



<http://researchspace.auckland.ac.nz>

## ***ResearchSpace@Auckland***

### **Copyright Statement**

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

This thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of this thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from their thesis.

To request permissions please use the Feedback form on our webpage.

<http://researchspace.auckland.ac.nz/feedback>

### **General copyright and disclaimer**

In addition to the above conditions, authors give their consent for the digital copy of their work to be used subject to the conditions specified on the [Library Thesis Consent Form](#) and [Deposit Licence](#).

### **Note : Masters Theses**

The digital copy of a masters thesis is as submitted for examination and contains no corrections. The print copy, usually available in the University Library, may contain corrections made by hand, which have been requested by the supervisor.

# **A Comparative Analysis of South Asian Apparel Firms in Global Value Chains: Governance, Institutions and Upgrading**

**Amira Khattak**

**A thesis submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy in International Business, The University of Auckland, 2013**



# **ABSTRACT**

The objective of this thesis is to contribute and extend the field of global value chain (GVC) analysis by empirically examining the interactions of South Asian apparel firms with the broader institutional contexts in GVCs and upgrading as a result of those interactions. This thesis contains three empirical chapters and revolves around three major and interlinked constructs of the GVC framework namely governance, institutions and upgrading (particularly environmental and social upgrading).

The first empirical chapter provides a comparative analysis of South Asian apparel firms in global apparel chains. The main objective is to provide empirical evidence to support the conceptualisation and theorisation of the institution dimension of GVC analysis and its interaction with the governance dimension. The global apparel industry is conceptualised as an organisational field where apparel firms (suppliers) are strongly linked to lead firms (buyers) in the global apparel chains as well as the institutional structures in which the chains are embedded. Using Bangladesh and Sri Lanka apparel firms as case studies, the findings highlight the significant role that institutions have in shaping the relationships between lead firms and apparel firms, and hence the geographical and organisational architecture of global apparel chains.

The second empirical chapter is an empirical and qualitative analysis of drivers and conditions under which South Asian apparel firms embrace environmental upgrading in GVCs. Data suggest that GVCs represent both the drivers of the environmental upgrading and the medium to gain the knowledge to upgrade. Similarly, capabilities in the suppliers' base to assimilate the knowledge transfer, learn and ultimately upgrade, are also critical. An

interesting finding of the study is that environmental standards are becoming critical for producers for monitoring upgrading, developing capabilities and enhancing efficiency.

The third empirical chapter investigates the relationship between social and economic upgrading in GVCs. Data from two countries suggest that governance patterns in GVCs create the conditions under which economic upgrading generates conditions for social upgrading. Furthermore, a positive relationship exists between product, process and functional upgrading and social upgrading, while a negative relationship exists between just-in-time delivery and social upgrading. Social upgrading presents greater challenges in low-skilled categories of employment than in highly skilled employment categories. Taken together, all three empirical chapters contribute to the GVC literature by studying understudied areas in GVC analysis, in particular institutions, environmental upgrading and social upgrading, and linking them in a coherent way with the governance dimension.

## **ACKNOWLEDGMENTS**

I start by thanking Allah the most graceful most merciful for giving me the ability to complete this work.

I would like to express my deepest gratitude first and foremost to my supervisors Nigel Haworth, Maureen Benson-Rea and Christina Stringer, whose scholarly advice and informative feedback gave me much needed inspiration and encouragement. All of them have been great mentors and motivators. Without their invaluable guidance, insightful comments and thought-provoking ideas, I could not have been able to successfully complete this thesis. I would also like to thank them for their patience and kindness during the hard times I passed through.

My special thanks go to all participants of this study in Bangladesh and Sri Lanka, who spared time from their busy schedules to give interviews. Without their help, I would not have been able to gather useful data to complete my work. I am immensely indebted to the president of Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) Fazlul Haq for arranging interviews with knitwear manufacturers and exporters and providing support whilst I was in Bangladesh. I am also thankful to Malik Ahamadeen in Sri Lanka for his immense support.

I also extend profound gratefulness to the Auckland District Health Board staff, in particular Doctor Mitzi Nisbat and Nurse Sue Lockwood for their extraordinary care for my well-being when I was unwell and struggling with health during the last half of my PhD.

I am immensely indebted to the New Zealand Government for awarding me a New Zealand International Doctoral Research Scholarship (NZIDRS) and The University of Auckland for

awarding me NZIDRS Plus award and The University of Auckland International Doctoral Scholarship. Substantial costs were associated with data collection as well, in particular transportation and accommodation costs. The data collection for this study was financially supported by the New Zealand Government in the form of a travel allowance, the Department of Management and International Business (MIB) in the form of MIB PhD Career and Development Fund, The University of Auckland in the form of Postgraduate Research Student Support fund and The University of Auckland Business School in the form of postgraduate research grant. I would like to thanks the Department of MIB for all academic and administrative support and especially Professor Hugh Whittaker.

I am also glad to have participated in the Duke/ Venice International University (Duke/VIU) summer workshop in 2009 held at the Center on Globalization, Governance and Competitiveness at Duke University, United States (US) and to have benefited from discussions of intellectuals, theorists and scholars working in the field of GVC. I am also highly indebted to the Center on Globalization, Governance and Competitiveness at Duke University for funding my trip including travel and accommodation costs towards that workshop.

Very special thanks for my husband Naqeeb for his support, care, patience and sacrifice. Thank you for Pakistani postgraduate students and community for their support during the hard times I passed through and especially Dr. Shafiq Burki and Faheem Mohammad for always standing with me during tough times.

Lastly, and most importantly, I am immensely indebted to my mother and siblings for their persistent faith in me, to my husband for his unwavering love and support, and to my kids, Maheen, Manahil and Rohail, for their endless love. To them, I dedicate this thesis.

Amira Khattak, January 2013

# TABLE OF CONTENTS

|   |            |
|---|------------|
| <b>ABSTRACT .....</b>   | <b>I</b>   |
| <b>ACKNOWLEDGMENTS .....</b>  | <b>III</b> |
| <b>LIST OF ABBREVIATIONS.....</b>   | <b>IX</b>  |
| <b>LIST OF TABLES .....</b>   | <b>XI</b>  |
| <b>LIST OF FIGURES .....</b>  | <b>XI</b>  |
| <b>CHAPTER ONE: INTRODUCTION AND CONTEXTUAL FRAMEWORK.....</b>              | <b>1</b>   |
| 1.1 Background of the study .....   | 1          |
| 1.2 Purpose of research.....  | 5          |
| 1.3 Overview of the empirical data and case studies .....                   | 8          |
| 1.4 Country profiles.....   | 9          |
| 1.4.1 Sri Lanka.....  | 9          |
| 1.4.2 Bangladesh.....   | 10         |
| 1.5 Structure of the thesis .....   | 11         |
| <b>CHAPTER TWO: CONCEPTUAL LENS OF THE STUDY .....</b>                      | <b>15</b>  |
| 2.1 Chapter overview.....   | 15         |
| 2.2 Global chain studies.....   | 15         |
| 2.2.1 The commodity chain construct .....                                   | 18         |
| 2.2.2 The global commodity chains construct .....                           | 19         |
| 2.2.3 The global value chain framework.....                                 | 19         |
| 2.3 Dimensions of GVC analysis .....  | 20         |
| 2.4 Governance .....  | 21         |
| 2.4.1 Theoretical underpinnings of governance.....                          | 24         |
| 2.5 Upgrading.....  | 28         |
| 2.6 The global apparel industry and the GVC framework .....                 | 29         |
| 2.7 Missing elements in the GVC literature and possible contributions ..... | 31         |
| 2.7.1 Institutions.....   | 31         |
| 2.7.2 Social and environmental upgrading .....                              | 34         |
| 2.8 Conclusion .....  | 37         |



|   |               |
|---|---------------|
| <b>CHAPTER THREE: RESEARCH METHOD.....</b>  | <b>39</b>     |
| 3.1 Chapter overview.....   | 39            |
| 3.2 Research paradigm/philosophy .....  | 39            |
| 3.3 Research strategy.....  | 40            |
| 3.4 Levels and units of analysis .....  | 41            |
| 3.5 Sample .....  | 42            |
| 3.6 Site and participant selections .....   | 48            |
| 3.7 Data collection methods.....  | 50            |
| 3.8 Data management and analysis .....  | 53            |
| 3.9 Ensuring generalisability, reliability and validity issues in the research.....                           | 55            |
| 3.10 Ethical issues .....   | 57            |
| 3.11 Conclusion .....   | 59            |
| <br><b>CHAPTER FOUR: THE GOVERNANCE AND INSTITUTIONAL<br/>UNDERPINNINGS OF GVC.....</b>                       | <br><b>61</b> |
| 4.1 Chapter overview.....   | 61            |
| 4.2 Introduction .....  | 61            |
| 4.3 Research methods.....   | 63            |
| 4.4 Findings and discussion .....   | 65            |
| 4.4.1 Geographical configuration of global apparel chains.....  | 65            |
| 4.4.2 Governance of global apparel chains.....  | 69            |
| 4.4.3 Institutions influencing global apparel chains.....   | 74            |
| 4.4.4 Power, governance and institutions .....  | 81            |
| 4.4.5 Conceptualisation of ‘institutions’ in GVC analysis .....   | 83            |
| 4.5 Conclusions .....   | 84            |
| <br><b>CHAPTER FIVE: ENVIRONMENTAL UPGRADING OF SOUTH ASIAN<br/>APPAREL FIRMS IN GLOBAL VALUE CHAINS.....</b> | <br><b>87</b> |
| 5.1 Chapter overview.....   | 87            |
| 5.2 Introduction .....  | 87            |
| 5.3 Conceptual framework.....   | 91            |
| 5.3.1 Governance .....  | 91            |
| 5.3.2 Learning and innovation .....   | 93            |
| 5.3.3 Environmental upgrading in GVC .....  | 94            |
| 5.4 Research method .....   | 96            |
| 5.5 Findings.....   | 97            |
| 5.5.1 Drivers of environmental upgrading .....  | 98            |

|         |   |     |
|---------|---|-----|
| 5.5.1.1 | Role of lead firm and governance .....                                      | 98  |
| 5.5.1.2 | Suppliers' strategic intent .....   | 102 |
| 5.5.2   | Process of environmental upgrading .....                                    | 103 |
| 5.5.2.1 | Technological initiatives.....  | 104 |
| 5.5.2.2 | Social initiatives .....  | 106 |
| 5.5.2.3 | Organisational initiatives .....  | 107 |
| 5.5.3   | Challenges in environmental upgrading .....                                 | 108 |
| 5.5.3.1 | Lack of technical knowledge .....   | 108 |
| 5.5.3.2 | Financial constraints.....  | 109 |
| 5.5.4   | Measuring and monitoring environmental upgrading .....                      | 111 |
| 5.5.5   | Outcomes of environmental upgrading .....                                   | 112 |
| 5.5.5.1 | Cost savings .....  | 112 |
| 5.5.5.2 | Learning and knowledge spillover .....                                      | 113 |
| 5.5.5.3 | Reputational outcomes .....   | 113 |
| 5.5.5.4 | Employees' motivation.....  | 114 |
| 5.6     | Discussion of findings .....  | 115 |
| 5.6.1   | Environmental upgrading and governance of the apparel GVC .....             | 115 |
| 5.6.2   | Capabilities in the supplier base.....                                      | 117 |
| 5.6.3   | Eco-outcomes .....  | 120 |
| 5.6.4   | Institutions and the role of standards in environmental upgrading in GVCs.. | 121 |
| 5.7     | Conclusions .....   | 122 |

## **CHAPTER SIX: ECONOMIC AND SOCIAL UPGRADING: SUPPLIER VIEWS FROM THE APPAREL INDUSTRY OF BANGLADESH AND SRI LANKA .....125**

|       |   |     |
|-------|---|-----|
| 6.1   | Chapter overview.....   | 125 |
| 6.2   | Introduction .....  | 125 |
| 6.3   | Conceptual framework.....   | 130 |
| 6.3.1 | Relationship between economic and social upgrading.....                   | 130 |
| 6.4   | Research methods.....   | 136 |
| 6.5   | Findings and discussion .....   | 137 |
| 6.5.1 | Governance and the relationship between social and economic upgrading ... | 137 |
| 6.5.2 | Low-skilled versus high-skilled job categories and social upgrading.....  | 142 |
| 6.5.3 | Relationship between economic and social upgrading.....                   | 143 |
| 6.5.4 | Global pressures versus local responses .....                             | 146 |
| 6.6   | Conclusions, limitations and future research .....                        | 150 |

## **CHAPTER SEVEN: CONCLUSIONS .....153**

|                         |   |            |
|-------------------------|---|------------|
| 7.1                     | Concluding remarks and main contributions to the literature ..... | 153        |
| 7.1.1                   | Purpose of the research .....                                     | 153        |
| 7.1.2                   | Key findings of the research .....                                | 153        |
| 7.1.3                   | Contribution of the research to the GVC literature .....          | 159        |
| 7.1.4                   | Implications of the research .....                                | 160        |
| 7.1.5                   | GVC analysis and the field of IB .....                            | 161        |
| 7.2                     | Limitations of the research.....                                  | 162        |
| 7.3                     | Future research directions .....                                  | 163        |
| <b>REFERENCES .....</b> |   | <b>165</b> |

# LIST OF ABBREVIATIONS

|        |   |
|--------|---|
| ATC    | Agreement on Textiles and Clothing                          |
| BGMEA  | Bangladesh Garment Manufacturers and Exporters Association  |
| BKMEA  | Bangladesh Knitwear Manufacturers and Exporters Association |
| BOI    | Board of Investment   |
| CAQDAS | Computer Assisted Qualitative Data Analysis Software        |
| CEO    | Chief Executive Officer                                     |
| COP    | Communication of Progress                                   |
| CPD    | Centre of Policy Dialogue                                   |
| CF     | Consent Form  |
| CSP    | Corporate Sustainability Programme                          |
| EBA    | Everything But Arms   |
| EPZ    | Export Processing Zone                                      |
| EU     | European Union  |
| FDI    | Foreign Direct Investment                                   |
| FOB    | Free-on-Board   |
| GATT   | General Agreement on Tariffs and Trade                      |
| GCC    | Global Commodity Chain                                      |
| GPN    | Global Production Networks                                  |
| GSCM   | Green Supply Chain Management                               |
| GSP    | Generalized System of Preferences                           |
| GVC    | Global Value Chain  |
| IB     | International Business                                      |
| IDS    | Institute of Development Studies                            |
| ILO    | International Labour Organization                           |
| ISO    | International Standards Organization                        |
| IUCN   | International Union for Conservation of Nature              |
| JAAF   | The Joint Apparel Association Forum                         |
| KPI    | Key Performance Indicator                                   |
| LEDs   | Light Emitting Diodes                                       |
| LEED   | Leadership in Energy and Environmental Design               |
| LTA    | Long-Term Arrangement                                       |
| M&S    | Marks & Spencer   |
| MFA    | Multi-Fibre Arrangement                                     |
| MIB    | Management and International Business                       |
| MIT    | Massachusetts Institute of Technology                       |
| MNCs   | Multinational Corporations                                  |
| NGO    | Non-Governmental Organization                               |

|        |  |
|--------|--|
| NZIDRS | New Zealand International Doctoral Research Scholarship          |
| OXFAM  | Oxford Committee for Famine Relief                               |
| PIS    | Participant Information Sheet                                    |
| SGS    | Société Générale de Surveillance                                 |
| SLAEA  | Sri Lanka Apparel Exporters Association                          |
| SME    | Small and Medium Enterprise                                      |
| STA    | Short-Term Arrangement   |
| UAHPEC | University of Auckland Human Participants Ethics Committee       |
| UK     | United Kingdom   |
| UN     | United Nations   |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNGC   | United Nations Global Compact                                    |
| UNICEF | United Nations International Children's Emergency Fund           |
| US     | United States  |
| US\$   | United States Dollars  |
| USGBC  | United States Green Building Council                             |
| VIU    | Venice International University                                  |
| WRAP   | World Wide Accredited Apparel Production                         |
| WTO    | World Trade Organization   |

## **LIST OF TABLES**

|  |     |
|--|-----|
| Table 2.1: Types of governance in GVC analysis .....                                     | 24  |
| Table 3.1: Criteria for improving interpretation in qualitative study .....              | 57  |
| Table 4.1: Overview of apparel firms included in the study reported in Chapter Four..... | 64  |
| Table 5.1: Overview of apparel firms included in the second empirical chapter.....       | 97  |
| Table 6.1: Overview of apparel firms included in the third empirical chapter .....       | 137 |
| Table 6.2: Economic and social upgrading of apparel firms in South Asia in GVCs .....    | 143 |

## **LIST OF FIGURES**

|   |     |
|---|-----|
| Figure 4.1: Geographical configuration of global apparel chains in Bangladesh and Sri Lanka ..... | 69  |
| Figure 4.2: Web of institutional network in which apparel value chains are embedded .....         | 81  |
| Figure 5.1: A Visual representation of the environmental upgrading of apparel firms.....          | 100 |
| Figure 5.2: The environmental upgrading factors .....   | 116 |
| Figure 7.1: Relationships between governance, upgrading and institutions .....                    | 158 |



# **CHAPTER ONE:INTRODUCTION AND CONTEXTUAL FRAMEWORK**

## **1.1 Background of the study**

Apparel production and trade are amongst the oldest (Rivoli, 2009; Singleton, 1997) and most protected activities in the global economy (Bair, 2008b; Palpacuer, Gibbon, & Thomsen, 2005). International trade in apparel has been protected in the last 40 years by quantitative restrictions (Bair, 2008b; Dickerson, 1999) under various trade regimes. Recent trade regimes include the Agreement on Textiles and Clothing (ATC) of the World Trade Organization (WTO) and the Multi-Fibre Arrangement (MFA) of the General Agreement on Tariffs and Trade (GATT). Prior to those, the transitional Short-Term Arrangement (STA) and Long-Term Arrangement (LTA) were implemented to restrict cotton imports from developing countries (Aggarwal, 1985; Cortes, 1997; Dickerson, 1999). The STA, LTA and MFA were not part of the GATT technically, but all of them were negotiated under the auspices of the GATT (Lester, 2005). Quantitative restrictions were abolished in 2005 as a result of the phasing out of the ATC of the WTO.

The trade regime for apparel is a controversial issue for both developed and developing countries because the sector generates employment in developed countries in regions where alternative jobs may be difficult to find (so-called brownfield locations), whereas for developing countries, a major focus is to gain commercial advantage from multilateral trade liberalisation (Navaretti, Faini, & Silberston, 1995; Nordas, 2004). The textile and apparel industry provides the first vital foothold in global manufacturing for many developing countries due to its long-established characteristics of labour intensive, low start-up costs, high potential for employment generation and export expansion (Blokker, 1989; Dickerson, 1999; Malaga & Mohanty, 2003; Nordas, 2004; Palpacuer et al., 2005).



In addition to all above mentioned aspects of production and trade in the apparel sector, a critical factor that adds to the complexity of the global apparel industry and makes it interesting to study is its industrial organisation. The industrial organisation of the global apparel industry in recent years has become dominated by networks and chains (Tewari, 2008). In contemporary analysis, these networks are often called global value chains (GVCs) and include trading patterns that are functionally integrated but globally dispersed (Gereffi, Korzeniewicz, & Korzeniewicz, 1994; Gereffi & Memodovic, 2003). Global apparel chains emerged in the 1950s and 1960s out of initiatives by buyers in developed countries to contract out production to developing countries (Appelbaum, 2008). There are four main types of buyers in GVCs: mass merchant retailers, specialty retailers, brand marketers and brand manufacturers (Frederick & Staritz, 2012). Mass merchant retailers include Walmart, Target, JCPenney, Tesco and Marks & Spencer. Brand marketers include Gap, Nike, Reebok, Liz Claiborne and brand manufacturers Levis, VF, Hanesbrands and Fruit of the Loom. Specialty retailers are GAP, Limited, H&M, Mango and New Look (Frederick & Staritz, 2012; 1994; Staritz, 2011). The difference between mass merchant retailers and specialty retailers is that the latter sell only apparel-related merchandise and all products sold in stores are private labels, whereas mass merchant retailers sell a wide range of products, including their own brands as well as others' (national and international) brands (Frederick & Staritz, 2012).

The buyers became very large and powerful during the last two decades, the underlying factor for this power being sectoral concentration in retailing in major apparel markets (Lee, Gereffi, & Barrientos, 2011; Selwyn, 2008). An enormous concentration in retailing has been observed not only in particular in the United States (US) and the United Kingdom (UK) (Humphrey & Schmitz, 2001; Schmitz, 2006) but also in Germany (Lane & Probert, 2008), France (Palpacuer et al., 2005) and more recently is occurring in Italy (Schmitz, 2006).

Thirty nine apparel retailers are listed among the world's 500 largest corporations with 35 being from the US and European Union (EU) (Appelbaum, 2008).

The outsourcing of production accelerated throughout the 1980s and 1990s as a result of worldwide recession affecting consumers' purchasing power (Appelbaum, 2008; Cammett, 2006; Schmitz, 2006). Outsourcing was further stimulated by growing numbers of middle-class consumers demanding good quality, variety and low prices for products (Tewari, 2005). These pressures made it challenging for vertically integrated entities to respond to volatile and fragmented market demands. During the same era, many developing countries began to adopt export-oriented industrialisation policies (Cammett, 2006), which facilitated increased outsourcing of mostly non-core activities. The most valuable activities in the global apparel chains are found in the design, marketing and branding of the products and not in manufacturing (Gereffi & Frederick, 2010). The process of outsourcing non-core activities has been characterised as a 'race to the bottom,' with buyers seeking the lowest cost sites of production and suppliers scrambling to cut costs and bid prices down. Prices may be reduced by cutting costs and in some cases by paying low wages and disregarding labour and environmental standards in order to survive (Appelbaum, Bonacich, & Quan, 2005).

Buyers in developed countries are referred to as 'chain drivers' and 'lead firms' as a result of the economic and market power resulting from concentration in retailing (Gereffi, 1994). Lead firms are conceptualised as driving the chain in terms of value addition and distribution, externalising low value-added activities and hence achieving organisational flexibility (Gibbon, 2008). The growing importance of this co-ordinated trade gave rise to a new line of analysis over the past two decades, global chain studies (Bair, 2009; Schmitz, 2006). Such chains or networks were described initially as commodity chains, later as global commodity chains (GCC) and most recently as GVCs (Bair, 2009). This transition may be

interpreted in terms of three generations of chain constructs as they broadly succeed each other (Bair, 2009) and are explained in detail in Chapter Two (Conceptual lens of the study).

The GVC analysis provides an essential analytical and methodological tool to explain the dynamics of economic globalisation and international trade (Bair, 2009; Gereffi, Humphrey, & Sturgeon, 2005; Kaplinsky & Morris, 2001; Neilson, 2008; Ponte & Gibbon, 2005; Quan, 2008) and has helped to spawn important empirical work on various global industries (Bair, 2008a). It has attracted attention from different researchers and research institutions including non-governmental organisations such as the Industrial Performance Centre at Massachusetts Institute of Technology (MIT), the Institute of Development Studies (IDS) in Sussex, the Centre for Development Research in Copenhagen, the School of Development Studies at the University of Natal, and Oxford Committee for Famine Relief (OXFAM) (Plahe, 2005). There is extensive research and theory-building going on around the GVC construct (Sturgeon, 2009). Whilst the phenomenon of the changing character and geography of the international production and trade over the past two decades has given rise to a whole new field of analysis (GVCs) in the discipline of political economy (Bair, 2009) and economic geography, the concept of GVCs has not been integrated with the field of International Business (IB), in spite of the fact that global chain studies fit well with the IB research agenda (Buckley & Ghauri, 2004). This phenomenon of new patterns of production and trade demands an explanation by IB scholars (Dunning, 2009). One of the reasons for that explanation of new phenomenon could be shifting the unit of analysis from industry to individual tasks and activities, to measure international competitiveness of countries, industries and businesses. The rise of GVCs makes standard measures of international competitiveness less reliable because the unit of analysis, to study trade dynamics and competitiveness, has been shifted from the industry to individual tasks or activities (Ma, Mudambi, & Assche, 2012). This shift means that aggregate and quantitative data (both

national and international) may not provide the full picture or story of trade dynamics, and therefore, global competitiveness of industries and countries. Hence, the GVC approach can contribute to the IB literature by providing an in-depth sketch of trade dynamics because of its qualitative approach and reliable picture of the competitiveness of countries' industries at global level.

This thesis integrates three empirical chapters as its three core chapters—the purpose of these chapters is to introduce GVC analysis and its dimensions and constructs to the field of IB generally. Specifically, the research contributes to the institutional dimension of GVCs by empirically examining the interactions of South Asian apparel firms<sup>1</sup> with the broader institutional contexts in GVCs and the upgrading in those countries that has resulted from those interactions. In doing so, the research attempts to understand and study three main interlinked conceptual constructs of the GVC framework, namely governance, institutions and upgrading, in particular environmental and social upgrading.

## **1.2 Purpose of research**

To date, much of the theoretical and empirical research on global industries from a GVC perspective has focused on governance structures (power relations) (Bair, 2008b; Gibbon, Bair, & Ponte, 2008; Sturgeon, 2009). In contrast, the institutional dimension has not been adequately incorporated into the GVC framework (Dussel, 2008; Raikes, Jensen, & Ponte, 2000). This research contributes to and extends the GVC framework by providing empirical evidence to support a conceptualisation of the institution dimension of GVC and its interaction with the governance dimension (Chapter Four). The global apparel industry is conceptualised as an organisational field in which the experiences of firms are tied to both the dynamics of global apparel chains and the institutional structure in which the chains are embedded.

---

<sup>1</sup> Apparel firms refer to apparel manufacturing and exporting firms. Apparel firms and suppliers are used interchangeably in this thesis and hence mean the same.

Similarly, while the opportunity to switch from low to high value-added products, functions, or chains—in short, economic upgrading—has been widely discussed in the GVC framework (Milberg & Winkler, 2010a), recent debates have highlighted concerns that the social and the environmental dimensions of the globalisation of production and trade have been under-theorised (Barrientos, Gereffi, & Rossi, 2011 ; De Marchi, Di Maria, & Micelli, 2010). There is a well-documented literature on the relationship between governance and economic upgrading and the types of networks leading to economic upgrading (see Bair, 2002; Bair & Gereffi, 2001, 2003; Bair & Peters, 2006; Bazan & Navas-Aleman, 2004; Cammett, 2006; Dolan & Humphrey, 2000; Gereffi, 1999; Humphrey & Schmitz, 2000, 2001, 2002, 2004; Kaplinsky, 2000, 2004; Kaplinsky & Readman, 2005; Kishimoto, 2004; Schmitz, 2004, 2006). However, how governance patterns impact social and environmental upgrading in GVCs is a neglected area. Hence, this thesis also addresses the underdeveloped and neglected dimension of ‘upgrading’ in GVC analysis, in particular in relation to environmental and social upgrading.

The second empirical chapter (Chapter Five), is a systematic analysis of environmental upgrading of South Asian apparel firms in GVCs. Whilst studying systematically the environmental upgrading of apparel firms in GVCs, the purpose of Chapter Five is to understand which governance patterns create conditions for the successful upgrading of economic actors in GVCs while understanding the role of various institutions in the overall process of environmental upgrading. The third empirical chapter (Chapter Six) examines the relationship between economic and social upgrading and attempts to understand the conditions and governance patterns under which economic upgrading leads to social upgrading. The following research questions have been formulated to address the above mentioned gaps in the GVC analysis and will be addressed in Chapters Four, Five and Six, respectively.

1. How do institutions interact with the governance dimension of GVC and impact the organisational and geographical architecture of GVC?
2. Why and how do firms (suppliers) embrace environmental upgrading in GVCs?
3. Does economic upgrading lead to social upgrading in GVCs? What is the evidence?

Hence, there are two main theoretical contributions embodied in this thesis. First, it extends the field of GVC analysis by empirically studying the institutional dimension of the GVC framework and its relationship with the governance construct. Second, a contribution is made by addressing empirically previously understudied aspects of upgrading in GVC analysis, in particular the environmental dimension and relationship between social and economic dimensions of upgrading. In fact, this thesis will be an early attempt among other few studies in the pipeline, for example De Marchi et al. (2010) and De Marchi, Maria, and Micelli (2012) to address the issue of environmental upgrading in GVCs. There seems to be no published work on the environmental dimension of upgrading in the GVC literature.

Understanding the manufacturing context is critical for shaping industrial policy and businesses in industrialised and emerging economies alike (Cammett, 2006). In practical terms, the present research will help policy makers and businesses in understanding the context and dynamics of global production and trade in order to device viable policies and business strategies. To gain access to global markets and end consumers, it is critical for businesses to remain in GVCs. Hence this thesis will help businesses to identify those points in GVCs, which not only give them sustainable profits but also provide opportunities for learning and upgrading. Further, the present research will help policy makers to identify leverage points in GVCs for the implementation of environmental upgrading or sustainability programmes, and help business actors to understand the process (challenges) and outcomes (advantages) of environmental upgrading. Because businesses perceive

sustainability as a burden on bottom lines, however, it may lower the cost of businesses and increase the revenues for them (Nidumolu, Prahalad, & Rangaswami, 2009). One of the developed propositions of Chapter Six is that not all types of economic upgrading lead to social upgrading. Nevertheless, policy makers have to take into account this factor while developing policies aimed at boosting the standard of living of employees in developing countries through economic upgrading or indulgence in GVCs. Policy makers need to consider the conditions that better translate economic improvements into social upgrading, once emerging countries' businesses engage in international production and trade.

### **1.3 Overview of the empirical data and case studies**

In order to explore the above-mentioned research questions, this research focuses on empirical case studies of the apparel industries in Bangladesh and Sri Lanka. These two countries were selected for comparison for two key reasons: first, their important position in the global apparel trade and second, the contribution of the apparel industry to their respective economies. In 2010, Bangladesh and Sri Lanka were among the top 15 apparel exporting countries globally (WTO, 2011). Bangladesh ranks among the largest apparel exporters in the world (Mottaleb & Sonobe, 2011). The apparel industry provides employment to a large percentage of the population in Sri Lanka and Bangladesh and constitutes more than 45% and 80% of their exports respectively (Adhikari & Weeratunge, 2007). The industry employs 270,000 people (Savchenko & Lopez-Acevedo, 2012) and indirectly 1.2 million people (Jayaratne, 2009) in Sri Lanka. The apparel industry provides jobs for almost 2.5 million people directly and another 10 million indirectly in Bangladesh (Bell & Newitt, 2010; Faruque, 2009). Furthermore, female workers make up 80% of the total workforce in the apparel industry of both the Bangladesh (Faruque, 2009; Fernandez-Stark, Frederick, & Gereffi, 2011) and Sri Lanka (Wijayasiri & Dissanayake, 2008).

Further, apparel firms in Bangladesh and Sri Lanka are dependent on a group of large buyers because of the latter's dominance in retail markets (Rahman, Bhattacharya, & Golam Moazzem, 2008) in the US and the EU. This characteristic is of GVCs led by large retailers and brand marketers and hence provides ideal case studies to explore the analytical arguments and research questions of the thesis. Two major export markets, the US and the EU, are crucial destinations for apparel firms in South Asian countries (Kelegama, 2009) with 60% of the textile and apparel exports of South Asian countries directed towards these two markets (ITCB, 2009). Nevertheless, it is very valuable to conduct similar studies in different countries and contexts in order to understand the different institutional dynamics shaping the GVCs and relationship modes among economic actors within chains, particularly between buyers (lead firms) and suppliers (apparel firms). Hence, data were collected from apparel manufacturing and exporting firms in two different countries and findings were compared and contrasted to understand the institutional dynamics shaping the character and geography of apparel industry in each country.

## **1.4 Country profiles**

### **1.4.1 Sri Lanka**

The Sri Lankan apparel industry experienced tremendous growth after 1977 (Kelegama, 2005) due to the relocation of well-established East Asian apparel firms to take advantage of quotas allocated to Sri Lanka (Kapuge & Smith, 2007). The major export product categories of the industry are lingerie, casualwear and sportswear. In 2008, there were around 350 factories in operation (compared to 700 plus before the abolition of quotas in 2005) (Wijayasiri & Dissanayake, 2008). During the same year, the US took 45% of Sri Lankan apparel exports and the EU 55% (JAAF, 2008). Until 2006, the US was the largest export market for Sri Lanka (Kelegama, 2009), but exports to the EU increased under the EU's



Generalized System of Preferences (GSP) Plus<sup>2</sup> Scheme between 2005 and 2010 (Interview with industry association representative, Sri Lanka, 2010). The GSP extends duty-free treatment to certain products that are imported from the developing countries with the aim of promoting economic growth and development in developing countries (Holliday, 1997). The peak apparel industry association of Sri Lanka, the Joint Apparel Association Forum (JAAF) has taken the lead in trying to brand the country as an ethical sourcing destination for apparel under the logo of the *Garments without Guilt* initiative. Sri Lanka was the first country in the world to embark upon green manufacturing in the apparel sector. There are three green plants in Sri Lanka (Wijayasiri & Dissanayake, 2008).

#### **1.4.2 Bangladesh**

The industry has expanded dramatically over the last three decades, contributing only 3.89% of exports in 1984 compared to 79.33% in 2009 (Bangladesh Export Processing Bureau, 2009; BKMEA, 2009). This growth is attributable to new markets secured under the quota regime and preferential market access to the EU under both its GSP and its Everything But Arms (EBA) policy (Bakht, Salimullah, Yamagata, & Yunus, 2006; Rahman et al., 2008). Currently, there are 4,900 apparel firms registered with two main industry associations in Bangladesh, the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA). In 2007, the total number of firms was 3,560 (Rahman et al., 2008), with around 200 foreign-owned garment factories located in the eight export processing zones (EPZs) (Bell & Newitt, 2010). The EU is the largest export market (70%) followed by the US (25%) (EPB, 2008). Apparel manufacturers and exporters in Bangladesh fall under two broad categories: woven and knit. Shirts, t-shirts and trousers are the main woven products and undergarments, socks,

---

<sup>2</sup> GSP plus is in addition to normal GSP arrangement and is granted to developing countries for compliance with international labour standards. Sri Lanka was granted 20% additional duty concession in the form of GSP plus in 2004 in addition to 20% earlier concession.

stockings, t-shirts and sweaters comprise the main knit products. The main export products are shirts, trousers, t-shirts and jackets. In the 1980s, the Bangladeshi apparel industry only manufactured woven apparel products (Abrar, 2012). However, since 2005 a dramatic increase has occurred in the contribution knitwear makes to overall national exports—reaching 40.82% in 2005—with Bangladesh now the third largest knitwear exporter in the world (BKMEA, 2010).

The apparel industries of Bangladesh and Sri Lanka are embedded in two different institutional contexts in terms of labour standards and labour market regulations. The Sri Lankan state has ratified the core convention of International Labour Organization (ILO); Bangladesh, on the other hand, has not ratified the Minimum Age Convention, although it has ratified the convention on the Worst Forms of Child Labour (Bell & Newitt, 2010). Nevertheless, the apparel GVCs act as a unifying element, integrating the apparel industries of both countries. The global pressures and challenges faced by both countries are similar. The EU and US are major export markets for both countries and their conventions regarding environmental and social standards, and governance patterns are becoming more similar (Gibbon, 2008). Nevertheless, despite differences in the national institutional contexts, Bangladesh and Sri Lanka are major apparel exporters with supplier links in global apparel chains.

## **1.5 Structure of the thesis**

Because this thesis is a work in three (Chapter Four, Five and Six) discrete, but related, chapters, each chapter has its own objective and purpose. However, the integrating and unifying element in all the chapters is the common theoretical GVC framework applied. The thesis comprises seven chapters with three empirical chapters at the core of the thesis (Chapters Four, Five and Six).

Chapter One sets out the contextual background in which the research is situated and outlines the purpose, contribution, overview of the case studies and structure of the thesis.

Chapter Two provides an in-depth discussion of the theoretical framework used. This chapter describes three generations of global chain studies, dimensions and core constructs of the GVC framework. Further, the chapter identifies missing elements in the GVC framework and possible contributions that could be made to fill those gaps.

Chapter Three sets out the research design of the research and its core elements including philosophical underpinnings, research strategy, data collection and analysis methods. Further, details about research site and participant selection are described. Strong considerations have been given to the criteria ensuring validity of the research findings and ethical issues in the research.

Chapter Four provides empirical evidence to support the conceptualisation and theorisation of the institutional dimension of GVC analysis and its relationship with the governance dimension of GVC.

Chapter Five is an empirical and qualitative analysis of drivers and conditions under which South Asian apparel firms embrace environmental upgrading in GVCs. The purpose is to understand and study which governance patterns foster environmental upgrading and what is the role of various institutions in the overall process of environmental upgrading.

Chapter Six unpacks the relationship between social and economic upgrading in GVCs. The main purpose of this empirical chapter is to understand the conditions where economic upgrading leads to social upgrading in GVCs.

The seventh and final chapter is the conclusion and guide to future research directions. It also includes limitations of the research presented here. The final chapter also presents how the three chapters contribute and extend the field of GVC analysis in a coherent manner.



## **CHAPTER TWO: CONCEPTUAL LENS OF THE STUDY**

### **2.1 Chapter overview**

This chapter provides details of the conceptual lens of the thesis integrating three chapters and presented here, which is GVC framework. This chapter justifies selection of the GVC over the global production network (GPN), when there are some similarities in these two approaches and both can answer the same research questions. Further, it provides an in-depth description of three generations of global chain studies, at the same time whilst unpacking dimensions and core constructs of the GVC framework. Theoretical underpinnings of the GVC framework constitute a significant proportion of the chapter. The chapter ends with identification of missing elements in the GVC framework and possible contributions that could be made to fill those gaps.

### **2.2 Global chain studies**

Global trading relationships have been dramatically transformed during the past four decades. The 1970s and 1980s were home to an era of intra-firm trade, the dominant feature of which was trade among subsidiaries of Multinational Corporations (MNCs) (Schmitz, 2006). The importance of intra-firm trade and its dimensions including strategies, organisation and structure are well documented in the literature on MNCs (Buckley, 2002). From the 1990s onwards, new trading patterns began to emerge, characterised by functionally integrated but globally dispersed industrial structures (Bair, 2009). The growing importance of this co-ordinated trade gave rise to a new field of analysis over the past two decades—global chain studies (Schmitz, 2006).

There is a considerable overlap between the GVC approach and other similar concepts, such as Porter's 'value system' (Porter, 1985) and GPN of the Manchester School (Oro & Pritchard, 2011). Porter considers value chain as a tool for analysing the relationship between various links or activities within an organisation (Porter, 1990). Businesses can achieve a competitive advantage by successfully managing the linkages between the activities whilst creating maximum value for customers (Porter, 1985). Porter describes value systems as a set of inter-firm linkages through which different enterprises are connected to each other in the form of value-adding chains.

However, the GVC framework differs from the GPN and Porter's value chain concept due to its exclusive focus on the international perspective on value chain analysis. This is captured in a standard definition of GVCs as "the internationalized structures of production, trade and consumption pertaining to specific products" (Palpacuer et al., 2005, p. 411). Furthermore, the GVC framework takes a very different approach to the determinants of competitiveness. The GVC framework stresses the cross-border linkages between firms in global production and distribution as determinants of competitiveness. This sits in contrast with other value chain theories, such as GPNs and Porter's value chain, in which the focus is on the local determinants of competitiveness and local linkages in generating competitive advantages (Henderson, Dicken, Hess, Coe, & Yeung, 2002; Porter, 1990). Furthermore, the focus of the analysis in Porter's approach is the industry level, whereas in the GVC framework, the competitive success in a global industry requires a firm to manage the global linkages in an integrated and systemic fashion (Gereffi et al., 1994).

It is important to explain the justification of the selection of conceptual lens of the thesis when two theoretical frameworks (GPN and GVC) can answer the same research questions. The GPN framework evolved in dialogue with, and as a critique of, the GVC framework (Bair, 2009). In particular, the proponents of GPN emphasise the importance of geography

and local clusters when studying the global space economy. Despite differences between GVC and GPN, there are some similarities in these two approaches as well. For example, at an ontological level, the two conceptualisations are grounded in variants of a network approach (Coe, Dicken, & Hess, 2008). Further, at an epistemological level, both are concerned with understanding the developmental dynamics of contemporary capitalism (Bair, 2005). More specifically, both theoretical strands acknowledge that governance structures and power asymmetries within a network have a major impact on the upgrading prospects of economic actors within the networks and the regions they are related to (Coe et al., 2008). However, the GPN focuses not only on inter-firm ties within the chain but also on inter-firm relationships that are embedded in factors external to the chain influencing inter-firm relationships (Nadvi, Lund-Thomsen, Xue, & Khara, 2011). The proponents of GPN conceptualize global production processes as complex multi-dimensional network structures that include both elements of power and embeddedness of production networks (Rainnie, Herod, & McGrath-Champ, 2011). Further, these complex multi-dimensional networks are constituted and reconstituted by the economic, social and political arrangements of the places they are embedded in (Hess & Coe, 2006; Raj-Reichert, 2011).

Hence, the GPN provides a more complex and multi-scalar understanding of global production networks. However, the GPN provides a less detailed perspective on the taxonomies of vertical chain governance that is offered by GVC framework (Nadvi et al., 2011). The ability of GVC approach to provide in-depth perspectives on the taxonomies of vertical chain governance make it an ideal approach to apply in the thesis. The central construct of the thesis is the vertical chain governance and its focus is to explore the relationship between governance, institutions and upgrading, which necessitates the application of GVC approach in the thesis. Further, the thesis focuses on empirical case studies of apparel firms in Bangladesh and Sri Lanka, embedded in vertical chain



governance structures governed by lead firms. GVC framework views trade as being embedded in, and to a considerable extent determined by, specific institutional structures conceptualised as lead firms (Raikes et al., 2000). Traditionally and historically apparel industry is a classic example of GVCs governed by buyers as lead firms (Gereffi, 1994). Apparel firms in Bangladesh and Sri Lanka are also dependent on a group of large global buyers because of the latter's dominance in retail markets (Rahman et al., 2008). Types of buyers have already been discussed in the introduction chapter of the thesis. Therefore, the GVC framework is an ideal theoretical choice for the present study because of its emphasis on lead firms and ability to unpack vertical chain governance structures better than GPN.

### **2.2.1 The commodity chain construct**

The term commodity chain was first coined by Hopkins and Wallerstein who defined it as “a network of labour and production processes whose result is a finished commodity” (Hopkins & Wallerstein, 1986, p. 159). Hopkins and Wallerstein (1986) highlighted the power of the state and political shifts in shaping global production systems (Bair, 2008a; Sturgeon, 2009). These powers may be exercised in the form of tariffs, local content rules and any other conditions at the point where goods cross borders; therefore, all chains are subject to interference by the state (Wallerstein, 2009). One of the principle concerns of the world systems analysis, in which Hopkins and Wallerstein worked, is that the geography and organisation of any commodity chain is shaped by cyclical shifts of expansion and contraction in the world economy (Bair, 2009). Hopkins and Wallerstein underscored the importance of transaction costs, while emphasising the importance of labour costs as entrepreneurs seek to minimise these. These objectives require opposite changes in social organisation and geographical location (Bair, 2008a). In general, transaction costs are reduced through vertical integration and geographical convergence, whereas labour costs are reduced through sub-contracting and geographical dispersal (Bair, 2008a). Furthermore,

geographical convergence occurs during economic contraction (Bair, 2009) due to the decline in the overall number of producers participating in a chain and also, more links of the chain being incorporated within the organisational boundaries of the firm (Hopkins & Wallerstein, 1994).

### **2.2.2 The global commodity chains construct**

Gereffi (1994) revived the concept of the commodity chain by shifting the focus from the state to the firm in shaping global production systems while developing the concept of GCC (Sturgeon, 2009). One of the reasons for this shift was the liberalisation of trade and minimal interference by the state authorities in the wake of globalisation. Another reason was the role played by powerful economic actors (lead firms) in the organisational and spatial architecture of global production chains. The GCC framework differs from world system analysis in its analytical emphasis on the chain drivers that play a lead role in constructing and managing international production networks.

### **2.2.3 The global value chain framework**

Subsequently, the GCC has been refined several times as the nature of economic relationships has changed in global production networks (Quan, 2008). Some scholars had begun to reappraise the GCC approach by the end of 1990s; one of the reason for this was the use of the term ‘commodity,’ which often denotes primary products or low value-added products (Bair, 2009). Another reason was that the original distinction that Gereffi made between two types of chains (discussed in depth in Section 2.4) was thought to overlook new types of chains. Hence, an expanded typology was needed (Gereffi et al., 2005; Henderson et al., 2002; Ponte & Gibbon, 2005). Further, the GCC typology was based on a static view of technology and barriers to entry, which are in fact dynamic due to technological change and learning (Sturgeon, 2006). The aim of new typologies was to shift the focus of analysis from

the notion of ‘driving’ to that of ‘co-ordination’ (Gibbon, 2008), because it was not clear if all the chains had lead firms (Gibbon, 2001a, 2008; Gibbon et al., 2008).

The term ‘commodity’ was replaced with the term ‘value.’ At a workshop in Bellagio in 2000, Gereffi and other researchers agreed to use the more encompassing term ‘global value chains’ instead of ‘global commodity chains’ (Humphrey & Schmitz, 2002). The new term was perceived to be the most inclusive of the full range of possible chain activities and products (Bair, 2009). In order to develop an expanded typology for different types of chains, a shifting of the focus of the analysis from driving to co-ordination in global chain studies and arriving at an industry-neutral definition of GVC, a new typology of GVC was formulated. The new theory of GVC analysis was influenced by transaction cost economics and the broader literature on the economics of organisation (Bair, 2009; Sturgeon, 2009) and resource-based view in the Strategic Management literature (Lane & Probert, 2009) (discussed in depth in Section 2.4.1).

### **2.3 Dimensions of GVC analysis**

There are four key structures, or dimensions, that shape GVCs (Gereffi, 1994). The first of these is the input–output structure, which comprises a set of products and services linked together in a sequence of value-adding economic activities. The second is geography, which examines the spatial dispersion of concentrations of production and distribution networks in order to determine ways in which firms use geographical regions to gain access to resources. The third dimension is governance, which measures authority and power relationships that determine how material, financial and human resources are allocated and co-ordinated within the chain. Governance refers in particular to the lead firms that co-ordinate the activities along the chain. The final dimension is institutions; this comprises institutional arrangements, both national and international in nature, that shape the globalising processes (Palpacuer et al., 2005). If viewed in its simplest form, the GVC is a simple construct, yet the

governance and institutional dimensions transform a potentially simple heuristic model into an analytical tool (Kaplinsky, 2000; Neilson, 2008).

## **2.4 Governance**

Much of the theoretical and empirical research on global industries from a GVC perspective has focused on governance structures (Bair, 2008b; Gibbon et al., 2008; Sturgeon, 2009). The concept of governance is central to the GVC framework (Humphrey & Schmitz, 2002). Two of the central contentions of the GVC approach are that there are different types of globalised co-ordinated networks and differences among the networks are due to differences in the governance structures. Co-ordination is achieved through setting and enforcing product and process parameters to be met by actors in the chain (Humphrey & Schmitz, 2002). Key parameters are what is to be produced (product definition), how it is to be produced (technology, quality system, labour and environmental standards) and when and how much is to be produced (Humphrey & Schmitz, 2001). A fifth parameter could be the price, which most of the time is treated as a variable determined by market (Humphrey & Schmitz, 2001, 2002).

Governance in GVCs is important for several reasons. Access to some markets becomes possible through the lead firms governing the networks. Governance is critical in understanding the income distribution along the chain. Firms can, for example, identify those points where entry into the chain will give them higher returns on investments (Kaplinsky, 2000). Further, governance is critical for learning, knowledge diffusion and upgrading in GVCs. Although lead firms are continuously seeking cost reduction, high quality, increased speed and conformance to other specified codes of conduct, at the same time they also transmit best practices and advice to participating firms (Humphrey & Schmitz, 2001), thus stimulating learning and upgrading along the chain (Gibbon & Ponte, 2005).

Governance was defined as the economic power exercised by lead firms over all other chain members (Gereffi, 1994; Gibbon & Ponte, 2008) in the initial conceptualisation of the GCC construct. Hence, two main types of chains were identified (Gereffi, 1994). Producer-driven chains are led by manufacturers that retain control of capital-intensive operations found in capital and technology-intensive industries such as the automobile, computers, aircraft and electronics industries. The buyer-driven chains are led by lead firms, which set up decentralised production networks and outsource production to less integrated and internally competing networks. Buyer-driven chains are found in labour-intensive industries such as those producing textiles and clothing, footwear, toys and agriculture products.

However, in the new conceptualisation of GVC, five possible types of governance structures were identified based on three dimensions: the complexity of the transactions, the extent to which the information could be codified, and supplier capabilities (Gereffi et al., 2005). These are discussed below.

#### *Complexity of transactions*

The complexity of transactions refers to the extent to which knowledge regarding the product and process can be transferred. The key factor in the complexity of transactions is asset specificity, wherein relationship-specific investments create lock-in and create opportunities for business partners to take advantage of each other (Sturgeon, 2009). Where transactions comprise a high level of complexity, the lead firm will either exert greater co-ordination control or will eventually internalise their functions; asset specificity tends to increase over the period of an inter-firm relationship (Williamson, 1975).

#### *The ability to codify information*

The ability to codify information refers to the extent to which knowledge can easily and efficiently be transferred in a way that it is understood by actors across chains (Sturgeon, 2009). When knowledge is hard to codify (e.g., tacit knowledge), it is difficult to transfer

between suppliers and lead firms. Tacit knowledge refers to knowledge that is hard to codify and communicate but that what people acquire through observation, imitation and practice (Ernst & Kim, 2002). In essence, this type of knowledge can be freely and easily used by its owners, but cannot be easily expressed or communicated to others (Giuliani, Pietrobelli, & Rabellotti, 2005).

### *Suppliers' capabilities*

The term suppliers' capabilities refers to the suppliers' ability to meet all the requirements of a transaction, including specifications about quality, timely delivery and environmental and safety standards (Frederick & Gereffi, 2009). When the capabilities of suppliers are low, buyers may be forced to establish their own production capabilities. Furthermore, switching suppliers (which are capable of working with complex product and process specifications) is costly for the lead firm (Frederick & Gereffi, 2009).

Gereffi et al. (2005) identify five types of governance co-ordination based on the above-mentioned dimensions. The nature of governance co-ordination in the new typology is seen as varying systematically based on the above-mentioned independent variables, illustrated in Table 2.1. At the extreme ends of the scale are market and hierarchical governance structures, with the modular, relational and captive network linkages falling in between. The complexity of transactions is high in all the chains except in the market-governed chains, which are based on market transactions and governed by price. In modular governance networks, complex information is passed to capable suppliers when codification ability is high. Suppliers with high supply base capabilities will make products to the customer's specifications. In relational networks, tacit information is exchanged between buyers and competent suppliers. As the information is not easily codified, frequent interaction between lead firms and suppliers is required and thus relational networks are characterised by mutual dependency (Frederick & Gereffi, 2009). Captive networks involve less competent suppliers

and thus detailed information regarding product and process is provided to them by lead firms, which take an active role in monitoring and controlling suppliers. Lastly, hierarchical networks are characterised by lead firms with established vertical linkages, due to the complexity of the transactions, coupled with the low capacity of the supply base (Sturgeon, 2009).

GVCs are in a state of continuous restructuring due to the diffusion of knowledge and learning across economic actors. A change in one or more of three variables alters governance patterns in GVCs. For instance, if a new technology causes an existing codification scheme to become obsolete or become overwhelmed by increasing complexity, the modular chains convert into relational networks (Sturgeon, 2009). Similarly, if suppliers develop capabilities to manufacture high value-added products due to learning in GVCs, and those capabilities are difficult to replicate, the captive chains convert into relational networks.

**Table 2.1: Types of governance in GVC analysis**

| <b>Variables</b>  | <b>Complexity of transactions</b> | <b>Ability to codify transactions</b> | <b>Capabilities in suppliers</b> |
|-------------------|-----------------------------------|---------------------------------------|----------------------------------|
| <b>Market</b>     | Low                               | High                                  | High                             |
| <b>Modular</b>    | High                              | High                                  | High                             |
| <b>Relational</b> | High                              | Low                                   | High                             |
| <b>Captive</b>    | High                              | High                                  | Low                              |
| <b>Hierarchy</b>  | High                              | Low                                   | Low                              |

Source: Gereffi et al., 2005; Sturgeon, 2006, 2009.

#### **2.4.1 Theoretical underpinnings of governance**

The governance construct in GVC has been derived from a broad range of literatures on inter-firm governance and industrial organisation. The particularly well-traversed literatures are the economics of organisation (transaction cost economics), economic sociology and capabilities literature of business and management (Bair, 2008a; Sturgeon, 2006). Key

concepts drawn from the aforementioned disciplines and combined include ‘asset specificity,’ trust, repeat transactions and learning and core competencies (Sturgeon, 2006, 2009).

Williamson (1975) created the theory of transaction cost economics to provide an answer of the question posed by Coase (1937) about why the market does not govern all transactions. Another way to phrase this would be to ask why some activities are bundled within the firm (Sturgeon, 2009). Williamson’s answer was that intra-firm organisations grew out of the efficient ways in which individual firms solve the transaction costs involved in doing business (Hamilton & Gereffi, 2009). Some transactions, in particular those which are likely to recur and involve uncertainty and transaction-specific investments, are costly to coordinate in the market and hence are bundled inside the firm (Williamson, 1975, 1981). Although Williamson’s theory initially focused on elaborating the circumstances under which hierarchy (i.e., firms) can represent an efficient alternative to markets (Bair, 2008a), he later acknowledged intermediate forms of organisation that blend elements of market and hierarchy, and subsequently introduced the hybrid mode (Williamson, 1991, 2010). These hybrid organisational forms include different kinds of long-term contracting arrangements that entail repeated exchanges between autonomous parties that share some degree of mutual dependence (Williamson, 1985, 1991, 2010).

In contrast, with an opportunistic view of human action underpinning transaction cost economics (Sturgeon, 2009), Granovetter (1985) produced a theory that took a relational view of economic activity as embedded in social relationships and trust. Granovetter’s main criticism of the transaction cost theory was that it operated with an under-socialised conception of human action (Bair, 2008a; Granovetter, 1985). The central contention of the relational view or sociological aspect of economics is that the rational actor is also a social one whose behaviour is shaped by the social context in which he or she is embedded



(Granovetter, 1985, 2008). The relational view of economic life suggests that inter-firm relationships can be sustained in the face of asset specificity and even goodwill can build up in the interpersonal relationships that inevitably underlie inter-firm relationships (Bair, 2008a; Sturgeon, 2009). Granovetter (1985; 2008) argues that social relations—rather than institutionalised arrangements—are mainly responsible for the production of trust in economic life. For example, contracts between firms in the apparel industry in many cases are informal agreements backed by promises and reputation rather than law (Tokatli, 2007).

Capabilities in the supplier base are drawn from the competencies and capabilities literature from within the field of business and management. The literature assumes that firms compete on the basis of internal resources or capabilities that take time to develop (Penrose, 1959). The basic assumption of a resource-based view of a firm is that the firm's capabilities are heterogeneous (Barney, 1991) and resource heterogeneity creates rents (Peteraf, 1993). Hence, heterogeneity is preserved from imitation (through property rights and information asymmetries) and sustained rents are ensured (Rumelt, 1987). Because firm capabilities may be difficult to replicate, it may be impossible for lead firms to internalise functions or find substitute suppliers in time to compete effectively (Sturgeon, 2009). Since buyers and suppliers depend on each other's resources and knowledge, they co-ordinate to achieve their respective goals (Wong & Johansen, 2008).

The way in which GVC analysis has combined the aforementioned key insights from various literatures is critical. Sturgeon has put considerable effort into showing how these key concepts are combined in the GVC (see Sturgeon, 2006; Sturgeon, 2009; Sturgeon, Biesebroeck, & Gereffi, 2008; Sturgeon & Gereffi, 2011). Based on case studies analysed by Gereffi et al. (2005), asset specificity was recognised as a potential hazard in inter-firm relationships. Where transactions comprise a high level of complexity, the lead firm will exert greater co-ordination control or will eventually internalise their functions, because

asset specificity tends to increase over the period of an inter-firm relationship (Williamson, 1975). Similarly, when the capabilities of suppliers are low, buyers may be forced to establish their own production capabilities, which results in hierarchical networks.

At the same time, long-term relationships based on trust and repeat transactions were also observed in case studies analysed by Gereffi et al. (2005). In addition, the capabilities literature identifies access to expertise and competencies as ample motivation for entering into external relationships with other firms, even when asset specificity is significant (Sturgeon, 2009). This suggests that lead firms have long-term relationships with their suppliers on the basis of trust developed through repeated transactions, combined with capabilities in the supplier base that are difficult to find or imitate. These capabilities may be learnt and developed by working with lead firms in GVCs for a long period. This is evident, for example, in the case of the contractors in Hong Kong, Korea and Taiwan who mastered the capability to manage diversified global production networks due to long history of doing business with the most demanding global markets (Tewari, 2005). As the competencies or capabilities of suppliers increase, governance through the lead firm is expected to lessen and inter-firm networks based on trust and mutual dependence emerge.

However, there are circumstances where lead firms switch suppliers without incurring major costs by dominating their low capable suppliers, in particular captive networks (Bair, 2008a; Sturgeon, 2009). The opposite scenario is when asset specificity is avoided by passing on information in a codified form, while keeping tacit knowledge contained within each firm (modular chains) (Bair, 2008a; Sturgeon, 2009). Hence, three main types of networks (namely captive, relational and modular) were observed between market and hierarchical networks.

## **2.5 Upgrading**

Related to governance is upgrading, which is defined as “the process by which actors (principally firms) seek to reposition themselves along the chain in order to increase the benefits (e.g., security, profits, technology or knowledge transfer) that they receive from participating in it” (Bair, 2008b, p. 5). Upgrading results in higher profits due to shifting to high value-added activities (Gereffi, 1999). The possibility of upgrading is better under certain governance regimes (Humphrey & Schmitz, 2001). There are four types of upgrading (Humphrey & Schmitz, 2002), also termed economic upgrading, which may take place in GVCs. These are process, product, chain and functional upgrading. Process upgrading involves transforming inputs into outputs more efficiently or introducing innovative technology. Product upgrading refers to moving into sophisticated product lines with increased unit values, in which production processes may or may not remain the same (Sturgeon, 2006). Chain upgrading occurs when economic actors move into different sectors, whereas functional upgrading involves acquiring new functions in the chain, or abandoning existing ones.

Upgrading occurs in GVCs as a result of learning and innovation. Learning and innovation in GVCs take place as a result of firms’ interactions with the lead firm. The interaction and learning within GVCs is also influenced by the governance structures of networks (Dolan & Humphrey, 2000; Henderson et al., 2002; Humphrey & Schmitz, 2004) and the extent to which the knowledge is created, adopted and transferred along the GVC, which varies dramatically (Saliola & Zanfei, 2009). For example, captive networks offer product and process upgrading to participating firms but prospects for functional upgrading are limited (Bazan & Navas-Aleman, 2004; Dolan & Humphrey, 2000; Humphrey & Schmitz, 2000, 2002; Schmitz, 2004, 2006). Conversely, lead firms may be more interested and foster upgrading of sectors or actors in GVCs in which intense interaction is required to transfer

complex (tacit) knowledge (Giuliani et al., 2005; Morrison, Pietrobelli, & Rabellotti, 2008), particularly in relational networks. In chains characterised by market-based relationships, process and product upgrading are not fostered by lead firms and thus tend to be slower, though functional upgrading is more likely (Humphrey & Schmitz, 2002). In modular chains, suppliers learn how to produce components to fully specified technical standards, and the need to adhere to these standards is important for inducing learning (Morrison et al., 2008). Hence, lead firms act as an external stimulus for learning and innovation among suppliers and impose pressure (on their suppliers) to innovate but do not become directly involved in the learning process (Morrison et al., 2008).

## **2.6 The global apparel industry and the GVC framework**

No industry has received greater attention from GVC analysts than the apparel industry, mainly because is a classic example of buyer-driven GVCs (Bair & Peters, 2006; Gereffi, 1999). Considerable research has been conducted from the GVC perspective on the global apparel chains of Latin America and North America (see Bair, 2002; Bair & Peters, 2006; Dussel, 2008; Gereffi, Spener, & Bair, 2002). A smaller number of studies have also examined the global apparel chains in Europe (see Lane & Probert, 2004, 2008, 2009; Palpacuer et al., 2005), Vietnam (Nadvi et al., 2004; Thomsen, 2007), Sub-Saharan Africa (see Gibbon, 2003; Gibbon, 2008; Gibbon & Ponte, 2005), East Asia (see Gereffi, 1999) and few studied South Asia (see Ruwanpura & Wrigley, 2010; Tewari, 2006, 2008).

In particular, the buyer-driven nature of apparel chains has been the subject of various studies (Bair, 2008b). Researchers have also sought to explain the upgrading prospects, in particular, economic upgrading (Barrientos et al., 2011). In contrast, few studies have addressed the issues of workers as an important economic agent within the GVCs and the theoretical challenges required to incorporate employees as one of the crucial links in GVCs

(see Appelbaum, 2008; Appelbaum et al., 2005; Quan, 2008; Raworth & Kidder, 2009; Riisgaard, 2009).

More recently, researchers have begun to explore the emergence of giant transnational contractors or suppliers (Appelbaum, 2008) and core suppliers (Palpacuer et al., 2005). The role of contractors in GVCs is not new. However, the emergence of giant contractors is a new phenomenon, resulting in a power asymmetry in an industry traditionally dominated by buying firms. The result is asymmetrical relationships or power sharing with giant contractors of buyers forming 'bi-polar' apparel chains (Fold, 2002). The net profits of some of the biggest apparel contractors, such as Li Fung, exceeds those of many brands (Nijhof, Forterre, & Jeurissen, 2008), thus making the contractor firms as powerful as the lead firms. Such power in the supplier base (contractors) is termed 'platform leadership' (Frederick & Gereffi, 2009, p. 4) and has accumulated due to technological, co-ordinating or commercialising power over time.

In contrast, core suppliers are expected to play a wide variety of functions, for example, holding stock (decreasing inventory levels), new product development, purchasing raw materials and analysis of sales data and predication of demand (Palpacuer et al., 2005). Core suppliers are not only cost-efficient but also extremely flexible and have the capability to produce a wide range of products and switch their product lines rapidly (Tewari, 2005). One of the reasons behind the emergence of giant contractors and core suppliers may be 'lean retailing,' with its associated cost cutting, flexibility and quick response with shorter lead times (Appelbaum, 2008; Palpacuer et al., 2005). This may have shifted some critical functions such as inventory management, demand forecasting and purchasing raw materials to suppliers.

## **2.7 Missing elements in the GVC literature and possible contributions**

### **2.7.1 Institutions**

As mentioned earlier, institutions in GVCs are defined as formal and informal institutional arrangements of a national and international nature that shape the globalising processes. However, this critical element has not been adequately developed in GVC analysis (Dussel, 2008; Raikes et al., 2000). GVCs link not only firms in different locations but also the institutional contexts out of which those firms arise and in which they are embedded (Henderson et al., 2002). Institutions affect the interactional capacity of firms and hence transaction and co-ordination costs (Mudambi & Navarra, 2002), a key component (variable) of the governance construct of GVCs. External actors that directly influence the actions of chain actors should be considered as key components of value chain governance (Gibbon et al., 2008). These institutions set fundamental political, legal and social rules that establish bases for production, exchange and distribution (Davis & North, 1970). Thus, there is scope to contribute to the existing literature of GVC by empirically studying the institutional dimension and its relationship with governance dimension of GVCs. There are limited numbers of recent studies that attempt to examine the institutional factors in GVCs and in particular interaction of governance and institutions. Their focus was on national institutional structures and local clusters (see Cammett, 2006; Selwyn, 2008; Tewari, 2008; Thomsen, 2007) and on changing international regulatory context affecting the global apparel industry ( see Appelbaum, 2008; Bair, 2008b; Gibbon, 2008). Chapter Four, which attempts to study the interaction of institutions and governance is different from the said studies because it examines supplier or apparel firms in a wider institutional network including local, international and regional contexts because a typical apparel firm is embedded in a web of institutional networks. It is useful to view the global industry as hundreds of competing chains in a web in which actors at any level of GVC are not linked only to one actor but various at different levels (Quan, 2008).

As mentioned earlier, ‘institutions’ was added later as a fourth dimension by Gereffi (Gereffi, 1999), though little indication of the exact meaning of this dimension was provided (Thomsen, 2007). An impression is given that institutions are an independent variable in the background, that GVC analysis places more emphasis on interactions among firms as economic actors and therefore, less on their embeddedness in wider institutional networks. Nevertheless, it is very important to understand how institutions may be defined or conceptualised in the GVC analysis before examining the relationship between governance and institutions in GVCs.

As a construct, ‘institution’ is very broad and multi-dimensional (Scott, 1995) and a proper formulation of a concept may depend on the purpose of the analysis (Aoki, 2001). According to Aoki (2001), economists have attached three different meanings to institutions: both guiding and constraining actions of the players (rules of the game); as players of the game, taking the form of organisations such as governments and courts; and, as equilibria to the game. In Institutional Economics, institutions are defined as “the rules of the game” (North, 1990, p. 3) in which there are two types of game rules: formal regulations such as rules, laws and constitutions, and informal constraints such as norms, customs and self-imposed codes of conduct. One of the major debates regarding the conceptualisation of institutions is distinguishing institutions from organisations (see Khalil, 1995; North, 1990). “What must be clearly differentiated are the rules from the players,” argues North (North, 1990, p. 4). North’s key argument is that organisations are created with intent and their development is directly influenced by institutions. “Hence, institutions should be regarded as providers of the rules and organizations as agents of institutional change” (North, 1990, p. 5). However, when the focus shifts to enforcement, the emphasis is on institutions that can implement a given rule in a way that is compatible with the incentives of the players of the game (Hurwicz, 1996). Appropriate incentives may need to be provided to make the enforcement

mechanism effective (Aoki, 2001). Aoki (2001) conceptualises institutions as equilibria to the game viewing them as a “self sustaining system of shared beliefs about a salient way in which the game is repeatedly played” (p. 10). He further argues that under this conceptualisation of institutions, rules are not given exogenously by the polity or culture but are endogenously created in a self-sustaining manner through the strategic intentions of agents and regarded by them as the consequences of their choices. Therefore, an economic perspective on institutions views institutions broadly as rules of the game, as players of the game and as equilibria to the game.

From a sociological perspective, there are two main conceptualisations of institutions. Scott defines and conceptualises institutions as comprised of three main elements: regulative, normative and cultural–cognitive elements that together with associated activities and resources, provide stability and meaning to social life (Scott, 1995; 2008, p. 48). Regulative elements are rules and laws backed by sanctioning mechanisms, whereas normative elements are the norms, values and moral beliefs that create social expectations, cultural–cognitive elements serve to define, constitute and legitimise actors’ capabilities, rights, interests, identities and their corresponding relevant activities (Scott, 2008). The second conceptualisation of the institutions from a sociological perspective, is the rules and norms that define legitimate behaviour (DiMaggio & Powell, 1983; Zucker, 1987). To gain legitimacy, organisations want to become isomorphic (tend to behave similarly in the same environment). “Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions” (Suchman, 1995, p. 574). In simple terms, legitimacy can be understood as “social acceptability and credibility” (Scott, 2008, p. 59). Further, institutionalised practices in society become legitimate and are adopted by the organisations



for reasons of legitimacy and not necessarily for economic reasons (Meyer & Rowan, 1977; Zucker, 1987).

Both perspectives can give a better understanding of institutions in GVCs, however, the complexity of GVCs and in particular global apparel chains demand a more systematic unpacking of institution concept and interaction with governance dimension of GVC. In order to understand the global apparel chains in a web of institutional networks, we should systematically analyse a typical apparel firm in global, regional and domestic institutional contexts. A typical GVC is co-ordinated and regulated at two levels: first, at the chain level (lead firms) and second, at the level of the nation state and supranational institutions (Dicken, 1998). Firms are entangled in “webs of networks” (Dicken, 2008, p. 277) with other firms and social organisations including states, labour organisations and consumer groups (Dicken, 2008). Therefore, in Chapter Four a typical apparel firm is studied in global, regional, social and domestic institutional contexts to better understand the concept of institution and interaction of governance and institution dimensions in GVCs.

### **2.7.2 Social and environmental upgrading**

Another area that can be explored and contributed is related to the upgrading construct of GVC, in particular the ecological and social dimensions of upgrading. Although the opportunity to switch from low to high value-added products, functions, or chains—in short, economic upgrading—has been widely discussed in the GVC framework (Milberg & Winkler, 2010a), recent debates have highlighted concerns that the social and the ecological dimensions of the globalisation of production and trade have been under-theorised (Barrientos et al., 2011; De Marchi et al., 2010; De Marchi et al., 2012). As mentioned earlier, the extent and scope of upgrading depend on the types of networks (governance) in which firms are embedded. There is well-documented literature on the relationship between governance and economic upgrading and the types of networks leading to different kinds of

economic upgrading (e.g., product, process, functional and chain) (see Bair, 2002; Bair & Gereffi, 2001, 2003; Bair & Peters, 2006; Bazan & Navas-Aleman, 2004; Cammett, 2006; Dolan & Humphrey, 2000; Gereffi, 1999; Gereffi & Martinez, 2000; Gereffi et al., 2002; Gibbon, 2001a; Gibbon & Ponte, 2005; Humphrey & Schmitz, 2000, 2001, 2002, 2004; Kaplinsky, 2000, 2004; Kaplinsky & Readman, 2005; Kishimoto, 2004; Knorrington & Pegler, 2006; Mather, 2008; Schmitz, 2004, 2006). However, how governance patterns impacting social and environmental upgrading in GVCs is a neglected area. The Chapter Five and Chapter Six will contribute to the field of GVC analysis by empirically studying the ecological and social dimensions of upgrading respectively and its relationship with governance.

### *Environmental upgrading*

Whilst a well-defined construct of ‘environmental upgrading’ does not exist in the GVC literature, scholars and analysts applying the GVC framework are working to arrive at one. One definition proposed is that “environmental upgrading is a way of reducing the ‘environmental impact’ along the value chain” (Duke-VIU International Summer Research Workshop, 2010). ‘Environmental impact’ refers to negative effects on the environment, for example, depletion of natural resources, pollution, and water consumption. The definition used here is “environmental upgrading takes place when a company improves its environmental performance through changes in product and process technology, management systems, waste and emission treatment and so on” (Jeppesen & Hansen, 2004, p. 263). The focus of the Chapter Five is on environmental upgrading of supplier link of GVC embedded in a web of networks.

### *Social upgrading*

Social upgrading is the improving of the rights and entitlements of workers as social actors and the quality of their employment (Sen, 2000). Social upgrading has been defined in global chain studies in terms of the ILO conceptualization of decent work (Barrientos & Smith, 2007). Decent work refers to work within conditions of freedom, equity, security and human dignity, in which rights are protected and adequate remuneration and social coverage are provided (International Labour Organization, 1999). Decent work in this sense has four interdependent constituent pillars (Bell & Newitt, 2010). These are having: access to employment and productive income, standards and rights at work, access to a social protection system and a voice at work through social dialogue (Bell & Newitt, 2010). Therefore, social upgrading has been divided into its quantifiable aspects, such as categories of employment (regular or irregular), wage level, contract type, social protection and working hours, and its less quantifiable aspects, such as freedom of association and the right to a voice, collective bargaining, non-discrimination and empowerment (Barrientos & Smith, 2007; Elliott & Freeman, 2003) .

Chapter Six will unpack relationship between social upgrading and governance. However, before proceeding to understand the relationship between social upgrading and governance, most critical is to establish criteria for measuring social upgrading or devising valid social upgrading indicators. However, there are no set criteria in the GVC literature to measure the degree of upgrading or quantify the pillars of decent work mentioned above. Quantifiable aspects of decent work, such as categories of employment (regular or irregular), wage level, contract type, social protection and working hours are easily measured. More critical is to measure less quantifiable aspects, such as freedom of association and the right to a voice, collective bargaining, non-discrimination and empowerment. In addition, how developing countries' firms, being embedded in certain institutional context, perceive freedom of association, collective bargaining and the right to a voice make measuring social upgrading

even more complex. It is important to set criteria about how firms perceive and how workers perceive these aspects. Chapter Six has adopted qualitative criteria to measure that social upgrading has occurred in an apparel firm. One criterion is that the more pillars or elements of the decent work are achieved by the firm, the more socially upgraded is the firm. The apparel firms only employing regular employees, having slightly higher wages than national minimum wage structure or market wages and allowing freedom of associations and collective bargaining through workers participatory committee or joint consultative committee are categorized as socially upgraded. The comparison among apparel firms were made on the basis of number of pillars of decent work embraced, for example, firms that have embraced more pillars of decent work will be on the top followed by others. The validity of the pillars achieved could be confirmed through secondary data and also interviewing employees of the apparel firms socially upgraded. However, Chapter Six is basically the suppliers' view about social upgrading in Bangladesh and Sri Lanka.

## **2.8 Conclusion**

This chapter outlined the historical, analytical and theoretical underpinnings of the GVC framework. The chapter concludes with identification of the understudied and neglected areas in the field of GVC and possible contributions that could be made to address those gaps. The GVC framework can be contributed to by empirically studying the institutions dimension of GVC and its interaction with governance dimension. Further, there are two under-theorised aspects of upgrading—namely social and ecological dimensions and their relationship with governance structures in GVC. All above-mentioned three gaps will be addresses individually in Chapters Four, Five and Six, respectively. However, before proceeding to the empirical chapters of this thesis, it is critical to outline the main research design of the thesis. The following chapter is an in-depth discussion of research design of the integrated research presented here.



## **CHAPTER THREE: RESEARCH METHOD**

### **3.1 Chapter overview**

This chapter provides details of the research design of the study, including the philosophical and methodological underpinnings. Details about research site, participant selection, and data management and analysis have been mentioned in this chapter as well. Strong considerations have been given to the criteria ensuring validity of the research findings and ethical issues in the research. The overall research design is consistent in terms of philosophical and methodological underpinnings for all three empirical chapters because the research is basically a qualitative and an integrated thesis. However, the demographics and size of sample are different across the three empirical chapters. In-depth justification of the sample and criteria of selection has been mentioned in this chapter for all empirical chapters.

### **3.2 Research paradigm/philosophy**

The key philosophical assumption or paradigm of this research is that “reality is constructed by individuals interacting with their social worlds” (Merriam, 1998, p. 6) and there are multiple constructions and interpretations of reality (Merriam, 1988, 1998, 2002). These philosophical assumptions pertain to interpretive and the qualitative paradigm (Collis & Hussey, 2003; Creswell, 1994). Hence, the perceptions and experiences of firms in global apparel chains cannot be analysed quantitatively, for example, on the basis of global trade statistics. Trade statistics relate to quantities and directions of trade but not about the organisation of trade (Schmitz, 2006) and complexities involved in transactions in GVCs. Aggregate industry and country-level trends conceal crucial dynamics taking place at the local level (Tewari, 2005) and the share of sales at a particular point may obscure critical activities occurring at the chain level (Kaplinsky & Morris, 2001). In order to understand meaning constructed by managers, it is critical to talk and interview the managers to advance

knowledge (Birkinshaw, 2004), understand the phenomenon in depth and contribute to theory.

### **3.3 Research strategy**

The main research strategy adopted is the case study approach. The case study is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident” (Yin, 1989, p. 23). The case study approach used is an instrumental and collective case study (Stake, 1995, 2000), where one or more cases are studied to provide insight into an issue and optimise understanding of the case rather than generalisations beyond (Stake, 2003). The reason for choosing a case study strategy is the qualitative nature of the study. “Case studies have become one of the most common ways to do qualitative inquiry” (Stake, 2000, p. 435) and the most frequently used approach for research in business and management (Ghauri, 2004). “Case studies bring a deeper understanding of the process of upgrading, the role of each of the key actors and the obstacles that upgrading firms face in GVCs” (Milberg & Winkler, 2011, p. 345). Further, the case study method is particularly well suited to studies in which data are collected from cross-border settings because surveys raise serious questions about comparability and equivalence of data collected from different countries (Ghauri, 2004).

Among other reasons for choosing a case study strategy is the flexibility that a case study allows for in-depth exploration by means of multiple methods, data and sources of data collection (Eisenhardt, 1989; Ghauri, 2004; Merriam, 1988; Robson, 1993; Silverman, 2004; Yin, 1989), sometimes called triangulation in research (Jick, 1979). Triangulation contributes to improved validity of research findings (Jick, 1979; Marshall & Rossman, 1989) and is useful for overcoming partiality that may arise from reliance on single source.

Apparel manufacturing and exporting firms were the units of analysis, with each firm a case, and the research design consisting of a comparative, cross-case analysis of firms. The rationale behind the selection of multiple cases was “to create more theory-driven variance and divergence in the data, not to create more of the same” (Pauwels & Matthyssens, 2004, p. 129). A large number of case studies is appropriate for topics that are too complex and involve too many actors, such as when organisations, roles, interactions or events are the subject of the enquiry (Hakim, 1987). Hence, multiple cases were useful in the research integrating three core empirical chapters and presented here, because the purpose was to study and analyse apparel firms in webs of institutional networks and the phenomenon involved many actors, roles and interactions.

### **3.4 Levels and units of analysis**

One of the most challenging parts of the study lies in the selection of the unit of analysis. Contrary to the many conventional contributions to the GVC tradition, this study contends that it would be more fruitful to study the dynamics at micro level and in particular at firm level (suppliers), rather than narrowing the unit of analysis to a particular product type. Limiting analysis to within-product chains may prevent new insights being gained about the linkages and upgrading possibilities between product types, functions and even industry sectors.

At the firm level, even though a product focus is customary (and was included as a main question in the reported interview schedule), looking only at a single product may be insufficient to capture the broader dimensions of governance structures, and the role of institutions and of upgrading. Moreover, the apparel industry seems to fit very well with a multi-product framework, as it is an unorganised sector in many developing countries, in which a single firm often manufactures a variety of products. Firms might be manufacturing both intermediate and finished products and low-quality and high-end products. In addition,



the supplier may be part of different types of networks. Therefore, using the firm as a unit of analysis gives a better picture of the firm's linkages in global apparel chains. Each firm in the sample is a unit of analysis in this study, which differs from other GVC studies, in which the unit of analysis ranges from clusters to industries and nations (Milberg & Winkler, 2010a). The individual firm has not been the central focus in previous studies, although the majority of studies in GVCs implicitly assume a firm dimension in their analysis (Morrison et al., 2008).

Another strong justification for not undertaking research at the product level is the consolidation of products that have occurred at countries' levels after the dismantling of quotas in 2005. Product specialisation has taken place, often confining countries to manufacture and export those product categories in which they are specialist. For example, the major export product categories of Sri Lanka are lingerie, casual wear and sportswear (Wijayasiri & Dissanayake, 2008). All firms interviewed were manufacturing and exporting the same product categories. In the case of Bangladesh, however, shirts, trousers, t-shirts and jackets are the main export products. Indeed, all firms interviewed were manufacturing and exporting said product categories.

### **3.5 Sample**

Since qualitative inquiry seeks to understand the meaning of a phenomenon from the perspectives of participants, it is important to select a sample from which the most can be learnt (Merriam, 2002). Cases in this research were selected using a non-probability sampling method called purposive sampling. Purposive sampling is based on the assumption that "one wants to discover, understand, gain in-sight, therefore one needs to select a sample from which one can learn more" (Merriam, 1988, p. 48) or, in other words, information rich cases from which a great deal about issues of central importance to the purpose of the research can be learnt (Patton, 1990). For each core chapter, different numbers of firms

(sample) were selected depending on the purpose of each chapter. Interviews were conducted in 2010 for the Chapter Four of thesis. For Chapter Five and Six, interviews were conducted in 2011.

Apparel firms in South Asia are dependent on a group of large buyers because of the latter's dominance in retail markets (Rahman et al., 2008). Two major export markets, the US and EU, are crucial destinations for apparel firms in South Asian countries (Kelegama, 2009) with 60% of the textile and apparel exports of South Asian countries directed towards these two markets (ITCB, 2009). Rather than two distinct GVCs for apparel serving two different markets (US and EU), this research considers one chain exporting to two different markets. This has been justified because firms in developing countries export to more than one major market at one time (Gibbon, 2008; Tewari, 2008) and feed into alternative chains at the same time (Gibbon, 2008; Giuliani et al., 2005). Indeed, the firms interviewed either exported exclusively to the US or the EU or the US had a share of at least 50%.

A further methodological issue involved defining the global apparel chains that, according to the conventional wisdom, comprise several sub-chains, for example, cotton, yarn, fibre and apparel (Gibbon, 2008). However, GVC analysts consider it methodologically appropriate to apply GVC analysis to relatively restricted sections of the more extensive and geographically dispersed input–output structures; therefore, apparel (as opposed to the more inclusive fibre–yarn–textiles–apparel sector) can be considered a GVC (Gibbon, 2008). There are good reasons to exclude the extractive beginnings due to the complex nature of the industry, in particular in apparel (Bair, 2009; Raikes et al., 2000). Going back to the production of the various fibres, buttons and zippers in the apparel chain will add another even more complex layer to the story (Talbot, 2009). Furthermore, the level of analysis of value chains can be at the global, macro, meso or micro level (Gereffi, 2005; Gereffi, Humphrey, Kaplinsky, & Sturgeon, 2001). When the focus of analysis is at global level, the whole chain is taken into

consideration and studied. At the micro level of analysis, the focus is on the experiences of individual firms in the value chain (Van Dijk & Trienekens, 2012). Macro-level analysis refers to the study of chains at the national level and meso to regional level activities of the value chain (Gereffi, 2005). This study is primarily a micro-level analysis of GVC and hence firms (suppliers) are the unit of analysis. Detailed justifications of samples and their sizes for all three empirical chapters are provided in proceeding paragraphs.

#### *Chapter Four*

Three types of firms—large, medium and small—were selected for the purpose of comparison. Size relates critically to the way in which firms are embedded in the institutional framework of the political economy and large firms respond differently to institutional change (Bluhm & Schmidt, 2008). For example, larger firms were better able to withstand the changing competitive dynamics and sourcing practices of buyers (lead firms) brought about by the quotas being phased (Frederick & Staritz, 2012). Furthermore, reflecting the GVC framework, firms in the study were selected on the basis on governance structures as well. Small firms in both countries were dependent on buying offices (Rahman et al., 2008) to get orders in many cases and were engaged in captive networks. Medium-sized firms were in captive and relational networks, whereas large firms were in relational networks and few were moving towards modular forms<sup>3</sup> of networks. Medium-sized firms were manufacturing low volume of high value-added products and high volume of low-value-added products and hence were part of both captive and relational networks. Hence, selection of firms on the basis of size was sound and logical methodologically.

All large firms were selected in each country because eighty percent of exports in each country came from 20% of firms in industry, which included both large and medium-sized firms (Rahman et al., 2008; Ruwanpura & Wrigley, 2010). A total of 24 apparel firms were

---

<sup>3</sup> Through digitizing of information related to designs and embellishments.

included in the sample for Chapter Four, 12 from each country. In Bangladesh four large, four medium and three small firms were selected. Similarly, in Sri Lanka nine large, two medium and one small were selected. The difference in sample across two countries in terms of size is explained below.

The size of the apparel firm in Sri Lanka is measured by the value of garments exported. The JAAF classifies as small manufacturers firms in the export apparel sector with a value of less than US\$1 million per annum, medium between US\$1.1 and US\$2.5 million, and large, US\$2.51 million and over (Interview with JAAF representative, 2010). There was some initial difficulty about defining firm size in Bangladesh, which was recently resolved by the trade associations, government and the Centre of Policy Dialogue (CPD). Previously, the criterion used to define firm size was numbers of employees and this is still used in some studies locally. Firms having more than 1,000 employees are categorised as large, more than 500 but fewer than 1,000 as medium, and fewer than 500 workers as small (Rahman et al., 2008). Recently, however, the government has defined small and medium enterprises (SMEs) as those exporting less than US\$3.5 million (BGMEA, 2010).

Sizes of firms announced officially differed from those described by representatives of the industry associations and apparel firms in reality. The latter classified themselves according to a range of variables including number of employees, value of exports, monthly production capacity, type of product (low/high value-added), level of technology, mode of relationship (direct/indirect within GVC) with international buyers as well as perception of buyers about size.

They [buyers] consider you a big or small on the number of pieces you ship to them. So sometimes the value for garment of mine might be \$5 and I am shipping 30 million garments, another company might be shipping five million at \$20 but they consider me

the bigger player, large vendor. They consider the number of units leaving my factory.  
(Sri Lanka Apparel Firm 8, 2010)

Therefore, the sizes of firms for Chapter Four were defined on the basis of eight interviews with industry associations (four in each country) and on the basis of the firms' own definition of their size. Overview and demographics of apparel firms included in the study is reported in Chapter Four in Table 4.1. The sample constitutes 12 firms in each country. The apparel firms were classified as small, medium and large.

### *Chapter Five*

In order to analyse the extent of environmental upgrading, four environmentally upgraded apparel firms in South Asia were sampled as cases. All four case firms had adopted innovative green technologies and processes to reduce the environmental impact of their operations beyond the requirement of accredited certifications. ISO14001 of the International Standards Organization (ISO) and the Leadership in Energy and Environmental Design (LEED) of the United States Green Building Council (USGBC) certified firms in apparel industry in South Asian region, were selected in sample. All selected firms were signatories of the United Nations Global Compact (UNGC) as well. LEED is a standard developed by USGBC. LEED is a comprehensive standard that tackles all the major aspects of environmental sustainability such as energy efficiency, site, water efficiency, material usage and indoor air quality. LEED is becoming a global standard with a number of countries adopting it as the de-facto green building standard globally (Holcim, 2009; Intima Asia, 2010). The UNGC is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. Principles seven, eight and nine of UNGC cover business responses toward greater environmental responsibility and

development and the diffusion of environmentally friendly technologies. Similarly, the ISO 14001 standard describes the organisational structure, responsibilities, practices, procedures, processes and resources for maintaining a firm's environmental policy (Marimon-Viadiu, Casadesus-Fa, & Heras-Saizarbitoria, 2006). ISO is the largest developer of sustainability standards in the world and ISO standards are accepted all over the world (David, 2011). Only upgraded firms were selected because environmental performances of businesses to reduce or eradicate environmental impacts is quite new practice in the apparel industry in South Asia. All cases (firms) upgraded recently starting from 2008.

Three firms were selected from Sri Lanka and the fourth from Bangladesh (refer to Table 5.1). Sri Lanka was the first country in the world to embark upon green manufacturing in the apparel sector (Wijayasiri & Dissanayake, 2008). Importantly, one of the apparel firms interviewed in Sri Lanka (Sri Lanka Firm 3) had won a prestigious International Green Apple Environment Award in recognition of its innovative efforts to achieve zero disposal of solid waste and sludge by converting effluents to economically, socially and environmentally relevant by-products. The same firm has achieved another "global first" for Sri Lanka by becoming the first apparel manufacturer in the world to receive ISO 50001, less than a month after the stringent Energy Management Systems standard was introduced by the ISO (Daily Star, 2011).

All four firms are signatories of the UNGC and are ISO 14001 certified, furthermore one firm is ISO 50001 certified. All the selected firms in Sri Lanka are LEED certified. Two of the firms in Sri Lanka were LEED platinum certified, the highest LEED rating, indicating that the platinum certified buildings are among the greenest in the world (M. Landman Communications and Consultings, 2011). Similarly, the firm selected in Bangladesh had upgraded environmentally by reducing its carbon, water and material footprint and will be

the country's first 'carbon-neutral' factory and its green building (under construction) has been designed according to the rules of the USBG (Mirdha, 2010).

### *Chapter Six*

A total of ten firms were selected in the sample, five from each country. Three large, one medium sized firm and one small firm in each country were included in the sample. Large firms were selected because of their initiatives towards social responsibility issues. All firms in the sample were at different stages of social upgrading, meaning they embraced one or more than one pillar of decent work. Hence three different types of firms in terms of sizes and at different levels of social upgrading were selected for comparison purposes. Detailed overview of firms and their demographics is provided in Table 6.1. However, it is worth mentioning here that all environmentally upgraded firms were also socially upgraded firms but not all socially upgraded firms were environmentally friendly.

### **3.6 Site and participant selections**

In Bangladesh, the apparel firms are located in three major cities: the capital city Dhaka, Chittagong and Narayanganj, with some 80% of the factories located in and around the capital Dhaka (Rahman et al., 2008; Staritz, 2011). All firms interviewed were in the Dhaka region and surrounding towns and villages including Gazipur and Savar. Gazipur and Savar are approximately 1–2 hours by car from Dhaka, for, whilst the distance is short, the traffic jams are substantial. Head offices of firms in Narayanganj were in Dhaka; hence, interviews were conducted in head offices in Dhaka.

In Sri Lanka, the apparel firms are situated in Colombo and regions near Colombo in the western province, which have better infrastructure and proximity to sea and air transport. Hence, all firms interviewed in Sri Lanka were in Colombo and nearby areas. Nearby areas were 1–2 hours drive by car from Colombo e.g., Siyambalagoda in Polgasowita, the EPZs in

Katunayake, the EPZs in Wathupitiwala, Nittambuwa, Siri Dhamma Mawatha, Giridara and Kapugoda.

A list of companies and contact details were obtained from the apex apparel association of Sri Lanka, JAAF and the Sri Lanka Apparel Exporters Association (SLAEA), and two major associations in Bangladesh, BGMEA and BKMEA. In particular, the BKMEA was extremely helpful. Initially, it was decided to rely on directories or databases on web pages of associations in each country in order to identify companies for interviews on the basis of sales or size. However, on contacting companies in databases, it was found that addresses were incorrect and many registered companies were not in operation and were closed down after the phasing out of quotas due to not getting enough orders from international buyers. Details about many closed factories were still on systems or in directories. Hence, industry associations in each country were visited and an accurate list of companies and their contact details were obtained by the researcher. The first visits in each country were made to relevant industry agencies (associations, government and policy-making organisations) and interviews were conducted with their representatives. There were many reasons to conduct interviews with industry representatives: to obtain an overview of the current situation of the apparel industry and receive correct contact details of apparel manufacturing and exporting firms; to get detailed information about companies on the basis of size of company; to evaluate how each country categorises firms; and to support the validation of subsequent findings within the triangulation approach noted above.

There were around 700 factories in operation in Sri Lanka in 2005 (Wijayasiri & Dissanayake, 2008). However, JAAF officials in Sri Lanka mentioned in interviews that the number of firms had decreased to 250 in 2010 after the phasing out of quotas. Similarly, the total number of firms operating in Bangladesh in the apparel industry in 2007 was 3,560 (Rahman et al., 2008), whereas in 2010, registered firms with BGMEA numbered 2,915, and



with BKMEA, 1,700 (Interviews with BKMEA and BGMEA representatives, 2010). Both associations had in general exclusive members, with few being members of both associations. The key reason for this being that the Bangladesh apparel industry has two main divisions: knit and woven. BKMEA is exclusively for knit product manufacturing and exporting firms, whereas, although BGMEA is open to both, woven products manufacturing and exporting firms have over time become exclusive members of BGMEA. Owners and managers were contacted by the researcher by telephone and e-mail. Initial contact was made with top management in each organisation and preliminary discussions were undertaken to determine the people most suitable for the interview.

### **3.7 Data collection methods**

Interviews were the main method of data collection. Interview-based research studies are particularly well-suited for exploratory and theory building studies to discover new relationships not previously conceived (Daniels & Cannice, 2004). Interviews make possible a deeper rapport with informants than is possible by the use of a written questionnaire (Daniels & Cannice, 2004). Indeed, in this research, it became evident that interviews helped to develop a trusting relationship with informants, which in turn allowed access to honest and accurate information.

Interviews were semi-structured and in-depth. Within the firms, data were elicited from export, marketing or supply chain managers, sustainability managers and, in some cases, owners and Chief Executive Officers (CEOs) in order to obtain information from the most knowledgeable and relevant member(s) of the firms (Van Maanen, 1979), in particular regarding relationships (transactions) with international buyers. Interviews were conducted particularly with top management because the research was more concerned about decision making than with the day-to-day operations of the organisation (Macdonald & Hellgren, 2004).

Interviews were conducted in the informant's organisation and each interview lasted approximately one hour. In this thesis, 'informants' has been used to denote participants of the study who agreed to participate, as opposed to 'subjects' or 'interviewees,' which are commonly used in quantitative studies (Lindgreen & Beverland, 2009). The reason is that interpretivists and qualitative researchers focus on understanding informants and their reality (Silverman, 2004). Interviews were conducted with a single informant in each firm for all three core chapters, whereas were conducted with two informants in the two large companies in Sri Lanka for all three chapters. Access to the second informant prompted the researcher to conduct an additional interview. There is limited guidance in the literature as to the number of interviews that should be conducted, both within an organisation and with an informant (Stavros & Westberg, 2009). "Usually, if the target population is individuals rather than companies, researchers need more responses" (Daniels & Cannice, 2004, p. 187). Hence, interview with single informant was considered appropriate because the target population was firms in the thesis. In the event where data were obtained from two informants in one company, there was no significant difference in the data between the two, in terms of their views about relationships with lead firms, upgrading and institutions.

Semi-structured interviews were conducted to allow for new concepts to emerge during the data collection and to seek new insights (Robson, 1993). Semi-structured and in-depth interviews are the most appropriate method for this purpose (Saunders, Lewis, & Thornhill, 2009). Nevertheless, it often requires a significant amount of time to collect systematic information on this basis, and the data obtained through such an interview are also difficult to order for analysis (Patton, 1990).

The interview questions were written in terms familiar to the informants and did not include any technical jargon or terms that might have led to confusion. The intention was to use simple English (because English was not the first language of informants) and no technical

jargon to avoid misunderstanding and to help build an effective rapport with the informant (negotiating relationship) (Maxwell, 1996) in giving reliable information.

A digital recorder was used to record all the interviews, allowing the researcher to remain more attentive to the informant. Initially, it was planned that in instances where recording was not possible, detailed notes would be taken. However, all informants allowed the recording of interviews. All interviews were conducted in English because interviews were conducted with top management with a command of that language. Different ‘Englishes’ may exist and a researcher is likely to encounter a variety of English accents and dialects used in different parts of the world during cross-cultural interviewing (Marschan-Piekkari & Reis, 2004). In the event, accents were different in both countries. However, the South Asian origins of the researcher (interviewer) removed language-derived communication difficulties. Informants were comfortable with the accent of the interviewer and could easily understand all questions. All informants were given small gifts (usually something with a New Zealand aspect) as a gesture of thanks for their participation. It is highly appreciated in South Asian culture to exchange gifts regardless of value. Interviews were subsequently transcribed by a professional transcriber and then reviewed by the researcher (interviewer) to ensure the accuracy of the transcriptions.

In addition to interview data, a wide range of secondary data were collected in the form of association reports, newsletters, journal articles, websites and others, to address the potential weaknesses arising from reliance on a single data collection method. This is a standard approach used in qualitative case studies (Jick, 1979) in that by “recognizing that all methods have limitations, researchers felt that biases inherent in any single method could neutralize or cancel the biases of other methods” (Creswell, 2003, p. 15).

In addition to the apparel firms, international buyers (liaison offices), government agencies and industry association officials were also interviewed. Interviews were conducted with three international buyers (two in Sri Lanka and one in Bangladesh), a researcher at the CPD in Bangladesh, a government official (Trade and Export Promotion Centre) in Sri Lanka and four interviews in each country with industry association officials. The approach was to elicit ‘multi-actor viewpoints’ (Raworth & Kidder, 2009, p. 167) using semi-structured in-depth interviews with four groups of actors across the two countries, covering manufacturing firms, in-market buyers’ representatives, policy makers and local industry trade associations. Using ‘multi-actor viewpoints’ ensured internal validity (Merriam, 2002) and can improve the credibility of interpretations (Lincoln & Guba, 1985), which require triangulation of informants, data and method.

### **3.8 Data management and analysis**

The data obtained were ordered and analysed using the latest version of Computer Assisted Qualitative Data Analysis Software (CAQDAS) NVivo 9. Data for all the three chapters were analysed in separate NVivo projects. NVivo allowed the researcher to compile, access, manage and analyse data without losing their richness and immediacy, which is essential for the qualitative researcher (Bazeley & Richards, 2000). All data were saved in NVivo format. Data in electronic format allowed data coding, comparing patterns, linking data, typing researcher observations in memos and annotations, retrieving data and searching for codes and data.

Data analysis was an inductive process. The first stage involved comparison of one unit of data with other units of data to look for common patterns across the data. Those patterns were given names (codes) for categorisation purposes (Gibbs, 2007). Coding is a helpful and common approach to data reduction (Jonsen & Jehn, 2009). Coding helps in breaking down, conceptualising, categorising and presenting data in an understandable manner (Ghauri,

2004). Hence, the data were arranged into conceptual categories under theory-driven or a priori codes and data-driven or emergent codes (Boyatzis, 1998). Theory-driven codes are also called ‘concept-driven’ codes based on a list of key thematic ideas derived from the chosen theoretical framework (Gibbs, 2007). Grounded theory approach was used to code data to generate inductively novel theoretical ideas, links to the existing theoretical framework and also to search and code theory-driven themes. Both strategies outlined in grounded theory for coding—constant comparison method and theoretical sampling—were employed (Glaser & Strauss, 1967). Under the constant comparative method, line-by-line coding was done to code data in order to develop concepts (Taylor & Bogdan, 1998) and under theoretical sampling, cases were compared and contrasted to refine and extend the constructs already generated under the headings (e.g., governance, institutions and upgrading).

The second stage involved a process called axial coding (Strauss & Corbin, 1990), in which codes were refined, similar conceptual categories were merged and an attempt was made to arrive at ‘core categories’ or ‘central categories’ that tie all categories in the theory together into a story (Gibbs, 2007).

The third stage involved establishing and explaining relationships between codes, and the final stage involved ‘pattern matching’ (Ghauri, 2004, p. 118) in which comparisons between empirically based patterns and prior theory were made and empirical findings were linked back to the wider theoretical literatures. In pattern matching, the researcher compares an empirically based pattern of events with several alternatives or predicted alternatives (Pauwels & Matthyssens, 2004).

### **3.9 Ensuring generalisability, reliability and validity issues in the research**

“Reproducing social phenomena can be difficult because it is nearly impossible to replicate the original conditions under which data were collected or to control all the variables that might possibly affect findings” (Strauss & Corbin, 1998, p. 266).

Reliability and generalisability of findings are related to the positivist approach to case studies (Lindgreen & Beverland, 2009) and hence are not applicable to the present study, which is an interpretive and qualitative study. The intention of the qualitative research is the interpretation of the events and not to generalise the findings (Merriam, 1988). Qualitative research and social phenomena by their nature cannot be replicated as the real world changes (Marshall & Rossman, 1989; Strauss & Corbin, 1998). Each interpretation is unique, replication therefore is impossible (Easton, 2000). Due to this reason social, business and management researchers and researchers involved in qualitative research give a low priority to external validity or see it as irrelevant (Remenyi, William, Money, & Swartz, 1998; Schofield, 1993). However, for any qualitative research, internal validity (Merriam, 1988, 1998, 2002) or ‘authenticity’ (Ghauri, 2004, p. 117) is the main issue. In other words, “how congruent are one’s findings with reality?” (Merriam, 2002, p. 25). The approach seeks to present an authentic understanding of people’s experiences (Ghauri, 2004). “It means [Qualitative research] hearing what others have to say, seeing what others do, and representing these as accurately as possible” (Strauss & Corbin, 1998, p. 43).

Lincoln and Guba (1985) argue that interpretations can be improved by confirmability, credibility, transferability and consistency (Lincoln & Guba, 1985) as mentioned in Table 3.1. Merriam (2002) argue that reliability in qualitative research can be defined as dependability and consistency and the results make sense when they are consistent and dependable. In the present study, these four criteria have been achieved as follows:

1. Confirmability was achieved in two ways: first, by developing an acceptable level of trust between informants and researcher (Lindgreen & Beverland, 2009) and second, by obtaining multiple perspectives or view points of the same phenomenon. All informants were sent brief details about the project (discussed in depth in Section 2.5.7 on ethical issues) and also a letter issued by the University of Auckland Human Participants Ethics Committee (UAHPEC) ensuring confidentiality of their identities and data obtained, and allowing them to withdraw from participation in the research within 25 days of the interview taking place. Before each interview, the researcher engaged in an informal conversation with informants regarding her academic, cultural and institutional background. Furthermore, to obtain multi-actor view points of the same phenomenon, interviews were conducted with industry association representatives, international buyers (liaison offices) and government officials in each country.

2. Credibility was achieved in the study by triangulation of data, informants and methods. Besides interviews, document analysis was also employed in the study, as were quantitative data (in particular, statistics and facts and figures were also collected from companies, industry associations and government departments). Moreover, interviews with three international buyers (two in Sri Lanka and one in Bangladesh), one interview with a government official in Sri Lanka and four interviews in each country with industry association officials were conducted. The approach was to elicit 'multi-actor viewpoints' (Raworth & Kidder, 2009, p. 167) using semi-structured and in-depth interviews with three groups of actors across the two countries, covering manufacturing firms, in-market buyers' representatives and local industry trade associations.

3. Transferability was accomplished by selecting two different countries in South Asia with two different institutional setups. Hence data were collected from apparel manufacturing and exporting firms in two different countries and findings were compared and contrasted. Furthermore, three types of firms were interviewed in each country: small, medium and large in equal numbers. In sum, findings were related back to wider industry and market context to identify boundary conditions (Lindgreen & Beverland, 2009).

4. Dependability was addressed by asking informants to reflect on current and past experiences. There was a question in the interview schedule about how the business environment changed after the phasing out of quotas in terms of getting orders and access to international markets. Furthermore, CAQDAS (NVivo) provides similar and consistent processes of data handling, contributing to enhancing consistency and reliability (Lindsay, 2004).

**Table 3.1: Criteria for improving interpretation in qualitative study**

|                        |   |
|------------------------|---|
| <b>Confirmability</b>  | The extent to which interpretations are the result of the informants and the phenomenon as opposed to researcher bias                           |
| <b>Credibility</b>     | The extent to which the findings appear to be acceptable representations of the data  |
| <b>Transferability</b> | The extent to which findings from one case study or setting in one context will apply to case studies or settings in other contexts             |
| <b>Dependability</b>   | The extent to which a case study's or qualitative study findings are unique to time and place; the stability or consistency of the explanations |

Source: Lincoln & Guba, 1985; Lindgreen & Beverland, 2009.

### **3.10 Ethical issues**

“A good qualitative study is one that has been conducted in an ethical manner” (Merriam, 2002, p. 29). Because human subjects were involved in the study, utmost care and consideration were given to ethical issues. In qualitative research, ethical dilemmas are likely to emerge with regard to the collection of data and dissemination of findings. Ethical



considerations in the study were addressed through informed consent, ensuring privacy and confidentiality of identities and information (data) obtained and safe and secure disposal of all information after specific time (6 years) from The University of Auckland secure network. Besides considering ethical behaviour as a qualitative researcher, it is required by The University of Auckland to apply to the UAHPEC to get permission in order to conduct research where human subjects are involved in the study. An application was submitted on 25th June, 2009, to get approval by UAHPEC. Further clarification was sought by UAHPEC and finally approval was granted on 17th July, 2009, to conduct the study.

A brief detail about the project's objectives, interviewer name and contact details, institutional affiliation and supervisors' names and contact details were provided in the participant information sheet (PIS). It was mentioned clearly that any information an informant provided to the study would not be communicated or made available within his/her organisation. A polite request that the interviews be recorded was made, and informants were able to stop the recording temporarily or ask for the recording to cease permanently at any stage in the interview. In addition, informants were allowed to refuse to answer any questions they do not wish to answer. They were free to withdraw from the research up to 25 working days after being interviewed without giving any reasons. It was assured to them through the PIS that interviews would be transcribed in such a way that their and their organisation names will not be identifiable. Further, all collected information will be kept in electronic files on a secure network in the university and deleted after 6 years. An offer to all informants was made in the PIS to provide them with a summary of the results if they would like a copy.

All the above-mentioned points were summarised in a consent form (CF) given to each informant, who could read and tick relevant sections and sign the form to show an informed

willingness to participate in the research. All informants signed the CF and allowed to be recorded and no-one withdrew from participation after 25 days of being interviewed.

All information and data collected from the study participants were kept anonymous and in the strictest confidence. Following the policy of the UAHPEC, research data will be destroyed no later than 6 years (2015) after collection of the data by deleting all data stored on the secure network of The University of Auckland and shredding CFs. To protect the identity of participants and their information, pseudonyms in all written documents, transcripts and in the NVivo software were used.

### **3.11 Conclusion**

The research presented here has employed a qualitative, interpretive and case study approach, interviews being used as the main method of data collection. As mentioned earlier, the overall research design is consistent in terms of philosophical and methodological underpinnings for all three empirical chapters (i.e., Chapters Four, Five and Six) because the thesis presented here is a coherent piece of work. However, the difference is only in criteria of selection of sample and sample size across three empirical chapters, because each empirical chapter addresses different perspectives, though coherent, of the GVC analysis. In-depth justification of the sample has been mentioned in each individual empirical chapters of the thesis. For each empirical chapter, data were collected across different time frames. For the first empirical chapter, data were collected in 2012 and for the other two empirical chapters, data were collected in 2011. The next chapter will be the first empirical chapter of the thesis presented here.



# **CHAPTER FOUR: THE GOVERNANCE AND INSTITUTIONAL UNDERPINNINGS OF GVC**

## **4.1 Chapter overview**

The GVC analysis provides an essential analytical and methodological tool to explain the dynamics of economic globalisation. The institutional dimension is one of the critical analytical dimensions of the GVC analysis. However, much of the theoretical and empirical research on global industries from a GVC perspective has focused only on governance structures (power relations) among economic actors. Hence, this empirical chapter provides evidence to support the conceptualisation and theorisation of the institutional dimension of the GVC and its interaction with the governance dimension. This chapter gives a comparative analysis of apparel firms in global apparel chains, with particular reference to the case of South Asia. The global apparel industry is conceptualised as an organisational field where the experiences of firms are tied to both the dynamics of global apparel chains and the institutional structure in which the chains are embedded. Data from two countries, Bangladesh and Sri Lanka, suggest that power structures in global apparel chains are a determinant of governance structures in GVCs and that GVCs are in a continuous state of restructuring due to shifts in power structures as a result of knowledge accumulation and diffusion. The findings also suggest that institutions have a major role in changing relationships in global apparel chains and ultimately their value-added activities.

## **4.2 Introduction**

The concept of governance is central to the GVC framework (Humphrey & Schmitz, 2002). Two of the central contentions of the GVC approach are that there are different types of globalised co-ordinated networks and that differences among the networks are due to different governance structures. The missing element in the discourse about a GVC

framework is that the institutional dimension of the framework is not adequately incorporated into the framework (Dussel, 2008; Raikes et al., 2000). The focus of the GVC framework has been overwhelmingly on the governance construct of the GVC analysis (Bair, 2008b; Henderson et al., 2002). The institutional dimension of the GVC was added in later studies by Gereffi; however, very little indication of the exact meaning of this dimension was provided (Thomsen, 2007). Actors who are external to the value chain and who directly influence the actions of chain actors should be considered as key components of GVC analysis (Gibbon et al., 2008).

This empirical chapter has two main objectives: first, to provide empirical evidence to support the conceptualisation and theorisation of the institutional dimensions of GVC analysis, and second, to examine the interaction between the governance and institutional constructs of GVC analysis and effects of that interaction on organisational and geographical architecture of global industries. The main research question is: How do institutions interact with the governance dimension of GVC and impact the organisational and geographical architecture of GVC?

This empirical chapter uses two major elements of GVC analysis, firm-level chain governance and institutions in which the chains are embedded, to highlight the prominent characteristics of the global apparel industry. Theoretically, this chapter of thesis adds to understanding of global apparel chains and particularly the institution construct and its interaction with the governance of GVC. Understanding the manufacturing context is critical for shaping industrial policy and businesses in industrialised and emerging economies alike (Cammett, 2006). In practical terms, the present research will help policy makers and businesses in understanding the context for policies and business strategies, to avoid exclusion from GVCs.

The theoretical framework of this chapter has been discussed in-depth in the Chapter Two of the thesis under sections 2.4 and 2.7. Therefore, it is not discussed here to avoid repetition. The rest of the chapter is set out as follows: first, the research setting and design for this particular chapter is explained. Finally, key findings are discussed and the chapter concludes with implications for firm and policy analysts by identifying leverage points in global apparel chains that could yield high returns on investments or profits, and suggestions for further research.

### **4.3 Research methods**

The study used an interpretive and qualitative approach with interviews as the main method of data collection. The main research strategy was a case study approach using an instrumental and collective case study (Stake, 1995, 2000), where one or more cases are studied to provide insight into an issue and to optimise understanding of the case rather than generalisations beyond (Stake, 2003). In addition to interview data, secondary data were also obtained from association reports, newsletters, journal articles and websites to supplement the interviews and to cross-check the results obtained from them.

Apparel manufacturing and exporting firms were the units of analysis, with each firm a case; hence, the research design consisted of a comparative analysis (cross-case) of case studies (firms). Case sites were chosen, using a non-probability sampling method (purposive sampling) to understand and gain insight from information-rich cases (Merriam, 1988; Patton, 1990)—12 firms each in Bangladesh and Sri Lanka.

The first author conducted face-to-face interviews in three types of firms: large, medium and small. Table 4.1 gives an in-depth demographics and overview of apparel firms sampled for the Chapter Four.

**Table 4.1: Overview of apparel firms included in the study reported in Chapter Four**

| Country           | Case | Number of employees (2010) | Sales in US\$ million (2010) | Size of the firm | Main export markets |
|-------------------|------|----------------------------|------------------------------|------------------|---------------------|
| <b>Bangladesh</b> | 1    | 14,000                     | \$50                         | Large            | EU, US              |
|                   | 2    | 30,000                     | \$150                        | Large            | EU, US              |
|                   | 3    | 3,000                      | \$24                         | Medium           | EU                  |
|                   | 4    | 3,500                      | \$25                         | Medium           | EU                  |
|                   | 5    | 26,000                     | \$235                        | Large            | EU, US              |
|                   | 6    | 4,500                      | \$168                        | Large            | EU, US              |
|                   | 7    | 270                        | \$1.5                        | Small            | EU                  |
|                   | 8    | 450                        | \$3                          | Small            | EU                  |
|                   | 9    | 480                        | \$3                          | Small            | EU                  |
|                   | 10   | 4,700                      | \$25                         | Medium           | EU, US              |
|                   | 11   | 900                        | \$9.6                        | Medium           | EU                  |
|                   | 12   | 10,000                     | \$55                         | Large            | EU, US              |
| <b>Sri Lanka</b>  | 1    | 3,200                      | \$75                         | Large            | EU, US              |
|                   | 2    | 600                        | \$4.5                        | Small            | EU, US              |
|                   | 3    | 35,000                     | \$400                        | Large            | EU, US              |
|                   | 4    | 4,000                      | \$25                         | Large            | EU, US              |
|                   | 5    | 2,000                      | \$16                         | Medium           | EU, US              |
|                   | 6    | 14,000                     | \$300                        | Large            | EU, US              |
|                   | 7    | 12,000                     | \$154                        | Large            | EU, US              |
|                   | 8    | 50,000                     | \$800                        | Large            | EU, US              |
|                   | 9    | 4,000                      | \$50                         | Large            | EU, US              |
|                   | 10   | 7,500                      | \$300                        | Large            | EU, US              |
|                   | 11   | 4,000                      | \$14                         | Medium           | EU, US              |
|                   | 12   | 250                        | \$1.5                        | Small            | US                  |

Source: Author.

In addition to the apparel firms, international buyers, government agencies and industry association officials were also interviewed. The first author interviewed three international buyers (two in Sri Lanka and one in Bangladesh), a researcher at the CPD in Bangladesh, a government official (Trade and Export Promotion Centre) in Sri Lanka and four interviews in each country with industry association officials. The approach was to elicit ‘multi-actor viewpoints’ (Raworth & Kidder, 2009, p. 167) using semi-structured in-depth interviews with four groups of actors across the two countries, covering manufacturing firms, in-market buyers’ representatives, policy makers and local industry trade associations. Using ‘multi-

actor viewpoints' ensured internal validity (Merriam, 2002) and can improve the credibility of interpretations (Lincoln & Guba, 1985), which require triangulation of informants, data and method. Within the firms, the first author interviewed export or marketing managers and some owners and Chief Executive Officers (CEOs) in order to obtain information from the most knowledgeable member(s) of the firms (Van Maanen, 1979).

## **4.4 Findings and discussion**

### **4.4.1 Geographical configuration of global apparel chains**

Prior to the quota system being phased out, apparel firms in Sri Lanka were dependent on local buying offices and hence had little or no direct relationship with lead firms. Around 65–70% of garments were exported through buying offices in Sri Lanka. However, apparel firms were now involved in direct relations with their buyers, especially firms manufacturing high value-added products for brand marketers and retailers. Few large apparel firms in Sri Lanka were manufacturing in bulk for brand marketers, retailers and brand manufacturers. One of the reasons for going into direct relations was that branded products require high conformity with design specifications; hence, lead firms have to work closely with highly capable manufacturers to ensure all parameters of product and process are met since information about design and product specifications is tacit. Similarly, for bulk products, to ensure consistency of quality, colour and measurements across the entire product lines, retailers and brand marketers wanted to interact directly with their suppliers. Further, suppliers that had been working long-term with their buyers prompted a need for direct interaction due to the high levels of trust and capabilities (both communication and manufacturing) developed in the supplier's base. Buying offices were still catering to the demands of non-brand importers and traders and small to medium-sized apparel firms, though all firms interviewed preferred to be in direct relationships with their international



buyers. Ease of communication and immediate feedback were the main reasons for this preference.

Traditionally, apparel firms in Bangladesh were also dependent on domestic and international buying offices for orders. However, recently a few, particularly large and medium-sized apparel firms, have started working directly with international buyers. “Historically we have been working through agents. But with some of the buyers with whom we have grown a more reliable relationship, we have moved directly” (Bangladesh Apparel Firm 3, 2010). Over time, Bangladeshi firms had improved their production techniques and shifted from ‘cut, make and trim’ functions to become ‘full package’ suppliers. Increasingly, they were moving towards free-on-board (FOB) contracts, where buyers and retailers place their orders directly by contracting with the manufacturers. However, a large number of orders still came through buying offices and contractors in East Asia. Many international buyers have established liaison offices in Bangladesh and employ local people to deal directly with the suppliers as this facilitates ease of communication (in particular because of problems with English language issues) in Bangladesh.

The main markets for all the Bangladeshi and Sri Lankan firms were the EU and the US and many were in triangle manufacturing relationships with intermediaries/contractors in East Asia. The triangle is completed when the finished goods are shipped to buyers from suppliers’ destination (Gereffi, 1999; Gereffi & Memodovic, 2003). Many lead firms had established regional offices in East Asia, especially Hong Kong which is considered a regional hub for co-ordinating activities and suppliers. These offices were used for meetings with their suppliers across Asia as well for other roles such as product creation, development and sampling for products designed in the US and the EU.

Instead of going to Europe or US, we go to Hong Kong to procure the business because Hong Kong is the hub for buying and sourcing for China, Bangladesh, India, Pakistan and Sri Lanka. So it is right in the centre and they can control the region. (Bangladesh Apparel Firm 1, 2010)

Firms in Bangladesh preferred to work in triangle networks, in contrast to their counterparts in Sri Lanka. Besides ease of communication, other factors included the professionalism of their co-ordination of global supply and the provision of marketing services to international buyers.

They are very professional and if I want to go direct, I have to give those value-added services like financing the project, lending and things regarding customs and duty. Direct is always better but I have a different personal point of view, as long as I get the orders on time, I am fine and the Hong Kong [co-ordinators], they are very aggressive, they are very good marketing people. (Bangladesh Apparel Firm 1, 2010)

These triangle manufacturers have marketing, distribution and supply chain management expertise from their experience of doing business with demanding markets and have the capability to co-ordinate diversified production networks to deliver a wide range of quality products in a timely manner to buyers (Tewari, 2005). Contractors or intermediaries in East Asia have become stronger in global apparel chains and use their powers to convince US importers to ensure that the fabrics from these intermediaries' mills are used not only in Sri Lanka and Bangladesh but in other Asian and African countries from where they are outsourcing. Apparel firms frequently mentioned that buyers nominated suppliers, in particular intermediary firms in East Asia. "Yes, sometimes buyers nominate from where to buy fabric" (Bangladesh Apparel Firm 9, 2010).

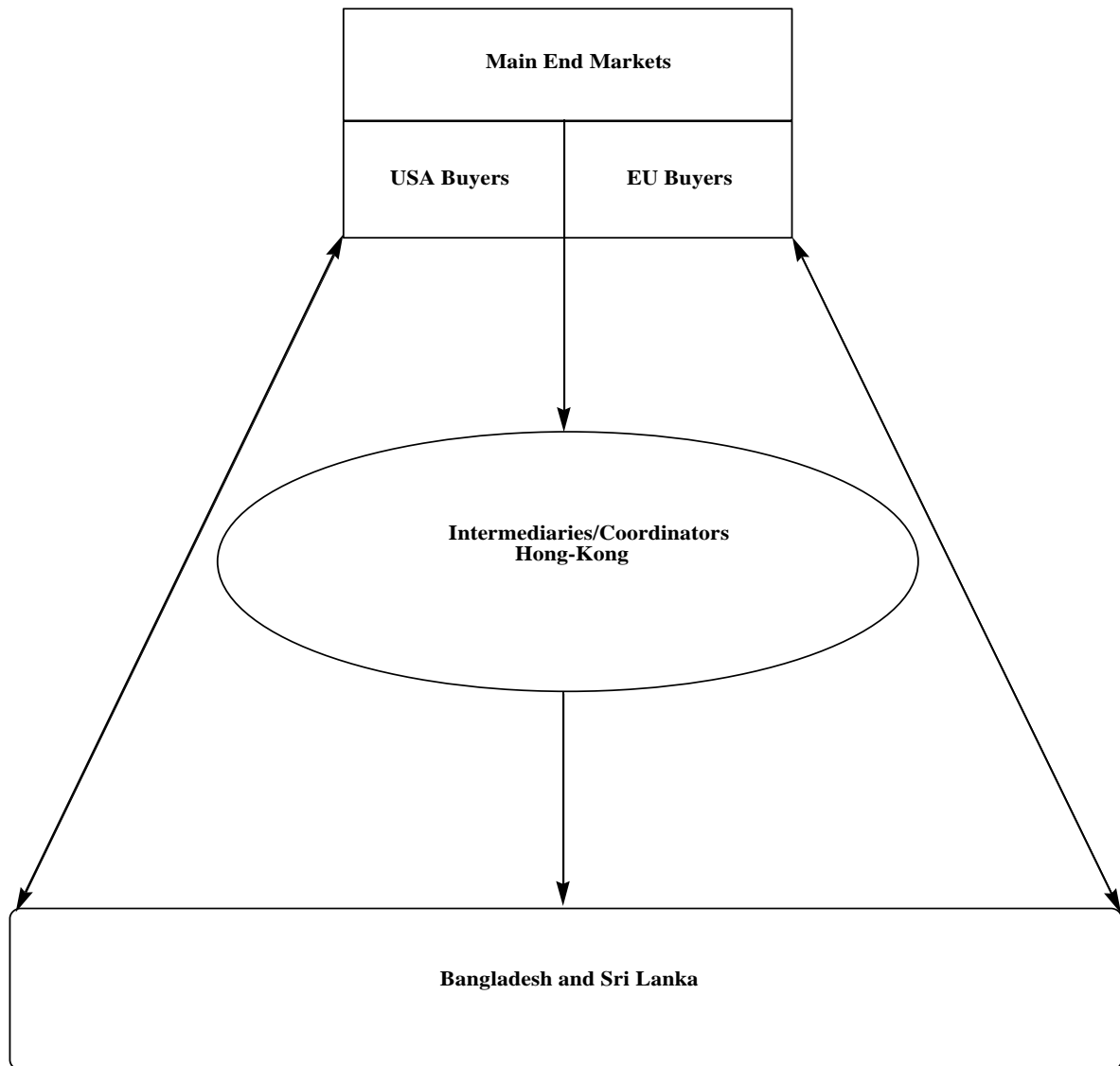
Buyers nominate ... and we work through intermediaries [coordinators], for example, they [buyers] work not only with Sri Lanka but also with Cambodia and China. They try to work with the fabric from one big mill so that they can have better control of the quality, standards and colours. So they [buyers] nominate the fabric suppliers and we have to buy from those suppliers. (Sri Lanka Apparel Firm 9, 2010)

This has two implications for buyers: first, they have control over the quality, standards and colours. Second, buyers achieve economies of scale and cost savings by nominating single large suppliers for fabrics and accessories for all their apparel manufacturers across Asia and Africa. The accumulation of power based on co-ordination skills may be theoretically referred to as platform leaders (Frederick & Gereffi, 2009) in GVCs and the result is the emergence of giant contractors (Appelbaum, 2008), which results in a power asymmetry in an industry traditionally dominated by buying firms. The net profits of some of the biggest apparel contractors, such as Li Fung, exceed those of many brands (André, Dai, & Ronald, 2008), thus making the contractor firms equally powerful as the buyer firms.

The structure of global apparel chains is in a state of continuous change, with power shifting among various economic actors due to the creation and diffusion of knowledge across the chain. Tokatli (2007) emphasises the dynamism of power relationships by stating that power is not something “held in reserve” (p. 68) by lead firms and hence it is not necessary that suppliers in low wage countries stay totally powerless (Tokatli, 2007). The findings from the field research found instances of buyers in asymmetrical relationships or sharing power with their core suppliers forming ‘bi-polar’ (Fold, 2002) apparel chains. Large firms in Sri Lanka had entered bi-polar chains not only by forming strategic relationships and manufacturing for a limited number of giant brand marketers and retailers, but also by undertaking a co-ordinating role for giant global buyers. Large Sri Lankan apparel firms were moving to outsourcing functions by shifting production units to India and Bangladesh and co-ordinating

production in those countries for their strategic buyers and hence were becoming a link in triangle manufacturing. The geographical configuration of the chain is illustrated in Figure 4.1.

**Figure 4.1: Geographical configuration of global apparel chains in Bangladesh and Sri Lanka**



Source: Adapted from Gereffi, 1999.

#### **4.4.2 Governance of global apparel chains**

Analysis of the prevailing governance structures in Sri Lanka and Bangladesh's apparel chains indicates that the industry was largely governed by the traditional buyer-driven mode. Two main types of governance structures were identified in both countries: relational and captive. Modular networks may emerge in the future, in particular in Sri Lanka as a result of

initiatives by a few large apparel firms to build design centres in their firms. These large firms would soon be able to digitise information and specifications of design.

We are currently working on creating product creation and development centre, where we will have libraries of design, prints and embellishment, innovations say new tapes or bonding applications and material which they [buyers] have not seen, which they can pick and say 'oh we create a style here.' They'll commercialise it and leave. (Sri Lanka Apparel Firm 8, 2010)

Apparel firms in Bangladesh were still far from moving into supplying design functions for their buyers. Whilst a few large firms had taken initiatives, a large percentage of Bangladeshi firms' output was still designed overseas. Large Sri Lankan apparel firms had developed expertise in production requiring high skills and hence moved successfully to design functions. In comparison, Bangladeshi apparel firms had failed to upgrade to design functions due to their long history of manufacturing basic products, for example t-shirts, and working through buying offices. In the case of Sri Lanka, the complex nature of the products they were manufacturing demanded that buyers and suppliers work and this was the core reason that Sri Lankan firms had engaged directly. Direct communication has a high knowledge-carrying capacity because it presents immediate feedback (Daft & Lengel, 1986). The basic nature of the product (standardised and easily codified) did not necessitate the need to work directly with buyers in the case of Bangladesh. The tacit component of knowledge makes its transfer and application costly and difficult, and a close and continuous interaction between the buyer and suppliers for the transfer of knowledge is needed (Giuliani et al., 2005). Hence, the nature of products (high value-added versus low value -added) prompted the need for direct interactions between buyers and suppliers.

The main criticism of the GVC definition of captive and relational networks is that it has overlooked the lack of asset specificity and the ease with which buyers and suppliers (in particular buyers) switch partners without incurring major costs (Lane & Probert, 2009). Among the sample selected, on average a buyer remained with a supplier for 3–5 years in captive chains. Buyers simply switched when they found a lower-cost supplier. The fear of losing customers (buyers) was even found among apparel firms in relational networks. Even the most competent and important suppliers based their success on winning future orders (Sturgeon, 2009). According to one business-owner in Bangladesh, who had been manufacturing for top brands for 10–12 years and in relational networks: “The customers are never loyal to you. If they see they get two cents lower somewhere else, they’ll be the first person, whether you’re working with them for 9 years or not, they will be the first person to switch” (Bangladesh Apparel Firm 1, 2010). A similar finding came from other sample firms with sound capabilities and working with top brands and giant retailers but under continuous fear of losing buyers (Bangladesh Apparel Firm 3, 2010; Bangladesh Apparel Firm 4, 2010; Sri Lanka Apparel Firm 9, 2010). According to the marketing manager of a Sri Lankan firm working for more than 14 years with brand marketers, “Yes because we keep on feeding on long-term relationship [through reduced margins], so even for a few cents they might not go to any other supplier” (Sri Lanka Apparel Firm 11, 2010). Hence, cost was becoming a major factor in determining the dynamics of relationships between suppliers and buyers, particularly in captive networks and, in a few cases, in relational networks. These findings are similar to the study conducted by Lane and Probert (2008) from buyers’ perspectives in global apparel chains that suggested that firms (buyers) in the UK were price driven and intended to stay not more than 7 years in any country to retain flexibility of movement in case of wage increase (costs).

Some strategic partnerships, formed by buyers with their preferred ‘core suppliers’ to avoid asset specificity in relational networks, were identified during the field research. These core suppliers (Palpacuer et al., 2005) were expected to play a wide variety of functions over and above production (similar to full package suppliers); however, they had high levels of competencies and high costs were associated with switching. The focus was on the suppliers’ sound financial and other strategic capabilities (Palpacuer et al., 2005). Reasons behind the establishment of strategic partnerships included: to ensure consistent supply, to reduce the transaction costs associated with many suppliers and avoid switching—the suppliers having scarce and difficult to replicate capabilities. Core suppliers reserved their production capacities for their strategic buyers and in turn buyers assured continuous orders to their core suppliers:

We are very strategic with them. We have a relationship that last year [during the recession] they would give us orders first because we are strategic. Similarly, they have picked us as one of those vendors that, even in a bad market, we will stand by them, so that is very important. (Sri Lanka Apparel Firm 8, 2010)

Similarly:

We dropped from eleven to seven buyers; we dropped some big customers. We had to drop some \$40 million customer, we had to let them go, but we grew that \$40 million with our most strategic customers. We’d rather give space to the people we have relationship with and see a future with. (Sri Lanka Apparel Firm 8, 2010)

These findings suggest that conceptualisation of governance as driving on the basis of power fits well in the South Asian context, where medium and small apparel firms were highly dependent on buyers because of their market power, or contractors due to co-ordinating powers, in terms of getting orders, value extraction and earning profits. Power structures in

global apparel chains explain the co-ordination among chain actors and offer a robust explanation of organisational and spatial configuration of this industry. The empirical results suggest that power structures in global apparel chains are determinant of governance structures particularly at the chain level (inter-firm level). Power is accumulated and wielded in different ways and in different amounts by various actors in the GVC (Sturgeon, 2009).

The findings also suggest that the size of apparel firms was equally important in determining the way they were becoming part of global apparel chains and the types of governance structures. Furthermore, the power that suppliers may wield depends on both their size and their level of competence, shaped by the institutional environment in which they are embedded and also buyers (lead firms) (Lane & Probert, 2009). In particular, small firms and a few medium-sized firms remained in captive networks due to their dependence on buying offices and limited production capacities. “My factory is a medium sized and buyers prefer to work directly with large-sized factories. For medium and small factories, direct buyers are not feasible so we work through middleman [local buying offices]” (Bangladesh Apparel Firm 11, 2010). Similarly:

I have a basket of buyers and allocate some capacity [production] for those buyers. I have to promise a certain capacity for buyers and now suddenly I don't receive an order, but because we are operating at a very short time, I don't have a choice to go back to another buyer and tell him that please give me orders, and finally I go without orders. (Bangladesh Apparel Firm 3, 2010)

Even if some manufacturing firms succeeded in moving into relational networks, the fear of losing buyers remained because of cost pressures, along with the consolidation of suppliers and the emergence of core suppliers in the form of large apparel firms taking more than a 80% share of apparel exports in both countries (Rahman, et al., 2008). When lead firms



establish close relationships with their suppliers, it creates opportunities for suppliers to upgrade, although it also brings great pressures regarding costs related to upgrading because of uncertainty over the time and horizon of relationship (Herrigel, 2008).

#### **4.4.3 Institutions influencing global apparel chains**

Institutions have a profound impact on the organisation and geography of GVCs (Bair, 2005). Buyers and suppliers face certain political, legal, economic, technological and environmental obligations and firms adapt in response to institutional pressures (Meyer & Rowan, 1977; Zucker, 1987). The empirical findings in Bangladesh and Sri Lanka suggest that a network of institutions, including organisations (economic, non-economic, private, public) and rules and regulations (both formal and informal), have a profound impact on the governance and geographical configuration of global apparel chains. Economic actors in GVCs are entangled in a web of networks comprising state, intergovernmental organisations, industry association and international trade regulations. The apparel industries in both countries were originally successful in getting access to international markets through global apparel chains because of quotas, which confirmed their shares of global exports (Rock, 2001). The phasing out of quotas and the consolidation of suppliers prompted the emergence of core suppliers, resulting in large firms expanding and taking over 80% of the total apparel export turnover of both Bangladesh and Sri Lanka (Sri Lanka Apparel Firm 4, 2010; Interviews with industry association representatives in both countries). One reason behind the consolidation of suppliers was to minimise co-ordination costs (Appelbaum, 2008). The findings validate this and suggest that the concept of core suppliers and consolidation emerged because buyers sought to avoid costs and risks and instead sought ‘full package’ suppliers. As a result, when the quota system was removed, the firms in ‘cut, make and trim’ businesses in Sri Lanka closed down factories: “In terms of companies, from 800 we will be having 200 now because there is consolidation” (Sri Lanka Apparel Firm 4, 2010).

Before quotas were phased out apparel firms manufactured a variety of products; however, now more specialisation was taking place in both Sri Lanka (lingerie, casualwear and sportswear) and Bangladesh (t-shirts and pants). Similarly, a few firms have increased manufacturing and exporting in product categories in which they had expertise but could not previously export due to international regulations. “We entered the shorts category very recently, under the quota system we were very small. If we wanted to export shorts to US we had to buy quota for the market which was very expensive and increased our costs” (Bangladesh Apparel Firm 2, 2010). The quota phase-out has also resulted in innovation and increased capabilities among suppliers. “Because all this time customer service and even manufacturing capability, excellence and value addition were never thought of as a necessity, because business was there, there were quotas, they were being filled” (Sri Lanka Apparel Firm 8, 2010).

Sri Lanka is not a low-cost location but innovation and excellence in manufacturing, coupled with high social and environmental standards in the workplace, have made it a preferred destination for international buyers. Further, prior to the quota phase-out, the element of trust and strategic intention of going into relational networks had been low. “Even customers sometimes, wouldn’t have very, what we call long-term strategy, because they couldn’t buy from one firm because there was a restriction” (Sri Lanka Apparel Firm 8, 2010).

This suggests that the quota phase-out could have prompted strengthening of relational networks and emergence of core suppliers in strategic partnerships. The above findings are in line with the recent report of the World Bank, which states that as a result of phasing out of quotas buyers are streamlining the number of suppliers and focusing on developing long-term strategic partnerships with their most important suppliers, whereas before quotas were phased out apparel trade was dominated by short-term market relationships (Gereffi & Frederick, 2010).

As a result of the institutional changes in: the phasing out of quotas, preferential market access to the EU under both its GSP and EBA (Everything But Arms), and the EU embargoes on Chinese apparel products, Bangladeshi firms received huge new orders (though mostly low value-added). “The exports picked up, but not because we had been more efficient. The reason because it was the policy supports [GSP and EBA] that Bangladesh got” (Bangladesh Apparel Firm 6, 2010). While the EU’s GSP helped Sri Lankan firms’ access to EU markets, at the same time the GSP has enabled a dominant position for Bangladesh t-shirts in the European market, though it has proved to be restrictive in regards to further developing the US market:

If you look at the trends of our exports, the EU exports have gone up, because of this benefit. Our exports to the US have actually declined. If not for the GSP Plus we would like to work more with the US, the prices are better and the quantities are better. (Sri Lanka Apparel Firm 10, 2010)

The EU’s double transformation rules of origin have resulted in the development of backward linkages in Sri Lanka and a few large firms have established their own fabric plants within their mills (also called composite mills) to reduce lead times. Rules of origin concern how much value must be added in the exporting country, if the goods are to be considered as originating there (OXFAM, 2004). For the EU market, yarn is purchased from local markets and, in the case of non-availability or shortage in local markets, yarn is then purchased mainly from India, with Pakistan as the last option due to the high price of Pakistani yarn. Yarn purchased from South Asia (Pakistan and India) is considered of Sri Lankan origin under EU GSP rules.

Domestic institutions were important in linking apparel firms to global apparel chains, as the institutional environment of any country is a combination of its political, economic, legal

and socio-cultural structures (Trevino, Thomas, & Cullen, 2008). Sri Lanka started apparel manufacturing in the late 1970s, and has always maintained good labour standards, backed-up by local legislation, with labour standards and minimum wage laws that were strictly enforced. The domestic legal infrastructure has helped the apparel industry in Sri Lanka in terms of visualisation of the industry as an ethical sourcing destination. Furthermore, the Sri Lankan government's facilitation of foreign direct investment (FDI) through its Board of Investment (BOI) paved the way for joint ventures between domestic and international apparel firms. Foreign firms have played a pivotal role in knowledge spillovers across the apparel industry, thereby upgrading the industry to high value-added segments. "The knowledge sharing has always been there with major buyers, where technical teams from the customers come down, train our people in Sri Lanka and then they say, okay this is the platform that we need to work with" (Sri Lanka Apparel Firm 8, 2010). Sri Lanka's liberal government policy of welcoming FDI, in contrast to the inward-focused policy of Bangladesh to restrict FDI to EPZs, has resulted in the upgrading of apparel firms in Sri Lanka to design functions. In the past, the industrial policies of Bangladesh have discouraged FDI in order to safeguard the quota allocations of apparel exporters to the US for domestic firms (Yongzheng & Mlachila, 2007). Due to lack of manufacturing knowledge for overseas markets and little support from the state of Bangladesh, local producers earned 'razor thin margins' and stayed dependent on agents (intermediaries ) mostly from Hong Kong (Rock, 2001, p. 214). However, the Bangladeshi government had provided support to the apparel industry of the country at various levels since 2004 (Abrams, 2012), for example, by granting back-to-back letters of credit and the bonded warehouse facilities and tax exemptions for the import of capital machinery. These policy supports were highly appreciated by the apparel firms interviewed.

The findings also suggest that large firms in Bangladesh were benefitting from domestic financial institutions in the form of subsidised or soft loans and policy support from domestic institutions due to their huge contribution to national exports. This resulted in more capital inflows, making firms financially stronger, with increased capabilities to upgrade their products, processes and functions. Access to finance shapes investment and growth patterns among manufacturing firms (Lane & Probert, 2009), and for various reasons small firms tend to face greater financial constraints than do larger firms (Nichter & Goldmark, 2009). Buyers prefer to work with suppliers with a sound financial and human resources base functioning as full package suppliers (Palpacuer et al., 2005). A recent study showed that the process of becoming a link in global apparel chains starts before buyer-driven activities of chains because the state play a critical role in defining access to economic and financial resources (Thomsen, 2007). Hence, chain entry barriers are not only constructed by global buyers but also by a country's political-economic processes or institutional contexts (Thomsen, 2007). Several recent studies (Selwyn, 2008; Tewari, 2008; Thomsen, 2007) also emphasise the role of domestic institutions in facilitating the path for local producers and suppliers to become part of highly complex and changing GVCs and the findings from the field research support those studies. Further, the role of industry associations in both Bangladesh and Sri Lanka was important—they not only supported industries in both countries by transmitting knowledge and introducing new global apparel industry trends and standards, but also by promoting the apparel industry as an ethical sourcing destination, as in the case of Sri Lanka. Local learning and innovation were often the outcome of programmes and efforts by business associations (Kaplinsky & Morris, 2001).

Regarding our work conditions, the health and safety standards and the compliance features, our apparel association took the lead I think about 20 years ago, on

compliance, before World Wide Accredited Apparel Production (WRAP) certification and other certifications came in. (Sri Lanka Apparel Firm 6, 2010)

The findings confirm previous studies suggesting that the sourcing strategies of buyers are also deeply rooted in nationalities, varieties of capitalism and financial systems (Gibbon, 2008; Lane & Probert, 2008, 2009; Palpacuer et al., 2005; Tokatli, 2007). Financial markets play a more or less dominant role depending on national differences in share-owning, in the role of institutional investors and in the role of share prices in rewarding executives and in securing access to finance on favourable terms (Palpacuer et al., 2005). Under shareholder capitalism (found in the US and the UK and diffusing now in Germany) (Kadtler & Faust, 2008) corporations seek to deliver increased returns on capital by transferring risk from shareholders to the firm and cascading down to its suppliers (Palpacuer et al., 2005). Thus, buyers focus on core suppliers capable of fulfilling a variety of functions to achieve cost-cutting goals and assure increased return on capital invested. The findings portray two main implications of shareholder capitalism for suppliers. First, buyers prefer to work with full package suppliers and/or core suppliers, including giant contractors in East Asia, to ensure higher returns. Second, buyers prefer to outsource manufacturing activities and avoid internalisation. All buyers interviewed were involved in the outsourcing, co-ordinating and auditing of suppliers, and did not own any apparel firms. In liberal market economies, markets and hierarchies are the most prevalent forms of co-ordination, whereas in co-ordinated social market economies firms rely heavily on non-market mechanisms of co-ordination, mainly relational contracting (Hall & Soskice, 2001).

Because when we are working with suppliers, we have the flexibility of working and if you do your own manufacturing, probably we might not have that flexibility. I don't think as a strategy we will look at it for a long, long time to have own manufacturing

base, because everyone else is moving out of it as well, as you have noticed.  
(International Buyer Sri Lanka 1, 2010)

Similarly:

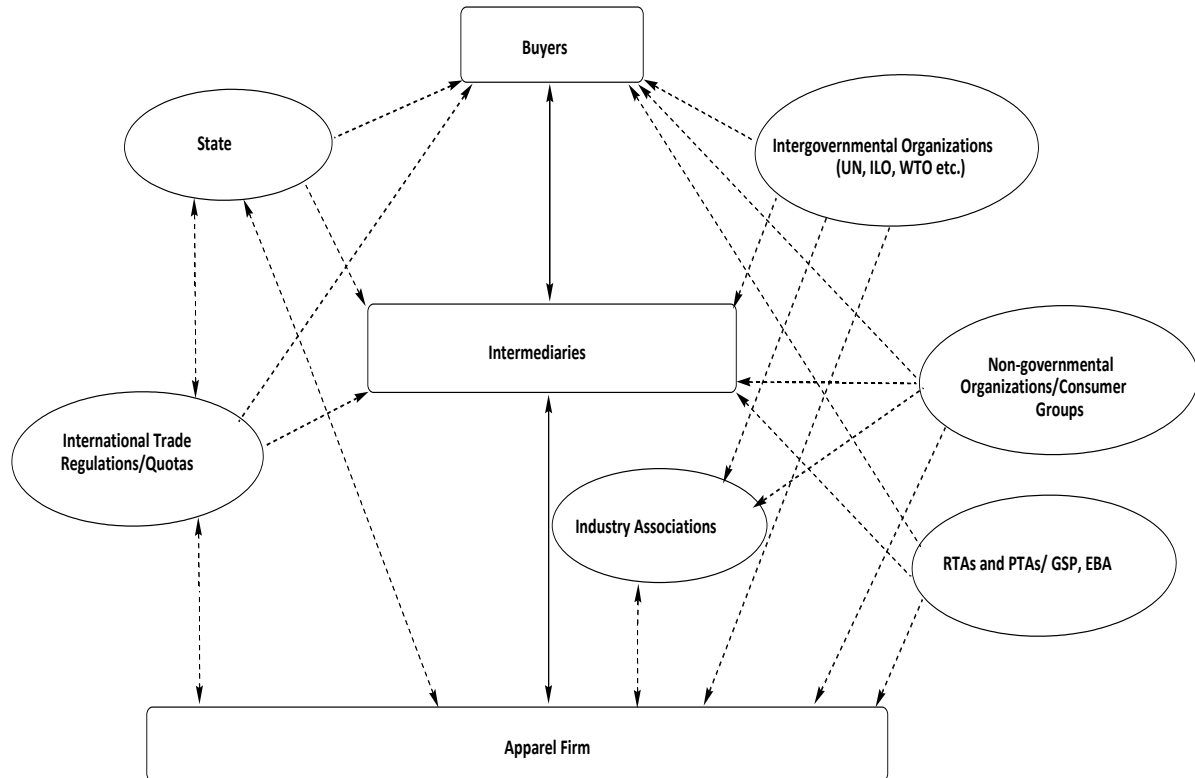
Actually sometimes ago, like I said, there was a lot of joint ventures, which we had with suppliers, but what we have done is over the past few years, we actually moved out of that, going to just being sourcing oriented. (International Buyer Sri Lanka 2, 2010)

Although labour practices and labour market regulations are differentially enforced across and within countries, the role of non-governmental organizations (NGOs) and consumer groups had increased the use of social clauses in sub-contractor agreements. NGOs and consumer groups are acting as ‘equilibria to the game’ (Aoki, 2001) based on the assumption that “since there can never be an institution-free world from which to start off, the problem of infinite regress is bound to arise” (Mudambi & Navarra, 2002, p. 639). NGOs and consumer organisations set and/or enforce social and environmental parameters that are not set and/or enforced by lead firms and suppliers. In addition, NGOs emerge as ‘equilibria to the game,’ when agents at one point in the chain might be held responsible for actions by the agents at other points in the chain (Humphrey & Schmitz, 2001), for example, a buyer or lead firm may be held responsible for labour conditions in the supplier’s factories. Hence, the need of parameter-setting and enforcement by NGOs along the chain decreases either in the case of increased capabilities in suppliers’ bases to embrace changes, or to the extent lead firms gain credibility in the implementation of their corporate social objectives.

Figure 4.2 depicts the web of institutional networks in which any typical firm (supplier) is institutionally embedded and relative to other associated economic actors. The straight lines highlight economic actors within a global apparel chain while the dotted lines show actors

outside the chain that have profound impacts on business relationships among economic actors inside the chain.

**Figure 4.2: Web of institutional network in which apparel value chains are embedded**



Source: Authors.

#### **4.4.4 Power, governance and institutions**

Empirical results showed first, that power structures in global apparel chains determine governance structures in GVCs and second, that GVCs are in a continuous state of restructuring due to internal shifts in power structures as a result of knowledge accumulation and diffusion. An economic actor may gain power due to market, commercial, innovation or co-ordination capabilities. Furthermore, institutions play a critical role in changing the governance structures and geographical configuration of GVCs. Economic actors in GVCs are entangled in a web of networks comprising state interventions, intergovernmental organisations, NGOs, industry associations, lead firms, intermediaries and regional and international trade regulations. These institutions have profound impacts on the relationship between buyers and suppliers (governance) in global apparel chains. These conclusions



support analyses seeking to address power structures in GVCs analysis in order to provide robust explanations of the geographical and organisational processes in global industries, as indicated by Sturgeon:

If we split Gereffi's category of 'governance' into two distinct areas of inquiry, power and determinants of firm-level coordination, and include institutions as third category, we are left with three 'pillars' of GVC analysis, broadly defined: (1) the character of linkages between tasks, or stages, in the chain of value added activities [governance]; (2) how power is distributed and exerted among firms and other actors in the chain; and (3) the role that institutions play in structuring business relationships and industrial location. These three elements, individually and even more so in combination, can contribute to robust explanation of why observed inter-firm relationships have evolved in an industry. (Sturgeon, 2009, p. 128)

The empirical findings from the field research are also in line with Sturgeon's above statements and his claim that power, institutions and governance are becoming so interlinked (affecting each other in some industries) that future studies will consider and place them under a single and core category. That core category could be termed as 'governance' or 'institutional web' or 'institutional networks.' Few scholars working under the rubric of the GVC have taken the initiative and integrated the governance, power and institution dimensions as a single core category or construct or dimension of the GVC and employed a more expansive definition of governance to study complex global industries.

Governance mean policies, rules, or strategies of governments, inter-governmental organizations, non-governmental organizations, labour unions and firms that are intended to influence the decisions, strategies and behavior of firms and other profit-

motivated actors in global production networks. (F. Mayer, Pickles, Knorrinda, Postuma, & Rossi, 2010, p. 1)

However, regardless of whether governance, institutions and power structures in GVC are used as separate constructs or as single core category inclusive of all above-mentioned constructs, more critical is that all the three analytical constructs are the strength of the GVC analysis to study the organisational and geographical architecture of global industries in a robust manner.

#### **4.4.5 Conceptualisation of ‘institutions’ in GVC analysis**

The conceptualisation of institutions in the field of economics is helpful in understanding the institutional dimensions of the GVC framework. For example, international, regional and domestic institutions set rules of the game for production and trade for economic actors (agents) in GVCs. However, when there is lack of enforcement or when there are no rules at all, other actors in the web of institutional networks start playing their role. Those actors may be economic or non-economic, private or public—for example, lead firm, NGOs, industry associations and international multilateral organisations. These actors contribute to the rules by which economic actors play and hence shape the institutional and economic environment of GVCs. For example, when the Harkin Bill, now The Child Labor Deterrence Act, was passed in the US senate calling for a ban on imports into the US of goods manufactured or fabricated by child workers, the Bangladeshi apparel industry responded by dismissing child workers altogether (Lund-Thomsen and Nadvi, 2010) and child labour has almost disappeared in the apparel sector (Berik & Rodgers, 2010). However, the way the Bangladeshi apparel industry eradicated child labour entirely from the formal apparel industry is a different story. Because domestic labour regulations lacked enforcement abilities, in Bangladesh, the local apparel association (BGMEA) in association with the ILO

and the United Nations International Children's Emergency Fund (UNICEF) worked together to eradicate child labour from the apparel industry.

Though a conceptualisation of 'institution' based on empirical findings suggested that the approach drawn from economics best portrays the South Asian context, however, the findings also suggest that the sociological perspective of institutions may be observed, to some extent, in global apparel chains, where large firms tend to behave in an isomorphic way to gain social credibility and acceptability, though the economic gains from those isomorphic behaviours cannot be ruled out completely. As large firms are subject to more criticism and scrutiny by wider institutional networks, for example, NGOs, media, governments and consumers (Bluhm & Schmidt, 2008), they tend to behave in an isomorphic way to gain social credibility and acceptability and ultimately enhancing the positive image about their brands (economic benefits). Those isomorphic behaviours were not only observed in buyers (lead firms) but also large suppliers (by size and sales) in Bangladesh and Sri Lanka. Nevertheless, the empirical findings show that both perspectives of institutions can help in understanding and unpacking the conceptualisation of the 'institution' dimension of GVC, which is in line with the definitions of institutions employed in recent GVC studies, in which institutions:

constrain or enable market actor behaviour, both public in the form of government policies, rules and regulations and private in the form of social norms, codes of conduct adopted by businesses, consumer demand for social responsibility, or other non-governmental institutions and social movements. (F. Mayer & Pickles, 2010, p. 1)

## **4.5 Conclusions**

The notion of 'driving' in the original GVC framework based on power structures needs to be re-integrated into GVC analysis. The empirical results reported here suggest that power

structures in global apparel chains were determinant of governance structures in GVCs. Findings from the two countries suggest that captive and relational networks were the main governance structures of global apparel chains in which South Asian apparel firms operate; however, modular structures may emerge in the future, particularly in Sri Lanka. This also suggests that GVCs are in a continuous state of restructuring due to shifts in power structures as a result of knowledge accumulation and diffusion. Further, institutions play a critical role in changing the governance structures and geographical configuration of GVCs. Economic actors in GVCs are entangled in a web of networks comprising state, intergovernmental organisations, industry associations, and international trade regulations. These institutions have a profound impact on the relationship between buyers and suppliers (governance) in global apparel chains. The next empirical chapters will extend the findings of this chapter and investigate environmental upgrading of suppliers in GVCs and study the relationship between economic and social dimensions of upgrading. In doing so, the purpose is to examine the role of governance patterns and institutions in the upgrading processes.



# **CHAPTER FIVE:ENVIRONMENTAL UPGRADING OF SOUTH ASIAN APPAREL FIRMS IN GLOBAL VALUE CHAINS**

## **5.1 Chapter overview**

The opportunity for producers to switch from low to high value-added products, functions or chains has been widely discussed in the GVC literature. Recent debates have highlighted concerns that the ecological dimensions in GVCs are under-theorised and that the conditions and consequences of environmental upgrading in GVCs need to be researched. Hence, this chapter addresses the environmental dimension of upgrading in GVC. This chapter is an empirical and qualitative analysis of drivers and conditions under which apparel firms embrace environmental upgrading in GVCs. Data suggest that GVCs represent both the drivers of the environmental upgrading and the medium to gain the knowledge to upgrade. Similarly, capabilities in the supplier's base to assimilate the knowledge transfer, learn and ultimately upgrade are also critical. An interesting finding of the study is that environmental standards are becoming critical for producers for monitoring upgrading, developing environmental policies and enhancing efficiencies.

## **5.2 Introduction**

Upgrading refers to “the process by which actors (principally firms) seek to reposition themselves along the chain in order to increase the benefits (e.g., security, profits, technology or knowledge transfer) that they receive from participating in it” (Bair, 2008b, p. 5). Upgrading leads to firm competitiveness as this is the only way for a firm to achieve sustainable competitive advantage (Porter, 1990). However, the scope of upgrading depends on the internal governance (organisation) of any industry (Giuliani et al., 2005; Pietrobelli, Banco Interamericano de, & Rabellotti). After the 1990s, new trading and governance

patterns have emerged in most industries, characterised by functionally integrated (co-ordinated) but globally dispersed industrial structures referred to as networks or chains (Bair, 2009). Theoretically, these networks are called GVCs (Gereffi et al., 1994; Gereffi & Memodovic, 2003). A common feature of GVCs is that lead firms co-ordinate the activities of actors across the chain (upstream and downstream).

Though the lead firms are continuously seeking cost reductions, high quality, increased speed and conformance to other code of conducts specified by them, at the same time they transmit best practices and advice to participating firms (Humphrey & Schmitz, 2001), thus stimulating learning and upgrading along the chain (Gibbon & Ponte, 2005). GVCs have become important vehicles for international knowledge diffusion (Ramirez & Rainbird, 2010) where lead firms share and transfer knowledge to independent participating firms in GVCs (Ernst & Kim, 2002). Based on empirical evidence, there is a general consensus that views lead firms as important transmitters of knowledge, that they enhance learning and lead to the upgrading of actors along GVCs (Bair & Peters, 2006 ; Dolan & Humphrey, 2000; Gereffi, 1999; Humphrey & Schmitz, 2000, 2002; Morrison et al., 2008; Schmitz, 2004, 2006; Tokatli, 2007). Four types of upgrading (Humphrey & Schmitz, 2002; Schmitz, 2006), also referred to as economic upgrading, may take place in GVCs. Economic upgrading can result in higher profits for the firm due to the firm shifting to higher value-added activities (Gereffi, 1999). The four types of upgrading are process, product, chain and functional upgrading. Process upgrading refers to where economic actors (firms) can transform inputs into outputs more efficiently or through the introduction of innovative technology. Product upgrading involves firms moving into sophisticated product lines with increased unit values, in which production processes may or may not remain the same (Sturgeon, 2006). Chain upgrading occurs when economic actor moves into different sectors, whereas functional

upgrading occurs where firms acquire new functions in the chain or abandoning existing ones.

The opportunity for firms to switch from low to high value-added products, functions, or chains has been heavily discussed in the GVC literature (Milberg & Winkler, 2010a); however, recent debates have highlighted that the ecological dimensions in GVCs are under-theorised and that the conditions (process) and consequences of environmental upgrading in GVCs need further research (De Marchi et al., 2010; F. Mayer et al., 2010). In addition, a number of empirical studies of upgrading in the GVC literature have mixed the causes and effects of upgrading and to date there has not been a systematic attempt to investigate upgrading at the firm level (Morrison et al., 2008). The consequences or effects of upgrading are important to study because tensions can occur between rates of profit and levels of environmental protection, since taking measures to increase protection often requires increased costs particularly in the short-term (Courault, 2005; Konar & Cohen, 2001), specifically where severe regulatory failures exist (Jeppesen & Hansen, 2004; Pargal & Wheeler, 1996) and lack of knowledge prevails.

This chapter is an attempt to fill the gap in the GVC literature in relation to the analysis of environmental upgrading in GVCs. The research is a systematic analysis of why firms upgrade environmentally, how they upgrade, what types of chains foster environmental upgrading and what are possible outcomes of upgrading. The main research question is why and how apparel firms in South Asia embrace environmental upgrading in GVCs? In practical terms, the present research will help policy makers in identifying leverage points in GVCs for the implementation of environmental upgrading or sustainability programmes and help business actors to understand the process (challenges) and outcome (advantages) of upgrading.



The global apparel industry has been selected because of the environmental consequences associated with the industry, particularly in deregulated and/or unregulated locations (Pickles, 2010). Apparel manufacturing has significant global consequences—for example, growing cotton is a water-intensive activity, tanning leather often involves toxic chemicals, and making synthetic fabrics such as polyester uses large amounts of crude oil and other materials that release volatile compounds (Binkley, 2010). Furthermore, modern automated textile plants consume large amounts of energy, textile finishing consumes large amounts of water and energy and produces harmful effluents, while dyeing is notorious for polluting water (Pickles, 2010). The South Asian region has been selected for several reasons. Sri Lanka was the first country in the world to embark upon green manufacturing in the apparel sector (Wijayasiri & Dissanayake, 2008) and was followed by Bangladesh in the South Asian region (Mirdha, 2010). Further, lead firms in the apparel value chain have used geographically dispersed networks to access a larger low-cost labour force in various low-cost countries, including countries in South Asia. These countries often lack rules and regulations regarding the environment, potentially resulting in a ‘race to the bottom’ scenario. The race to the bottom is a trend where supplier firms scramble to cut costs and bid prices down, pay low wages and disregard labour and environmental standards, in order to survive (Appelbaum et al., 2005). Environmental upgrading is seen as the ‘high road’ to competitiveness, in contrast to the ‘low road’ (Giuliani et al., 2005, p. 550) associated with a race to the bottom. Apparel firms in developing countries, often compete by squeezing wages and disregard environmental standards. Hence, apparel firms that have upgraded environmentally, in an industry where profits are based on race to the bottom, offers an interesting case study of what, why and how environmental upgrading occurs.

The chapter is set out as follows: the first section establishes a conceptual framework followed by an explanation of the research setting and design in the second section. This is

succeeded by a description and discussion of the key findings of the research. Finally, the chapter concludes by outlining implications for firms and policy makers and suggestions for further research.

### **5.3 Conceptual framework**

Global trade relationships have transformed dramatically during the past few decades. In the 1970s and 1980s an era of intra-firm trade emerged, the dominant feature of which was trade between subsidiaries of Multinational Corporations (MNCs) (Schmitz, 2006). The importance of intra-firm trade and its various strategic, organisational and structural dimensions are well documented in the literature on multinational corporations (Buckley, 2002). From the 1990s onwards, new trading patterns, characterised by functionally integrated (co-ordinated) but globally dispersed industrial structures also called networks, have emerged (Bair, 2009). The main feature of these networks is the power that lead firms possess to co-ordinate and control operations in more than one country (Dicken, 1998; Gereffi, 1994). The growing importance of this co-ordinated trade gave rise to a new field of analysis over the past two decades, known as the GVC approach (Bair, 2009).

#### **5.3.1 Governance**

Two central contentions of the GVC approach are that there are different types of globalised co-ordinated chains and that the differences among chains are due to differences in their governance structures (Bair, 2008a). Governance refers to the organisational processes of chain co-ordination and means of influencing the distribution between agents of total income generated along the chain (Palpacuer et al., 2005). Governance structures have been identified in GVCs on a continuum of co-ordination based on three independent variables: complexity of transactions, the extent to which the information can be codified and the range of capabilities in the supply base (Gereffi et al., 2005). Complexity of transactions refers to the extent to which knowledge regarding the product and process can be transferred. Where

transactions comprise a high level of complexity, lead firms will exert greater co-ordination control. Switching suppliers who are capable of working with complex product and process specifications is costly for the lead firm (Frederick & Gereffi, 2009). The ability to codify information refers to the extent to which knowledge can be easily and efficiently transferred in a way that is understandable by actors across chains (Sturgeon, 2009). When knowledge is difficult to codify, it is difficult to transfer between firms. Suppliers' capabilities refers to the ability of suppliers to meet all the requirements of a transaction including specification about quality, timely delivery as well as environmental and safety standards (Frederick & Gereffi, 2009). When the capabilities of suppliers are low, buyers may be forced to establish their own production capabilities. On the basis of this analysis, five types of GVC governance structure (modular, relational, captive, market and hierarchical) have been identified (Gereffi et al., 2005).

At the extreme ends of the governance scale are the market and hierarchical governance modes and in between lie the modular, relational and captive chain linkages. Complexity of transactions is high in all types of governance, except in the market-governed chains, which are based on market transactions and governed by price. In modular governance networks, complex information is passed to capable suppliers as codification ability is high. Suppliers with higher capabilities will make products in accordance with customer's specifications. In relational networks, tacit information is exchanged between buyers and competent suppliers. Tacit knowledge refers to knowledge that is hard to codify and communicate and therefore people acquire it through observation, imitation and practice (Ernst & Kim, 2002). In essence, the knowledge can be freely and easily used by its owners but cannot be easily expressed and communicated to others (Giuliani et al., 2005). As the information is not easily codified, frequent interaction between lead firms and suppliers is required, thus relational networks are characterised by mutual dependency (Frederick & Gereffi, 2009).

Captive networks comprise less competent suppliers and detailed information regarding product and process must be provided by lead firms, which take an active role in monitoring and controlling their suppliers. Lastly, hierarchical networks are characterised by lead firms that have established vertical linkages due to the complexity of transactions coupled with the low capabilities of the supply base (Sturgeon, 2009).

The governance construct in GVC matters because access to some markets only becomes possible through the lead firms' role in GVCs. Governance is critical in understanding the income distribution along the chain and firms can identify those points where entry into the chain can give them higher returns on investments (Kaplinsky, 2000). Governance is particularly important for the generation, transfer and diffusion of knowledge leading to innovation (Humphrey & Schmitz, 2002) and identifying relationships characterised by a different level of involvement of suppliers in knowledge-intensive activities or innovation (Saliola & Zanfei, 2009). Innovation in this chapter is understood broadly and defined as "firms acquiring capabilities which are new to them, even if they have existed elsewhere previously" (Humphrey & Schmitz, 2002, p. 1026).

### **5.3.2 Learning and innovation**

Learning and innovation in GVCs take place as a result of firms' interactions with the lead firm. The interaction and learning within GVCs is also influenced by the governance structures of networks (Dolan & Humphrey, 2000; Henderson et al., 2002; Humphrey & Schmitz, 2004) and the extent to which the knowledge is created, adopted and transferred along the GVC varies dramatically (Saliola & Zanfei, 2009). For example, captive networks offer product and process upgrading to participating firms but prospects for functional upgrading are limited (Bazan & Navas-Aleman, 2004; Dolan & Humphrey, 2000; Humphrey & Schmitz, 2000, 2002; Schmitz, 2004, 2006). Conversely, lead firms may be more interested and thereby foster upgrading of sectors or actors in GVCs where intense

interaction is required to transfer complex (tacit) knowledge (Giuliani et al., 2005; Pietrobelli & Rabellotti, 2011), particularly in relational networks. In chains characterised by market-based relationships, process and product upgrading is not fostered by lead firms and thus product and process upgrading tend to be slower, though functional upgrading is more open (Humphrey & Schmitz, 2002). In modular chains, suppliers learn how to produce components to fully specified technical standards and the need to adhere to these standards is important for inducing learning (Pietrobelli & Rabellotti, 2011). Hence, lead firms act as an external stimulus for learning and innovation among suppliers and impose pressure (on their suppliers) to innovate but do not become directly involved in the learning process (Pietrobelli & Rabellotti, 2011). This suggests that a supplier's ability to assimilate the knowledge transfer, learn and ultimately upgrade is also critical and that upgrading requires continuous investment in people, organisation and processes by the suppliers (Schmitz, 2004). For example, functional upgrading of the Taiwanese personal computer industry (Kishimoto, 2004) and the East Asian garment industry (Gereffi, 1999) was possible because of the extensive organisational learning at the firm level prompted by insertion into GVCs. A recent study of 1,385 firms in Thailand (Saliola & Zanfei, 2009) also emphasised the capabilities of supplier firms to handle the technology or innovation as a key factor influencing knowledge transfer through value chain relationships.

### **5.3.3 Environmental upgrading in GVC**

As mentioned earlier, there is a well-documented literature on the relationship between governance and economic upgrading (see Bair, 2002; Bair & Gereffi, 2001, 2003; Bair & Peters, 2006; Bazan & Navas-Aleman, 2004; Cammett, 2006; Dolan & Humphrey, 2000; Gereffi, 1999; Gereffi & Martinez, 2000; Gereffi et al., 2002; Gibbon, 2001a; Gibbon & Ponte, 2005; Humphrey & Schmitz, 2000, 2001, 2002, 2004; Kaplinsky, 2000, 2004; Kaplinsky & Readman, 2005; Kishimoto, 2004; Knorringer & Pegler, 2006; Schmitz, 2004,

2006). Recent debates have highlighted concerns that the ecological dimensions of the globalisation of production are under-theorised (De Marchi et al., 2010; F. Mayer et al., 2010). Some studies have analysed the construct of environmental upgrading in global production networks, in particular the Green Supply Chain Management (GSCM) literature (see Srivastava, 2007; Walton, Handfield, & Melnyk, 1998). However, the focus of the studies in GSCM studies was on the different techniques and practices firms employ to control the environmental footprints<sup>4</sup> of their supply chains (De Marchi et al., 2010). Whilst a well-defined construct of ‘environmental upgrading’ does not exist in the GVC literature, scholars and analysts applying the GVC framework are working to arrive at one. One definition proposed is that “environmental upgrading is a way of reducing the ‘environmental impact’ along the value chain” (Duke-VIU International Summer Research Workshop, 2010). ‘Environmental impact’ refers to negative effects on the environment, for example, depletion of natural resources, pollution, water consumption, energy consumption and also after-use effects (waste, pollution and energy consumption). Hence, it covers three areas of any typical GVC, namely inputs, processes and outputs. Ecological economics suggests that environmental innovation is the process by which economic actors introduce or modify processes, techniques, practices, systems and products to avoid or reduce environmental damages (Beise & Rennings, 2005; Rennings, 2000). The definition used in this research component of the thesis presented here is “environmental upgrading takes place when a company improves its environmental performance through changes in product and process technology, management systems, waste and emission treatment and so on” (Jeppesen & Hansen, 2004, p. 263). The terms green, environmental or ecological innovations, and reducing ecological footprints (Beise & Rennings, 2005; Rennings, 2000)

---

<sup>4</sup> A “footprint” is a way of describing how human activities can impose different types of burden or impact on the global sustainability by leaving footprints for future generation to cope with (UNEP & SETAC, 2009).

are used interchangeably in the literature—all represent environmental upgrading and will be used interchangeably in this empirical chapter thereafter.

In order to arrive at a systematic analysis of environmental upgrading from a GVC perspective, the first step is to analyse the governance structures of the chains in which the firms are embedded in order to understand the success of the implementation and diffusion of firms' environmental upgrading. Although the implications of different types of GVCs on environmental upgrading have not been explored in the GVC literature, industrial structures clearly affect the ability to sustain efficient and clean production systems (Pickles, 2010). Also, the competitiveness, performance and strategies of individual firms are affected by the dynamics of GVCs in which they are embedded. The second step is to analyse the drivers, processes, outcomes and monitoring of environmental upgrading to understand the conditions and dynamics at the firm level.

#### **5.4 Research method**

Interviews were conducted with three apparel firms in Sri Lanka and one in Bangladesh. Face to face interviews were conducted with the sustainability managers in the three Sri Lankan firms and the Chief Executive Officer (CEO) in the Bangladeshi firm in 2011 in order to obtain information from the most knowledgeable member(s) of the firms (Van Maanen, 1979) pertaining to environmental upgrading. A wide range of secondary data were collected in the form of newsletters, journal articles, websites and firm's reports to address any potential weaknesses arising from reliance on a single data collection method or source in qualitative case studies. Table 5.1 offers detailed demographics of apparel firms included in the sample for the Chapter Five.

**Table 5.1: Overview of apparel firms included in the second empirical chapter**

| <b>Firm</b> | <b>Sales in US\$ million (2010)</b> | <b>Number of employees (2010)</b> | <b>Product lines</b>  | <b>Export markets</b>    | <b>Environmental certification</b>  | <b>Employees turnover rate (2010)</b> |
|-------------|-------------------------------------|-----------------------------------|---|--------------------------|---|---------------------------------------|
| Sri Lanka 1 | \$300 million                       | 14,000                            | Jackets, pants, skirts, shorts, nightwear and children's wear | US and EU (primarily UK) | ISO 14001, LEED (Gold) certified, UNGC signatory                                  | 5%                                    |
| Sri Lanka 2 | \$800 million                       | 50,000                            | Swimwear, sportswear, intimates and lingerie                  | US and EU                | ISO 14001, LEED (Platinum) certified, UNGC signatory                              | 5%                                    |
| Sri Lanka 3 | \$400 million                       | 35,000                            | Intimates, casual wear and lingerie                           | US and EU                | ISO 50001, ISO 14001, LEED (Platinum) , UNGC signatory                            | 5%                                    |
| Bangladesh  | \$35 million                        | 10,000                            | t-shirts, pants, sportswear, jackets, joggers                 | EU                       | ISO 14001 UNGC signatory, Green factory under construction under USGBC guidelines | 4%                                    |

Source: Author.

## 5.5 Findings

In order to portray a systematic analysis of environmental upgrading in the apparel GVCs of Bangladesh and Sri Lanka, the main findings are summarised below under the conceptual headings of drivers, process, challenges, monitoring and outcomes of environmental upgrading. The headings emerged inductively from empirical material. In fact, this research will be an early attempt among other few studies ( see De Marchi et al., 2012) to address the environmental upgrading theme in GVCs. There is little published work on the environmental dimension of upgrading in the GVC literature. Since this chapter addresses a topic which is still not fully explored by the empirical and theoretical literature on GVCs, therefore conceptual headings emerged inductively from empirical data. A visual representation of the findings is illustrated in Figure 5.1.



## **5.5.1 Drivers of environmental upgrading**

### *5.5.1.1 Role of lead firm and governance*

The lead firm (a buying firm in most cases) played a major role in the environmental upgrading of all four case study firms in two ways. First, they pushed the apparel firms to upgrade environmentally and provided technical support (knowledge) to assist in this regard. Second, the lead firms acted as transmitters of knowledge regarding the trend of a low carbon future (including possible taxes on carbon emission). The following interview data highlight that the role of the buyer was critical in the environmental upgrading of South Asian apparel firms in GVCs:

Because most of the brands that we are working with like M, G even V and H always talk about environment, climate change and the low carbon future. So we thought in long term it is good to have this climate change and environmental initiatives for our company. I mean the buyers they always like to work with the low carbon products. They push us to move on the low carbon and environmental friendly production. (Sri Lanka Apparel Firm 3, 2011)

A second informant commented:

This particular project started because of a customer request and when they came and spoke to us, we said yes we would like to do that. So that was the primary driver to kick starts the process. There was interest internally, but the thing that triggered it really is the customer [buyer] request. (Sri Lanka Apparel Firm 2, 2011)

Similarly another stated:

At the same time we understood that the buyers were expecting us to upgrade. We had to meet as well as upgrade certain standards. Some we did on our own initiative, while some others on the advice and guidance of buyers. (Sri Lanka Apparel Firm 1, 2011)

Additionally, the buyer's role was critical in transmitting knowledge about future trends in the global apparel industry, for example, future trends of low carbon production and possible legislation in developed countries regarding taxes on high carbon emissions. The direct relationship and frequent interactions with buyers made the transfer of knowledge possible about future trends of low carbon industries in developed countries.

The upcoming world for example mainly in Europe, US, New Zealand and Australia, they always talk about the legislation on carbon barriers and taxes on the carbon. So if we are already and ready on these things now we will be eligible and we will be much more competitive to others because we already been in the low carbon industry. (Sri Lanka Apparel Firm 3, 2011)

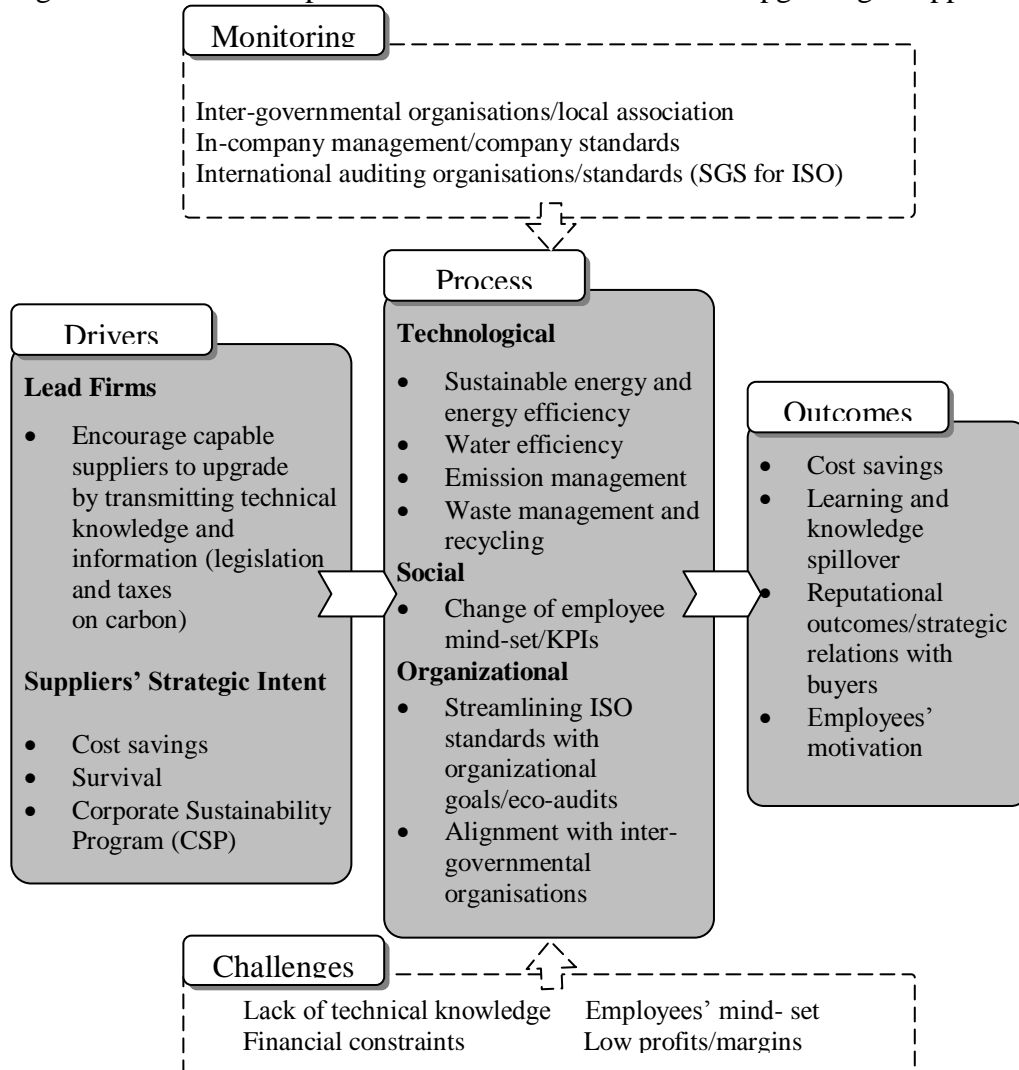
Furthermore, lead firms were not only able to push their first tier suppliers to adopt ecological innovations but they also influenced the second and third tier suppliers to adopt green practices. The Sustainability Manager of one Sri Lankan firm commented, "We also ensure that the environmental standards are met at our suppliers and sub-contractors' work places as well through setting and enforcing standards" (Sri Lanka Apparel Firm 3, 2011).

In Sri Lanka, a British retailer buyer not only encouraged the three largest apparel manufacturers to build modern green factories but also provided information and technical support. Hence, the lead firms' role was paramount in providing technical advice and support in environmental upgrading of apparel firms. This varied from extensive support (e.g., contributing towards the cost of architectural design and technologies of green factories or plants) to moderate support (e.g., technical guidance and advice). According to the owner of an apparel firm in Sri Lanka, "mainly technical advice and training was provided by buyers" (Sri Lanka Apparel Firm 1, 2011). "They [buyer] gave us a lot of

support. They tried to teach us how to do these things, let's say its 20%. Eighty percent is completely from our own company” (Sri Lanka Apparel Firm 3, 2011).

The architectural design and technical team costs, and solar panels installed in the green plant were also sponsored by them [the buyer]. There was technical information sharing session as well with the technical teams of buyer, who were doing the store refurbishments, converting their stores into green stores and also building new ones. So that was sort of technical input came from them [the buyer]. But apart from that it was essentially a sort of local design, more or less. (Sri Lanka Apparel Firm 2, 2011)

Figure 5.1: A Visual representation of the environmental upgrading of apparel firms



Source: Author.

The findings also suggest that there were a limited number of common buyers placing orders to these suppliers in the two different countries. All the firms interviewed received orders principally from one main buyer (a British retailer). This suggests that the apparel GVCs are concentrated and not fragmented and co-ordinated by a limited number of buyers due to the market power they possess. As such, the findings suggest that GVCs represent both the drivers of the environmental upgrading as well as the medium to gain the necessary knowledge to upgrade.

All four firms in the sample manufactured and exported high value-added products and dealt with complex products and processes. The information regarding products and processes was not easily codified; hence, frequent interactions between lead firms and suppliers were required to communicate tacit knowledge. “We are catering most of the high-end customers and manufacturing complex products, quite opposite to what Bangladesh exports. We are dealing directly with excellent high-end customers” (Bangladesh Apparel Firm, 2011). Due to the high capabilities of suppliers to manufacture complex products, all the suppliers were major (top list) suppliers to their buyers. All the selected firms were large (by size and sales value in each country), having sound financial and human resources, and a capacity to develop a conceptual design, purchase the necessary technologies, and implement and monitor the progress of an environmental sustainability programme. Furthermore, these firms had adapted foreign technologies to local conditions and can be considered as innovators. Maintenance of green factories was also done in-house, showing the availability of skilled human resources and finance. This also suggest that buyers are more interested in establishing strategic relationships with suppliers who have sound financial and human resources and are capable of manufacturing high value-added products. These findings also suggest that the lead firms are more interested in pushing capable suppliers to embrace

environmental upgrading. In addition, the large size of supplier firms necessitated the development and implementation of corporate sustainability programmes (CSP). Informants also noted that due to size, their standing in the society and country is very important and they can be held responsible for environmental degradation or damages, which will ultimately affect their image and reputation. “If you are a famous brand, so now it is trend to go with the low carbon industry. People and society do not like famous brand associated with the pollution and things like that” (Sri Lanka Apparel Firm 3, 2011).

#### *5.5.1.2 Suppliers’ strategic intent*

In addition to CSP, three data-driven or emergent codes (cost saving, survival [as a result of climate] and competitive advantage) are also crucial in upgrading. Upgrading is not possible without a firm’s own strategic intent. The fear of exclusion from GVCs due to a lack of or lower environmental standards may be apparent to other supplier firms but not all firms respond to such a threat in the same way. All the interviewed firms not only embraced environmental innovations but also had taken all possible initiatives to enhance efficiency and environmental capabilities. This demonstrates a strong strategic intent in upgrading firms.

One of the main drivers behind environmental upgrading, for all the firms, was the desire to reduce operational costs, and in particular energy costs. Reduced costs enhanced the competitive advantage of apparel firms that had embarked upon environmental upgrading. “Lower operational costs allow us to be slightly more competitive in terms of our price offerings” (Sri Lanka Apparel Firm 3, 2011).

Environmental upgrading can occur when apparel firms have no other alternative in order to survive. For example, the apparel firm in Bangladesh engaged in environmental upgrading for two main reasons: first, the potential impact on the environment was one of the critical elements of its CSP and second, as a result of the effects of climate change on Bangladesh.

Bangladesh is the most affected country in this whole process (climate change). We changed our submersible pump three times. We are struggling with the energy like electricity and gas. So not by choice but by default we have to be environmentally friendly. (Bangladesh Apparel Firm, 2011)

Findings suggest that all upgraded firms not only embraced environmental innovations, but had also introduced many initiatives to enhance efficiency and environmental capabilities by streamlining the social and organisational setup of firms with their environmental goals. By generating environmental competencies, these firms had developed competitive advantages that were difficult to replicate on one hand, and were generating eco-rents on the other. In fact, all interviewed firms have gone beyond the requirements in environmental standards set and enforced by buyers and international organisations (including certifying bodies). Therefore, a supplier's capability to assimilate knowledge transfer and upgrade is also critical in the whole process of environmental upgrading.

### **5.5.2 Process of environmental upgrading**

The findings suggest that at the firm level, three main types of eco-innovations took place in South Asian apparel firms, namely technological, organisational and social (Rennings, 2000). Apart from technological eco-innovations that included adoption of energy and water efficient technologies, carbon emission management and effective waste management processes, all four firms had transformed social and organisational processes to integrate with the environmental goals of the firm. Social eco-innovation was brought about by changing the mind-set of employees across the organisation by extensive training about the environmental initiatives. Similarly, organisational eco-innovations included organisational changes to achieve environmental goals, linked with realisation of environmental management systems such as ISO 14001 and ISO 50001 and allowing periodical eco-audits. Apparel firms had involved local and international organisations, both private and non-

profit, to manage and monitor their environmental sustainability programmes. Various kinds of eco-audits were carried out on regular basis in all apparel firms interviewed. The finding for each of these areas is discussed below.

#### *5.5.2.1 Technological initiatives*

##### *Sustainable energy and energy efficiency*

All the apparel firms interviewed were using either renewable, carbon-neutral or green energy. All the firms had shifted to bio-gas, natural light (day lighting for manufacturing purposes), solar energy, photovoltaic power or hydroelectric power. In Sri Lanka, a tree species called 'Gliricidia,' which is grown only for energy production, is used by one of the firms for steam production. "We are implementing fuel switching programme, in which we are feeding Gliricidia to the boiler to generate steam for production purposes, which is a carbon-neutral technology with lower cost" (Sri Lanka Apparel Firm 3, 2011). The Bangladeshi firm recycled steam generated during the manufacturing processes to heat water to 70 degrees Celsius for its dyeing machines. Energy efficiency was the core pillar of ecological innovation and sustainability programmes for all the apparel firms interviewed. One of the ecological initiatives employed by all the firms in their green plants was the reduction of heat loads inside the factory. This was done by employing efficient evaporative cooling equipment to maintain an indoor temperature whilst utilising only 25% of the energy required by an average factory. For lighting purposes, interviewed firms used daylight, task lighting and highly efficient Light Emitting Diodes (LEDs).

##### *Water efficiency*

A major initiative undertaken by the firms was the harvesting of rainwater and the treatment of polluted water in the effluent treatment plants and recycling again for using within production processes.

Every day 8,000 people are using water from the treated effluent in toilets [equalling] 350,000 litres of water. So that 100 million litres of water is not being taking from the underground annually, which is environmentally friendly and saves cost as well. (Bangladesh Apparel Firm, 2011)

Similarly, there were rainwater harvesting facilities at all of the apparel firms in the sample. For instance, one of the firms had tanks for 120,000 litres rainwater harvesting capacity in Sri Lanka and a 4 million litres rainwater harvesting capacity tank in its production plant in India.

### *Emission management*

Reduction of carbon emissions was the main benchmark set by all apparel firms in the sample. For example, the apparel firm interviewed in Bangladesh had made a commitment under the UNGC to reduce its carbon footprint by 25% by 2013. Apparel Firm 3 in Sri Lanka had been able to reduce its carbon footprint by 17% in 2011 and pledged to reduce it by a further 30% in 2012. All the four apparel firms interviewed used shipping as the main mode of transportation, which is considered an environmentally efficient mode of transport, contributing to reduction in carbon emissions.

The carbon footprint benchmark and emissions were measured in various ways. The apparel firms and independent organisations were involved in the periodical measurements and monitoring. One apparel firm interviewed in Sri Lanka was using the Greenhouse Gas Protocol<sup>5</sup> to calculate its carbon footprint. In addition to making carbon footprint measuring more transparent, the same firm planned on starting carbon labelling under standards called Tag 2050 to provide life-cycle carbon emission tags on apparel.

---

<sup>5</sup> The Greenhouse Gas Protocol is an international accounting tool used by businesses and governments to quantify and manage greenhouse gas emissions (Greenhouse Gas Protocol, 2012).



### *Waste management and recycling*

In terms of waste management and recycling, the main initiatives on the environmental front were the segregating of waste and recycling with the objective of diverting waste (in some cases entire waste) from landfills. An effective waste segregation and recycling programme had been implemented in two of the interviewed apparel firms in Sri Lanka (Apparel Firm 2 and Apparel Firm 3). Both the firms were striving toward zero-waste in landfills within a certain time frame. A hundred percent of waste was recycled in one of the interviewed firms in Sri Lanka (Sri Lanka Apparel Firm 3).

#### *5.5.2.2 Social initiatives*

‘Employees’ mind-set change’ was taken as a major challenge by all the firms interviewed and changing that mind-set was considered a major step towards environmental upgrading. Without involving people comprehensively and training them in the firm’s initiatives towards environment, it was not possible to conceptualise and implement sustainability programmes. “It is not just investing money and acquiring the technology. That is not greening. The most critical step was to change the mind-set of the people inside the organisation across all levels” (Sri Lanka Apparel Firm 3, 2011).

All apparel firms interviewed had used various methods and training programmes in order to achieve this objective—for example, through posters, green rallies and green meetings. One of the interviewed firms also used the logo of ‘Haritha Peraliya’ (Green Revolution). The main objective of all these programmes was to create awareness regarding climate change, its effects on the planet and repercussions for future generations, and necessary action required to combat the situation. Extensive training was given to employees to create awareness about waste segregation and the need to divert waste from landfills. One of the Sri Lankan firms offered financial incentives for employees who commuted by bicycle or bus to the factory. Furthermore, sustainability as a Key Performance Indicator (KPI) had been

included in the overall KPI of all firms interviewed. “They [executives] come up with the innovative ideas and there is competition among all the units to improve operations in sustainability terms and it’s 40% of overall KPI” (Bangladesh Apparel Firm, 2011). “And if there is any deviation from the set KPIs, which are set at the start of year, that has to be adjusted in proceeding months” (Sri Lanka Apparel Firm 3, 2011).

#### *5.5.2.3 Organisational initiatives*

The firms’ environmental policies were integrated with environmental standards (ISO 14001, ISO 5001 and LEED) of organisational structure, planning activities, responsibilities, practices and procedures. All firms were subject to various eco-audits (see Section 5.5.4) as a result of the above stated certifications. In addition, all firms were committed to align their operations and strategies with the principles of UNGC that cover business responses toward greater environmental responsibility. Firms were using regulations, conventions and principles of international standards and treaties to improve their environmental sustainability programmes, performance and enhance their capabilities. Two apparel firms interviewed, one in Sri Lanka and one in Bangladesh, had employed the main principles of the UNGC pertaining to environment in two ways: first, to develop their environmental sustainability programme and policies, and second, as a monitoring tool, where, as a signatory of the UNGC, a Communication of Progress (COP) is done annually to provide effective, transparent and honest information through public reporting process. “The environmental and social programmes of our firm incorporate some of the policies and regulations of standards, for example, UNGC, in order to maintain the highest possible ethical standards at our workplace” (Sri Lanka Apparel Firm 3, 2011). Similarly, another firm interviewed had obtained help and advice from the International Union for Conservation of Nature (IUCN) in designing the layout of the land area where planting was done to offset carbon emission and establish a biodiversity refuge. Another case study firm,

in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO) undertook a project called 'Eco Go Beyond' to train local youth of factories' localities about the concepts of sustainable development and their implementation. Findings suggest that organisations (institutions) in which GVCs of apparel are embedded or links outside the GVCs also play a critical role in various ways, for example, creating awareness, training and monitoring of environmental upgrading.

### **5.5.3 Challenges in environmental upgrading**

The process of environmental upgrading was not smooth for all firms interviewed and there were some challenges involved. The main challenges identified in the findings are 'changing employees' mind-set,' lack of technical knowledge and financial issues. Changing employees' mind-set has been discussed in the previous section (Section 5.5.2.2). The finding for each of other areas is discussed below.

#### *5.5.3.1 Lack of technical knowledge*

A lack of technical knowledge and expertise was seen to be the major impediment to environmental upgrading because technical knowledge was not readily available in Bangladesh and Sri Lanka. "We don't have really good green buildings in Sri Lanka, so a part of main challenge during development of conceptual design of our green plant was to figure out the parameters to look at" (Sri Lanka Apparel Firm 2, 2011). According to another informant in Sri Lanka:

When we were building this [green] factory there was no road map as such as to what constitutes a green factory, which was completely new at that time. So, literally, we had to study and look at the internet and obtain ideas as to what would constitute a green factory. (Sri Lanka Apparel Firm 1, 2011)

Technical knowledge had been purchased by all the interviewed firms from specialist organisations in developed countries. The Bangladeshi apparel firm had used services of USGBC for the conceptual design and architectural plan of its green factory. In addition, apparel firms worked with international companies, specialists in carbon and water footprint measurements, benchmarking and related certifications. Hence there were substantial costs associated with the purchase of technical knowledge, certifications and implementation of standards. Buyers provide advice regarding technical knowledge but do not contribute towards the cost of technical expertise. The costs associated with certification were very high—for example, to obtain LEED certification cost the firms US\$15,000 (various interviews, 2011). The implementation and monitoring of standards was also costly. However, certification and standards are considered critical and preferred by all interviewed apparel firms to maintain and increase credibility of their ecological innovations.

#### *5.5.3.2 Financial constraints*

All four firms identified a lack of funding (both locally and internationally) available to purchase green technologies, architectural design for green factories, solar panels, water and energy-efficient machinery, effluent treatment plants, rainwater harvesting tanks and white roof (for use of daylight for manufacturing, which was 30% costlier than a traditional roof). In both countries, low-cost funding and grants for environmental friendly or ecologically innovative projects were not available. Furthermore, the ‘payback period’ on green technologies is another emerging issue and had been identified as one of challenges in the way of environmental upgrading. “In case of any changes in technologies and if the payback is more than 3 years, we will be in huge difficulties on how we can fund those types of debts” (Sri Lanka Apparel Firm 3, 2011). According to one informant, one preferred way to support low carbon industries and products indirectly is to impose taxes on carbon emissions

by local and international bodies. However, all the four firms interviewed were very hopeful that the future will be of a low carbon industry.

Most of the buyers did not offer premium prices for products manufactured in an environmentally sustainable manner by environmentally upgraded firms. “The buyers today are chasing the cheapest needle. There is tremendous pressure on maintaining prices at the retail level which puts a lot of strain on whole supply chain” (Sri Lanka Apparel Firm 1, 2011). According to another informant, “So there is no huge benefit as such or buyer coming and saying, ‘Oh, you’re an environmentally friendly factory. I’m going to pay you ten cents more,’ it doesn’t work like that” (Sri Lanka Apparel Firm 2, 2011). Low prices and low cost are the main business criteria for most of the buyers, which is a discouraging factor for apparel firms upgrading environmentally. “Buyers admire it [environmental upgrading] but they do not pay us extra for it” (Sri Lanka Apparel Firm 1, 2011). However, apparel firms were very optimistic about the future of low carbon industry and are looking forward to this trend in near future. “We are communicating with buyers to put a premium price on our green products but they are not willing to pay that additional one or half dollar. But it will improve” (Sri Lanka Apparel Firm 3, 2011). According to three informants, buyers will use an argument against higher prices for the producers in that the end consumers are not willing to pay a few cents more for the finished product. Hence there was immense pressure on firms about returns on investments on green technologies and green plants.

Upgraded firms were offered competitive prices (slightly higher rates) compared to non-upgraded firms and were assured of consistent orders. Even the most competent and important suppliers based their success on winning future orders in the global apparel industry (Sturgeon, 2009). Regular orders and better prices as compared to non-upgraded firms provided competitive edge to firms upgraded environmentally.

#### **5.5.4 Measuring and monitoring environmental upgrading**

Environmental upgrading is complex and not easy to measure (De Marchi et al., 2010). However, informants were asked questions in order to gain in-depth insights about how environmental upgrading is measured and assessed. The research suggests that measuring and monitoring are done periodically at various levels (firm, chain, industry and international) and by various organisations, most of which are independent third parties, to enhance transparency and credibility of environmental upgrading.

At the firm level, each firm has a gauge to monitor carbon footprints, water footprints, energy consumption and waste management.

Holistically, as a group, we have three major measurements: the carbon footprint, the water consumption and waste to land filling. Each factory has a building management system to measure the energy consumption, carbon and water footprints. (Sri Lanka Apparel Firm 3, 2011)

In terms of institutions, codes of conduct set by local industry associations of industry and international certification (set and enforced by private international industry bodies and non-profit organisations such as the UN) are the main ways of measuring environmental upgrading. There are various kinds of audits carried on a periodic basis to measure various aspects, for example, management and innovation aspects of environmental upgrading. All firms are LEED certified, signatories of the UNGC and ISO 14001 certified. Additionally, one of the firms in the sample is ISO 50001 certified. Being ISO 14001 certified, auditing is periodically carried out by a third party, Société Générale de Surveillance (SGS). JAAF of Sri Lanka has also commissioned SGS to monitor the Sri Lankan Apparel code of conduct audits (Garments without Guilt). In addition, there are numerous buyers' audits in all the four firms, undertaken by the compliance teams from their local and regional offices.

Furthermore, there is a high level of trust between buyers and suppliers in terms of compliance to environmental standards. Buyers have also conferred awards on apparel firms, which have been upgraded environmentally to praise the green or eco-innovation.

Policies do exist to address issues related to environmental aspects of manufacturing and businesses in South Asia, but there are no formal rules and regulations at the national level. However, due to a lack of resources, both human and financial, there is hardly any implementation of those policies. Sri Lanka has taken some initiative at the national level in this regard. The Sri Lankan Sustainable Energy Authority awards a Sri Lanka National Energy Efficiency Award and Gold Flame Award for manufacturing sector to appreciate and acknowledge the ecological innovations of firms. The award is conferred on decisions by a team of experienced engineers after a thorough inspection and tests. Similarly, there are other awards, for example, the Ten Best Corporate Citizen Award and Merit Award for the environmental and water-related projects conferred by the Ceylon Chamber of Commerce, Sri Lanka.

### **5.5.5 Outcomes of environmental upgrading**

The main outcomes for firms engaged in environmental upgrading were cost savings, knowledge spillovers and reputational outcomes. A secondary outcome was the employee's motivation to become part of sustainability programmes.

#### *5.5.5.1 Cost savings*

Once an apparel firm upgrades environmentally and is able to undertake the same amount of production with a less amount of resources, they can achieve significant cost savings. "In the green factory the same production is done with 47% less energy, 70% less water, 80% less carbon dioxide emitted and zero solid waste landfill. In 2008, our total energy bill was \$1.2 million per month and now it is \$850 per month. So you can see the savings" (Sri Lanka Apparel Firm 3, 2011). Lower operational costs allow apparel firms to be slightly

competitive in terms of price offerings to buyers. In addition, the higher construction cost of green factories or green technologies may also be amortized because of energy-efficient manufacturing.

A hundred percent of waste is recycled in one of the Sri Lankan firms, meaning the firm is earning income on its waste. Paper is sold to paper recyclers and waste fabrics to yarn manufacturers in China. “We wanted to be a paper-neutral firm. We are getting all the money to a single account by recycling all papers and we buy paper on that account money. We have eliminated the cost element called ‘paper.’ Even this small initiative has changed the game” (Sri Lanka Apparel Firm 3, 2011).

#### *5.5.5.2 Learning and knowledge spillover*

Apparel firms that have upgraded environmentally are employing technologies, processes and design of their green plants in other factories. Once an apparel firm upgrades environmentally, it can translate acquired ecological innovations to other factories. All of the four firms applied the concepts and processes used in their green plants to conventional factories. Hence the group has committed US\$25 million over the next 4 years to convert all its factories to green plants (Sri Lanka Apparel Interview 3, 2011).

We have been taking the technologies that were developed for our green plant to some of the other plants. For example, the lighting system and technologies developed for the green plant have been employed in other plants later on. So there is definitely a technology transfer going from green plant to other plants. (Sri Lanka Apparel Firm 2, 2011)

#### *5.5.5.3 Reputational outcomes*

The findings suggest that intangible but substantial value in the form of goodwill is created when an apparel firm upgrades environmentally, enhancing its image as responsible and



ethical. Environmentally upgraded firms' relationships have been strengthened with buyers. Buyers preferred to work with them as their strategic partners and awarded certificates like preferred supplier, top supplier or environmentally friendly firm. In the case of the Bangladeshi firm, management had upgraded and included environment as one of three core elements of its CSP to differentiate itself from competitors in GVCs and maintain sustainable relationships with buyers.

Because of our environmental sustainability initiative, I am their strategic partner as declared by buyer and preferred vendor for placing orders and they [buyer] also invite us to their stakeholders meeting each year to show our initiative to their stakeholders. Because that is the intangible benefit which can be converted to tangible benefit. (Bangladesh Apparel Firm, 2011)

#### *5.5.5.4 Employees' motivation*

All firms in the sample were unsure about quantifying or measuring the impact of environmental upgrading on employees' motivation and productivity. However, all firms mentioned that their employees felt proud of being part of an environmentally friendly firm. In addition, a low turnover rates of employees in all four firms and particularly in green factories validated their interpretations (refer Table 5.1). "Employees are showing a lot of enthusiasm in simple things, for example, waste segregation and recycling and a lot of focus on energy and water saving" (Sri Lanka Apparel Firm 3, 2011). According to one informant in Sri Lanka, environmental initiatives also included improvement of working environment of employees, for example, air conditioning system, controlled temperature, green patches around the factories and buildings being made transparent. It improved overall visibility, particularly to the green patches and contributed towards improved working environment and productive employees. According to the CEO of the Bangladeshi apparel firm, "We are catering most of the high-end customers and manufacturing complex products, quite

opposite to what Bangladesh exports. Of course, workers' motivation and that kind of mind set have given us that capability.”

## **5.6 Discussion of findings**

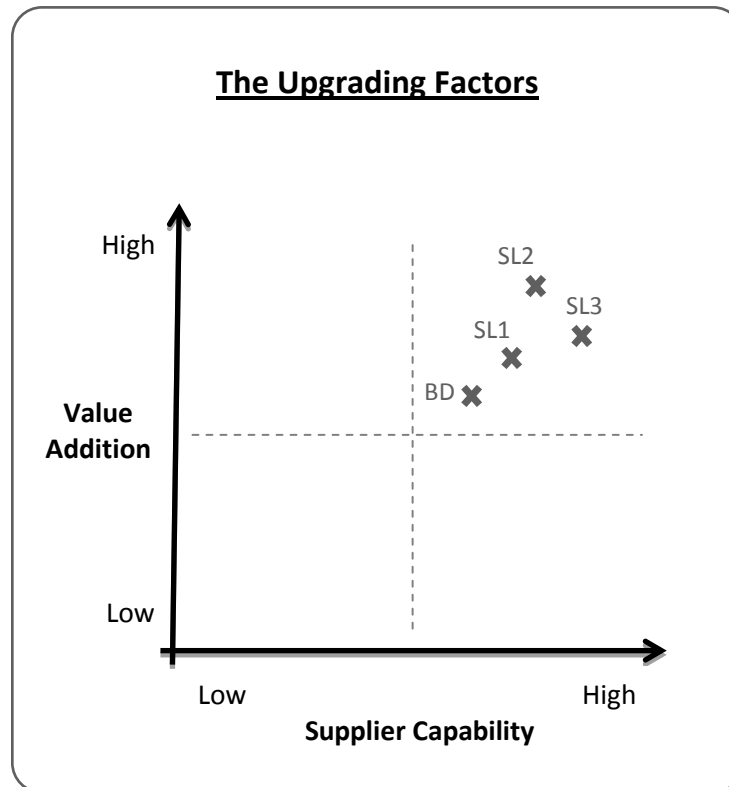
This section will integrate the main findings from the field research with established theoretical literatures and will position the findings within the domain of the GVC approach. The main purpose is to link various related theoretical strands that can better help in understanding and portraying the phenomenon of ‘environmental upgrading’ in GVCs.

### **5.6.1 Environmental upgrading and governance of the apparel GVC**

All the environmentally upgraded firms shared characteristics of relational networks where complexity of transaction is high, ability to codify information about product and process is low and capabilities in the supplier base is high (Gereffi et al., 2005; Sturgeon, 2006, 2009). In addition, all firms were in a direct relationship with their buyers and there was in-depth interaction between them regarding product design and processes. Direct communication has a high knowledge-carrying capacity because it presents immediate feedback (Daft & Lengel, 1986) that could have facilitated transfer of knowledge about low carbon trend and/or lead firm preferences to go green. Hence, the relationship with lead firms willing to lower the ecological footprint may represent both the drivers of the environmental upgrading and the medium to gain the knowledge, skills and resources required to implement more environmental-benign processes and products (De Marchi et al., 2010). These findings also validate the argument that lead firms may be more interested in the upgrading of those sectors or actors in GVCs in which intense interaction is required (Giuliani et al., 2005; Pietrobelli & Rabellotti), in particular in relational networks. Figure 5.2 shows the position of upgraded apparel firms in South Asian, in terms of value addition and capabilities. All upgraded firms had capabilities to manufacture high value-added products, interact with buyers directly and respond to emerging trends (e.g., environmental and social) in global

apparel industry. This also suggests that all firms embarked upon environmental upgrading were in relational GVC networks.

**Figure 5.2: The environmental upgrading factors**



Source: Author.

It was found that buyers contributed to the environmental upgrading of their suppliers by technical collaboration (knowledge sharing) and monitoring and controlling the environmental upgrading. This process of environmental upgrading may be viewed as a continuum, spanning 'shallow' environmental collaboration, with little transfer of resources to 'deep' environmental collaboration, with significant resource transfer to the suppliers (Jeppesen & Hansen, 2004, p. 263). Nevertheless, only one firm among those interviewed had received extensive technical support and advice, including costs of architectural design and solar panels, from the buyer (strategic partner) for construction of a green factory. This displayed deep environmental collaboration. On the other hand, the other three firms displayed shallow environmental collaboration where only technical advice was provided.

The findings also show that all the South Asian apparel firms that had upgraded in GVCs were in strategic relationships with buyers, suggesting that a strong supplier–buyer relation may represent a key way for firms to obtain greater results from an environmental upgrading point of view. Hence, governance structures have a profound impact on environmental upgrading in GVCs and the buyers have major role in environmental upgrading of apparel firms, being a buyer-driven chain (Gereffi, 1994).

The data also show that power asymmetry and fragmentation of governance play a major role in the dissemination of environmental standards in suppliers. If governance is fragmented with no dominant firm or group of firms, little environmental upgrading may be expected in GVCs (Jeppesen & Hansen, 2004). Similarly, if suppliers have strong bargaining power, the prospect of environmental upgrading will be more limited. In the present study, the environmental upgrading of apparel firms in GVCs may be attributed to the concentrated nature of governance structure with a limited number of lead firms having market and retail power. Such buyers became very large and powerful as a result of concentration in retailing in the major apparel markets, which was observed not only in the US and the UK (Humphrey & Schmitz, 2001; Schmitz, 2006) but also in Germany (Lane & Probert, 2008), France (Palpacuer et al., 2005) and more recently, in Italy (Schmitz, 2006). Therefore, GVCs represent both the drivers of the environmental upgrading as well as the medium to gain the necessary knowledge to upgrade.

### **5.6.2 Capabilities in the supplier base**

A supplier's capability to assimilate knowledge transfer, to learn and ultimately upgrade is also critical and upgrading requires continuous investment in people, organisation and processes by the local firms (Schmitz, 2004). All suppliers are facing similar threats or fear of being excluded from GVCs due to environmental standards set and enforced by lead firms, but not all firms will respond in a similar way. All of the sample firms not only

embraced ecological innovations but also took all possible initiatives to enhance efficiency and environmental-related capabilities. For example, implementation of ISO 14001, LEED, UNGC principles, investment in clean and new technologies requiring skilled human resources or training of employees by firms. All firms have invested in training (skill development) and changing the mind-set of employees regarding green or ecological innovations in various ways (discussed earlier), generating a competitive advantage. In fact, all firms went beyond the requirements in environmental standards set and enforced by buyers and international organisation (including certifying bodies).

This key finding can be best viewed from the perspective of the firms' internal competencies and specifically, a resource-based view of the firm or the capabilities literature. That literature assumes that firms compete on the basis of internal resources or capabilities that take time to develop (Penrose, 1959). The capabilities in this case were developed by working with buyers for a long time and manufacturing complex products. As the competencies or capabilities increase, governance through the lead firms is expected to be reduced and hence inter-firm networks based on trust and mutual dependence (relational networks) emerge. A basic assumption of the resource-based view of the firm is that the firm's capabilities are heterogeneous (Barney, 1991) and that resource heterogeneity creates rents (Peteraf, 1993). Rents are defined as returns from scarce resources (Kaplinsky, 2000; Kaplinsky & Morris, 2001). That heterogeneity is preserved from imitation (by property rights and information asymmetries) and sustained rents are ensured (Rumelt, 1987).

There can be two major competitive effects, impeding and facilitating (Jeppesen & Hansen, 2004), environmental competencies. Environmental competencies can impede collaboration with the lead firm because the supplier firm's capabilities may be scarce and difficult to replicate, "it may be impossible for lead firms to internalize functions or find substitute suppliers in time to compete effectively" (Sturgeon, 2009, p. 121). Since buyers and

suppliers depend on each other's resources and knowledge, they co-ordinate so that their own goals are achieved (Wong & Johansen, 2008). Furthermore, environmental competencies facilitate collaboration with lead firms as proven capabilities are a precondition for collaboration (Jeppesen & Hansen, 2004). Lead firms may decide to change their supplier and even go into strategic relationship with those manufacturing in an environmentally sustainable manner. For example, in the global apparel industry, compliance systems—labour, social and environmental standards—are used by lead firms to distinguish and select suppliers, which has developed from pressure exerted by consumer organisations and NGOs (Messner, 2002; Neilson, 2008; Ponte, 2009). However, in a few instances it depends on the CSP programme (and not due to pressure) of the lead firm that may include either environmental sustainability or social standards or both as core elements and as a result had to work with suppliers having matching capabilities. For example, a British retailer committed to become the most sustainable retailer by 2015 had strategic relationship with all the interviewed firms.

Their [buyer] main business focus is on environmental initiative because of their plan X and same time P [another buyer] focuses not only environment but the social as well but they prefer social sustainability and place more emphasis on social compliance. (Bangladesh Apparel Firm, 2011)

An interesting finding is that all upgraded firms were large (both by number of employees and turnover) in each country (refer Table 5.1), having sound financial and human resources, which also suggests that suppliers who lack the financial and human resources are relegated in importance or eliminated completely in GVCs of apparel (Palpacuer et al., 2005). Eighty percent of exports in each country came from 20% of firms in industry, which included both large and medium-sized firms (Rahman et al., 2008; Ruwanpura & Wrigley, 2010). Size is critical as it relates to the way in which firms are embedded in the institutional framework of

the political economy and large firms are subject to more criticism and scrutiny by wider institutional networks, for example, NGOs, media, governments and consumers (Bluhm & Schmidt, 2008). Therefore, they tend to gain social credibility and acceptability, through their CSPs and ultimately enhancing the positive image about their brands (economic benefits), as mentioned by one informant (Sri Lanka Apparel Firm 3, 2011). Moreover, the size of the firm positively influences the degree of innovation and technology adoption and large firms are more capable adopters than small and medium-sized firms due to their financial strengths (Yunus & Yamagata, 2012). Further, there are substantial costs related to environmental upgrading, for example, costs towards machinery, technology and standard accreditation. The cost of all these can be best viewed in relation to the size and financial viability (Kaplinsky, 2010) of the economic actors.

### **5.6.3 Eco-outcomes**

Based on the data, four types of eco-rents are earned by apparel firms by upgrading environmentally, namely reputational, differentiation, eco-efficiency, and learning and knowledge spillovers. Reputational rents mean gaining a better reputation and improving relations with stakeholders (Miles & Covin, 2000). Intangible but substantial value in the form of goodwill is created by upgrading environmentally, which enhances the image of the apparel firm as responsible and ethical (Holcim, 2009). Hence, price concessions are offered by buyers (as compared to other suppliers) and continuity of orders are ensured by buyers. Furthermore, lead firms offered to go into strategic relationship with those suppliers and also preferred those manufacturing in a sustainable way (discussed in depth under capabilities in the supplier's base). Differentiation rents are earned by entering market niches by addressing environmentalism needs or creating new markets (Orsato, 2009). All firms interviewed were catering to the needs of high-end markets and manufacturing for buyers who were committed to sustainable methods of conducting businesses. Eco-efficiency is rent earned by

reducing production costs by using fewer resources (Sinkin, Wright, & Burnett, 2008). A reduced operational cost was the main outcome of the findings. Apparel firms that have been upgraded environmentally were employing the technologies, processes and design of their green plants to other their factories. Adoption of acquired ecological innovations to other factories may be termed as learning and knowledge spillovers eco-rents. One peculiarity of environmental innovations is that they produce positive spillovers in both the innovation and diffusion stages (Beise & Rennings, 2005).

#### **5.6.4 Institutions and the role of standards in environmental upgrading in GVCs**

Another interesting finding is that standards are becoming critical, especially in environmental upgrading in global apparel industry. Compliance with standards has also helped firms in developing their capabilities and enhancing their efficiency (Kaplinsky, 2010) among South Asian apparel firms. Apparel firms are employing standards in order to develop their environmental sustainability programmes and at the same time as a monitoring tool. However, standards also impose substantial costs, for example, increased costs associated with improving standards and high levels of training to human resources to implement standards. Furthermore, investments are needed to establish systems such as waste water treatment facilities for textile and dyeing plants (Gibbon & Ponte, 2005), a white roof, rainwater harvesting tanks and solar panels. The cost of getting certified itself may be prohibitive as exemplified by one firm interviewed. Whilst the commitment to make all 33 factories 'green' was expressly admitted, there was no plan to apply for further LEED certification due to the cost involved at US\$15,000 per plant.

Role of institutions cannot be neglected in the environmental upgrading. Local industry associations, private international certification agencies and non-profit organisations set and enforce parameters regarding environmental standards. In few cases institutions facilitate the process of environmental upgrading for example, IUCN provided information and guidance



to the Sri Lanka Apparel Firm 1, regarding possible ways and processes of environmental upgrading. Further, in GVCs, in which Bangladeshi and Sri Lankan apparel firms are engaged, the role of national governments of buyers (lead firms) is also critical because they are planning to impose taxes in the near future on carbon emission and products (through regulatory forces). Due to possible legislation and taxes in near future on carbon, lead firms are considering those taxes and legislation as a threat and pushing their core and strategic suppliers to upgrade. At the same time that compliance is welcomed as an opportunity by few buyers and buyers would prefer to be in an already carbon-free industry in case of approval of any such law. It will also give them competitive advantage over their rivals in case of approval of any such law.

## **5.7 Conclusions**

This research has shown that environmental upgrading may be fostered by participation in GVCs. Lead firms are more influential in environmental upgrading of suppliers in GVCs due to the market power, resources and knowledge they possess. Lead firms can remain the core institutional force of implementation of environmental and green strategies, at least until other institutions or formal regulations actively start setting and enforcing environmental standards. Actors/firms in GVC comply with environmental standards set by buyers (lead firms) to avoid any chance of exclusion from the GVC. Furthermore, the lead firm is not only able to push their first tier suppliers to become greener but also influence the second and third tier suppliers to adopt environmentally sustainable practices. Nevertheless, lead firms are leverage points of the chain to implement environmental upgrading strategies from policy perspectives in developing countries, unlike in developed countries where national and international regulations are the main drivers of upgrading environmentally. However, a supplier's capability to assimilate knowledge transfer, to learn, develop competencies and ultimately upgrade (undertake eco-innovations) and also manufacture high value-added

products are critical. Furthermore, environmental standards are becoming critical in GVC not only for monitoring purposes but firms are also employing them to develop their capabilities and enhance their efficiency. The role of institutions cannot be neglected in the overall process of environmental upgrading. Institutions have both pushed and facilitated the process of environmental upgrading in supplier firms in GVCs.



# **CHAPTER SIX:ECONOMIC AND SOCIAL UPGRADING: SUPPLIER VIEWS FROM THE APPAREL INDUSTRY OF BANGLADESH AND SRI LANKA**

## **6.1 Chapter overview**

There is no clear evidence that economic upgrading necessarily leads to social upgrading in GVCs. It is often implicitly assumed that economic upgrading will automatically translate into social upgrading. However, the empirical evidence available is mixed, and suggests that insight can be gained from unpacking the relationship between social and economic upgrading and understanding the circumstances under which economic upgrading leads to social upgrading in GVCs. This chapter attempts to investigate the relationship between social and economic upgrading in GVCs. Data from case studies in two countries suggest that governance patterns in GVCs create the conditions under which economic upgrading generates conditions for social upgrading. Furthermore, a positive relationship may exist between product, process and functional upgrading and social upgrading, while a negative relationship may exist between just-in-time delivery and social upgrading. Data also suggest that social upgrading presents greater challenges in low-skilled categories of employment than in high-skilled employment categories.

## **6.2 Introduction**

GVCs are international systems of production, typically governed by lead firms, which coordinate elaborate networks of suppliers (Milberg & Winkler, 2010b). These lead firms seek cost reductions and improvements in quality, speed and conformance to industry-specific codes. At the same time, they also often transmit best practices and advice to participating firms (Humphrey & Schmitz, 2001), thus stimulating learning and upgrading along the chain

(Gibbon & Ponte, 2005). Based on empirical evidence, there is a general consensus among various schools of thought that lead firms are important transmitters of knowledge and that they enhance learning, in turn leading to the upgrading of actors along GVCs (Bair & Peters, 2006; Dolan & Humphrey, 2000; Humphrey & Schmitz, 2000, 2002; Morrison et al., 2008; Schmitz, 2004, 2006; Tokatli, 2007).

The most influential contributions to GVC studies around upgrading have analysed and interpreted the concept of economic upgrading (Barrientos, Gereffi, & Rossi, 2008; Barrientos et al., 2011; Goto, 2011; Milberg & Winkler, 2010a, 2011; Morrison et al., 2008). Economic upgrading in GVCs has been defined as the process by which economic actors—nations, firms and workers—move from low-value to relatively high-value activities (Gereffi et al., 2005). In GVC analysis, the ‘upgrading’ construct is used to identify how producers might ‘move up the value chain,’ either by shifting to more rewarding functional positions or by making products with more value-added invested in them that provide better returns (Bolwig, Ponte, Du Toit, Riisgaard, & Halberg, 2010). In some analyses, four types of economic upgrading within GVCs are identified, namely product, process, function and chain upgrading (Humphrey & Schmitz, 2002; Schmitz, 2006). Process upgrading refers to transforming inputs into outputs more efficiently or introducing innovative technology. Product upgrading means moving into sophisticated product lines with increased unit values. Chain upgrading refers to shifting into different industrial or service sectors. Functional upgrading means acquiring new functions in the chain or abandoning existing ones.

Extensive research on GVCs has both refined and extended the concept of economic upgrading (Mather, 2008). Recent literature has highlighted that other forms of upgrading—such as delivering larger volume (of potentially lower quality), improving on time delivery standards and certifications—are also forms of economic upgrading (Ponte, 2009; Ponte & Gibbon, 2005). In this chapter, the ‘economic upgrading’ construct is addressed in a broad

sense and is not limited to the four types of economic upgrading formulated under initial conceptualisations of GVC. Moreover, this chapter does not directly analyse economic upgrading, but rather looks at how economic upgrading can create the conditions for social upgrading.

Recent debate has highlighted concerns that the social dimensions of GVCs are under-theorised (Barrientos et al., 2011; F. Mayer et al., 2010). One concern is that the relationship of these social dimensions with economic upgrading is not clear (Locke, Kochan, Romis, & Qin, 2007). Social upgrading is the improving of the rights and entitlements of workers as social actors and the quality of their employment (Sen, 2000). Social upgrading has been defined in global chain studies in terms of the ILO conceptualisation of decent work (Barrientos & Smith, 2007). Decent work refers to work within conditions of freedom, equity, security and human dignity, in which rights are protected and adequate remuneration and social coverage are provided (International Labour Organization, 1999). Decent work in this sense has four interdependent constituent pillars (Bell & Newitt, 2010). These are: access to employment and productive income, standards and rights at work, access to a social protection system and a voice at work through social dialogue (Bell & Newitt, 2010). Therefore, social upgrading has been divided (Barrientos & Smith, 2007; Elliott & Freeman, 2003) into its quantifiable aspects, such as categories of employment (regular or irregular), wage level, contract type, social protection and working hours, and its less quantifiable aspects, such as freedom of association and the right to a voice, collective bargaining, non-discrimination and empowerment.

There is no clear evidence that economic upgrading necessarily leads to social upgrading (Locke et al., 2007). It is often implicitly assumed that economic upgrading in GVCs will automatically translate into social upgrading, yet empirical evidence shows that economic upgrading does not necessarily lead to social upgrading (Lee et al., 2011) and growing

evidence provide a more mixed picture (Barrientos, Gereffi, & Rossi, 2010; Barrientos et al., 2011). There is a need to understand and examine carefully the relationship between social and economic upgrading and, in particular, to understand under what circumstances economic upgrading may lead to social upgrading (F. Mayer et al., 2010). Hence, the main objective of this chapter is to understand and examine the relationship between economic and social upgrading in GVCs and study the conditions under which economic upgrading generates social upgrading in GVCs. This study examines how and why economic upgrading correlates to social upgrading in GVCs from firms' perspectives. In GVC analysis, the firm is often micro unit of analysis, which is very strange place to stop if someone is interested in social upgrading (Raworth & Kidder, 2009). Perceptions and experience of employees (workers) are very important to understand the social processes occurring at micro level; however, this crucial perspective will be studied in future as a part and continuation of the present study.

The apparel industries of two countries—Bangladesh and Sri Lanka—have been studied in order to highlight the correlation between economic and social upgrading in GVCs. The apparel industry is a highly globalised industry characterised by global production networks in which there have been considerable problems. These problems have included governance failure and widely recognised predatory sourcing behaviour (F. Mayer & Pickles, 2010). Lead firms and associated producers in the value chain have been able to use geographically dispersed networks to access a large low-cost labour force. Labour-intensive links (manufacturing) are outsourced by lead firms to, in most cases, developing countries (Tewari, 2005). This shifting of laborious jobs to low-cost countries has, according to some analyses, spawned a 'race to the bottom.' The race to the bottom is a trend wherein supplier firms are scrambling to cut costs and bid prices down by paying low wages and disregarding labour and environmental standards in order to survive (Appelbaum et al., 2005).

Two countries in South Asia, Bangladesh and Sri Lanka, were selected for comparison for two key reasons: the first was their important position in the global apparel trade and the second, was the contribution of the apparel industry to their respective economies, in particular, to employment. In 2010, Bangladesh and Sri Lanka were among the top 15 apparel exporting countries globally (WTO, 2011). Bangladesh ranks among the largest apparel exporters in the world (Mottaleb & Sonobe, 2011). The apparel industry provides employment to a large percentage of the population in Sri Lanka and Bangladesh and constitutes more than 45% and 80% of their exports respectively (Adhikari & Weeratunge, 2007). The industry employs 270,000 people (Savchenko & Lopez-Acevedo, 2012) and indirectly 1.2 million people (Jayaratne, 2009). The apparel industry provides jobs for almost 2.5 million people directly and another 10 million indirectly in Bangladesh (Bell & Newitt, 2010; Faruque, 2009). Furthermore, female workers make up 80% of the total workforce in the apparel industry of both Bangladesh (Faruque, 2009; Fernandez-Stark et al., 2011) and Sri Lanka (Wijayasiri & Dissanayake, 2008).

It is very valuable to conduct similar studies in different countries in order to understand the different institutional dynamics shaping the trajectories of social upgrading in GVCs. The apparel industries of these two countries are embedded in two different institutional contexts in terms of labour standards and labour market regulations. The Sri Lankan state has ratified the core convention of the ILO; Bangladesh, on the other hand, has not ratified the Minimum Age Convention, although it has ratified the convention on the Worst Forms of Child Labour (Bell & Newitt, 2010). There are eight core conventions of ILO, including conventions on union rights, forced labour, child labour and discrimination (Busse, 2002). For in-depth discussion of core conventions of ILO see Busee (2002) and Haworth, Hughes and Wilkinson (2005). At the national level, Sri Lanka has stringent labour laws and strict implementation of labour laws and regulations are observed (Ruwanpura & Wrigley, 2010).



In contrast, the central piece of employment legislation in Bangladesh is the Bangladesh Labour Act (2006). The government's ability to enforce this labour legislation is weak, however, due to insufficient numbers of labour inspectors and inadequate training and facilities (Bell & Newitt, 2010). Further, the Bangladeshi state is unwilling to address the problem of a lack of enforcement of labour laws pertaining to industrial workers (Rock, 2001). The Bangladeshi government welcomed trade union activities in the EPZs in 2008 with the introduction of the EPZ Trade Union and Industrial Relations Bill of 2004. However, that bill is not in full compliance with the ILO's conventions on collective bargaining and freedom of association because it gives unlimited authority to the EPZ administration to deregister unions (Berik & Rodgers, 2010).

Nevertheless, the apparel GVCs act as a unifying element, integrating the apparel industries of both countries. The global pressures and challenges faced by both countries are similar, particularly in terms of social compliance. The EU and US are major export markets for both countries and their conventions regarding social standards and governance patterns are becoming more similar (Gibbon, 2008). Compliance with these conventions is a *sine qua non* for entry into apparel-based GVCs (Nadvi, 2008).

The chapter is set out as follows: the first section establishes a conceptual framework; this is followed by an explanation of the research design and a description of the discussion of the key findings of the research. The chapter concludes by outlining policy implications, limitations of the study and suggestions for further research.

## **6.3 Conceptual framework**

### **6.3.1 Relationship between economic and social upgrading**

The relationship between social and economic upgrading is not clear in the GVC literature. Though moving to higher value-added activities may be seen as critical, it does not necessarily lead to social upgrading (Lee et al., 2011). While the impact of global integration

on firms and their upgrading have been studied in GVC analysis, the trickle-down effects of upgrading on employees' rights and conditions have not been sufficiently addressed (Plank, Staritz, & Lukas, 2009). For many employees, economic upgrading may put them in highly flexible and insecure work. Also, progress in employment and wages may not extend to other dimensions of decent work such as freedom of association (Lee et al., 2011). Some studies show the negative links between economic and social upgrading (Barrientos & Smith, 2007; Knorrinda & Pegler, 2006; Raworth, 2004; Raworth & Kidder, 2009). A study on the South African squid value chain concluded that economic upgrading created several thousand new jobs in which working conditions remained poor (Mather, 2008). "Firms upgrading may even be based on deteriorating working conditions" (Plank et al., 2009, p. 16). A very recent study on the apparel and electronic industries in Romania reported that despite process upgrading in both sectors, labour rights that include living wage, working time and intensity, and trade union rights remain contested (Plank et al., 2009). Similarly, a multi-country study emphasised the pressure on the labour force due to the diffusion of lean practices, particularly cost reductions and just-in-time delivery, in GVCs (Raworth & Kidder, 2009). Another multi-sector and multi-country study based on quantitative and secondary data reported mixed results that showed a positive correlation between economic upgrading and social upgrading in the horticulture and apparel sectors, but a negative correlation between economic and social upgrading in the mobile telecom sector and also suggested that social upgrading is not necessarily driven by export performance (economic upgrading) (Bernhardt & Milberg, 2011). There is a need to examine the relationship between social and economic upgrading in a more coherent way (Goto, 2011) and to understand under which circumstances economic upgrading might lead to social upgrading (F. Mayer et al., 2010).

A very recent study (see Bernhardt & Milberg, 2011) adopted a parsimonious approach to the study of social upgrading and its relationship with economic upgrading. One of the reasons behind the adoption of a parsimonious approach in that research was to operationalise the definition of social upgrading because the definition of social upgrading based on decent work is very broad. Bernhardt and Milberg (2011) suggest that social upgrading occurs in any sector when there is an increase (or at least no decrease) in employment and there is increase in real wages and/or an improvement of labour standards. The inclusion of wages in analysis gives an idea of the value-added aspect, generated by workers. In addition, the same study also proposed and adopted a parsimonious approach to defining economic upgrading in an attempt to analyse the relationship between economic and social upgrading. Here, economic upgrading means an increase (or at least no decrease) in the world export market shares and an increase in the export unit value. The underlying formula for the calculations of economic and social upgrading proposed and applied is that economic upgrading is equal to 0.5% change in market share and/or 0.5% change in export unit value and social upgrading is equal to 0.5% change in employment and 0.5% change in real wages. Here, the underlying formula for the calculations of economic upgrading seems based on the definition of industrial upgrading in GVC literature. Industrial upgrading in GVC and globalisation studies has usually been measured by the changing value of exports and by a sequential changes in export roles of individual countries (Bair & Gereffi, 2003; Gereffi, 1999; Kaplinsky & Readman, 2005).

However, aggregate industry and country-level trends conceal crucial local-level dynamics (Tewari, 2005). The percentage or shares of any trend at a particular point may obscure critical activities occurring at the chain level (Kaplinsky & Morris, 2001). For example, some statistical data do not portray the actual reasons for the decline of US apparel production and related employment (Martin, 2007). As a result of structural shifts in the

apparel industry in the US, considerable productive changes were taking place at the firm level from technical and innovation perspectives and well-paying jobs were being created as a result of ‘creative destruction’ in that mature industry (Levinsohn & Wendy, 2001). This is evident in the successful entrance of developed countries in the profitable market of technical textiles,<sup>6</sup> where competition from low-cost countries is limited (J. Mayer, 2005). Technical textiles comprised 40% of the total textile production of developed countries in the year 2000 and are the fastest growing sector of the textile industry (Uddin, 2004). For example, Korea has retained its competitiveness in synthetic and high value-added textiles after losing competitiveness in manufacturing apparel for international markets (Goto, 2011). Employment and earnings statistics may inform us of the quantity and direction of increases or decreases in employment and real wages, but not of the drivers and consequences (processes) of those changes.

Furthermore, the unavailability of data for a particular time period might be another obstacle to analyses based on quantitative data. For instance, Bernhardt and Milberg (2011) obtained data up until 1998 for Bangladesh that showed that a workforce of nearly a million was working in the apparel sector in Bangladesh. This number has in fact reached 2.5 million in 2010 (Bell & Newitt, 2010; Faruque, 2009). The wages figures from the same study are similarly out of date. Recently, wages have increased by 54% on average, and by 80–108% in some categories in the apparel sector (Lan & Pickles, 2011). Further, it is generally agreed that this wage increase (which is used as a measure of social upgrading in Bernhardt and Milberg study) is inadequate, having being eroded by inflation (Bell & Newitt, 2010). Hence, these two variables (employment and wages) may not in and of themselves adequately represent labour conditions, rights and social protection conditions in the

---

<sup>6</sup>Technical textiles include medical and hygiene textiles (wipes, nappies and adult sanitary products), protective and defence textiles to protect against cuts, abrasion, ballistic injury, fire, nuclear radiation, high voltages and transport or automotive textiles. Transport or automotive textiles includes the textiles that are used in various means of transporting, such as covering, lining or as an integral part of their structure.

workplace. Although employment and wage indicators along with export volumes and values can give a macro-level overview, these statistics do not necessarily capture a true picture of social conditions and standards at the micro level.

The qualitative framework proposed by Barrientos et al. (2011) for examining linkages between social and economic upgrading seems more robust. The framework assumes that there are a number of factors that affect economic and social upgrading within the GVC, such as the type of production (low versus high value-added) involved and the relationship between buyers and suppliers (Barrientos et al., 2011). Social upgrading for low-skilled (low value-added), labour-intensive apparel workers can present greater challenges than in more diversified types of work involving more skilled employment. Skill level is a critical factor that influences labour market dynamics in terms of wages by determining who decides and earns what at which nodes in the GVC (Knorringa & Pegler, 2006). The relationship between buyers and suppliers in the proposed framework developed by Barrientos et al. (2011) is viewed through governance patterns in GVCs.

“Governance is the process by which so-called ‘lead firms’ organise activities with the purpose of achieving a certain functional division of labour along a value chain—resulting in specific allocations of resources and distribution of gains” (Bolwig et al., 2010, p. 175). Two of the central contentions of the GVC approach is that there are different types of globalised, co-ordinated networks and differences among the networks are due to differences in their governance structures (Bair, 2008a). Although Gereffi et al. (2005) did not explore the implications of different types of GVCs for social upgrading, industrial structures (governance) clearly affect the monitoring and support of decent working conditions (Pickles, 2010). Reviews of various agri-food and apparel value chains showed that insertion into the GVCs results in the creation of jobs and income gain for workers, although this may depend on where they are in the chain (Nadvi, 2004). Therefore, governance structures may

have a profound impact on the conditions under which economic upgrading can create conditions for social upgrading.

Five possible types of governance structure were identified based on three dimensions: the complexity of transactions, the extent to which the information can be codified, and supplier capabilities (Gereffi et al., 2005). The key factor in the complexity of these transactions is asset specificity, wherein relationship-specific investments create lock-in, that is, opportunities for business partners to take advantage of each other (Sturgeon, 2009). Where transactions comprise a high level of complexity, lead firms will exert greater co-ordination control or will eventually internalise their functions, because asset specificity tends to increase over the period of an inter-firm relationship (Williamson, 1975). Furthermore, switching to suppliers capable of working with complex product and process specifications is costly for the lead firm (Frederick & Gereffi, 2009). The ability to codify information refers to the extent to which knowledge can be easily and efficiently transferred in such a way that it can be understood by actors across chains (Sturgeon, 2009). When knowledge is hard to codify, it is difficult to transfer between suppliers and lead firms. Suppliers' capabilities refers to their ability to meet all the requirements of a transaction, including specifications about quality, timely delivery, and environmental and safety standards (Frederick & Gereffi, 2009). When the capabilities of suppliers are low, buyers may be forced to establish their own production capabilities. Gereffi et al. (2005) have identified five types of governance co-ordination based on the above-mentioned dimensions.

At the extreme ends of the governance scale are market and hierarchical modes of governance, with modular, relational and captive networks falling between these. The complexity of transactions is high for all except the market-governed chains, which are based on market transactions. In modular governance networks, complex information is passed on to capable suppliers due to high levels of codification of information. Within these

networks, suppliers with high supply base capabilities make products to the customer's specifications. In relational networks, tacit information is exchanged between buyers and competent suppliers. As such, information is not easily codified and frequent interaction between the lead firm and suppliers is required; thus, relational networks are characterised by mutual dependency (Frederick & Gereffi, 2009). Captive networks comprise less competent suppliers and so detailed information regarding product and process is provided to them by the lead firm, which is active in monitoring and controlling suppliers. Finally, hierarchical networks are characterised by lead firms that establish vertical links (subsidiaries) due to the complexity of their transactions and the low capacity of their supply base (Sturgeon, 2009).

Previous research has explored whether economic upgrading lead to social upgrading or not; however, which governance mechanism creates conditions for the successful translation of economic upgrading into social upgrading is a neglected perspective. Therefore, the present research must initially investigate and establish which governance mechanisms ensure that economic upgrading delivers social upgrading (F. Mayer et al., 2010). Following that, it will analyse which types of economic upgrading can create conditions for social upgrading.

#### **6.4 Research methods**

Within the firms, data were elicited from corporate sustainability managers and in some cases owners and Chief Executive Officers (CEOs) in order to obtain information from the most knowledgeable member(s) of the firms (Van Maanen, 1979). Interviews were conducted with three large firms, one medium-sized firm and one small firm in each country in 2011. Firms at different stages of social and economic upgrading, and socially upgraded and not upgraded firms, were selected for comparison of polar cases (Eisenhardt, 1989). In each country, all those large firms were interviewed that had highly developed CSPs that included social and environmental dimensions as core elements of their businesses. All the

large firms interviewed in Sri Lanka and one (Case 2) in Bangladesh had upgraded environmentally and socially. One firm in Bangladesh (Case 3) had upgraded socially and had been awarded a certificate for being the best socially compliant factory by the Ministry of Labour, the government of Bangladesh and the industry association. In addition, those firms had obtained many international prestigious and stringent certifications for their social and environmental standards, all of which had very strict monitoring processes.

Table 6.1 gives an overview of apparel firms included in the Chapter Six.

**Table 6.1: Overview of apparel firms included in the third empirical chapter**

| <b>Country</b>    | <b>Case</b> | <b>Number of employees (2010)</b> | <b>Sales in US\$ million (2010)</b> | <b>Size</b> | <b>Main export markets</b> |
|-------------------|-------------|-----------------------------------|-------------------------------------|-------------|----------------------------|
| <b>Bangladesh</b> | 1           | 14,000                            | \$50                                | Large       | EU, US                     |
|                   | 2           | 10,000                            | \$55                                | Large       | EU, US                     |
|                   | 3           | 4,500                             | \$168                               | Large       | EU, US                     |
|                   | 4           | 3,500                             | \$25                                | Medium      | EU                         |
|                   | 5           | 480                               | \$3                                 | Small       | EU                         |
| <b>Sri Lanka</b>  | <b>Case</b> | <b>Number of employees (2010)</b> | <b>Sales in US\$ million (2010)</b> | <b>Size</b> | <b>Main export markets</b> |
|                   | 1           | 14,000                            | \$300                               | Large       | EU, US                     |
|                   | 2           | 50,000                            | \$800                               | Large       | EU, US                     |
|                   | 3           | 35,000                            | \$400                               | Large       | EU, US                     |
|                   | 4           | 4,000                             | \$14                                | Medium      | EU, US                     |
|                   | 5           | 600                               | \$4.50                              | Small       | EU, US                     |

Source: Author.

## **6.5 Findings and discussion**

### **6.5.1 Governance and the relationship between social and economic upgrading**

The findings suggest that South Asian apparel firms were traditionally and generally in GVCs in which the buyers were lead firms; these are often referred to as being buyer-driven GVCs (Gereffi, 1994). Furthermore, captive and relational networks (Gereffi et al., 2005) were prevalent in the South Asian apparel industry. This study suggests that apparel firms in



relational networks, in particular in strategic relationships with buyers,<sup>7</sup> had successfully translated their economic upgrading into social upgrading. Apparel firms in relational networks in this study either manufactured high value-added products or delivered larger volumes of medium- to high-quality products (bulk manufacturing). For bulk manufacturing, consistency across colour, design and all other aspects of a product manufactured in millions of pieces is critical and capable suppliers can ensure that there is consistency across all lines of the same product. All the firms studied that had embraced social upgrading had also upgraded their products and processes and in a few cases were trying to achieve functional upgrading (particularly in Sri Lanka). The role of buyers (lead firms) is critical to the economic and social upgrading of South Asian apparel firms in three ways. Buyers transmit necessary knowledge and/or push supplier firms to embark upon economic upgrading; they also set and enforce social standards and corporate codes of conduct; and finally, they ensure consistent orders. Even the most competent and important suppliers based their success on winning future orders (Sturgeon, 2009). The following quotations are from firms that have embraced one or more of the pillars of decent work and where economic conditions have created conditions for social upgrading:

If a company [apparel firm] is setting up a new business, probably an expansion or upgrading will be driven by the buyer's requirement. (Bangladesh Apparel Firm 4, 2011)

So this particular project we started because of a customer request, being working with them for a fairly long time. (Sri Lanka Apparel Firm 2, 2011)

---

<sup>7</sup>Also called core suppliers (Palpacuer, Gibbon, & Thomsen, 2005). For in-depth discussion of 'core suppliers' see Palpacuer et al., 2005.

We had to upgrade certain standards. Some we did on our own initiative, while some others on the advice and guidance of buyers because we understood that the buyers were expecting us to upgrade. (Sri Lanka Apparel Firm 1, 2011)

Since we are a socially compliant factory, that's why I am their [buyer] strategic partner or preferred vendors for placing orders. (Bangladesh Apparel Firm 2, 2011)

Buyers not only set standards, code of conducts and ensure consistent orders but also take part in philanthropic activities of large and socially upgraded firms with which buyers are in strategic relationship or in relational networks.

Well, CSR projects are part and parcel of any large organisation that has some standing in society. And we of course try and partner with our buyers to join programmes, you know? So, for example, if we identify a school or identify an orphanage or some areas which need upgrading, then our buyers are happy to contribute as well. (Sri Lanka Apparel Firm, 2011)

Similarly, one of the apparel firms interviewed is, with the collaboration of its major buyers, successfully implementing a programme specifically tailored to empower women at their workplace, who constitute 90% of its workforce. The programme includes free transport and a very good breakfast for its employees. In addition, the programme includes key dimensions of decent work, such as: decent wages (higher wages in Sri Lanka); limit on working hours, overtime and age; safe and healthy working environment; and giving workers the opportunity to discuss their issues through joint consultative committees inside the organisation.

Well, one pillar [of social upgrading] is women empowerment. So I would say employees slash women empowerment. We spend a lot of, we invest a lot in terms of employee's well-being so to speak. And a lot of that energy and resources are actually

spent on areas, around women empowerment, both inside and outside the organisation.

(Sri Lanka Apparel Firm 2, 2011)

Buyers (lead firms) not only regulate apparel GVCs in South Asia through their corporate social responsibility, standards and codes of conduct, and by working with major suppliers in major social areas but also through working with national governments, industry associations, trade unions and labour advocate NGOs to improve working conditions and wages in supplier firms. For example, in 2010 a coalition of major apparel buyers<sup>8</sup> pressured the government of Bangladesh with the help of NGOs to increase the minimum wage for apparel workers, which resulted in a 80% increase in wages (Lan & Pickles, 2011). Similarly, Marks & Spencer (M&S) has extended its 'Ethical Model Factory'<sup>9</sup> programme with its 12 major suppliers in Bangladesh (Marks & Spencer, 2011) and that model programme will be replicated in Sri Lanka in the near future (Mark & Spencer's Ethical Trading Team, 2010). The main strategy of M&S is to achieve social upgrading through economic upgrading, particularly process upgrading. The programme covers three elements: worker rights training, human resource management systems and productivity training (Labour Behind the Label, 2011). Training workers regarding their rights, training management and supervisors regarding industrial relations, human resource management and social standards and training all to enhance productivity overall were given in those model factories (Sadler, 2011). There were positive changes (preliminary claims) observed in the initial model factories—for example, workers are more aware of their rights, absenteeism decreased from 9% to 1.5% and an increase in wage income (12–42%) for improvement in efficiency (Ahmed, 2011). In 2008 (before the model factory project), 98% of workers took home less than 3300 Takka (the Bangladeshi currency) or US\$40 per month in one of the

---

<sup>8</sup> Including Walmart, Tesco, Zara, Gap, Metro, JCPenney, Marks & Spencer, H&M, Carrefour, Kohl's, Levi Strauss and Tommy Hilfiger.

<sup>9</sup> Initially there were three model factories setup by M&S.

model factories, whereas 100% of workers are taking at least 4300 Takka or US\$52 (excluding overtime) in the same factory in 2011 (Ahmed, 2011). This suggests that lead firms work with their major suppliers, in relational networks, to achieve social upgrading through improvement in processes.

The findings from the field research suggest that there is moderate product and process upgrading taking place in captive networks, but also that economic upgrading does not necessarily generate social upgrading. There are several well defined underlying reasons. For example, on average a buyer only remains with suppliers in captive networks for 3–5 years (various interviews, 2011), hence buyers are not interested in fostering the pace of economic upgrading. Buyers simply switch if and when they find a lower-cost supplier. Another reason for this is that suppliers in captive networks manufacture very basic (standardised) or low value-added products (especially in Bangladesh) in an arena where competition is very high and entry barriers are low. A similar study conducted from buyers' perspectives (Lane & Probert, 2008) suggested that firms (buyers) in the UK (which is a major market for South Asian countries) were price driven and intended to stay not more than 7 years in any country to retain flexibility of movement in case of cost increase. The 'consolidation of suppliers' (Appelbaum, 2008) trend cannot be ignored in analysis due to the phasing of quantitative restrictions on apparel trade in 2005. Lead firms have consolidated their supplier bases to reduce co-ordination costs. Buyers are working with first-tier suppliers in Bangladesh and Sri Lanka that fall under the relational networks of GVCs. The consolidation of suppliers has resulted in more relational networks in GVC of apparel. The following quotation is from an interview with a small firm working in captive network and manufacturing very basic and low-priced products (knitted t shirts):

Every 4, 5 years, buyers change because they [buyer] may find a better supplier in terms of price, maybe they are not satisfied with our supply. I cannot claim that we are

100% perfect all the time. We also do mistakes, do delays, so because of that poor service they just blacklist us and they just forget our name and restart with another company. (Bangladesh Apparel Firm 5, 2011)

### **6.5.2 Low-skilled versus high-skilled job categories and social upgrading**

The overall analysis supports the preliminary framework developed by Barrientos et al. (2011) that argues that the factors that affect economic and social upgrading within the GVC are, for example, the type of production (low versus high value-added) involved and the relationship between buyers and suppliers (governance). The impact of governance on social upgrading has been discussed in the previous section. Social upgrading in low-skilled (low value-added) categories of employment can present greater challenges than in more diversified types of work involving more skilled employment. In the present study, economic and social upgrading are positively correlated in firms manufacturing high value-added products, whereas the process of social upgrading as a result of economic upgrading is slow in firms manufacturing low value-added products. Table 6.2 provides an overview of types of economic upgrading and the elements of decent work embraced in each case. Nevertheless, economic upgrading creates successful conditions for social upgrading in relational networks, as compared to captive networks. The two factors, governance and skill content are in fact closely related because firms in relational networks are capable of manufacturing complex products that require high skill contents.

**Table 6.2: Economic and social upgrading of apparel firms in South Asia in GVCs**

| <b>Country</b>    | <b>Case</b> | <b>Economic upgrading</b>  | <b>Social upgrading</b>   |
|-------------------|-------------|--|---|
| <b>Bangladesh</b> | <b>1</b>    | Product and process  | Formal contracts, informal contracts in the case of home workers, minimum wage structure with high wages in high-skilled jobs                                     |
|                   | <b>2</b>    | Product, process, environmental                                      | Formal contracts, informal contracts in case of home workers, high wages, CSR philanthropy, social security programmes, training, workers participatory committee |
|                   | <b>3</b>    | Product and process  | Formal contracts, high wages, training, workers participatory committee, social security programmes   |
|                   | <b>4</b>    | Product and process  | Formal contracts, minimum wage structure with high wages in high-skilled jobs   |
|                   | <b>5</b>    | Product and process  | Formal contracts, minimum wage structure with high wages in high-skilled jobs   |
| <b>Sri Lanka</b>  | <b>Case</b> | <b>Economic upgrading</b>  | <b>Social upgrading</b>   |
|                   | <b>1</b>    | Product, process, environmental, geographical, market and functional | Formal contracts, high wages, CSR philanthropy, joint consultative committee, social security programmes, training  |
|                   | <b>2</b>    | Product, process, environmental, geographical, market and functional | Formal contracts, high wages, CSR philanthropy, joint consultative committee, social security programmes, training  |
|                   | <b>3</b>    | Product, process, environmental, geographical, market and functional | Formal contracts, high wages, CSR philanthropy, joint consultative committee, social security programmes, training  |
|                   | <b>4</b>    | Product and process  | Formal contracts, minimum wage structure with high wages in high-skilled jobs, joint consultative committee   |
|                   | <b>5</b>    | Product and process  | Formal contracts, minimum wage structure with high wages in high-skilled jobs   |

Source: Author.

### **6.5.3 Relationship between economic and social upgrading**

Findings suggest that there is a positive relationship between product, process and functional upgrading and social upgrading. They also highlight the negative relationship between just-in-time delivery, orders on short notices (flexibility) and social upgrading. Process and

product upgrading and skill upgrading as a result of process and product upgrading results in high wages for skilled employees according to these results. For example, since functional upgrading implies the need for a skilled, formalised and stable workforce, economic and social upgrading are positively correlated (Barrientos et al., 2010, 2011).

So my final worker, this girl who I'm paying \$50 a month which is a very good salary for a good operator, she's so damn good that she can also modify from tank top to polo shirt within a season, even when she's used to the tank top so well. (Bangladesh Apparel Firm 1, 2011)

We are manufacturing high value-added products, quite opposite to what Bangladesh manufactures. So we cannot follow minimum wage set by the government. We have to pay a higher salary, a competitive salary apart from many other benefits which is not actually legally required. (Bangladesh Apparel Firm 2, 2011)

We have a design and development teams, we have all that. They [buyers] do not use our designs but they pick the concepts, the innovation bit and newness. We are not a low-cost factory, we are paying them [employees] more which means we cost more to the customer. (Sri Lanka Apparel Firm 2, 2011)

On the one hand, supplier firms face immense pressure to meet deadlines for just-in-time delivery and on the other, employees are not happy not doing overtime.

Second difficulty is that we have lots of programmes [social] and it's always a challenge to kind of balance between the work time and the activity [social] time. So that has been a bit of an issue especially when we in certain periods are under a high stress and high pressure mode. They [buyers] want the order in a sort of expedited time but we can't do overtime also at the same time. (Sri Lanka Apparel Firm 2, 2011)

We had difficulty in meeting sudden urgent deliveries when requested by buyers on short notice and for working hours, employees were unhappy due to reduction in overtime. (Sri Lanka Apparel Firm 1, 2011)

Due to delays they [buyers] just blacklist us they just forget our name and restart with other company. (Bangladesh Apparel Firm 5, 2010)

In some cases supplier firms do not have any other option but overtime; they are then penalised during auditing of compliance processes by buyer compliance teams.

Meanwhile, suddenly I get an e-mail from my customer [buyer] that they require design modification which happens in the last moment. So I have to work overtime and I pay for that. When I work overtime, that is a violation of compliance, but if I tell to my customer, they will tell me that I don't want to know because I need to sell it and you are having violation of compliance. (Bangladesh Apparel Firm 1, 2010)

Firms that miss their shipping deadlines can face hefty air-freight charges and suffer terrible blows to their reputations (Raworth & Kidder, 2009), as is evident in the above quotation. Similarly, another informant stated:

Already we are not getting good payments from the customers and there are air shipments. If you have one air shipment of one particular order, then forget about the profits, the entire margin for the whole year is wiped out and the buyers do not want their stores to be empty. (Bangladesh Apparel Firm 1, 2010)

Data collected from Sri Lanka and Bangladesh in the present study suggest an additional two types of upgrading—geographical and market upgrading. In geographical upgrading, firms upgrade by exporting or Foreign Direct Investment (FDI) in regional markets. They can do this by, for example, establishing manufacturing plants in nearby countries within the same



region. Firms in Sri Lanka have upgraded geographically by exporting and/or establishing production units in India and Bangladesh.

We have created our lingerie brand in India for Asian women, called Amante. So that's our first official brand. Already we are in 90 stores over the last 2 years in India. We have about 6,000 people total in India in manufacturing. We have just bought an investment industry in a park about 700 acres. So India will be the next manufacturing destination. (Sri Lanka Apparel Firm 2, 2011)

Market upgrading refers to moving from traditional markets, for example, the EU and US, to Brazil, Japan and other markets. Sixty percent of the textile and garment exports out of South Asian countries head to the EU and US (ITCB, 2009). However, many firms interviewed were planning to diversify the risks and also enter emerging markets by diversifying export markets. A Japanese large retailer (Uniqlo) has recently established (during the period of fieldwork for this study) its liaison office in Bangladesh, which suggests a changing structure of export markets of South Asian apparel firms. Japanese buyers are famous for their stringent demands regarding quality of products. It took 11 years for Bangladeshi apparel industry to convince Japanese retailers to outsource from Bangladesh and role of government and industry associations (institutional support) was critical in that (various interviews Bangladesh, 2011). This suggests that countries as well as firms want to diversify risks associated with two major markets, particularly after a recession.

#### **6.5.4 Global pressures versus local responses**

Findings suggest that there is a tension between what buyers want to enforce regarding social compliance and what locals—including employees, owners and managers—perceive to be appropriate. For instance, in Sri Lanka the owner of a large, socially upgraded firm

mentioned that his employees were unhappy about reductions in overtime and minimum working hours. However, the Bangladeshi firms were more hesitant than their Sri Lankan counterparts regarding global pressures about social compliance.

When I am putting pressure on my supervisors and managers, that you have to comply more and also we have to pay more than the minimum wages to workers or this benefit and that benefit. They just question that the other companies are giving minimum wages and they are getting still the business, why we need to do these things. So changing this kind of mind set is a challenge. (Bangladesh Apparel Firm 2, 2011)

Similarly:

Restoring workers' rights is a priority, but if you look at the political culture prevailing in this society, where democracy is limited to elections and people talk about democracy, but they don't believe in the democratic values. The workers are not much different. Trade Union leaders speak of democracy, but they extort both the workers and the employers. So, the culture of Trade Union here has been no different from the corrosive culture of politics that is there. (Bangladesh Apparel Firm 4, 2010)

Trade unions in Bangladesh are closely associated with political parties and strikes have been used historically by main political parties to further their political ends, which has undermined the credibility of some unions to act as employees' representatives (Bell & Newitt, 2010).

When we are talking of trade unions or any other aspect of employment, it should be a home-grown mechanism. It must not be prescribed and suggested or coming from elsewhere. But when the international brands, they try to come and set up in my own factory a British system, in my own factory an American system, you need to be Bengali to work in the system. (Bangladesh Apparel firm 1, 2010)

Hence, there is a tension between global pressures and local responses (Lund-Thomsen and Nadvi, 2010) because there are substantial costs involved in social upgrading. “At the end of the day you want to uplift the standards of living of all your employees. But the pressure on price is so intense that we have to remain competitive” (Sri Lanka Apparel Firm 1, 2011).

Now, they [buyers] are offering four or five cents, lower prices each season. And if we do not perform for them [buyer] then another factory is ready to pick up this order. So, this is really challenging for us, because we are the socially compliant factory. (Bangladesh Apparel Firm 3, 2010)

Improving the life of the workers in different manners involves costs and buyers, unfortunately, do not want to pay for those costs. For example, they are demanding to build a dormitory for the workers, but who will pay for this? It will actually hit my costing because I have already calculated the fixed and running costs and my production cost, everything. (Bangladesh Apparel Firm 5, 2010)

The main question that arises here is why local responses are different where there are similar global pressures. Findings suggest that the local responses are different due the respective apparel firms being embedded in two different domestic legal infrastructures when it comes to labour standards. Sri Lanka has high worker protection in relation to hours, pensions, contracts and health and safety standards, whereas in Bangladesh there is still deep social unrest among workers due to low wages and poor working conditions.

So, it was already there. It was a matter of telling the world and telling the customers, look you know, we are not people who exploit our labour force. We are ones who are ethically manufacturing according to the laws of the country. (Sri Lanka Apparel Firm 2, 2011)

One of the reasons that Sri Lanka tends to have higher labour compliance is very strong regulatory framework in this country. For example, you know there's lots of protection, items that protect the work force in the Sri Lankan law. So it is very difficult to fire a person once you hire. You have to go through a long process. It can be challenged by courts or labour tribunal, which happens all the time. So in terms of the legal protection that is inside the country it is very strong, especially compared to the regional competing countries. (Sri Lanka Apparel Firm 2, 2011)

This quotation suggests that from a policy perspective, policy makers have to take in to account these institutional differences whilst implementing decent work principles that are universal in its application and uniform across developed and developing countries. For example, despite the fact that freedom of association and collective bargaining are important pillars of decent work, only 2–3% of employees belong to trade unions in Bangladesh (Bell & Newitt, 2010; Berik & Rodgers, 2010; Faruque, 2009). The government of Bangladesh has imposed legal restrictions on freedom of association, collective bargaining and the right to strike.

No actually being an export oriented industry, labour unions, I mean still are not allowed. So there's no workers union in our industry or in our company as well. But we have the workers' participatory committee or welfare committee, that types of committees, which actually sit with the management and discuss their issues. (Bangladesh Apparel Firm 2, 2011)

In contrast, Sri Lanka also does not have strong formal trade unions, though it has stringent labour regulation.

We have something called joint consultative committee, which is a form of employee council and is accepted by statute in Sri Lanka as a collective bargaining mechanism.

The way it works is, it actually, the members of the joint consultative committee are elected by secret ballot. For each group of employees, we have internal organisation, so for each group of employees they select one person to represent them through secret ballot. And there is a constitution and a given process. And they sit down with the management on monthly meetings and all issues are discussed, minuted with follow-up action. And those minutes are actually kept on record for review of divisional CEOs, Group Human Resources (HR) Directors. And it's very transparent process. (Sri Lanka Apparel Firm 2, 2011)

These quotations also suggest that the principle of social dialogue of decent work can be achieved by setting processes according to institutional contexts.

I mean look at the US, I mean why is the industry not with them anymore? it's because of these unions. So I mean forget about textile, what about car industry? Auto industry? Auto, they were the mother of all. They were the king of the world for auto, how come it's not with them anymore? It's because, you know. So we Asians, we have our own, you know, we have our own sets of Tareeqa [way]. (Bangladesh Apparel Firm 1, 2011)

## **6.6 Conclusions, limitations and future research**

Four main propositions have emerged from this study. The first is that the governance of GVC has a profound impact on the conditions under which economic upgrading generates social upgrading and economic upgrading. Relational networks provide better conditions for social upgrading. The second is that the types of production in terms of skill content also create conditions under which economic upgrading is more likely to lead to social upgrading and it is much easier to translate economic upgrading into social upgrading in highly skilled categories of employment. Third, institutional factors affect the way local supplier firms

respond to global pressures regarding social compliance, and fourth not all types of economic upgrading lead to social upgrading. Nevertheless, policy makers have to take into account all these factors while developing policies regarding social compliances and improvements in developing countries' contexts. All of these propositions may be tested in future through quantitative studies across large numbers of firms and countries. The limitation of the study is that the interviews were only conducted with individuals from apparel firms rather than with employees due to time and funding constraints. Future research may also benefit from interviewing employees, trying to understand their perceptions of social upgrading and examining how economic upgrading affects social upgrading from the employees' perspectives and which skilled categories better translate economic upgrading into social upgrading. Further, decent work may be observed in the formal sector of any industry but informal sector constitute a large proportion of these labour-intensive industries in developing countries. Studying decent work principles in informal sectors will increase the understanding of social upgrading and its relation with economic upgrading and also add a new dimension to the debate of relationship between social and economic upgrading in GVC.



# CHAPTER SEVEN: CONCLUSIONS

## 7.1 Concluding remarks and main contributions to the literature

### 7.1.1 Purpose of the research

This research aimed to contribute to and extend the field of GVC analysis by exploring and investigating three understudied and neglected dimensions (institutions, environmental upgrading and social upgrading) of the GVC literature. To do this, three main research questions were formulated to address and explore each dimension:

1. How do institutions interact with the governance dimension of GVCs and impact the organisational and geographical architecture of GVCs?
2. Why and how do firms (suppliers) embrace environmental upgrading in GVCs?
3. Does economic upgrading lead to social upgrading in GVCs? What is the evidence?

The nature of these questions (why and how) prompted the use of qualitative and case study approaches with interviews as the main method of data collection. Each research question was addressed in an individual empirical study presented in three separate core chapters (Chapters Four, Five and Six) of this thesis. The key findings of all empirical studies and how they are related to each other are now presented in the conclusion chapter of the thesis.

### 7.1.2 Key findings of the research

The key empirical findings of the first empirical chapter (Chapter Four) suggest that power structures in global apparel chains determine governance structures in GVCs and that GVCs are in a continuous state of restructuring due to shifts in power structures as a result of knowledge accumulation and diffusion. The conceptualisation of governance as an effect of power and its configuration within GVCs fits well in the South Asian context, where medium and small apparel firms were highly dependent on buyers because of their market



power, or on contractors due to their co-ordinating powers, in terms of getting orders, value extraction and earning profits. Moreover, due to the mobile nature of power, power shifted over time—for example, large firms in Sri Lanka entered into asymmetrical relationships by engaging in co-ordination activities, including with FDI and in shared power with the buyers.

The empirical findings of Chapter Four also suggest that the economic actors in the present research, apparel firms, were entangled in a web of networks comprising state interventions, intergovernmental organisations, NGOs, industry association, and regional and international trade regulations. These institutions have a profound impact on the relationship between buyers and suppliers (governance) in global apparel chains, which impact the geographical and organisational structures of global apparel chains. Further, in order to understand systematically the institutional networks in GVCs, it is necessary to unpack them in terms of international, regional and domestic levels and types. Hence economic actors in GVCs are influenced by institutional forces within the chain in the form of lead firms and institutions outside the chain which are of international, regional and domestic (national) levels.

The key empirical findings of the second empirical chapter (Chapter Five) suggest that environmental upgrading may be fostered by participation in GVCs. Lead firms are more influential in environmental upgrading of suppliers in GVCs due to the market power, resources and knowledge they possess. Lead firms foster environmental upgrading by pushing capable suppliers or core suppliers to upgrade and provide technical knowledge and information to upgrade. Furthermore, lead firms are not only able to push their first-tier suppliers to become greener but also influence the second- and third-tier suppliers to adopt environmentally sustainable practices. Nevertheless, governance structures in GVCs directly influence the environmental upgrading in GVCs. However, suppliers' capabilities to assimilate knowledge transfer, to learn, develop competencies and ultimately upgrade

(undertake eco-innovations) is also critical. Without suppliers' own strategic intent to upgrade, the process of environmental upgrading is incomplete. All the firms identified in this study that had upgraded were large and had a long history of working with international buyers, which facilitated learning, transfer of knowledge and development of capabilities.

The key empirical findings of the third empirical chapter (Chapter Six) suggest that governance of GVCs has a profound impact on the conditions under which economic upgrading generates social upgrading: Economic upgrading in relational networks provides better conditions for social upgrading, particularly in high-skilled job categories. Relational networks are characterised by capable suppliers, with capabilities to understand and manufacture complex products and processes. In many cases, firms in relational networks manufacture and export high value-added products, which necessitate employment of high-skilled employees. High-skilled employees are offered better wages (though this is only one pillar of 'decent work principles'). Therefore, governance mechanisms have direct relationships with the conditions that translate economic upgrading into social upgrading. The empirical findings of the third empirical chapter also suggest that not all types of economic upgrading lead to social upgrading. Further, a positive relationship may exist between product, process and functional upgrading and social upgrading, while a negative relationship may exist between just-in-time delivery and social upgrading. The extent and scope of product, and process upgrading also depend on the complexities of the processes and value addition of the products manufactured. Importantly, the research found that product and process upgrading in standardised products do not necessarily translate into social upgrading.

At this stage it is also important to understand how upgrading, governance and institutions are related to each other. As mentioned earlier, there is a large literature regarding the relationship between governance and economic upgrading, which claims that governance or

type of networks fosters or hinders economic upgrading. The empirical findings of the thesis presented here are in line with the claims made in previous studies, and suggest that governance has a profound impact on the extent and scope of environmental upgrading of economic actors, suppliers in the present thesis. Buyers or lead firms are more interested in fostering knowledge sharing and diffusion regarding environmental upgrading in relational networks, particularly characterised by strategic relationships. Such strategic relational networks have intensified, particularly after the phasing out of quantitative restrictions (institutional dimension of GVC) due to the consolidation of suppliers by buyers to reduce co-ordination costs. Similarly, cases where economic upgrading created favourable conditions for social upgrading were in relational networks manufacturing high value-added products, involving the high skill content and requiring highly skilled employees. These two upgrading studies extend previous research by showing that governance patterns impact upgrading processes in GVCS.

However, the two empirical studies of upgrading in the research presented here further suggest that the process of upgrading is influenced by the institutional context in which apparel firms are embedded. Supplier firms in Bangladesh and Sri Lanka responded differently to global pressures regarding social compliance and one of the core reasons was that both countries have created two different domestic institutional infrastructures regarding labour rules, regulations and health and safety standards. Further, the welcoming attitude of the Sri Lankan state towards FDI, in contrast to the strict outlook of the Bangladeshi state towards FDI prompted investment in Sri Lanka and knowledge transfer and diffusion there. Because of network-based learning, Sri Lankan firms with international buyers and investors successfully upgraded to manufacture high value-added products.

Similarly, the role of standards and organisations, accrediting and auditing those standards, were becoming critical in environmental upgrading. Moreover, the role of intergovernmental

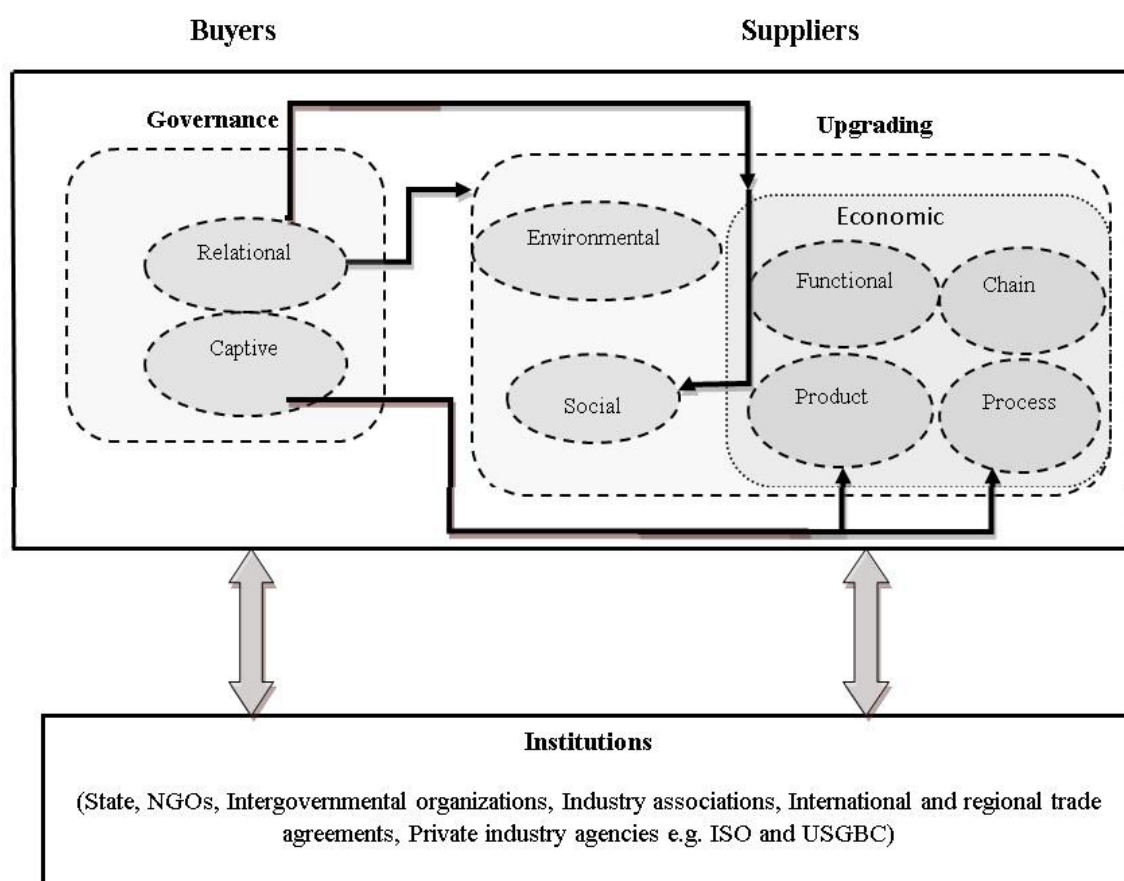
organisations and NGOs was also facilitative in the overall process of environmental upgrading. The empirical findings also suggest that buyers were pushing their core suppliers to upgrade environmentally in response to fears, due to their home countries' possible legislation and taxes against carbon-emitting products in the near future. Therefore, buyers' home country's possible future legislation practices were imposing pressure on buyers to view that compliance as an opportunity and threat at the same time. In preference, buyers would prefer to be in an already carbon-free industry in case of approval of any such law.

The three major constructs of the GVC analysis, governance, institutions and upgrading are closely related to each other. Both the analytical dimensions of the GVC, governance and institutions, have a profound impact on the upgrading processes that is economic, social and environmental, in GVCs. The relationships between the three constructs are presented in Figure 7.1.

Figure 7.1 illustrates the relationship between the three major and interlinked constructs of GVCs based on the empirical findings of the thesis. There were the two main types of governance mode prevalent in the South Asian context – relational and captive. The figure shows that relational networks result in all three types of upgrading, namely, economic, social, and environmental. This relationship is shown by the unidirectional arrow, originating from relational networks to the box containing the three types of upgrading. Figure 7.1 also shows that relational networks create conditions under which economic upgrading can result in social upgrading. This is because most of the time, suppliers in relational networks manufacture complex products, and engage in complex production processes requiring skilled employees who are paid higher wages in comparison to unskilled labour. Further, the empirical findings suggest that captive networks result in both product and process upgrading. However this does not necessarily translate into social upgrading because suppliers manufacture standardised products, where competition is high and buyers

will frequently move between suppliers due to low capabilities in the supplier base. Figure 7.1 also suggests that institutions are affecting both constructs (governance and upgrading) and that the relationship is bi-directional—for example, buyers push governments of suppliers to increase minimum wages and governments of buyers push buyers to upgrade environmentally by planning to pass legislation and impose taxes on carbon emitting products and services. Similarly, suppliers work with industry associations to eradicate child labour within the apparel industry and also suppliers work with private industry agencies to set, enforce, and monitor environmental standards.

**Figure 7.1: Relationships between governance, upgrading and institutions**



Source: Author.

### **7.1.3 Contribution of the research to the GVC literature**

There are two main theoretical contributions embodied in this thesis. First, it extends the field of GVC analysis by empirically investigating the understudied dimension ‘institutions’ and its relationship with the governance construct in GVCs. Before investigating the relationship between these two analytical constructs of GVCs, an attempt was made to unpack the conceptualisation of the institution dimension and understand whether the sociological or economic perspectives of institutions better portray and explain the institution dimension in GVCs. The empirical findings suggest that the conceptualisation of institutions in the field of economics is helpful in understanding the institutional dimensions of the GVC framework. However, the field research also suggests that the sociological perspective of institutions were also observed, to some extent, in global apparel chains, where large firms tend to behave in an isomorphic way to gain social credibility and acceptability. Those isomorphic behaviours were not only observed in buyers (lead firms) but also large suppliers in Bangladesh and Sri Lanka. Hence, both perspectives of institutions can help in understanding and unpacking the conceptualisation of the ‘institution’ dimension of GVC. Chapter Four (the first empirical chapter), therefore contributes to the GVC literature by empirically investigating the conceptualisation of ‘institutional’ dimension and its interaction with the governance dimension, of the GVC.

A second contribution is made in addressing neglected aspects of upgrading in GVC analysis, in particular the environmental dimension and relationship between social and economic dimensions of upgrading. This thesis is an early attempt among other few studies (in the pipeline, see for example De Marchi et al., 2010) to address the issue of environmental upgrading in GVCs. There seems to be no published work on the environmental dimension of upgrading in the GVC literature. Therefore, Chapter Five (the second empirical chapter) will be among the first works or projects in the field of GVC

literature relating to the environmental aspect of upgrading in the GVC literature. The future is of the companies that have business models focusing on sustainability as its core element. “That means rethinking business models as well as products, technologies, and processes” (Nidumolu et al., 2009, p. 1). As GVCs are internationalised structures of production and trade integrating various countries in the developed and developing/emerging countries, therefore GVCs cannot exclude the environmental or sustainability aspect of businesses. Sustainability of businesses will help businesses in gaining a competitive edge over others in future in GVCs and buyers will prefer to work with suppliers having sustainable business models.

The thesis has also studied the relationship between economic and social upgrading from the different and new perspectives, shifting the focus to governance and institutions mechanisms, which create conditions for relationships, rather than relying on quantitative trade data to study how they are correlated. Therefore, this thesis has contributed through its two empirical chapters, Chapter Five and Six respectively, to the upgrading aspects of the GVC literature by exploring and examining one new and another neglected area of upgrading. It has shown that governance and institutions have a profound impact on the scope and extent of upgrading, in the present study, in particular, environmental and social upgrading.

#### **7.1.4 Implications of the research**

This thesis has practical implications for both businesses and policy-making organisations, including NGOs interested in improving social and environmental conditions in GVCs. From a policy perspective, it is necessary to conduct similar studies in different countries in order to understand the dynamics shaping environmental and social upgrading trajectories and to gain knowledge about how to improve environmental and social conditions, in particular focusing on challenges arising or obstacles in the way of upgrading caused by

differences in institutional contexts. In practical terms, Chapter Five will help policy makers to identify leverage points in GVCs for the implementation of environmental upgrading or sustainability programmes and help business actors to understand the process (challenges) and outcome (advantages) of upgrading.

Chapter Five, once published, may motivate businesses to rethink their businesses models in environmental terms and reap benefits of going green. Because businesses perceive sustainability as a burden on bottom lines, however, it may lower the cost of businesses and increase the revenues for them (Nidumolu et al., 2009). The empirical findings will encourage businesses, once published, to embrace sustainable production and business practices after reviewing the benefits of environmental upgrading. The process of environmental upgrading identified in Chapter Five may be applied to other sectors or industries as well.

Further, from a business perspective, this thesis provides an overview of the web of institutions and their influence on governance mechanisms and ultimately the value-added activities of businesses. Relational networks prompt upgrading that result in high profits, more learning and enhanced capabilities, as compared to captive networks. Businesses can identify those points in GVCs, which not only give them sustainable profits but also provide opportunities for learning and upgrading.

#### **7.1.5 GVC analysis and the field of IB**

As mentioned in Chapter One of the thesis, the research integrating three empirical chapters and presented here also had the purpose of conducting research that can introduce the main GVC analytical constructs and dimensions to the field of IB. This thesis has accomplished that by studying the manufacturing and trade context of the apparel firms, in particular suppliers, in emerging economies and investigating their upgrading as a result of engaging in



international businesses. In doing so, the research has highlighted the processes of learning, innovation, upgrading and ultimately entrance of suppliers into FDIs or other types of international businesses, for example, co-ordination of international production networks. Therefore, the GVC framework may be applied to the internationalisation of businesses or economic actors in emerging economies after they have become involved in GVCs and power shifts caused by accumulation of knowledge and expertise in production, marketing, co-ordinating and commercialising.

The rise of MNCs from emerging economies has become one of the key questions in the mainstream IB literature and it is theoretically relevant to ask whether the early development of suppliers to global MNCs affect their later international expansion (Pananond, 2012). GVC literature will offer investigation of the internationalisation of emerging economies' businesses or MNCs in a more sequential and systematic fashion. In IB literature, at the macro level trade data are used to analyse the dynamics related to FDI, whereas, at the micro level, theories of competitiveness are employed to study the process of internationalisation of firms. GVC will offer a different perspective than already mentioned perspectives, because the upgrading and internationalisation of firms are determined by the type of networks and institutional structures in which businesses are embedded. Hence, relational networks offer enhance opportunities of upgrading as compared to captive networks.

## **7.2 Limitations of the research**

All research has limitations such as time and financial constraints, and also sometimes as a result, not gaining access to organisations due to the impact of gatekeepers. Gatekeepers are different from informants because they are the ones who can open or close the gates of organisations for the researchers (Gummesson, 1991, 2000). Fortunately, there were no gatekeepers in the field research for the research presented here and all the firms and people included in the sample were easily reached and interviewed. However, there were certain

other limitations. As mentioned earlier, whilst researching social upgrading (the sixth chapter of the thesis), only apparel firms' management were interviewed and not employees. In order to obtain a better and more valid picture of the situation or reality, multi-actor view points, in particular employees' viewpoints would be critical. However, due to time and financial constraints only one side of the organisational dyad was researched.

### **7.3 Future research directions**

There are various avenues that may be explored in future based on the empirical work in this thesis.

1. Future research may explore in depth the 'capabilities in the supplier base' variable of GVCs in the context of environmental upgrading. This is because the main finding of Chapter Five is that besides the main role of lead firms in environmental upgrading of suppliers, the competencies of suppliers also contributed to environmental upgrading in GVCs. Therefore, the capability of business and management literature may be linked to GVC analysis in order to study the role of suppliers' capabilities in the upgrading processes.
2. The propositions developed in the Chapter Six of the thesis, may be tested quantitatively. Furthermore, multi-actor viewpoints of the phenomenon, in particular employees' viewpoints, will add theoretically to the understanding of conditions under which economic upgrading lead to social upgrading.
3. 'Decent work principles' may be observed in the formal sector of any industry but the informal sector constitutes a large proportion of these labour-intensive industries in developing countries. Investigating decent work principles in informal sectors will enhance understandings of social upgrading and its relation with economic upgrading

and also add new dimension to the debate of relationship between social and economic upgrading in GVC.

## REFERENCES

- Abras, A. L. G. (2012). Success and upgrading after the end of MFA. In G. Lopez-Acevedo & R. Robertson (Eds.), *Sewing success?: Employment, wages and poverty following the end of the multi-fibre arrangement*. Washington, DC: The World Bank.
- Adhikari, R., & Weeratunge, C. (2007). Textiles and clothing in South Asia: Current status and future potential. *South Asia Economic Journal*, 8(2), 171–203. doi: 10.1177/13915614070080020
- Aggarwal, V. (1985). *Liberal protectionism: The international politics of organized textile trade*. Berkeley, CA: University of California Press.
- Ahmed, N. (2011). *Process upgrading, value added and social upgrading in the Bangladesh RMG sector*. Capturing the gains research workshop. Presentation. Brooks World Poverty Institute, The University of Manchester. Bali.
- Aoki, M. (2001). *Toward a comparative institutional analysis*. Cambridge, MA: MIT Press.
- Appelbaum, R. P. (2008). Giant transnational contractors in East Asia: Emergent trends in global supply chains. *Competition & Change*, 12(1), 69–87.
- Appelbaum, R. P., Bonacich, E., & Quan, K. (2005). The end of apparel quotas: A faster race to the bottom? Santa Barbara, CA: Institute for Social, Behavioral, and Economic Research, Center for Global Studies, University of California.
- Bair, J. (2002). Beyond the maquila model? Nafta and the Mexican apparel industry. *Industry & Innovation*, 9(3), 203–225.
- Bair, J. (2005). Global capitalism and commodity chains: Looking back, going forward. *Competition & Change*, 9(2), 153–180.
- Bair, J. (2008a). Analysing global economic organization: Embedded networks and global chains compared. *Economy & Society*, 37(3), 339–364.
- Bair, J. (2008b). Surveying the post-MFA landscape: What prospects for the global south post-quota? *Competition & Change*, 12(1), 3–10.

- Bair, J. (2009). *Frontiers of commodity chain research*. Stanford, CA: Stanford University Press.
- Bair, J., & Gereffi, G. (2001). Local clusters in global chains: The causes and consequences of export dynamism in Torreon's blue jeans industry. *World Development*, 29(11), 1885.
- Bair, J., & Gereffi, G. (2003). Upgrading, uneven development, and jobs in the North American apparel industry. *Global Networks*, 3(2), 143–169. doi: 10.1111/1471-0374.00054
- Bair, J., & Peters, E. D. (2006). Global commodity chains and endogenous growth: Export dynamism and development in Mexico and Honduras. *World Development*, 34(2), 203–221.
- Bakht, Z., Salimullah, M. D., Yamagata, T., & Yunus, M. (2006). Competitiveness of a labor-intensive industry in a least developed country: A case of the knitwear industry in Bangladesh. Dhaka, Bangladesh: Bangladesh Institute of Development Studies (BIDS).
- Bangladesh Export Processing Bureau. (2009). Annual Report on the ready-made garment industry. Dhaka, Bangladesh: Bangladesh Export Processing Bureau.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99.
- Barrientos, S., Gereffi, G., & Rossi, A. (2008). What are the challenges and opportunities for economic and social upgrading? Retrieved December 28, 2009, from [http://www.dukeviuworkshop.org/index.php?option=com\\_content&view=article&id=39](http://www.dukeviuworkshop.org/index.php?option=com_content&view=article&id=39)
- Barrientos, S., Gereffi, G., & Rossi, A. (2010). Economic and social upgrading in global production networks: Developing a framework for analysis *Capturing the gains: Economic and social upgrading in global production networks*. Manchester, UK.
- Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and social upgrading in global production networks: A new paradigm for a changing world. *International Labour Review*, 150(3-4), 319–340.

- Barrientos, S., & Smith, S. (2007). Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems. *Third World Quarterly*, 28 (4), 713–729.
- Bazan, L., & Navas-Aleman, L. (2004). The underground revolution in the Sinos Valley: A comparison of upgrading in global and national value chains. In H. Schmitz (Ed.), *Local enterprises in the global economy: Issues of governance and upgrading*. Cheltenham, UK: Edward Elgar.
- Bazeley, P., & Richards, L. (2000). *The NVivo qualitative project book*. Thousand Oaks, CA: Sage.
- Beise, M., & Rennings, K. (2005). Lead markets and regulation: A framework for analyzing the international diffusion of environmental innovations. *Ecological Economics*, 52(1), 5–17.
- Bell, S., & Newitt, K. (2010). Decent work and poverty eradication: Literature review and two-country study: A study for the decent work and labour standards forum. London, UK: Ergon Associates Limited.
- Berik, G., & Rodgers, Y. V. D. M. (2010). Options for enforcing labour standards: Lessons from Bangladesh and Cambodia. *Journal of International Development*, 22(1), 56–85. doi: 10.1002/jid.1534
- Bernhardt, T., & Milberg, W. (2011). Does economic upgrading generate social upgrading? Insights from the horticulture, apparel, mobile phones and tourism sectors *Capturing the gains working paper 2011/07*. Manchester, UK: Brooks World Poverty Institute, University of Manchester.
- BGMEA. (2010). Finance Minister AMA Muhith as three-day apparel expo takes off Retrieved December 5, 2010, from [http://www.bgmea.com.bd/home/pages/Finance\\_Minister\\_AMA\\_Muhith\\_as\\_three-day\\_apparel\\_expo\\_takes\\_off\\_](http://www.bgmea.com.bd/home/pages/Finance_Minister_AMA_Muhith_as_three-day_apparel_expo_takes_off_)
- Binkley, C. (2010). How green is my sneaker? *The Wall Street Journal* Retrieved July 21, 2011, from

<http://online.wsj.com/article/SB10001424052748703724104575379621448311224.html>

- Birkinshaw, J. (2004). Publishing qualitative research in international business. In R. Marschan-Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar.
- BKMEA. (2009). Bangladesh knitwear manufacturers & exporters association (BKMEA). Dhaka, Bangladesh: BKMEA.
- BKMEA. (2010). Facts and figures of knitwear sector Retrieved December 5, 2010, from <http://www.bkmea.com/>
- Blokker, N. (1989). *International regulation of world trade in textiles*. London, UK: Martinus Nijhoff.
- Bluhm, K., & Schmidt, R. (2008). *Change in SMEs: Towards a new European capitalism?* Basingstoke, UK: Palgrave Macmillan.
- Bolwig, S., Ponte, S., Du Toit, A., Riisgaard, L., & Halberg, N. (2010). Integrating poverty and environmental concerns into value-chain analysis: A conceptual framework. *Development Policy Review*, 28(2), 173–194. doi: 10.1111/j.1467-7679.2010.00480.x
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. London, UK: Sage.
- Buckley, P. J. (2002). Is the international business research agenda running out of steam? *Journal of International Business Studies*, 33(2), 365–373.
- Buckley, P. J., & Ghauri, P. N. (2004). Globalisation, economic geography and the strategy of multinational enterprises. *Journal of International Business Studies*, 35(2), 81–98.
- Busse, M. (2002). Do labor standards affect comparative advantage in developing countries? *World Development*, 30(11), 1921–1932. doi: 10.1016/s0305-750x(02)00117-1
- Cammett, M. (2006). Development and the changing dynamics of global production: Global value chains and local clusters in apparel manufacturing. *Competition & Change*, 10(1), 23–48.

- Coase, R. (1937). The nature of the firm. *Economica*, 4(386-405).
- Coe, N. M., Dicken, P., & Hess, M. (2008). Introduction: Global production networks - debates and challenges. *Journal of Economic Geography* 8(3), 267–269.
- Collis, J., & Hussey, R. (2003). *Business research: A practical guide for undergraduates and postgraduate students*. New York, NY: Palgrave Macmillan.
- Cortes, C. J. (1997). *GATT, WTO and the regulation of international trade in textiles*. Ashgate, UK.
- Courault, B. (2005). PME et industrialisation: que sont devenues les PME du "miracle choletais" (1945-2004): Centre d'Etudes de l'Emploi
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. London, UK: Sage.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). London, UK: Sage.
- Daft, R., & Lengel, R. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554–571. doi: citeulike-article-id:1690247
- Daily Star. (2011). Brandix first in world to get ISO 50001.
- Daniels, J. D., & Cannice, M. V. (2004). Interview studies in international business research. In R. Marschan-Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar.
- David, F. R. (2011). *Strategic management: Concepts and cases* (13 ed.). New Delhi: PHI Learning Private Limited.
- Davis, L., & North, D. (1970). Institutional change and American economic growth: A first step towards a theory of institutional innovation. *The Journal of Economic History*, 30(1), 131–149.
- De Marchi, V., Di Maria, E., & Micelli, S. (2010). Environmental upgrading in global production network Retrieved July 20, 2011, from



[http://www.dukeviuworkshop.org/index.php?option=com\\_content&view=article&id=26](http://www.dukeviuworkshop.org/index.php?option=com_content&view=article&id=26)

De Marchi, V., Maria, E. D., & Micelli, S. (2012). Environmental strategies, upgrading and competitive advantage in global value chains. *Business Strategy and the Environment*, n/a-n/a. doi: 10.1002/bse.1738

Dicken, P. (1998). *Global shift: Transforming the world economy* (3rd ed.). London, UK: Paul Chapman.

Dicken, P. (2008). Epilogue: A relational perspective. In P. Pellenbarg & E. Wever (Eds.), *International business geography: Case studies of corporate firms*. New York, NY: Routledge.

Dickerson, K. G. (1999). *Textiles and apparel in the global economy* (3rd ed.). New York, NJ: Prentice-Hall.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.

Dolan, C., & Humphrey, J. (2000). Governance and trade in fresh vegetables: The impact of UK supermarkets on the African horticulture industry. *Journal of Development Studies*, 37, 147–176.

Duke-VIU International Summer Research Workshop. (2010). Retrieved June 21, 2011, from <http://www.univiu.org/other-programs/ongoing-programs/duke-viu-workshop>

Dunning, J. H. (2009). Location and the multinational enterprise: A neglected factor? *Journal of International Business Studies*, 40(1), 5–19.

Dussel, P. E. (2008). GCCs and development: A conceptual and empirical review. *Competition & Change*, 12(1), 11–27.

Easton, G. (2000). Case research as a method for industrial networks: A realist apologia. In S. Fleetwood & S. Ackroyd (Eds.), *Realist perspectives in management and organizations*. London, UK: Routledge.

- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.
- Elliott, K. A., & Freeman, R. B. (2003). The role global labor standards could play in addressing basic needs. In J. Heymann (Ed.), *Global inequalities at work*. New York, NY: Oxford University Press.
- EPB. (2008). Bangladesh export statistics 2006-2007. Dhaka, Bangladesh: Export Promotion Bureau.
- Ernst, D., & Kim, L. (2002). Global production networks, knowledge diffusion, and local capability formation. *Research Policy*, 31(8-9), 1417–1429.
- Faruque, A. A. (2009). Current status and evolution of industrial relations system in Bangladesh. Geneva, Switzerland: International Labour Organization.
- Fernandez-Stark, K., Frederick, S., & Gereffi, G. (2011). The apparel global value chain: Economic upgrading and workforce development. Durham, UK: Center on Globalization, Governance & Competitiveness, Duke University.
- Fold, N. (2002). Lead firms and competition in ‘bi-polar’ commodity chains: Grinders and branders in the global cocoa-chocolate industry. *Journal of Agrarian Change*, 2(2), 228–247. doi: 10.1111/1471-0366.00032
- Frederick, S., & Gereffi, G. (2009). Value chain governance Retrieved October 20, 2011, from <http://microlinks.kdid.org/library/value-chain-governance-briefing-paper>
- Frederick, S., & Staritz, C. (2012). Developments in the global apparel industry after the MFA phaseout. In G. Lopez-Acevedo & R. Robertson (Eds.), *Sewing Success?: Employment, wages and poverty following the end of the multi-fibre arrangement*. Washington, DC: The World Bank.
- Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How U.S. retailers shape overseas production networks. In G. Gereffi, M. Korzeniewicz & R. P. Korzeniewicz (Eds.), *Commodity chains and global capitalism*. London, UK: Praeger.

- Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48(1), 37–70.
- Gereffi, G. (2005). The global economy: Organization, governance and development. In N. Smelser & R. Swedberg (Eds.), *Handbook of economic sociology* (2nd ed.). New Jersey, NJ: Princeton University Press and the Russell Sage Foundation.
- Gereffi, G., & Frederick, S. (2010). The global apparel value chain, trade and the crisis. Washington, DC: The World Bank.
- Gereffi, G., Humphrey, J., Kaplinsky, R., & Sturgeon, T. J. (2001). Introduction: Globalisation, value chains and development. *IDS Bulletin*, 32(3), 1–8. doi: 10.1111/j.1759-5436.2001.mp32003001.x
- Gereffi, G., Humphrey, J., & Sturgeon, T. J. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104.
- Gereffi, G., Korzeniewicz, M., & Korzeniewicz, R. P. (1994). *Introduction: Global commodity chains*. London, UK: Greenwood Press.
- Gereffi, G., & Martinez, M. A. (2000). Torreon's blue jeans boom: Exploring La Laguna's full package solution. *Bobbin*, 41(8), 44.
- Gereffi, G., & Memodovic, O. (2003). The global apparel value chain: What prospects for upgrading by developing countries. Vienna, Switzerland: United Nations Industrial Development Organization.
- Gereffi, G., Spener, D., & Bair, J. (2002). *Free trade and uneven development: The North American apparel industry after NAFTA*. Philadelphia, PA: Temple University Press.
- Ghauri, P. (2004). Designing and conducting case studies in international business research. In R. M. Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business students*. Cheltenham, UK: Edward Elgar.
- Gibbon, P. (2001a). Upgrading primary production: A global commodity chain approach. *World Development*, 29(2), 345.

- Gibbon, P. (2003). The African growth and opportunity act and the global commodity chain for clothing. *World Development*, 31(11), 1809–1827. doi: 10.1016/j.worlddev.2003.06.002
- Gibbon, P. (2008). Governance, entry barriers, upgrading: A re-interpretation of some GVC concepts from the experience of African clothing exports. *Competition & Change*, 12(1), 29–48.
- Gibbon, P., Bair, J., & Ponte, S. (2008). Governing global value chains: An introduction. *Economy & Society*, 37(3), 315–338.
- Gibbon, P., & Ponte, S. (2005). *Trading down: Africa, value chains, and the global economy*. Philadelphia, PA: Temple University Press.
- Gibbon, P., & Ponte, S. (2008). Global value chains: From governance to governmentality? *Economy & Society*, 37(3), 365–392. doi: 10.1080/03085140802172680
- Gibbs, G. (2007). *Analyzing qualitative data*. London, UK: Sage.
- Giuliani, E., Pietrobelli, C., & Rabellotti, R. (2005). Upgrading in global value chains: Lessons from Latin American clusters. *World Development*, 33(4), 549–573. doi: 10.1016/j.worlddev.2005.01.002
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine Pub.
- Goto, K. (2011). Competitiveness and decent work in global value chains: Substitutionary or complementary? *Development in Practice*, 21(7), 943–958. doi: 10.1080/09614524.2011.590886
- Granovetter. (1985). Economic action, social structure, and embeddedness. *American Journal of Sociology*, 91(3), 481–510.
- Granovetter. (2008). *Economic action and social structure: The problem of embeddedness*. Oxford, UK: Blackwell Publishers Ltd.
- Greenhouse Gas Protocol. (2012). Green house gas protocol Retrieved February 28, 2012, from <http://www.ghgprotocol.org/>

- Gummesson, E. (1991). *Qualitative methods in management research*. London, UK: Sage.
- Gummesson, E. (2000). *Qualitative methods in management research* (2nd ed.). London, UK: Sage.
- Hakim, C. (1987). *Research design: Strategies and choices in the design of social research*. London, UK: Routledge.
- Hall, P., & Soskice, D. (2001). *Varieties of capitalism: The institutional foundation of comparative advantage*. Oxford, UK: Oxford University Press.
- Hamilton, G. G., & Gereffi, G. (2009). Global commodity chains, market makers, and the rise of demand-responsive economies. In J. Bair (Ed.), *Frontiers of commodity chain research*. Stanford, CA: Stanford University Press.
- Haworth, N., Hughes, S., & Wilkinson, R. (2005). The international labour standards regime: A case study in global regulation. *Environment and Planning, A*(37), 1939–1953.
- Henderson, J., Dicken, P., Hess, M., Coe, N., & Yeung, H. W.-C. (2002). Global production networks and the analysis of economic development. *Review of International Political Economy*, 9(3), 436–464.
- Herrigel, G. (2008). Flexibility and formalization: Rethinking space and governance in corporations and manufacturing regions. In K. Bluhm & R. Schmidt (Eds.), *Change in SMEs: Towards a new European capitalism?* New York, NY: Palgrave Macmillan.
- Hess, M., & Coe, N. M. (2006). Making connections: global production networks, standards, and embeddedness in the mobile-telecommunications industry. *Environment and Planning A* 38(7), 1205–1227.
- Holcim. (2009). MAS intimates thurulia: Clothing factory in Sri Lanka. Zurich, Switzerland: Holcim Foundation for Sustainable Construction.
- Holliday, G. (1997). Generalized system of preferences. Washington: Congressional Research Service.

- Hopkins, T. K., & Wallerstein, I. (1986). Commodity chains in the world-economy prior to 1800. *Review*, 10(1), 157–170.
- Hopkins, T. K., & Wallerstein, I. (1994). Commodity chains: Construct and research. In G. Gereffi & M. Korzeniewicz (Eds.), *Commodity chains and global capitalism*. Westport, CT: Praeger.
- Humphrey, J., & Schmitz, H. (2000). Governance and upgrading: Linking industrial cluster and global value chain research *IDS Working Paper*. Brighton, UK: Institute of Development Studies, University of Sussex.
- Humphrey, J., & Schmitz, H. (2001). Governance in global value chains (3rd ed., Vol. 32). Sussex, UK: IDS.
- Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies: The Journal of the Regional Studies Association*, 36, 1017–1027.
- Humphrey, J., & Schmitz, H. (2004). Chain governance and upgrading: Taking stock. In H. Schmitz (Ed.), *Local enterprises in the global economy: Issues of governance and upgrading*. Cheltenham, UK: Edward Elgar.
- Hurwicz, L. (1996). Institutions as families of game forms. *Japanese Economic Review*, 47(2), 113–132. doi: 10.1111/j.1468-5876.1996.tb00038.x
- International Labour Organization. (1999). Decent work. Geneva, Switzerland: Report of the Director General to the 89th session of the International Labour Conference.
- Intima Asia. (2010). When big goes green *Intima Asia*. Paris: Marie Claire.
- ITCB. (2009). Evolution of textile and clothing imports into the United States 1990-2008. Geneva, Switzerland: International Textile and Clothing Board.
- JAAF. (2008). Sri Lanka's markets for apparel (2008). Colombo: Joint Apparel Association Forum.
- Jayarathne, S. M. (2009). Enhancing export competitiveness through trade facilitation: The experience of Sri Lanka *Impact of trade facilitation on export competitiveness: A regional perspective* (Vol. 66). Bangkok, Thailand: United Nations.

- Jeppesen, S., & Hansen, M. W. (2004). Environmental upgrading of Third World enterprises through linkages to transnational corporations. Theoretical perspectives and preliminary evidence. *Business Strategy and the Environment*, 13(4), 261–274. doi: 10.1002/bse.410
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly* 24(4), 602–661.
- Jonsen, K., & Jehn, K. A. (2009). Using triangulation to validate themes in qualitative studies. *Qualitative Research in Organizations and Management: An International Journal*, 4(2), 123–150.
- Kadtler, J., & Faust, M. (2008). The power of financial markets: What does that mean and how does it work for different categories of companies? In K. Bluhm & R. Schmidt (Eds.), *Change in SMEs: Towards a new European capitalism*. New York, NY: Palgrave Macmillan.
- Kaplinsky, R. (2000). Globalisation and unequalisation: What can be learned from value chain analysis. *Journal of Development Studies*, 37(2), 117.
- Kaplinsky, R. (2004). Spreading the gains from globalization. *Problems of Economic Transition*, 47(2), 74–115.
- Kaplinsky, R. (2010). The role of standards in global value chains *World Bank Policy Research Working Paper*. Washington, DC: World Bank.
- Kaplinsky, R., & Morris, M. (2001). A handbook for value chain research. Ottawa: International Development Research Centre (IDRC).
- Kaplinsky, R., & Readman, J. (2005). Globalization and upgrading: What can (and cannot) be learnt from international trade statistics in the wood furniture sector? *Industrial & Corporate Change*, 14(4), 679–703. doi: 10.1093/icc/dth065
- Kapuge, A. M., & Smith, M. (2007). Management practices and performance reporting in the Sri Lankan apparel sector. *Managerial Auditing Journal*, 22(3), 303–318.
- Kelegama, S. (2005 ). Ready-made garment industry in Sri Lanka: Preparing to face the global challenges. *Asia-Pacific Trade and Investment Review*, 1(1), 51–67.

- Kelegama, S. (2009). Ready-made garment exports from Sri Lanka. *Journal of Contemporary Asia*, 39, 579–596. doi: 10.1080/00472330903076875
- Khalil, E. L. (1995). Organizations versus institutions. *Journal of Institutional and Theoretical Economics (JITE) / Zeitschrift für die gesamte Staatswissenschaft*, 151(3), 445–466.
- Kishimoto, C. (2004). Clustering and upgrading in global value chains: The Taiwanese personal computer industry. In H. Schmitz (Ed.), *Local enterprises in the global economy: Issues of governance and upgrading*. Cheltenham, UK: Edward Elgar.
- Knorringa, P., & Pegler, L. (2006). Globalisation, firm upgrading and impacts on labour. *Tijdschrift voor Economische en Sociale Geografie*, 97(5), 470–479.
- Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance? *The Review of Economics and Statistics*, 83(2), 281–289.
- Labour Behind the Label. (2011). Work so far on living wages Retrieved January 14, 2012, from <http://www.labourbehindthelabel.org/news/item/879#>
- Lan, T., & Pickles, J. (2011). China's new Labour contract law: State regulation and workers rights in global production networks *Capturing the gains: Economic and social upgrading in global production networks*. Manchester, UK: The University of Manchester.
- Lane, C., & Probert, J. (2004). Between the global and the local: A comparison of the German and UK clothing industry. *Competition & Change*, 8(3), 243–266. doi: 10.1080/1024529042000301953
- Lane, C., & Probert, J. (2008). SMEs in the global economy: A comparison of the global production networks of German and British clothing firms. In K. Bluhm & R. Schmidt (Eds.), *Change in SMEs: Towards a new European capitalism*. Hampshire, UK: Palgrave Macmillan.
- Lane, C., & Probert, J. (2009). *National capitalisms, global production networks. Fashioning the value chain in the UK, US, and Germany*. Oxford, UK: Oxford University Press.



- Lee, J., Gereffi, G., & Barrientos, S. (2011). *Global value chains, upgrading and poverty reduction*. Capturing the gains. Briefing Note 3. University of Manchester. Manchester, UK.
- Lester, S. (2005). The Agreement on textiles and clothing. In P. F. J. Macrory, A. E. Appleton & M. G. Plummer (Eds.), *The World Trade Organization: Legal, economic and political analysis*. New York, NY: Springer.
- Levinsohn, J., & Wendy, P. (2001). Creative destruction or just plain destruction? The U.S. textile and apparel industry since 1972. Cambridge: National Bureau of Economic Research.
- Lincoln, Y. S., & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Lindgreen, A., & Beverland, M. B. (2009). Research quality in qualitative case studies. Hull, UK: University of Hull.
- Lindsay, V. (2004). Computer-assisted qualitative data analysis: Application in an export study. In R. Marschan-Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar.
- Locke, R., Kochan, T., Romis, M., & Qin, F. (2007). Beyond corporate codes of conduct: Work organization and labour standards at Nike's suppliers. *International Labour Review*, 146(1-2), 21–40. doi: 10.1111/j.1564-913X.2007.00003.x
- M. Landman Communications and Consultings. (2011). LEED platinum certified buildings Retrieved July 19, 2011, from <http://www.mlandman.com/gbuildinginfo/leedplatinum.shtml>
- Ma, A., Mudambi, R., & Assche, A. v. (2012). *A global value chain approach to emerging market catch-up*. International Business Seminars Series. The University of Auckland Business School. Auckland, NZ.
- Macdonald, S., & Hellgren, B. (2004). The interview in international business research: Problems we would rather not talk about. In C. Welch & R. Marschan-Piekkari (Eds.), *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar.

- Malaga, J., & Mohanty, S. (2003). The agreement on textiles and clothing: Is it a WTO failure? *The Estey Centre Journal of International Law and Trade Policy*, 4(1), 75.
- Marimon-Viadiu, F., Casadesus-Fa, M., & Heras-Saizarbitoria, I. (2006). ISO 9000 and ISO 14000 Standards: An international diffusion model. *International Journal of Operations & Production Management*, 26(2), 141–165.
- Mark & Spencer's Ethical Trading Team. (2010, 18 June). Marks & Spencer: Ethical model factories. *Global Partner Network*.
- Marks & Spencer. (2011). How we do business report 2011: Marks & Spencer.
- Marschan-Piekkari, R., & Reis, C. (2004). Language and languages in cross-cultural interviewing. In R. Marschan-Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar.
- Marshall, C., & Rossman, G. B. (1989). *Designing qualitative research*. London, UK: Sage.
- Martin, M. F. (2007). U.S. clothing and textile trade with China and the world: Trends since the end of quotas. Washington, DC: Congressional Research services.
- Mather, C. (2008). Upgrading in South Africa's squid value chain. In C. Stringer & R. L. Heron (Eds.), *Agri-food commodity chains and globalising networks*. Aldershot, UK: Ashgate.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- Mayer, F., & Pickles, J. (2010). Re-embedding governance: Global apparel chains and decent work *Capturing the gains: Economic and social upgrading in global production networks*. Manchester, UK.
- Mayer, F., Pickles, J., Knorringa, P., Postuma, A., & Rossi, A. (2010). Capturing the gains: Economic and social upgrading in global production networks: Assessing the impact of governance Retrieved January 10, 2011, from <http://www.capturingthegains.org/membersarea/>
- Mayer, J. (2005). Not totally naked: Textiles and clothing trade in a quota-free environment. *Journal of World Trade* 39(3), 393–426.

- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Messner, D. (2002). "World Economic Triangle": Global governance patterns and options for regions *IDS Working Paper* (pp. 173). Brighton, UK: Institute of Development Studies.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340. doi: 10.1086/226550
- Milberg, W., & Winkler, D. (2010a). *Economic and social upgrading in global production networks: Problems of theory and measurement*. Capturing the gains 2010. Working Paper. The University of Manchester. Manchester, UK.
- Milberg, W., & Winkler, D. (2010b). Trade crises and recovery: Restructuring of global value chains. In O. Cattaneo, G. Gereffi & C. Staritz (Eds.), *Global value chains in a postcrisis world: A development perspective*. Washington, DC: World Bank.
- Milberg, W., & Winkler, D. (2011). Economic and social upgrading in global production networks: Problems of theory and measurement. *International Labour Review*, 150(3-4), 341–365.
- Miles, M. P., & Covin, J. G. (2000). Environmental marketing: A source of reputational, competitive, and financial advantage. *Journal of Business Ethics*, 23(3), 299–311. doi: 10.1023/a:1006214509281
- Mirdha, R. U. (2010, March 21). Viyellatex to set up green building, *The Daily Star*. Retrieved from <http://www.thedailystar.net/newDesign/news-details.php?nid=130926>

- Morrison, A., Pietrobelli, C., & Rabellotti, R. (2008). Global value chains and technological capabilities: A framework to study learning and innovation in developing countries. *Oxford Development Studies*, 36(1), 39–58. doi: 10.1080/13600810701848144
- Mottaleb, K. A., & Sonobe, T. (2011). An inquiry into the rapid growth of the garment industry in Bangladesh. *Economic Development and Cultural Change*, 60(1), 67–89.
- Mudambi, R., & Navarra, P. (2002). Institutions and international business: A theoretical overview. *International Business Review*, 11(6), 635–646.
- Nadvi, K. (2004). Globalisation and poverty: How can global value chain research inform the policy debate? *IDS Bulletin* (Vol. 35): University of Sussex.
- Nadvi, K. (2008). Global standards, global governance and the organization of global value chains. *Journal of Economic Geography*, 8(3), 323–343. doi: 10.1093/jeg/Ibn003
- Nadvi, K., Lund-Thomsen, P., Xue, H., & Khara, N. (2011). Playing against China: Global value chains and labour standards in the international sports goods industry. *Global Networks*, 11(3), 334–354. doi: 10.1111/j.1471-0374.2011.00329.x
- Nadvi, K., Thoburn, J., Bui Tat, T., Nguyen Thi Thanh, H., Nguyen Thi, H., & Dao Hong, L. (2004). Challenges to Vietnamese firms in the world garment and textile value chain, and the implications for alleviating poverty. *Journal of the Asia Pacific Economy*, 9(2), 249–267.
- Navaretti, G. B., Faini, R., & Silberston, A. (1995). Beyond the multifibre agreement: Third World competition and restructuring Europe's textile industry. Paris, France: OECD.
- Neilson, J. (2008). Global private regulation and value-chain restructuring in Indonesian smallholder coffee systems. *World Development*, 36(9), 1607–1622.
- Nichter, S., & Goldmark, L. (2009). Small firm growth in developing countries. *World Development*, 37(9), 1453–1464. doi: 10.1016/j.worlddev.2009.01.013
- Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*(September), 1–10.

- Nijhof, A., Forterre, D., & Jeurissen, R. (2008). Managing legitimacy issues in global supply chains: The case of the athletic footwear industry. *Corporate Governance: The International Journal of Effective Board Performance*, 8(4), 506–517.
- Nordas, H. K. (2004). The global textile and clothing industry post the agreement on textile and clothing. Geneva, Switzerland: World Trade Organization.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge, UK: Cambridge University Press.
- Oro, K., & Pritchard, B. (2011). The evolution of global value chains: Displacement of captive upstream investment in the Australia-Japan beef trade. *Journal of Economic Geography* 11(4), 709–729. doi: 0.1093/jeg/lbq008
- Orsato, R. J. (2009). *Sustainability strategies: When does it pay to be green?* New York, NY: Palgrave Macmillan.
- OXFAM. (2004). *Stitched up: How rich-country protectionism in textiles and clothing trade prevents poverty alleviation*. Oxford, UK: Oxfam International.
- Palpacuer, F., Gibbon, P., & Thomsen, L. (2005). New challenges for developing country suppliers in global clothing chains: A comparative European perspective. *World Development*, 33(3), 409–430. doi: 10.1016/j.worlddev.2004.09.007
- Pananond, P. (2012). *Moving along the value chain: The international expansion of Thailand-listed firms*. Paper presented at the AIB 2012 Annual Meeting Presentation, Thammasat Business School, Washington, DC.
- Pargal, S., & Wheeler, D. (1996). Informal regulation of industrial pollution in developing countries: Evidence from Indonesia. *The Journal of Political Economy*, 104(6), 1314–1327.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (1st ed.). London, UK: Sage.
- Pauwels, P., & Matthyssens, P. (2004). The architecture of multiple case study research in international business. In R. M. Piekkari & C. Welch (Eds.), *Handbook of qualitative research methods for international business*. Northampton, MA: Edward Elgar.

- Penrose, E. T. (1959). *The theory of growth of the firm*. London, UK: Basil Blackwell.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14(3), 179–191.
- Pickles, J. (2010). Capturing the gains in apparel global production networks: A scoping study Retrieved November 27, 2011, from <http://www.capturingthegains.org/membersarea/>
- Pietrobelli, C., Banco Interamericano de, D., & Rabellotti, R. (2006). Upgrading to compete: Global value chains, clusters, and SMEs in Latin America. Washington, DC: EUA: Banco Interamericano de Desarrollo.
- Pietrobelli, C., & Rabellotti, R. (2011). Global value chains meet innovation systems: Are there learning opportunities for developing countries? *World Development*, 39(7), 1261–1269. doi: 10.1016/j.worlddev.2010.05.013
- Plahe, J. (2005). *The global commodity chain (GCC) approach and the organisational transformation of agriculture: A look into the increasing power of retailers and brand merchandisers*. Department of Management Working Paper Series. University of Monash. Monash, Australia.
- Plank, L., Staritz, C., & Lukas, K. (2009). Labour rights in global production networks: An analysis of the apparel and electronics sector in Romania. Verlags- und Herstellort: Wein.
- Ponte, S. (2009). Governing through quality: Conventions and supply relations in the value chain for South African wine. *Sociologia Ruralis*, 49(3), 236–257.
- Ponte, S., & Gibbon, P. (2005). Quality standards, conventions and the governance of global value chains. *Economy & Society*, 34(1), 1–31.
- Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press.
- Porter, M. (1990). *The competitive advantage of nations*. New York, NY: Free Press.
- Quan, K. (2008). Use of global value chains by labor organizers. *Competition & Change*, 12(1), 89–104.

- Rahman, M., Bhattacharya, D., & Golam Moazzem, K. (2008). Bangladesh apparel sector in post MFA era: A study on the ongoing restructuring process. Dhaka, India: Centre for Policy Dialogue (CPD).
- Raikes, P., Jensen, M. F., & Ponte, S. (2000). Global commodity chain analysis and the French filiere approach: Comparison and critique. *Economy and Society*, 29, 390–417.
- Rainnie, A., Herod, A., & McGrath-Champ, S. (2011). Review and positions: Global Production networks and labour. *Competition & Change*, 15(2), 155–169. doi: 10.1179/102452911x13025292603714
- Raj-Reichert, G. (2011). The electronic industry code of conduct: Private governance in a competitive and contested global production network. *Competition & Change*, 15(3), 221–238. doi: 10.1179/102452911x13046725211292
- Ramirez, P., & Rainbird, H. (2010). Making the connections: Bringing skill formation into global value chain analysis. *Work Employment and Society*, 24(4), 699–710. doi: 10.1177/0950017010380641
- Raworth, K. (2004). Trading away our rights: Women working in global supply chains. Oxford, UK: OXFAM.
- Raworth, K., & Kidder, T. (2009). Mimicking "lean" in global value chains: It's the workers who get leaned on it. In J. Bair (Ed.), *Frontiers of commodity chain research*. Stanford, CA: Stanford University Press.
- Remenyi, D., William, B., Money, A., & Swartz, E. (1998). *Doing research in business and management: An introduction to process and method*. London, UK: Sage.
- Rennings, K. (2000). Redefining innovation - Eco-innovation research and the contribution from ecological economics. *Ecological Economics*, 32(2), 319–332.
- Riisgaard, L. (2009). Global value chains, labor organization and private social standards: Lessons from East African cut flower industries. *World Development*, 37(2), 326–340.

- Rivoli, P. (2009). *The travels of a t-shirt in the global economy: An economist examines the markets, power and politics of world trade* (2nd ed.). New Jersey, NJ: John Wiley & Sons.
- Robson, C. (1993). *Real world research: A resource for social scientists and practitioner-researchers*. Oxford, UK: Blackwell.
- Rock, M. (2001). Globalisation and Bangladesh: The case of export oriented garment manufacture. *South Asia: Journal of South Asian Studies*, 24(1), 201–225. doi: 10.1080/00856400108723430
- Rumelt, R. P. (1987). Theory, strategy and entrepreneurship. In D. Teece (Ed.), *The competitive challenge* (pp. 137–158). Cambridge, MA: Ballinger.
- Ruwanpura, K. N., & Wrigley, N. (2010). The costs of compliance? Views of Sri Lankan apparel manufacturers in times of global economic crisis. *Journal of Economic Geography*. doi: 10.1093/jeg/lbq036
- Sadler, F. (2011). Beyond ethical audits: Creating model factories and a sustainability framework to tackle root causes: Marks & Spencer.
- Saliola, F., & Zanfei, A. (2009). Multinational firms, global value chains and the organization of knowledge transfer. *Research Policy*, 38(2), 369–381. doi: 10.1016/j.respol.2008.11.003
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). New York, NY: FT/Prentice Hall.
- Savchenko, Y., & Lopez-Acevedo, G. (2012). Female wages in the apparel industry post-MFA: The cases of Cambodia and Sri Lanka *Policy Research Working Paper*: The World Bank.
- Schmitz, H. (2004). *Local enterprises in the global economy: Issues of governance and upgrading*. Cheltenham, UK: Edward Elgar.
- Schmitz, H. (2006). Learning and earning in global garment and footwear chains. *The European Journal of Development Research*, 18(4), 546–571.



- Schofield, J. W. (1993). Increasing the generalizability of qualitative research. In M. Hammersley (Ed.), *Social research: Philosophy, politics and practice*. London, UK: Sage.
- Scott, W. R. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Scott, W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). Los Angeles, CA: Sage.
- Selwyn, B. (2008). Institutions, upgrading and development: Evidence from North East Brazilian export horticulture. *Competition & Change*, 12(4), 377–396.
- Sen, A. (2000). Work and rights. *International Labour Review*, 139(2), 119–128. doi: 10.1111/j.1564-913X.2000.tb00406.x
- Silverman, D. (2004). *Interpreting qualitative data: Methods of analysing talk, text and interaction*. London, UK: Sage.
- Singleton, J. (1997). *The world textile industry*. London, UK: Routledge.
- Sinkin, C., Wright, C. J., & Burnett, R. D. (2008). Eco-efficiency and firm value. *Journal of Accounting and Public Policy*, 27(2), 167–176. doi: 10.1016/j.jaccpubpol.2008.01.003
- Srivastava, S. K. (2007). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9(1), 53–80. doi: 10.1111/j.1468-2370.2007.00202.x
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. London, UK: Sage.
- Stake, R. E. (2003). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies in qualitative inquiry* (2nd ed.). Thousand Oaks, CA: Sage.
- Staritz, C. (2011). *Making the Cut? Low-income countries and the global clothing value chain in a post-quota and post-crisis world*. Washington, DC: The World Bank.

- Stavros, C., & Westberg, K. (2009). Using triangulation and multiple case studies to advance relationship marketing theory. *Qualitative Market Research: An International Journal*, 12(3), 307–320.
- Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London, UK: Sage.
- Sturgeon, T. J. (2006). The governance of global value chains: Implications for industrial upgrading. Raleigh, NC: Social Science Research Institute, Duke University.
- Sturgeon, T. J. (2009). From global commodity chains to global value chains: Interdisciplinary theory building in an age of globalization. In J. Bair (Ed.), *Frontiers of commodity chain research*. Stanford, CA: Stanford University Press.
- Sturgeon, T. J., Biesebroeck, V., & Gereffi, G. (2008). Value chains, networks and clusters: Reframing the global automotive industry. *Journal of Economic Geography*, 8(3), 297–321.
- Sturgeon, T. J., & Gereffi, G. (2011). Measuring success in the global economy: International trade, industrial upgrading, and business function outsourcing in global value chains. *Survey of Current Business*, 91(2), 33–66.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *The Academy of Management Review*, 20(3), 571–610.
- Talbot, J. M. (2009). The comparative advantages of tropical commodity chain analysis. In J. Bair (Ed.), *Frontiers of commodity chain research*. Stanford, CA: Stanford University Press.
- Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource* (3rd ed.). New York, NY: John Wiley and Sons.
- Tewari, M. (2005). The role of price and cost competitiveness in apparel exports, post - MFA: A review. New Delhi, India: Indian Council for Research on International Economic Relations.

- Tewari, M. (2006). Is price and cost competitiveness enough for apparel firms to gain market share in the world after quotas? A review. *Global Economy Journal*, 6(4), 1–45.
- Tewari, M. (2008). Varieties of global integration: Navigating institutional legacies and global networks in India's garment industry. *Competition & Change*, 12(1), 49–67.
- Thomsen, L. (2007). Accessing global value chains? The role of business-state relations in the private clothing industry in Vietnam. *Journal of Economic Geography*, 7(6), 753–776. doi: 10.1093/jeg/Ibm028
- Tokatli, N. (2007). Asymmetrical power relations and upgrading among suppliers of global clothing brands: Hugo Boss in Turkey. *Journal of Economic Geography*, 7(1), 67–92. doi: 10.1093/jeg/Ibl017
- Trevino, L. J., Thomas, D. E., & Cullen, J. (2008). The three pillars of institutional theory and FDI in Latin America: An institutionalization process. *International Business Review*, 17(1), 118–133.
- Uddin, F. (2004). China in global textile and clothing market: A real model for Pakistan. *The Industrial Review*, 53–55.
- UNEP, & SETAC. (2009). Life cycle management: How business uses it to decrease footprint, create opportunities and make value chains more sustainable. Paris United Nations Environment Programme (UNEP).
- Van Dijk, M. P., & Trienekens, J. (Eds.). (2012). *Global value chains: Linking local producers from developing countries to international markets* Amsterdam, Holland: Amsterdam University Press.
- Van Maanen, J. (1979). *Qualitative methodology*. Newbury Park, CA: Sage.
- Wallerstein, I. (2009). Protection networks and commodity chains in the capitalist world economy. In J. Bair (Ed.), *Frontiers of Commodity Chain Research*. Stanford, CA: Stanford University Press.
- Walton, S. V., Handfield, R. B., & Melnyk, S. A. (1998). The green supply chain: Integrating suppliers into environmental management processes. *Journal of Supply Chain Management*, 34(2), 2–11. doi: 10.1111/j.1745-493X.1998.tb00042.x

- Wijayasiri, J., & Dissanayake, J. (2008). The ending of the multi-fibre agreement and innovation in the Sri Lankan textile and clothing industry. *OECD Journal: General Papers*, 8(4), 157–188.
- Williamson, O. (1975). *Market and hierarchies*. New York, NY: Free Press.
- Williamson, O. (1981). The modern corporation: Origins, evolution, attributes. *Journal of Economic Literature*, 19(4), 1537.
- Williamson, O. (1985). *The economic institutions of capitalism: Firms, markets, relational contracting* London, UK: Macmillan.
- Williamson, O. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36(2), 269–296.
- Williamson, O. (2010). Transaction cost economics: The natural progression. *Journal of Retailing*, 86(3), 215–226. doi: 10.1016/j.jretai.2010.07.005
- Wong, C. Y., & Johansen, J. (2008). A framework of manufacturer-retailer coordination process: Three case studies. *International Journal of Retail & Distribution Management*, 36(5), 387–408.
- WTO. (2011). International trade and tariff data. Geneva, Switzerland: WTO.
- Yin, R. K. (1989). *Case study research: Design and methods*. London, UK: Sage.
- Yongzheng, Y., & Mlachila, M. (2007). The end of textiles quotas: A case study of the impact on Bangladesh. *Journal of Development Studies*, 43(4), 675–699. doi: 10.1080/00220380701259939
- Yunus, M., & Yamagata, T. (2012). The garment industry in Bangladesh. In T. Fukunishi (Ed.), *Dynamics of the garment industry in low-income countries: Experience of Asia and Africa (Interim report)* Chousakenkyu Houkokusho: IDE-JETRO.
- Zucker, L. G. (1987). Institutional theories of organization. In W. R. Scott, JR, J.F.Short (Ed.), *Annual Review of Sociology* (Vol. 13, pp. 443–464). Palo Alto, CA: Annual Review of Sociology.