA: Sage.
- Kvale, S. (1983). The qualitative research interview: a phenomenological and a hermeneutical mode of understanding. *Journal of Phenomenological Psychology*, 14 (2), 171-196.
- Kvale, S. (1989). *To validate is to question*. In S. Kvale (Ed.), *Issues of validity in qualitative research* (pp. 73-92). Lund, Sweden: Studentlitteratur.
- Kvale, S. and Brinkmann, S. (2009), *Interviews*, (2nd Ed.). Thousand Oaks, CA: Sage.
- Kwakyee-Opong, R. (2014). Archaeological and Historic Survey of Ga Costume: 15th - 18th Century. *Historical Research Letter*, 11, 25-40.
- Lambert, M. (2004). Cast-off Wearing Apparel’: The consumption and distribution of second-hand clothing in northern England during the long eighteenth century, *Textile History*, 35 (1), 1-26.
- Lamming, R. and Hampson, J. (1996). The Environment as a Supply Chain Management Issue. *British Journal of Management*, 7(1), S45- S62.
- Langley, P. and Mellor, M. (2002). ‘Economy’, sustainability and sites of transformative space. *New Political Economy*, 7(1), 49–66.
- Laryea-Adjei, G. (2000). Building Capacity for Urban Management in Ghana: Some Critical Considerations. *Habitat Int*, 24 (4), 391-401.
- Layder, D. (1993). *New Strategies in Social Research*. Cambridge: Polity Press.
- LeCompte, M. D. and Goetz, J. P. (1982). Problems of Reliability and Validity in Ethnographic Research. *Review of Educational Research*, 52, 31-60.
- Leedy, P. D. and Ormrod, J. E. (2001). *Practical Research: Planning and Design*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Lehtonen, M. (2004). The environmental- social interface of sustainable development: capabilities, social capital, institutions. *Ecological Economics* 49, 199-214.
- Lemire, B. (1988). Consumerism in Preindustrial and Early Industrial England: The Trade in Secondhand Clothes. *Journal of British studies*, 27 (1), 1-24.
- Lemire, B. (2012). The Evolution of the Second Hand Clothing Trade in Europe and Beyond: Stages of Development and Enterprise in a Changing Material World. C.1600-1850. *Textile*, 10 (2), 144-163.
- Levins, R. and Lewontin, R. (1994). Holism and reductionism in ecology. *Capitalism, Nature and Socialism*, 5(4), 33–40.

- Lewis, T. (2015). *Apparel Disposal and Reuse*. (In) Blackburn, R (Eds), *Sustainable Apparel: Production, Processing and Recycling*. Richard Blackburn. The Textile Institute and Woodheads Publishing.
- Liberatore, A. (1997). Sustainable development and EU policy making. In S. Baker, M. Kousis, D. Richardson, and S. Young (Eds.). *The Politics of Sustainable Development: Theory, Policy and Practice Within the European Union*. pp. 107– 126. New York: Routledge.
- Lincoln, Y. S. and Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park: Sage Publications.
- Lipietz, A. (1996). Public Voices: Geography, Ecology and Democracy, *Antipode*, 28, 219– 228.
- Littig, B. and Griebler, E. (2005). Social sustainability: a catchword between political pragmatism and social theory. *International Journal of Sustainable Development*, 8(1), 65–79.
- Locke, K. (2001). *Grounded Theory in Management Research*. London: Sage.
- Lofland, J. and Lofland, L. (1995). *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*, (3rd edition). Belmont, CA: Wadsworth.
- Lomotey, M. and Fisher, J. (2006). Theft of charitable donations: Serious organised crime and tax evasion. Great Ormond Street Hospital Children's Charity in partnership with Clothes Aid.
- Lumey, S. and Armstrong, P. H. (2004). Some of the Nineteenth Century Origins of the Sustainability Concept. *Environment, Development and Sustainability*, 6, 367-378.
- MacDougall, C. (2011). Ghana off the Tracks. West Africa's New Hub Pushes out the Urban Poor to Pave the Way for Development. The Caravan: Journal of Politics and Culture. Available from: <http://www.caravanmagazine.in/letters/ghana-tracks> [Accessed 7 November 2015].
- Madsen, J., Hartlin, B., Perumalpillai, S., Selby, S. and Aumônier, S. (2007). Mapping of Evidence on Sustainable Development Impacts that Occur in Life Cycles of Clothing: A Report to the Department for Environment, Food and Rural Affairs. Environmental Resources Management (ERM) Ltd. Defra, London. Available from: <http://products.ihc.com/ohsis-seo/981084.html> [Accessed 18 July 2016].
- Malaska, P., Luukkanen J. and Kaivo-oja, J. (1998). Advanced Sustainability Analysis. (Ed): M.K. Tolba (2001). In: Our Fragile World. Challenges and Opportunities for Sustainable Development. Encyclopedia of Life Support Systems and Sustainable Development, Edition: Vol 2, First Edition, Publisher: UNESCO. Oxford: EOLSS Publishers Co. Ltd., pp.1529-1552.
- Mann, N. (2011). *Textile Recycling Theft on the Increase*. Available from: <http://www.letsrecycle.com/news/latestnews/textiles/textile-recycling-theft-2018on-the-increase2019> [Accessed March 22, 2011].
- Marshall, J. (1984). *Women Managers: Travellers in a Male World*. Chichester: Wiley.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13, 522– 525. Available from: <http://fampra.oxfordjournals.org/content/13/6/522.full.pdf> [Accessed 7 November 2015].
- Mason, J. (2002). *Qualitative researching*, (2nd edition.). London: Sage.
- Mathison, S. (1988). Why Triangulate? *Educational Researcher*, 17 (2), 13-17.

- Maxwell, J. A. (2005). *Qualitative Research Design: An Interactive Approach* (2nd edition). Newbury Park, CA: Sage.
- Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach*. Sage Publications Inc. Washington DC.
- Mayhew, H. and Binny, J. (1968). *The Criminal Prisons of London and Scenes of Prison*. London: Frank Class.
- Mbiba, L. (2014). *Zimra impounds 46 kgs of second-hand knickers*. Daily News. Available from: <https://www.dailynews.co.zw/articles/2014/10/19/zimra-impounds-46kgs-of-second-hand-knickers> [Accessed 28 November 2018].
- McNabb, D. E. (2008). *Research Methods in Public Administration and Nonprofit Management: Quantitative and Qualitative Approaches* (2nd edition). Armonk, NY: M.E. Sharpe.
- McVeigh, K. (2009). Charities Fight over Secondhand Clothes Market. *The Guardian* November 16.
- Merriam, S. B. and Simpson, E. L. (2000). *A guide to research for educators and trainers of adults* (2nd edition). Thousand Oaks, CA: Sage.
- Meyer, A. (2000). *Contraction and Convergence*. Green Books, Totnes.
- Miles, M. B. and Hueberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd edition). Thousand Oaks, CA: Sage.
- Ministry of Environment Science and Technology (2012). National Assessment Report on Achievement of Sustainable Development Goals and Targets for Rio+20 Conference. Available from: <https://sustainabledevelopment.un.org/content/documents/1016ghananationalreport.pdf> [Assessed 5 January 2018].
- Ministry of Local Government and Rural Development (MLGRD) (2010). *Activities of the Environmental Health and Sanitation Directorate and effects of climate change*. Paper presented at the Mole XXI Conference, 20–23 July 2010, Accra Ghana. Available from: <http://www.ghana.watsan.net/redir/content> [Accessed 27 May 2015].
- Mishler, E. G. (1990). Validation in inquiry-guided research: the role of exemplars in narrative studies. *Harvard Education Review*, 60, 415–442.
- Mkandawire, T. and Soludo, C. (1998). *Our Continent, Our Future: African perspectives on Structural Adjustment*. CODESRIA.
- Mkenda, B. (2005). The impact of globalization on Tanzania's labour market: evidence from the manufacturing Sector. Dar es Sallam: Tanzania.
- Mmieh, F. and Owusu-Frimpong, N. (2004). State Policies and the Challenges in Attracting Foreign Direct Investment: A review of the Ghana experience. *Thunderbird International Business Review*, 46 (5), 575–599.
- Moisander, J. (2007). Motivational Complexity of Green Consumerism. *International Journal of Consumer Studies*. 31, 404-409.
- Moldan, B., Janouskova, S. and Hak, T. (2012). How to understand and Measure Environmental Sustainability: Indicators and targets. *Ecological Indicators*. 17, 4-13.
- Moore, M. (2000). Political underdevelopment. Paper Presented at the 10th Anniversary Conference of the Development Studies Institute, London School of Economics, New Institutional Theory, Institutional Reform and Poverty Reduction, London, 7–8 September.
- Morley, N., Slater, S., Russell, S., Tipper, M. and Ward, G. D. (2006). Recycling of low grade clothing waste. Oakdene Hollins, Salvation Army Trading Company, Nonwovens Innovation and Research.

- Morley, N., McGill, I. and Bartlett, C. (2009). Maximising Reuse and Recycling of UK Clothing and Textiles EV0421 Technical Report. Oakdene Hollins Research & Consulting [Internet]. Buckinghamshire: Oakdene Hollins Ltd. Available from: Oakdene Hollins Research & Consulting. Available from: <http://www.oakdenehollins.co.uk/media/173/defra>. [Accessed 19 June 2016].
- Morse, J. M. and Field, P. A. (1995). *Qualitative Research Methods for Health Professionals*. London: Sage.
- Morse, J. M. and Richards, L. (2002). *Readme first*. Thousand Oaks, CA: Sage.
- Mpofu, T. (2013). Challenges faced by the clothing sector in Zimbabwe. *IOSR Journal of Business and Management*, 13 (5), 83–84.
- Munoz, L. (2010). Introducing a simple qualitative comparative dichotomy approach to state and clarify sustainable development and sustainability related concepts and issues. *Journal of Sustainability*, 4(2), 1-16.
- Muradian, R. and Martinez-Alier, J. (2000). Trade and the environment: from a Southern Perspective. *Ecological Economics*, 36, 281-299.
- Myers, G. (2011) *African Cities: Alternative Visions of Urban Theory and Practice*. London: Zed Books.
- Myers, M. D. (2013). *Qualitative Research in Business & Management*. London: Sage Publications.
- Myerson, G. and Rydin, Y. (1994). Environment and Planning: A Tale of the Mundane and the Sublime. *Environment and Planning* (12), 437-452.
- Naturegrid (2006). *Pollution from Landfill*. Available from: <http://www.naturegrid.org.uk> [Accessed 12 May 2016].
- Navaretti, G.B., Soloaga, I. and Takacs, W. (2000). Vintage technologies and skill constraints: Evidence from U.S. exports of new and used machines. *World Bank Economic Review*, 14(1), 91–109.
- Nieminen, F., Link, M., Tobler, M. and Vander Becke, B. (2007). EU Cost Action: 628: Life Cycle Assessment (LCA) of Textiles Products, Eco-efficiency and Definition of Best Available Technique (BAT) of Textiles Processing. *Journal of Cleaner Production*, 15 (13-14), 1259-1270.
- Niinimäki, K. (2010). Eco-Clothing, Consumer Identity and Ideology. *Sustainable Development*, 18 (4), 150-162.
- Niinimäki, K. (2011). *From disposable to sustainable: the complex interplay between design and consumption of textiles and clothing. Doctoral dissertation*. Helsinki: Aalto University. Available from: <https://aaltodoc.aalto.fi/handle/123456789/13770> [Accessed 1 October 2014]
- Niinimäki, K (Ed.). (2013). *Sustainable fashion: new approaches*. Helsinki: Aalto ARTS Books. Available from: <https://aaltodoc.aalto.fi/handle/123456789/13769> [Accessed 1 October 2014].
- Nisbet, R. (1980). *History of the Idea of Progress*. London: Heinemann.
- Norris, L. (2005). *Cloth That Lies: The Secrets of Recycling in India*. In Küchler, S. and Miller, D. (Eds), *Clothing as Material Culture*, pp. 83–106. Oxford: Berg.
- Norris, L. (2010a). Trade and Transformations of Secondhand Clothing: Introduction. *Textile*, 10 (2), 128–143.
- Norris, L. (2010b). *Recycling Indian Clothing: Global Contexts of reuse and value*. Bloomington: Indiana University Press.
- Norris, L. (2012a). Economies of Moral Fibre? Recycling Charity Clothing into Emergency Aid Blankets. *Journal of Material Culture*, 17(4), 389–404.

- Norris, L. (2012b). Trade and Transformations of Secondhand Clothing: Introduction, *Textile*, 10 (2), 128-143.
- Norris, L. (2012c). Shoddy Rags and Relief Blankets: Perceptions of Textile Recycling in North India. In Alexander, C. and Reno, J. (Eds), *Economies of Recycling: The Global Transformation of Materials, Values and Social Relations*, pp. 35–56. London: Zed Books.
- Norris, L. (2015). The limits of ethicality in international markets: Imported second-hand clothing in India. *Geoforum*, 67, 183-193.
- North, A. (2012). Defra to update waste hierarchy guidance. Available from: <http://www.letsrecycle.com/news/latest-news/defra-to-update-waste-hierarchy-guidance/> [Accessed 20 September 2016].
- North, A. (2014). *Public still surprised by export of used clothing*. Available from: <http://www.letsrecycle.com/news/latest-news/public-still-surprised-by-export-of-used-clothing/> [Accessed 19 June 2016].
- Nustad, K. G. (2001). Development: The devil we know? *Third World Quarterly*, (22) 4, 479-489.
- Nuno-Amarteifio, N. (1995). The Accra Experience. *Countdown to Istanbul*, 1 (5), 14.
- Oakdene Hollins Ltd. (2006). Salvation Army Trading Company Ltd & Nonwovens Innovation & Research Institute Ltd (2006) Recycling of Low Grade Clothing Waste.
- Oakdene, Hollins Ltd. (2009). *Maximising Reuse and Recycling of UK Clothing and Textiles EV0421*, Technical Report Appendix I, DEFRA; London.
- Obeng-Odoom, F. (2013). *Governance for Pro-poor Urban Development Lessons from Ghana*. Routledge, London.
- Oberhauser, A. M. and Yeboah, M. A. (2011). Heavy Burdens: Gendered Livelihood Strategies of Porters in Accra, Ghana. *Singapore Journal of Tropical Geography*, 32(1), 22-37.
- O'Brien, B.C., Harris, I.B., Beckman, T.J., Reed, D.A, and Cook, D.A. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*, 89(9), 1245-51.
- Ofreneo, R. (1993). *Labor and the Philippine Economy*. PhD Thesis, University of the Philippines.
- Ofreneo, R., Durano, M. and Fernando, N. (1996). *Garments and Textile Industry Report*, Manila: Regional Tripartite Wages and Productivity Board.
- Onimode, B. (1988). *A Political Economy of the African Crisis*. London: Zed Books.
- Opoku, R. A. and Akorli, P. A. (2009). The Preference Gap: Ghanaian Consumers' Attitudes toward Local and Imported Products. *African Journal of Business Management*, 3 (8), 350-357.
- Orb, A., Eisenhauer, L. and Wynaden, D. (2000). Ethics in Qualitative Research *Journal of Nursing Scholarship*, 33(1), 93-96.
- Observatory of Economic Complexity (OEC) (2018). Visualizations. Available from: <http://atlas.media.mit.edu/en/profile/gha/>, [Accessed 9 January 2018].
- Organisation for Economics Cooperation and Development (OECD) (1998). OECD Environmental Performance Reviews: Second Cycle Work Plan. EPOC Document ENV/EPOC (98) 21 (Paris).
- Organisation for Economics Cooperation and Development (OECD) (1999). Social and Environment Interface- Seminar Proceedings, September 22-24, Paris.
- Organisation for Economics Cooperation and Development (OECD) (2001b). Sustainable Development: Critical Issues. OECD, Paris.

- Organization for Economic Co-operation and Development (OECD) (2002). *Policies to Promote Sustainable Consumption: An Overview* ENV/EPOC/WPNEP (2001)18/FINAL, (Paris: OECD).
- Organisation for Economics Cooperation and Development (OECD) (2004). Implementing Sustainable Development. Key Results. Available from: <http://www.oecd.org/greengrowth/31683750.pdf> [Accessed 9 January 2018].
- Organisation for Economics Cooperation and Development (OECD). (2008a). Measuring Sustainable Development: Report of the Joint Working Party on Statistics for Sustainable Development. Annual Meeting of Sustainable Development Experts (AMSDE), Paris.
- Organisation for Economics Cooperation and Development, (OECD) (2014). Available from: http://atlas.media.mit.edu/en/visualize/tree_map/hs92/import/gha/show/6309/2014/, [Accessed 20 June 2016].
- Oskamp, S. (2000). A sustainable future for humanity? How can psychology help? *American Psychologist*, 55, 496–508.
- Oteng-Ababio, M. (2010a). Private sector involvement in solid waste management in Ghana: the case of the Greater Accra Metropolitan Area (GAMA). *Waste Management and Research*, 28, 322-329
- Oteng-Ababio, M. (2010b). E-waste: An Emerging Challenge for Solid Waste Management in Ghana. *International Development Planning Review*, 32(2), 191-206.
- Oteng-Ababio, M., Sarfo, O.K. and Owusu-Sekyere, E. (2015). Exploring the realities of resilience: Case study of Kantamanto Market fire in Accra, Ghana. *International Journal of Disaster Risk Reduction*, 12, 311-318.
- Otieno, G. (2006). *Trade Liberalization and Poverty in Kenya: A Case Study of Cotton Textiles Subsector*. Kenya Institute of Public Policy Research and Analysis, Nairobi.
- Ouvertes Project. (2005). *Report by textile reuse and recycling players in the state of the trade in Europe*. Textile Recycling Association. June 2005.
- Overå, R. (2007). When men do women's work: Structural adjustment, unemployment and changing gender relations in the informal economy of Accra, Ghana. *Journal of Modern African Studies*, 45(4), 539-563.
- Owusu, F.Y. (2007). Conceptualizing Livelihood Strategies in African Cities: Planning and Development Implications of Multiple Livelihood Strategies. *Journal of Planning Education and Research*, 26, 450-65.
- Oxfam, (2011). *Donate To Our Shops –Wastesaver*. Available from: <https://www.oxfam.org.uk/donate/shops/wastesaver.html> [Accessed 29 May, 2016].
- Palm, D. (2011). *Improved waste management of textiles*. Available from: <http://www.ivl.se/download/18.7df4c4e812d2da6a416800080103/B1976.pdf> [Accessed 21st January 2015].
- Palm, D., Elander, M., Watson, D., Kiørboe, N., Lyng, K. A. and Gislason, S. (2014). *Towards a New Nordic Textile Commitment – Collection, Sorting, Reuse and Recycling. Ministers*. N.N.C.O, Copenhagen: NORDEN. Available from: <http://www.norden.org/en/publications/publikationer/2014-540> [Accessed 1 January 2016].
- Papola, T. S. (1994). Structural Adjustment, Labour Market Flexibility and Employment, *Indian Journal of Labour Economics*, (37), 1.

- Palmer, A. (2005). Vintage whores and vintage virgins: Second hand fashion in the twenty-first century. In A. Palmer, & H. Clark, (Eds.). *Old clothes, new looks: Second hand fashion*. Oxford: Berg.
- Parahoo, K. A. (1997). *Nursing Research: Principles, Process and Issues*. New York: Palgrave Macmillan.
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Method*. Beverly Hills, CA: Sage.
- Patton, M. Q. (1999). Enhancing the Quality and Credibility of Qualitative Analysis. *Health Services Research*, 34 (5), 1189-1208.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation methods (3rd edition.)*. Thousand Oaks, CA: Sage.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice (4th edition.)*. Thousand Oaks, CA: SAGE.
- Peace FM News (2013). *Kantamanto Land Not for Gbese Stool*. Available from: <http://news.peacefmonline.com/pages/news/201306/166052.php/> [Accessed 3 November 2015].
- Pearce, D., Markandya, A. and Barbier, E. (1989). *Blueprint for a Green Economy*. London: Earthscan.
- Peattie, K. (1992). *Green Marketing*. Pitman Publishing, London.
- Peet, R. (1999). *Theories of Development*. Guilford Press, New York.
- Pellow, D. (2002a). Migrant communities in Accra, Ghana: marginalizing the margins. R. Grant, J. Short (Eds.), *Globalization and the Margins*. Palgrave Macmillan, London, pp. 111-129.
- Persio, S. L. (2015). *Protectionism threatens sustainable trade*. *Global trade review*. Available from: <http://www.gtreview.com/news/global/protectionism-threatens-sustainable-trade/> [Accessed 6 July 2016].
- Perry, C. (1998). Processes of a case study methodology for postgraduate research in marketing. *European Journal of Marketing*, 32 (9/10), 785 - 802.
- Pierson, J. (2002). *Tackling Social Exclusion*. Routledge: London.
- Potter, W. J. (1996). *An analysis of thinking and research about qualitative methods*. Mahwah, NJ: Erlbaum.
- Prakash, S., Manhart, A., Amoyaw-Osei, Y. and Agyekum, O. (2010). *Socio-economic Assessment and Feasibility Study on Sustainable E-waste Management in Ghana*. Accra. Unpublished report: Institute for Applied Ecology, Freiburg, Germany. Available from: <http://www.oeko.de/oekodoc/1057/2010-105-en.pdf> [Accessed 1 November 2017].
- Prior, L. (2004). *Documents*. In C. Seale, G. Gobo, J. F. Gubrium, & D. Silverman (Eds.), *Qualitative research practice* (pp. 375–390). Sage: Thousand Oaks, CA.
- Quartey, P. (2006). The Textile and Clothing Industry in Ghana. In: Herbert Jauch, H. and Traub-Merz, R. (Eds.). *The Future of the Textile and Clothing Industry in Sub-Saharan Africa*. Bonn: Friedrich-Ebert-Stiftung, 135-146.
- Quartey, S. (2007). *Missionary Practices on the Gold Coast 1832-1895. Discourse, Gaze and Gender. The Basel Mission. The Precolonial West Africa*. New York: Cambria Press.
- Rachuri, S., Sarkar, P., Narayanan, A., Lee, J. H. and Witherell, P. (2010). *Towards a Methodology for Analyzing Sustainability Standards using the Zachman Framework*. <https://www.researchgate.net/profile> [Accessed 1 November 2017].

- Ragin, C.C. (1994). *Constructing Social Research: The Unity and Diversity of Methods*. Pine Forge Press.
- Ragin, C., and Becker, H. (1992). *What is a case? Exploring the foundations of social inquiry*. Cambridge: Cambridge University Press.
- Raunio, A. (1995). Favorite Clothes – A look at Individuals' Experience of Clothing. In Suojanen, U. (ed.), *Clothing and its Social, Psychological, Cultural and Environmental Aspects: Proceedings of Textiles, Clothing and Craft Design Conference*. Helsinki: University of Helsinki, 179–194.
- Ravallion, M., Shaohua, C. and Prem, S. (2007). *New Evidence on the Urbanisation of Global Poverty*. Policy Research Paper No. 4199, World Bank, Washington D.C.
- Redclift, M. (1987). *Sustainable Development: Exploring the Contradictions*. Methuen: New York.
- Reed, D. (1997). *Structural Adjustment, the Environment and Sustainable Development*. Earthscan Publications: London.
- Reiley, K. and DeLong, M. (2011). A Consumer Vision for Sustainable Fashion Practice. *Fashion Practice*, 3 (1), 63–84.
- Repetto, R. (Ed.) (1985). *The global possible: Resources, development, and the new century*. New Haven, CT: Yale University Press.
- Rice, P. and Ezzy, D. (1999). *Qualitative research methods: A health focus*. Oxford University Press: Melbourne.
- Richards, L. (1999). *Using NVivo in Qualitative Research*. Bundoora, Victoria, Australia: Qualitative Solutions and Research.
- Richardson, D. (1997). The politics of sustainable development, in: S. Baker, M. Kousis, D. Richardson & S. Young (Eds) *The Politics of Sustainable Development*. Routledge: London.
- Riggle, D. (1992). Tapping textile recycling. *Biocycle*. 33, 38-39.
- Rivoli, P. (2009). *The travels of a T-shirt in the global economy: An economist examines the markets, power, and politics of world trade*. Willey: London.
- Roberts, J. and Dörrenbächer, C. (2014). Challenging the orthodox, a decade of critical perspectives on international business. *Critical Perspectives on International Business*, 10 (1/20), 2-20.
- Roberts, J. and Fuller, T. (2010). International business: past, present and futures. *Futures*. 42 (9), 901-909.
- Robertson, C. C. (1984). *Sharing the Same Bowl: a Socio-Economic History of Women and Cass in Accra, Ghana*. Bloomington, IN: Indiana University Press.
- Robins, N. and Humphrey, L. (2000). Sustaining the Rag Trade. International Institute for Environment and Development (IIED). Available from: <http://pubs.iied.org/pdfs/8860IIED.pdf> [Accessed 13 July 2016].
- Robinson, J. (2004). Squaring the Circle? Some Thoughts on the Idea of Sustainable Development. *Ecological Economics*, 48(4), 369-384.
- Rocco, T. S. and Plakhotnik, M. S. (2009). Literature reviews, conceptual frameworks, and theoretical frameworks: Terms, functions, and distinctions. *Human Resource Development Review*, 8(1), 120-130.
- Rodriguez, S. I., Roman, M.S., Sturhahn, S. H. and Terry, E. H. (2002). *The Three Dimensions of Sustainability [Image]*. Sustainability Assessment and Reporting for the University of Michigan's Ann Arbor Campus. Available from: http://css.snre.umich.edu/sites/default/files/css_doc/CSS02-04.pdf. [Accessed 13 July 2016].

- Roode, D. (2003). Information Systems Research: A Matter of Choice? *South African Computer Journal*, 30, 1-2.
- Roos, S., Zamani, B., Sandin, G., Peters, G. M. and Svanstrom, M. (2017). Will clothing be sustainable? Clarifying sustainable fashion. In: Muthu, S.S. (Ed.), *Textiles and Clothing Sustainability Implications in Textiles and Fashion*. Springer, Singapore.
- Ross, R. (2008). *Clothing a Global History*. 1st eds. Cambridge: Polity.
- Saldana, J. (2013). *The Coding Manual for Qualitative Researchers* (2nd Ed.). Los Angeles: Sage.
- Salih, T. M. (2003). Sustainable economic development and the environment. *International Journal of Social Economics*, 30 (1/2), 53-162.
- Salvation Army Trading Company Ltd. (SATCOL) (2004). *Why Recycle?* Available from: <http://www.satradingsco.org>, [Accessed 10 July 2016].
- Sanderson, E. C. (1997). Nearly New: The Second-hand Clothing Trade in Eighteenth-Century Edinburgh. *The Costume of Society*, 31 (11), 38-48.
- Sanne, C. (2002). Willing consumers- or locked-in? Policies for a sustainable consumption. *Ecological Economics*, 42, 273-287.
- Scaturro, S. (2008). Eco-tech Fashion: Rationalizing Technology in Sustainable Fashion. *Fashion Theory*, 12 (4), 469-488.
- Scheinberg, A., Spies, S., Simpson, M. H. and Mol, A. P. J. (2011). Assessing urban recycling in low- and middle-income countries: Building on modernised mixtures. *Habitat International*, 35, 188-198.
- Schmidheiny, S. (1992b). Changing Course: A Global Business Perspective on Development and the Environment. MIT Press: Cambridge, MA.
- Schoenbaum, T. J. (1997). International Trade and Protection of the Environment: The Continuing Search for Reconciliation. *The American Journal of International Law*, 91 (2), 268-313.
- Schor, J. B. (2005). Prices and Quantities: Unsustainable Consumption and the Global Economy. *Ecological Economics*, 55, 309-320.
- Schumacher, E. F. (1993). *Small is Beautiful: A Study of Economics as if People Mattered*. Vintage: London.
- Scott, T.Y. and Dhanda, K.K. (2013). *Sustainability: Essentials for Business*. Thomas Oaks, CA: SAGE Publications, Inc.
- Seale, C. (1999). Quality in Qualitative Research. *Qualitative Inquiry*, 5(4), 465-478.
- Semple, R. L. and Kirenga, G. I. (1994). Facilitating Regional Trade of Agricultural Commodities in Eastern, Central and Southern Africa. *Dares Salaam University Press, Tanzania*. pp. 22-48.
- Sen, A. (2006). Environment and Poverty: One World or Two, pp.2-20, Institute for Sustainable Development and International Relations, Bangalore, India.
- Seyfang, G. (2003a). *From Frankenstein Foods to Veggie Box Schemes: Sustainable Consumption in Cultural Perspective* Centre for Social and Economic Research on the Global Environment Working Paper, EDM 03-13, CSERGE, University of East Anglia, Norwich.
- Seyfang, G. (2004a). Consuming values and contested cultures: a critical analysis of the UK strategy for sustainable consumption and production. *Review of Social Economy*, 62(3), 323-38.
- Shadlen, K. (2005). Exchanging development for market access? Deep integration and industrial policy under multilateral and regional-bilateral trade agreements. *Review of International Political Economy* 12 (5), 750-775.
- Shafaeddin, M. (2005). *Trade Policy at the Crossroads*. Palgrave Macmillan: London.

- Shammas, C. (1990). *The Pre-industrial consumer in England and America*. Oxford.
- Shea, J. and Brennan, P. (2008). *Addressing commercial threats to charity shop collections*. London: NFP Synergy.
- Shedroff, N. (2009). *Design is the Problem: The Future of Design Must Be Sustainable*. New York, NY:
- Shell, H. R. (2011). A global history of second hand clothing. Available from: <http://spreadablemedia.org/essays/shell/Vop6WLIVqUk> [Accessed 3 November 2015].
- Shiva, V. (1998). *Biopiracy: The Plunder of Nature and Knowledge*. Green: Dartington.
- Slotterback, J. N. (2007). Threadbare: The used clothing trade and its effects on the textile industries in Nigeria and other sub-Saharan African nations. Seminar Paper presented at the School of Liberal Arts, University of Philadelphia. Available from: <http://www.philau.edu/schools/liberalarts/news/documents/SlotterbackSET.pdf> [Accessed 28 November, 2018].
- Siegle, L. (2011). *To Die For: Is Fashion Wearing Out the World?* Fourth Estate: London.
- Sill, U. (2010). *Encounters in Quest of Christian womanhood: The Basel Mission in Pre- and Early Colonial Ghana*. Brill Educational: Boston.
- Silverman, D. (2001). *Interpreting qualitative data: Methods for analyzing talk, text and interaction (2nd edition.)*. Sage: Thousand Oaks, CA.
- Silverman, D. (2013). *Doing Qualitative Research*. Sage: London.
- Simon, D. (1992). Urbanisation, globalisation, and economic crises in Africa. C. Rakodi (Ed.). *The Urban Challenge in Africa: Growth and Management of Its Largest Cities*. United Nations University Press, Tokyo, pp. 74-118.
- Simon, D. (1995). Debt, Democracy and Development: Sub-Saharan Africa in the 1990s, in D. Simon, W. Van Spengen, C. Dixon and A. N'arman (eds) *Structurally Adjusted Africa: Poverty, Debt and Basic Needs*, pp. 17-44. London: Pluto.
- Smith, J. A., Flower, P. and Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. Sage: London.
- Spencer, H. (1851). *Social Statics; Or, the Conditions Essential to Happiness Specified, and the First of Them Developed*. John Chapman: London.
- Spencer, H. (1851) & (1954). *Social Statics*. Robert Schalkenbach Foundation. New York.
- Spencer, H. (1891). *Essays: Scientific, Political, and Speculative*. Williams and Norgate: London.
- Sproles, G. B. (1981). Analyzing Fashion Life Cycles: Principles and Perspectives, *J. Marketing*, 45 (4), 116-124.
- Stake, R. (2006). *Multiple case study analysis*. New York: The Guildford Press.
- Stallybrass, P. (1993). Worn Worlds: Clothes, mourning and the life of things. *The Yale Review*, 81 (2), 35-50.
- Stephen, C. (1999). Urban environment, health and poverty in developing countries: an analysis of differentials using existing data. In: Faculty of Medicine. University of London, London, UK.
- Stern, P. C., Young, O. R. and Druckman, D. (Eds.). (1992). *Global environmental change: Understanding the human dimensions*. Washington, DC: National Academy Press.

- Stevens, C. (2005). Measuring Sustainable Development. Statistics Brief, OECD.
Available from: <http://www.oecd.org/greengrowth/35407580.pdf> [Assessed 2 January 2018].
- Stiglitz, J. (1998). Wither Reform? Ten Years of the Transition. Address to the World Bank's Annual Bank Conference on Development Economics. Available from: <http://siteresources.worldbank.org/INTABCDEWASHINGTON1999/Resourses/stiglitz.pdf> [Accessed 28 August 2018].
- Stipp, D. (1994). Cities couldn't give away their trash; now they get top dollar from recyclers. *The Wall Street Journal*, pp. B1, B6.
- Stobart, J. and Van Damme, I. (Eds) (2010). Modernity and the Second-hand Trade: European Consumption Cultures and Practices, 1700-1900. Basingstoke.
- Stolle, D. Hooghe, M. and Micheletti, M. (2005). Politics in the Supermarket: Political Consumerism as a Form of Political Participation. *International Political Science Review*. 26, (3), 245–269.
- Strasser, S. (2000). *Waste and Want: A Social History of Trash*. MacMillan: New York.
- Strauss, A. and Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications, Inc.
- Strong, C. (1997). The Role of Fair Trade Principles within Sustainable Development. *Sustainable Development*. 5, 1-10.
- Strong, W. A. and Hemphill, L. A. (2006). *Sustainable Development Policy*. Blackwell Publishing Ltd: Oxford, UK.
- Styles, J. (1994). Clothing the North: The Supply of Non-ELITE Clothing in the Eighteenth-Century North of England. *Textile History*, 25 (2), 139-166.
- Sutton, P. (2004). *A Perspective on environmental sustainability? A paper for the Victorian Commissioner for Environmental Sustainability*. Version 2b, 12 April 2004. Available from: <https://pdfs.semanticscholar.org/aacd/abdda3eb99fd3e033af4bf615b55493d48ec.pdf> [Accessed 2 January 2018].
- Statista (2018). *Ghana: Import of goods from 2007 to 2017 (in billion U.S. dollars)*. Available from: <http://www.statista.com/statistics/447534/import-of-goods-to-ghana/> [Accessed 20 August, 2018].
- Steffen, Will, and others (2015). *Planetary boundaries: Guiding human development on a changing planet*. *Science*, Vol. 347, No. 6223 (February). Available from <http://www.sciencemag.org/content/347/6223/1259855> [Accessed 1 December 2017].
- Taylor, D.C. (2000). Policy Incentives to Minimize Generation of Municipal Solid Waste. *Waste Management and Research* 18 (5), 406-419.
- Teddle, C. and Yu, F. (2007). Mixed Methods Sampling: A Typology with Examples. *Journal of Mixed Methods Research*, 1, 77-100.
- Teeuwen, D. (2012). Collections for the Poor: Monetary Charitable Donations in Dutch Towns, c.1600-1800. *Continuity and Change*, 27 (2), 271-299.
- Teodorescu, A. M. (2012). Links between the Pillars of Sustainable Development, Annals of University of Craiova. *Economic Sciences Series*, 1 (40), 170.
- Tevera, D. (1995). The Medicine that Might Kill the Patient: Structural Adjustment and Urban Poverty in Zimbabwe, in D. Simon, W. Van Spengen, C. Dixon and A. N'arman (eds) *Structurally Adjusted Africa: Poverty, Debt and Basic Needs*, pp. 79–90. London: Pluto.

- Textiles Recycling Association (TRA) (2018). *Welcome to the Textile Recycling Association*. Available from: <http://www.textile-recycling.org.uk/>, [Accessed 21 August, 2018].
- Textile Recycling Association (TRA) (2005). *OUVERTES Project - Report by Textile Reuse and Recycling Players on the Status of the Industry in Europe*. Available from: http://www.textilerecycling.org.uk/downloads/Report_Ouvertes_Project_June_2005%5B1%5D.pdf [Accessed 20 June 2017].
- The Herald (2013). *Kantamanto Traders Duped €2.81 Billion*. Available from: <http://theheraldghana.com/kantamanto-traders-duped-%c2%a22-81-billion> [Accessed 20 June, 2015].
- The Earth Charter Initiative (2000). *The Earth Charter*. Available from: <http://earthcharter.org/discover/the-earth-charter/> [Assessed 24 December 2016].
- Thomas, V. M. (2003). Demand and Dematerialization Impacts of Second-Hand Markets Reuse or More Use? *Journal of Industrial Ecology*, 7(2), 65-78.
- Thorpe, R. and Holt, R. (2008). *The SAGE Dictionary of Qualitative Management Research*. London: Sage.
- Tojo, N., Kogg, B., Kiørboe, N., Kjær, B. and Aalto, K. (2012). *Prevention of Textile Waste: Material Flows of Textiles in Three Nordic Countries and Suggestions on Policy Instruments*. Copenhagen, Denmark: TemaNord.
- Tomaney, M. and Thomas, J. (2010). Fashion and Ethics: Reinventing Models of Consumption and Creativity in a Global Industry. In Anheier, H. and Isar, Y. R. (eds). *Cultural Expression, Creativity and Innovation*. SAGE: London.
- Tope, D., Chamberlain, L. J., Crowley, M., and Hodson, R. (2005). The benefits of being there: Evidence from the literature on work. *Journal of Contemporary Ethnography*, 34, 470-493.
- Toplis, A. (2011). *The clothing Trade in Provincial England, 1800-1850*. Routledge: London and New York.
- Torjman, S. (2000). *The social dimension of sustainable development*. Caledon Institute of Social Policy.
- Traub-Merz, R. (2006). The African textile and clothing industry: From import substitution to export orientation. In H. Jauch, & R. Traub-Merz (Eds.). *The Future of the Textile and Clothing Industry in Sub-Saharan Africa*. Bonn: Friedrich-Ebert-Stiftung.
- Travis, J. (1999). Exploring the Constructs of Evaluative Criteria for Interpretivist Research. In *Proceedings of the 10th Australasian Conference on Information Systems 1999*: 1037-1049.
- Tweneboah-Koduah, I. and Adusei, C. (2016). Entrepreneurship Determinants of Artisans/Craftsmen in Kumasi Metropolis, Ghana. *American Journal of Industrial and Business Management*, 6, 163-175.
- United Kingdom Secretaries of State for the Environment. (1994). *Sustainable Development: The UK Strategy*. HMSO: London.
- United Nations (UN) (1996). *1995 International Trade Statistics Yearbook*. Vol. 2: *Trade by commodity*. New York: United Nations.
- United Nations (UN) (2002). *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa. 26 August- 4 September 2002. United Nations. New York.
- United Nations (UN) (2003). *2001 International Trade Statistics Yearbook*. Vol. 2: *Trade by country*. New York: United Nations.

- United Nations (UN) (2007). 'World sanitation brief', *News ID*. Available from: <http://www.un.org/apps/news/story.asp?> [Accessed 11 December 2016].
- United Nations (2013). *The Millennium Development Goals Report, 2013*. New York: UN. UNEP, (2001e). Solid Waste Management, Nepal: State of the environment 2001, United Nations Environment Programme, pp. 97-118.
- United Nations (COMTRADE) (2011). UN COMTRADE Database. Available from: <http://comtrade.un.org/db/dqQuickQuery.aspx?cc=26701&px=S1&r=826&y=2010&rg=2&so=17> [Accessed 1 January 2016].
- United Nations Conference on Trade and Development (UNCTAD) (1964). *UNCTAD Final Act and Report. Proceeding of the United Nations Conference on Trade and Development* (23 March - 16 June 1964).
- United Nations Conference on Trade and Development UNCTAD (2005). *TNCs and the Removal of Textiles and Clothing Quotas*. United Nations, Geneva.
- United Nations Conference on Environment and Development (UNCED) (1992). *Agenda 21: Programme of Action for Sustainable Development*. United Nations Department of Public Information: New York.
- United Nations Center for Human Settlements (1999). *Global Report on Human Settlements*. Oxford University Press, New York.
- United Nations Conference on Environment and Development (UNCED) (1992). *Agenda 21: The United Nations Program of Action from Rio* (New York: UN Publications), Available from: <http://www.un.org/esa/sustdev/agenda21.htm> [Accessed 16 January 2018].
- United Nations (1972). *Declaration of the United Nations Conference on the Human Environment, Stockholm, 16 June 1972*. Available from: <http://www.unep.org/Documents/Default.asp?DocumentID%497&ArticleID%4150> [Accessed 13 May 2016].
- United Nations Department of Economic and Social Affairs (UNDESA) (2005). *Agenda 21-Chapter 21 Environmentally Sound Management of Solid Wastes and Sewage-related issues*. Division of Sustainable Development. United Nations Department of Economic and Social Affairs. <http://www.un.org/esa/sustdev/documents/agenda21/index.htm> [Accessed 1 January 2016].
- United Nations Development Programme (UNDP) (2015). *Sustainable development goals: GOAL 8: Decent Work and Economic Growth*. Available from: <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-8-decent-work-and-economic-growth.html> [Accessed 27 November, 2018].
- United Nations Development Programme (UNDP) (2015a). *Human Development Indicators- Ghana*. UNDP.
- United Nations Development Programme (UNDP) (2015b). *Ghana Millennium Development Goals 2015 report*. Republic of Ghana. United Nations.
- United Nations Economic Commission for Africa (UNECA) (2017). *2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals*. Available from: <https://uneca.org/publications/2017-africa-sustainable-development-report> [Accessed 20 August 2018].
- United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) (2015). *Integrating the three dimensions of sustainable development: A framework and tools*. Available from: <file:///C:/Users/ka6v07/AppData/Local/Microsoft/Windows/INetCache/IE/HB>

- [QUG38A/Integrating%20the%20three%20dimensions%20of%20sustainable%20development%20A%20framework.pdf](#), [Accessed 1 January 2016].
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2006). *The 2nd UN World Water Development Report: 'Water, a shared responsibility*. Available from: <http://www.unesco.org/water> [Accessed 15 December 2017].
- United Nations Environment Programme (UNEP) (2002). *Integrating environment and development: 1972–2002*. Available from: <http://www.unep.org/geo/geo3/pdfs/Chapter1.pdf> [Accessed on 15 December 2017].
- United Nations Environment Programme (UNEP), (2003). *A Manual for Water and Waste Management: What the Tourism Industry Can Do to Improve its Performance*. United Nations Publication. pp. 3-13.
- United Nations (HABITAT) (2008). *The State of African Cities 2008: A framework for addressing urban challenges in Africa*. Nairobi: UN-HABITAT.
- United Nations (HABITAT) (2010). *The State of African cities 2010: Governance, inequality and urban land markets*. Nairobi, Kenya: United Nations Human Settlements Programme.
- United Nations (HABITAT) (2010). Solid Waste in the World's Cities. Third Global Report on Water and Sanitation in the World's Cities, 2010. In A. Scheinberg, C. W. David, & L. Rodic (Eds.). Newcastle-on-Tyne, UK: Earthscan Publications.
- United Nations Population Fund (2007). *State of World Population 2007: Unleashing the Potential of Urban Growth*. UNFPA: New York.
- Vachon, S. and Klassen, R. D. (2008). Environmental management and manufacturing performance: the role of collaboration in the supply chain. *International Journal of Production Economics*, 111, pp. 299–315.
- Vallance, S., Perkins, H. C. and Dixon, J. E. (2011). What is social sustainability? A clarification of concepts. *Geoforum*, 42, 342-348.
- Van den Bergh, J.C.J.M. (2011). Environment versus Growth: A Criticism of 'Degrowth' and a Plea for 'A Growth. *Ecological Economics*. 70 (5), 881-890.
- Van Leeuwen, M. H. D. (2012). Giving in Early Modern History: Philanthropy in Amsterdam in the Golden Age. *Continuity and Change*, 27 (2), 301-343.
- Van Maanen, J. (1995). Style as theory. *Organizational Science*, 6 (1), 133-143.
- Van Maanen, J. (1979). *Qualitative Methodology*. Sage: London.
- Verstraelen, F. J. (2002). Contrasting Aspects of African Decolonisation Processes and Missions in West and Southern African: Ghana and Angola as Case Studies, *Zambezia*, 29(1), 38-59.
- Vickery, A. (2009). *Behind Closed Doors. At Home in Georgian England*. London.
- Visvanathan, S. (1991). 'Mrs Brundtland's disenchanted cosmos'. *Alternatives*, 16 (3), 377–384.
- Vorley, B., Roe, D. and Bass, S. (2002). Sectoral Analysis for the Proposed Sustainable Trade and Innovation Centre (STIC). International Institute for Environment and Development (IIED), London.
- Walsham, G. (1993). *Interpreting information systems in organization*. Chichester, NH: Wiley.
- Walsham, G. (1995a). Interpretive case studies in IS research: nature and method. *European Journal of Information Systems*, 4(2), 74-81.
- Waltz, C.F., Strickland, O.L. and Lenz, E.R. (1991). *Measurement in Nursing Research*. (2nd edition) Philadelphia: F.A. Davis.

- Warren, S. (2002). Qualitative Interviewing, in J.F. Gubrium and J.A. Holstein (Eds), *Handbook of Interview Research: Context and Method*. Sage: Thousand Oaks, CA.
- Waste Online. (2006). Waste Online, April 28, 2008. Available from: <http://www.wasteonline.org.uk/index.aspx> [Accessed 26 May, 2016].
- Waste and Resources and Action Programmes (WRAP) (2011). Benefits of Re-use Case Study: Clothing. Available from: http://www.wrap.org.uk/sites/files/wrap/Clothing%20reuse_final.pdf [Accessed [Accessed 1 January 2016].
- Waste and Resources and Action Programmes, (WRAP) (2012). Valuing Our Clothes: The True Cost of How We Design, Use and Dispose of Clothing in the UK. WRAP, London. Available from: <http://www.wrap.org.uk/sites/files/wrap/VoC%20FINAL%20online%202012%2007%2011.pdf> [Accessed 1 January 2016].
- Waste and Resources and Action Programmes (WRAP) (2012). *Valuing our clothes: the evidence base*. Available from: <http://www.wrap.org.uk/category/materials-and-products/clothing> [Accessed 1 August 2017].
- Waste and Resources and Action Programmes (WRAP) (2013). *Textile flows and market development opportunities in the UK*. Available from: <http://www.wrap.org.uk/content/uk-textile-productflow-and-market-development-opportunities>, [Accessed 21 June 2016].
- Waste and Resources and Action Programmes (WRAP) (2013). <http://www.wrap.org.uk/category/materials-and-products/clothing> [Accessed 21 November 2017].
- Watson, D., Kiørboe, N., Palm, D., Tekie, H., Harris, S., Ekvall, T., Lindhqvist, T., and Lyng, K. A. (2014). *EPR Systems and New Business Models: Reuse and Recycling of Textiles in the Nordic Region*. Ministers, N.N.C.O., Copenhagen, NORDEN, Available from: <http://www.norden.org/en/publications/publikationer/2014-539/>, [Accessed 1 January 2016].
- Weiss, E. B. (1992). Environment and Trade as Partners in Sustainable Development: A Commentary. *The American Journal of International Law*, 86 (4), 728-735.
- Weiss, R. (1994). *Learning from Strangers: the Art and Method of Qualitative Interview Studies*. Free Press: New York.
- Wicks, R. and Bigsten, A. (1996). *Used Clothes as Development Aid: The Political Economy of Rags*. Report of a study for Sida (the Swedish International Development Cooperation Agency) Stockholm: Sida.
- Wiessman, S. R. (1990). Structural Adjustment in Africa: Insights from the Experiences of Ghana and Senegal. *World Development*, 18(12), 1621–34.
- Wilde N. (2014). *British Cast-Offs “What really happens to our clothes”* – BBC documentary. Available from: <http://www.fair-t.com/british-cast-offs/> [Accessed 20 June 2016].
- Wilson, D.C., Velis, C. and Cheeseman, C. (2006). Role of informal sector recycling in waste management in developing countries. *Habitat International*, 30 (4), 797-808.
- World Bank (2003). Sustainable Development in a Dynamic World: Transforming Institutions, Growth and Quality of Life. World Development Report, 2003. Washington, D.C.

- World Bank (2018a) The World Bank In Ghana. Available from: <https://www.worldbank.org/en/country/ghana/overview> [Accessed 20 August 2018].
- World Bank, (2018b). *World Integrated Trade Solution (WITS)*. Available from: <https://wits.worldbank.org/CountryProfile/en/Country/GHA/Year/LTST/TradeFlow/Import/Partner/all/> [Accessed 20 August, 2018].
- World Commission on Environment and Development (WCED) (1987). *Our Common Future, Report of the Brundtland Commission*, Oxford University Press: U.K.
- World Economic Forum (2013). *Sustainable Consumption: Stakeholder Perspectives*. <https://www.weforum.org/reports/sustainable-consumption-stakeholder-perspectives> [Accessed 20 August, 2018].
- World Health Organization (WHO) (2000). *Global water supply and sanitation assessment 2000 report*. Available from: http://www.who.int/water_sanitation_health/Globassessment [Accessed 15 February 2016].
- World Resources Institute (1994). *World resources 1994-95: A guide to the global environment*. New York: Oxford University Press.
- World Summit on Sustainable Development (WSSD) (1995). *World Summit for Social Development*. Copenhagen. <https://www.un.org/development/desa/dspd/world-summit-for-social-development-1995.html> [Accessed 21 June 2018].
- World Summit on Sustainable Development (WSSD) (2002). *Report of the World Summit on Sustainable Development*. Johannesburg, South Africa.
- World Commission on Environment and Development (WCED) (1987). *Our Common Future*. Oxford University Press, Oxford.
- World Trade Organisation (WTO) (2016). *Trade and environment*. Available from: https://www.wto.org/english/tratop_e/envir_e/envir_e.htm. [Accessed 21 May 2016].
- Worster, D. (1993). *The Wealth of Nature: Environmental History and the Ecological Imagination*. New York: Oxford University Press.
- Wottle, M. (2010). What's new? Legal discourse on second hand goods in early nineteenth century Stockholm. In: Stobart, J. and Damme, V. I. (Eds) (2010). *Modernity and the Second-Hand Trade: European Consumption Cultures and Practices, 1700-1900*, New York, NY: Palgrave Macmillan, pp. 19-37.
- Yankson, P. W. K. (2007). Street Trading and Environmental Management in Central Accra: Decentralization and Metropolitan Governance in Ghana. *Research Review*, 23 (1), pp. 37-55.
- Yeboah, E. and Obeng-Odoom, F. (2010). We are the only ones to blame. District Assemblies' perspectives in Ghana. *Common wealth J. Local Gov.* (7).
- Yin, R. K. (1994). *Case study Research: Design and Methods (2nd edition)*. Sage: Thousand Oaks CA.
- Yin, R. K. (2003). *Case Study Research: Design and Methods (3rd edition)*. Sage: Thousand Oaks, Ca.
- Yin, R. K. (2008). *Case Study Research: Design and Methods*. Sage: Publication Inc. California.
- Yin, R. K. (2009). *Case Study Research: Design and Methods (4th edition)*. Sage: Los Angeles.
- Younkins, E. W. (2006). Herbert Spencer on Liberty and Human Progress. *Montreal*, 181.

- Zhijun, F. and Nailing, Y. (2007). Putting circular economy into practice in China. *Sustainability Science*, 2 (1), 95-101.
- Zhu, Q. and Sarkis, J. (2007). The Moderating Effect of Institutional Pressures on Emergent Green Supply Chain Practices and Performance. *International Journal of Production Research*, 45 (18), 4333–4355.