ABSTRACT

TROUPE, ANNA MARIE. An Integrated Solution for Optimal Factory Compliance in the Global Textiles and Clothing Industry. (Under the direction of Dr. Trevor Little).

The current means of addressing factory compliance in the global textiles and clothing industry - namely, public and private regulation including codes, laws, certifications, and standards -- are challenged to solve core human labor concerns in an enduring (sustainable) way. Despite the United States’ inclusion of internationally accepted labor standards in every bilateral and regional trade agreement since 1994, the degree of actual enforcement varies greatly from region to region (Wells & Frost, 2006). This research identifies factory managers as central stakeholders with significant untapped potential to improve compliance quality on a broad scale. By evaluating market governance systems (MGS), as well as the existing critical literature on these topics, the work seeks to highlight the value that can be extracted from current MGS to create an integrated solution to current manufacturing management deficiencies. Via the Delphi method, it investigates whether an individual accreditation program for managers that is harmonized with current MGS would result in a more sustainable global fashion industry while transforming manufacturing managers into trusted allies for human resources, for factory owners, investors, and all the buyer companies who depend on safe and efficient production every day. Finally, this research reveals the potential for such a compliance solution to significantly contribute to the sustainable development goals set forth by the United Nations and agreed on by a multitude of countries around the world.
An Integrated Solution for Optimal Factory Compliance in the Textiles and Clothing Industry

by
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A thesis submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the degree of Master of Science Textiles

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DEDICATION

I dedicate this work to all factory workers, their families, and communities, who have been harmed through their participation in the textiles and clothing industry. May your suffering be acknowledged, addressed and learned from, in an earnest and ongoing effort to do better. I also dedicate this work to all those who inform that process and strive to speed its execution.
BIOGRAPHY

Anna Marie Troupe was born in Mississippi in 1977 and grew up in Huntsville, Alabama. The fifth daughter of a mechanical engineer and an administrative assistant, Anna made a point of pushing the boundaries of her creativity. She studied the building arts at Savannah College of Art and Design and had the honor of exhibiting a chair design at the Salone del Mobila in Milan, Italy. Her work was also published in a book called, “Creative Solutions for Unusual Projects.” Anna graduated in 2000 with a BFA in Furniture Design and an uncertainty about the future of the furniture industry. She worked as a financial writer and explored many other jobs while building furniture on commission. Anna began blogging about humanitarian design in 2008 after volunteering at the Connect ’07 design conference in San Francisco. At this time, the social design movement was just gaining steam. Anna knew this was her calling, but wasn’t sure how to get involved. In 2011, she won a fabric design competition that was created to support the weaving communities of Bangladesh and preserve their traditional craft. Finally she was on her way. Through this project she came to meet her hero, Nobel Laureate Muhammad Yunus, and collaborated with philanthropic design firm, Felissimo, in Japan. She soon discovered that she lived near the greatest textile program in the world. Anna entered NCSU’s College of Textiles in 2012 and was hired by Dr. Hoon Joo Lee to study sustainability. An invitation to present on the UN’s Agenda 21 to the American Apparel and Footwear Association guided her research towards sustainable development, as did the industry disasters occurring in Bangladesh at the time. Anna expects to graduate in July 2014 and continue the work in this thesis. It has become a personal mission to help the textiles and clothing industry become ethical and beneficial to society.
ACKNOWLEDGMENTS

First, I thank my parents, Millicent and James Troupe, for their tireless support, inspiration, and encouragement through this process. I thank my sisters and friends for being interested and enthusiastic about my work and uncannily expressing their support exactly when it was most needed. My yoga teacher, Ti Harmony, kept me in balance throughout this experience, even when I was too busy to come to class and had to get by on discussing yogic concepts with him via email. It made the difference.

Many thanks to my former colleague, mentor, and friend, Robert Folsom, who first helped me realize my love of writing, and then taught me how to do it well. He was an invaluable resource in the preparation for this work, as he is in life in general.

Dr. Istook, Professor Powell, and Professor Allen have all contributed much wisdom and expertise to this endeavor; each of them has been a role model for me in one way or another, and each has caused me to reflect many times on my good fortune for coming to North Carolina State University. I will carry their good influence for life, and for that, I will always be grateful. A special thank you to Dr. Hoon Joo Lee for her excellent guidance early on, and for making me believe it really is possible to change the world. Finally, my deepest gratitude to my advisor, Dr. Trevor Little. Our discussions always left me with the sense that I was learning from a true master of creative thought. Dr. Little not only made this work possible, he ensured it was incredibly rewarding and fun.
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CHAPTER ONE
INTRODUCTION

Background

On April 24, 2013, the world saw the worst disaster in garment industry history – a collapse of an enormous multi-factory complex in Bangladesh, one of the poorest countries in the world. More than 1100 workers died and 2500 were injured while producing items for well-known brands in readymade clothing. Several of the brands claimed that they did not know their products were originating from the building that collapsed (Manik & Yardley, New York Times, 2013, April 24, para. 21).

In the year following the disaster, researchers have begun documenting the extent of indirect sourcing, which Labowitz and Baumann-Pauly define as “the routine practice of subcontracting, often through purchasing agents and in a manner that is not transparent to buyers or regulators, as a means of...boosting production capacity while keeping costs low.” (Labowitz & Baumann-Pauly, 2014, p.06).

The dramatic factory collapse has reignited the public outrage that previously peaked in the late 1990s in response to multiple labor abuse scandals as they came to light. The result then was manifold: the US began including labor standards in every bilateral or regional agreement (Lazo Grandi, 2009) and launched an experimental new trade policy called Better Factories Cambodia which linked labor practices with trade quotas.

Corporations drafted codes of conduct and increased factory inspections, while non-governmental organizations like Social Accountability International (SAI) and the Fair Labor Association (FLA) formed to establish private, third-party regulated certification standards. The first efforts at sustainable clothing initiatives were quick to follow (Hethorn & Ulasewicz, 2008).

Today, roughly a decade and a half after the formation of SAI and FLA, clothing companies again face enormous pressure to address factory safety issues and poor labor practices – at a time when public awareness of environmental impact and demand for
sustainable change has also come to the fore. Meanwhile, the magnitude of the industry, and the complexity of its global web, has increased substantially.

According to the latest World Trade Organization data, textiles and clothing (T&C) trade now account for 6.4% of global manufactures trade, to the tune of US $706 billion in 2011. Developing countries produce half the world’s textile exports and three-quarters of the world’s clothing exports (Ethical Fashion Forum, 2010, January 01). T&C trade provides employment for an estimated 40 million workers, while an estimated 200 countries worldwide have T&C industries (Burns & Bryant, 2007).

Innovations in flexible manufacturing models have shortened delivery times and brought the runway to the masses, increasing competition and spurring consumption to greater and greater heights (Birtwistle & Morgan, 2009). These markets exemplify the rise of global manufacturing and the accompanying economic, social and environmental challenges that must be addressed. Many, if not all, of these challenges are directly linked to some aspect of compliance management.

Yet the current means of addressing compliance - namely, public and private regulation including codes, laws, certifications, and standards -- are challenged to solve core labor concerns in an enduring (sustainable) way. Sustainability calls for a holistic approach to decision-making that integrates all aspects of a problem in considering the solution. Critical literature detailing the limits and flaws inherent in all known regulatory methods abounds, while few, if any, comprehensive solutions have so far been proposed.

**Purpose**

This study sought to fill the need in the literature for comprehensive approaches (to solving the compliance problem) by investigating the potential for a thorough compliance tool that harmonizes existing market governance systems (MGS) while accounting for known gaps or weaknesses. The study draws on a contextual model, as well as results from previously published interviews with various supplier stakeholders, to identify factory managers as crucial to improving compliance quality on a broad scale.

It evaluates MGS, as well as the existing critical literature on these topics to consider the value that can be extracted to build an integrated solution to current manufacturing
management deficiencies. Following the industry norm of deferring to “internationally accepted human rights standards” (as laid out by the International Labor Organization), the researcher examined globally accepted (but legally non-binding) documents that define sustainable development imperatives and the actions or behaviors that will accomplish them.

In so doing, potential was established for the proposed compliance solution to advance these goals, which are fundamental to social and environmental sustainability. The Delphi method was employed to inform the research and test whether an individual accreditation and training program for factory managers might result in a more sustainable global fashion supply system, while transforming the “trainees” into trusted leaders within their operation that may also begin to impact their local communities.

**Significance**

The significance of this effort is the contribution of a new approach to many important areas – factory compliance and certification, supply chain management (SCM), worker well being and productivity, corporate social responsibility (CSR) and sustainable development.

Yet this new approach is constructed from well-established strategy: training managers to be leaders who engage employees is characteristic of top performing organizations (Beck & Harter, 2014; Gallup, 2010), while holistic problem solving is the core recommendation of well over two decades of sustainable research (Smith, Hargroves, & Desha, 2010).

Applying the methods of the most successful and most knowledgeable may reasonably provide the greatest benefit to all stakeholders, from the individual worker to factory owners, from buyer brands to socially responsible investors, to consumers the world over. This work aspires to that aim.

**Research Questions**

The research questions this study attempted to answer are:

1. What is the context surrounding non-compliance within the T&C industry?
2. What are the obstacles to compliance, and the weaknesses in current modes of regulation?
3. What, if any, value can still be obtained from current governance?

4. Is there a connection between the goals of international sustainable development efforts, the interests in T&C industry sustainability, and the possible impacts of achieving optimal compliance, as described on p. 17 in Chapter two?

5. Is there a comprehensive solution to achieve the following?
   a. harness and harmonize the value of existing governance
   b. address the problems of compliance
   c. increase the T&C industry’s sustainability
   d. contribute to sustainable development efforts in producer regions

Limitations

The solution proposed in the work was intended to be global, yet the survey data substantially reflects the views of North America, which may not be shared by industry professionals in other parts of the world. The variations that exist in the models and needs of companies on both sides of textiles and clothing trade have not been fully investigated in this research.

Further, the intent of the Delphi Method is to conduct iterative rounds until absolute consensus is achieved. Yet only two rounds were possible under the time constraints. Even though unanimous agreement was not achieved, it should be noted that there were no particularly conflicting perspectives on any element of the proposed Manufacturing Manager’s Accreditation, nor is consensus necessary at this stage of investigation, which is only to test the proposed solution.

The range of views shared by the panel are useful to gaining a better understanding of a (predominantly Western) response from industry professionals to the problems plaguing the global textiles and clothing industry, as well as this initial proposed solution to some of them.
Definition of Terms

The Alliance for Bangladesh Worker Safety: a labor-backed building and fire safety agreement formed by retailers and brands across Europe in response to the Rana Plaza tragedy (Bangladesh Worker Safety, 2014).

Backcasting: strategic decision-making in the present based on principles derived from a future ideal. This is an approach to sustainable action that the Natural Step pioneered (Holmberg & Robert, 2000).

The Bangladesh Accord on Fire and Building Safety, 2014: safety agreement created by US brands and retailers in response to the Rana Plaza tragedy (Bangladesh Accord, 2014).

Better Factories Cambodia (BFC): An experimental trade program that featured routine monitoring of factories by the ILO. Has been so successful that it has evolved into a similar program in Vietnam, Jordan and Haiti in 2008 – the Better Work Program, which is slated to be implemented elsewhere in coming years (Arnold & Shih, 2010)

BGMEA: Bangladesh Garment Manufactures and Exporters Association

Codes of Conduct (COC): Nearly ubiquitous among multinationals today, COCs communicate internally, as well as to customers, the company’s particular ethical principles and detailed commitment to that vision. They are perceived as fundamental to ethical organizational culture (Erwin, 2011) and may improve a company’s public image (Diller, 1999; Matten, 2003).

**Dashboard:** an easy to use digital interface displaying key performance measures which help managers make informed decisions quickly (Palpanas, Chowdhary, Mihaila, & Pinel, 2007).

**Delphi Method:** a survey-based approach to research that entails building consensus through iterative group discussion that is conducted confidentially so that input is not influenced by any interpersonal dynamics (Kennedy, 2004; Williams and Webb, 1994).

**Fair Labor Association (FLA):** is the oldest and most familiar standard in labor regulation (Oka, 2010). The FLA Workplace Code of Conduct is similar to the SA8000 in that it is a non-industry-specific, auditable set of rules designed to protect workers’ rights. FLA’s Workplace Code was published in 1997 and began being utilized in 1999 (FLA, 2014).

**Fair trade:** typically thought to refer strictly to agriculture, it has recently found its place in textiles and apparel as well. The term refers to trade in which fair prices are paid to producers in developing countries (Fairtrade, 2014).

**Fast fashion:** offering consumers the latest trends at low prices, just weeks after they appear on the catwalk (Morgan and Birtwistle, 2009).

**Fairtrade Labeling Organizations International (FLO):** established in 1997, FLO is a global multi-stakeholder group that sets fairtrade standards, works to improve conditions for producers by organizing support, developing trade strategy and promoting trade justice internationally. (Fairtrade, 2014).

**Full package:** The practice of producing finished goods from start to finish

**Gender gap:** the difference between how men and women are utilized and treated in society. Reducing gender inequality has been shown to enhance productivity and economic growth. (WEF, 2013, p. 31).
Global value chains (GVCs): refers to the numerous steps, typically among multiple firms which are geographically far apart, in developing a product from conception to end use and beyond. GVCs have become increasingly complex in the past 10 to 15 years (Global Value Chains, 2014).

Greenwashing: the practice of misrepresenting an environmentally (or socially) responsible public image (Delmas & Burbano, 2011).

Human resources management (HRM): is usually a department within a firm that is concerned with the recruitment, training, management, performance appraisal, and rewarding of employees; may also focus on strategic initiatives like diversity, talent management, succession planning, and labor relations (Paauwe, 2009)

Human Rights Watch (HRW): an international non-profit, non-governmental organization that publishes more than 100 reports and briefings on human rights conditions in some 90 countries annually. HRW meets with governments, the United Nations, regional groups like the African Union and the European Union, financial institutions, and corporations to press for changes in policy and practice that promote human rights and justice around the world (HRW, 2014).

Indirect sourcing: “the routine practice of subcontracting, often through purchasing agents and in a manner that is not transparent to buyers or regulators, as a means of...boosting production capacity while keeping costs low.” (Labowitz & Baumann-Pauly, 2014, p.06).

International Labor Organization (ILO) Founded in 1919 in the wake of World War I to establish lasting peace based on social justice. Today, there are 185 member countries and its agenda is still focused on the same four main objectives: creating decent jobs, guaranteeing worker rights, extending social protection, and fostering social dialogue by publishing labor standards that serve to protect and engender these goals (ILO, 2014).
ILO International Labor Standards: include eight Fundamental Conventions, four (priority) Governance Conventions, and 177 Technical Conventions. More than 138 countries have ratified all eight of the Fundamental Conventions (ILO, 2014).


Institutional Research Board (IRB): a formal committee whose main goal is protecting the rights of research participants from psychological or physical harm. They conduct risk/benefit analysis to evaluate research proposals and determine whether the study should be approved or not (Wikipedia, 2014).

International Organization for Standardization (ISO): the world’s largest developer of voluntary International Standards for products, services and good practice. Developed through global consensus, they help to break down barriers to international trade (ISO, 2014).

key performance indicators (KPIs): A set of quantifiable measures that a company or industry uses to gauge or compare performance in terms of meeting their strategic and operational goals (Investopedia, 2014)

Least Developed Countries (LDCs): countries that suffer extreme levels of poverty, political corruption and widespread social conflict. Many of these are in sub-Saharan Africa where AIDS and overpopulation are also predominant issues (United Nations, 2014).

Lean Retailing: maintaining low inventory and seeking out suppliers who can provide a quick turnaround time. Offering an expanding array of goods in smaller quantities, creating the need for rapid replenishment of orders in frequent but smaller shipments, shifting more risk and pressure to manufacturers (Cammett, 2006).
Manufacturing Manager’s Accreditation (MMA): a training program proposed by this thesis for equipping and certifying individual factory managers to better address the challenges of production in the global T&C industry

Market governance systems (MGS): private forms of regulation such as third party auditing/monitoring and corporate codes of conduct (Berstein & Cashore, 2007).

Multinational corporations (MNCs): companies which own or control production facilities in countries other than the home country. Can also be called international companies or “transnational” firms. MNCs have become increasingly prevalent with the rise of globalization (Pitelis & Sugden, 2000).

The Natural Step (TNS): Sweden-based, global non-profit organization focused on sustainable development with close ties to the authors of Our Common Future, and who pioneered the concept of backcasting (see definition above) (TNS, 2014).

Non-governmental organization (NGO): a legally constituted organization which is nonetheless independent from any government and without legal definition. The term is used to denote groups with a social aim that may have political aspects but cannot be blatantly (or solely) political. Also known as “civil society organizations” in many jurisdictions (NGO, 2014).

Non-state market driven (NSMD) systems: a form of private regulation said to offer the strongest potential to socially embed global markets,” by “recognizing and tracking responsibly produced goods and services” (Bernstein & Cashore, 2007, p. 347)

North American Agreement on Labor Cooperation (NAALC): signed in 1993 as a supplement to NAFTA, the NAALC was the first international labor agreement linked to an international trade agreement. It provides a mechanism for member countries to ensure the
effective enforcement of existing and future domestic labor standards and laws without interfering in the sovereign functioning of the different national labor systems (NAALC, 2014). The NAALC is also criticized for “limited effectiveness, particularly in relation to labor standards in Mexico.” (Wells, 2006, p. 358).

**North American Free Trade Agreement (NAFTA):** A trade policy which came into effect in 1994, creating one of the world’s largest free trade zones between Canada, the United States, and Mexico (Wells, 2006).

**OEKO-TEX® STeP program:** is a certification system for brands, retail companies and manufacturers from the textile chain who want to communicate their achievements regarding sustainable production to the public in a transparent, credible and clear manner (OEKO-TEX®, 2014).

**Organization for Economic Cooperation Development (OECD):** The OECD arose in 1948 to facilitate the reconstruction effort across Europe after WWII. By revealing to individual governments the reality of their economies’ interdependence, the OECD established a new era of cooperation. Today 34 countries are members and its mission is “to promote policies that will improve the economic and social well-being of people around the world (OECD, 2014).

**Rana Plaza Collapse:** the April 24, 2013 collapse of an 8-story structure in Dhaka, Bangladesh, which housed several garment factories. Killing 1,129 and wounding 2500 others, it is considered the worst disaster in garment industry history. Tragically, the cracks in the building were observed before the collapse and the police tried to evacuate the building, yet workers were forced to return to work by the owner and management or risk losing their jobs (The New York Times, 2013).
Social Accountability International (SAI): SAI is a non-governmental, international, multi-stakeholder organization dedicated to improving workplaces and communities by developing and implementing socially responsible standards (SAI, 2013).

SA8000: This is a well-known, non-industry-specific tool for implementing international labor standards with currently over 3000 certified production facilities in 65 countries and 66 industries (SAI, 2013). the first auditable social standard to be created and is based on international workplace norms of the ILO as well as the Universal Declaration of Human Rights of the United Nations in order to improve the working conditions in practical life (Mueller et al., 2009). The standard identifies the minimum requirements that working conditions of production facilities and their suppliers should meet (to achieve internationally acceptable standards of decent work) (Mueller, dos Santos, & Seuring, 2009).

Socially responsible investing (SRI): the practice of investing in companies based on criteria that is deemed beneficial to society, increased more than 380%, from $639 billion in 1995 to $3.07 trillion in the US at the start of 2010 (Delmas & Burbano, 2011).

Structural imperialism: a theory developed by Johan Galtung to explain the “two most glaring facts about this world: the tremendous inequality within and between nations, in almost all aspects of human living conditions, including the power to decide over those living conditions; and the resistance of this inequality to change.” (Galtung, 1971). He posits that the world is made up of center and periphery nations that have their own center and periphery, and his concern is with the “underlying mechanism” that explains this discrepancy (Galtung, 1971).

“Strong” sustainability: a method of diagraming sustainability, through either concentric or non-concentric-but-adjacent ellipses or circles, that recognizes that the economy is a subset of society (i.e. it only exists in the context of a society), and that many important aspects of society do not involve economic activity (Mann, 2009; Williams, 2008).
**Sustainable development:** came into being through the United Nations’ (UN) efforts to examine human impact on the natural environment, as well as its evolving understanding of the interdependence of economy and ecology. First used by Gro Harlem Brundlandt (former prime minister of Norway and chairperson of the World Commission on Environment and Development); most commonly defined as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (Smith, Hargroves, & Desha, 2010).

**Tazreen Factory fire:** a prominent disaster (out of many factory fires) which occurred in Dhaka, Bangladesh on November 24, 2012, killing some 117 workers in the blaze due to locked fire exits and obstructive factory management (New York Times, 2012).

**Trade quotas:** from 1974 to 2004, world textiles and clothing (T&C) trade was controlled by the Multi Fiber Arrangement, which limited the amount of goods each developing country could export to industrialized nations (Adhikari & Yamamoto, 2007).

**Transfair USA:** the only third-party certifier of fair trade products in the U.S. Its label seeks to facilitate consumer choice, achieve higher earnings for cotton farmers and garment workers, and promote worker empowerment and participation (Golden et al., 2010).

**The US-Cambodia Trade Agreement** (UCTA) (1999-2004) was the only U.S. bilateral trade agreement to link increasing quotas to increasing compliance with labor standards (Wells, 2006).

**The United Nations Agenda 21 Program for Sustainable Action:** Agreed on and signed by 178 countries at the world’s first Earth Summit as a guide to comprehensively addressing the social, environmental and economic concerns on the global horizon (UNCED, 1992).

United Nations Educational, Scientific and Cultural Organization (UNESCO): Founded in 1945, UNESCO now has offices in 50 countries. According to its website, the organization strives to “create the conditions for dialogue based upon respect for commonly shared values... to achieve sustainable development encompassing observance of human rights, mutual respect and the alleviation of poverty, all of which are at the heart of UNESCO’S mission and activities.” (UNESCO, 2014).

UN Global Compact: the largest voluntary corporate responsibility initiative in the world, created to organize and motivate action towards the MDGs (see below) by global industries, currently has 12,000 members from more than 65 countries (UNGC, 2014).

United Nations Millennium Development Goals (MDGs): launched in 2000 to focus efforts on eight core objectives of greatest significance. These MDGs are still driving the sustainable development agenda today and represent the largest scale targets for impact (UNMDG, 2014).

United States Generalized System of Preferences: The main policy in U.S. trade law that promotes labor standards is the United States Generalized System of Preferences (GSP), which improves access to US markets for more than 140 countries by removing or decreasing tariffs. Supposedly, countries can only benefit from this arrangement if they are actively “taking steps” to achieve internationally recognized worker rights.

Venn diagram: one of the most common diagrams used to illustrate sustainability, the basic Venn diagram is a collection of simple closed curves drawn in the plane, introduced in 1880 by John Venn, a fellow and lecturer at Cambridge University (Lozano, 2008).
**World Commission on Environment and Development (WCED):** the United Nations committee that authored the famous report, *Our Common Future*, in 1987 in which Gro Harlem Brundtland, then prime minister of Norway and chairperson of the WCED, used the expression “sustainable development” for the first time (UNESCO, 2005, p. 2).

**World Economic Forum (WEF):** An international institution which engages leaders in society, business, academia and politics to collaborate on world improvement efforts (WEF, 2014).

**World Trade Organization (WTO):** established in 1995, the WTO is the central international organization that mediates trade negotiations between nations, arbitrates disputes, and sets trade policy (WTO, 2014).

**WRAP (Worldwide Responsible Accredited Production):** a non-profit team of “social compliance experts” who primarily conduct the largest independent facility certification program in the world, but also offer inspector training and certification, as well as fire safety courses and an “internal auditor” course which teaches factory managers 12 principles of compliance (WRAP, 2014).
CHAPTER TWO:
REVIEW OF LITERATURE

Introduction

The literature reviewed in this study begins by defining what is meant by “compliance.” Subsequent analysis provides the context for the factory compliance challenges targeted by the hypothesis: the economic scope of global textiles and clothing trade and the realities of production activities illustrate the industry’s significance to national development and its impact on it. Direct and indirect contributors to compliance challenges are covered to capture the industrial and cultural dynamics in play, as well as the conclusions other researchers have drawn from studies in this area.

The next section of the chapter reviews the existing practice, which represents the “available inputs” to the proposed solution of this thesis, the Manufacturing Manager Accreditation. International organizations and their agreed upon (and thus globally credible) documents such as: the Organization for Economic Cooperation and Development (OECD, 2014), its Guidelines for Multinational Enterprises (OECD, 2011), the International Labor Organization (ILO, 2014) and its International Labor Standards (ILO, 2013), the United Nations’ Agenda 21:Program for Sustainable Action (United Nations Conference on Environment and Development [UNCED], 1992) and the United Nations’ Global Compact (UNGC Interagency Team, 2014) establish the ideal standard for business behavior as envisioned at the highest level of government, as well as provide a foundation for understanding sustainable development as it relates to global trade and labor issues. The history of each body and/or document is included.

A discussion of government involvement in trade and labor at the national level – namely the Federal government of the United States – follows with a look back on the circumstances in Cambodian garment trade as a prominent example of public regulation and the illustrative results of trade policy linked with labor performance. The topic of government regulation is concluded by consideration of the challenges to public administration presented
by globalization. Critical analysis of third party certification standards and corporate codes of conduct, followed by the evaluation of another relevant and increasingly significant aspect of industry behavior, corporate social responsibility (CSR) concludes the review of existing practice. The chapter closes with final points from the literature on the obstacles to compliance, costing, buyers’ response to non-compliance and input from senior managers in textiles factories on solving the compliance problem.

Compliance

The word “compliance” is widely used to describe the act of conformance to rules, standards, laws, requirements, and the like. Traditionally, theoretical literature on compliance has centered on ideas of deterrence and enforcement, borrowing from theories in the fields of criminal justice, criminology and military strategy to suggest that the likelihood of detection, plus the severity of the penalty for non-compliance, and weighed against the anticipated benefit of non-compliance, determines the willingness to comply. In other words, the temptation to ignore regulation is always present unless the price for doing so sufficiently outweighs the anticipated reward (Oka, 2010). Importantly, deterrence theories suggest as much about the buyer behavior as that of the factories; buyers who have the most to lose from bad publicity are more likely to invest the resources in rigorous monitoring of their supply chains. Therefore Oka finds the presence of “reputation-conscious buyers” decreases supplier non-compliance by 35%. The number of buyers the supplier produces for also determines compliance according to Oka, since being monitored by more buyers raises the likelihood of detection of any violation (Oka, 2010). The logic sounds plausible, yet it presumes the accuracy and reliability of the methods of detection, which have been found ineffective repeatedly in the literature (Chan, 2011; Jiang, 2009; Mueller, dos Santos, & Seuring, 2009; Tsoi, 2010; Wellford & Frost, 2006; Wick, 2005); further analysis of which is forthcoming.

The Merriam-Webster, Oxford American, and Collins English (World English) Dictionaries offer another meaning of “compliance” as the physical responsiveness, or elastic ability, of an object under force. (Collins English Dictionary, 2014; Merriam-Webster n.d., 2014; Oxford Dictionaries, 2014). Merriam-Webster and Collins English go further to
include the personification of this concept as a third definition: “a disposition to yield to others,” and cite the synonym, “flexibility.” (Collins English Dictionary, 2014; Merriam-Webster n.d., 2014).

It is in the spirit of this definition that the researcher approaches the achievement of optimal factory compliance, because the ability to flex with global market forces is increasingly vital on both sides of the buyer-supplier equation. To that end, compliance is viewed in this work as a necessarily collaborative endeavor, with the fear-based notion of “enforcement” suppressed, as it is shown to be ineffective. Further, the ability to respond flexibly to rapid change is a key tenet of the new business strategy framework of Adam Werbach, who, as the former (and youngest ever) president of the Sierra Club and current Chief Sustainability Officer of global advertising firm, Saatchi and Saatchi, is widely recognized as a foremost expert on sustainable business strategy. Werbach’s book, “Strategy for Sustainability,” was published by Harvard Business Press in 2009 and expands the sustainability movement in business beyond just environmental and economic trends to social and cultural ones. While not reviewed explicitly in this thesis, it is duly noted as an influential reference.

**Present Situation**

The explosive growth and regional stagnation of global T&C trade stems from the system of decades-long trade quotas that ended in 2005, relinquishing a moderated world market to the shifting dynamics of cheap labor and competition (Adhikari & Yamamoto, 2007). Countries that benefited the most from this event were those who could compete with China’s capacity while undercutting its production cost. Textiles and clothing are both labor intensive so they are ideal economic strategies for areas with large labor pools in need of work. Factories can be established without huge amounts of capital using relatively low-skilled workers. Most industrialized nations used this industry as an economic springboard, and many least developed countries (LDCs) are doing so now (Adhikari & Yamamoto, 2007). That translates into millions of the world’s poorest employed, many of whom are women whose earnings are often the major source of household income (Bolwig, Ponte, du Toit, Riisgaard, & Halberg, 2010). The employment of women in global value chains has
broader poverty implications, due to the compounded effect that their family and childcare responsibilities have on the risks and benefits that they experience through such employment (Bolwig et al., 2010). T&C is also the most protected of all manufacturing industries in the global economy, both in developed and developing countries. Tariff barriers, discriminatory requirements in preferential trade agreements, the imposition of trade remedy measures, and regulatory barriers have shaped development through most of the 20th century, reflecting both the foundational importance and the intensity of competition that characterizes this industry (Adhikari & Yamamoto, 2007).

**Dependency of Developing Countries**

Many small countries wholly rely on these industries, with textiles and clothing representing as much as 83% of total industrial exports and over 50% of industrial employment in 2006, as shown in Figure 1 below. (Keane & Willem te Velde, 2008).

![Figure 1. Developing countries’ dependency on T&C exports.](image)

Data taken from: Keane & Willem te Velde, 2008.
This dependency is compounded by concentrations in industrialized markets, particularly the European Union and the United States, which account for 45% and 21% respectively of world imports (Gereffi and Memedovic, 2003; Laudal, 2010). American and European retailers dominate global distribution of apparel today with hundreds of brands vying for consumers’ attention (Cammett, 2006).

**Shifts in Production**

Trying to optimize costs across the supply chain in response to shifts in consumer demand and varied sourcing possibilities requires the constant evolution of the manufacturing process (Cammett, 2006). Changes in production location and related trends in supply chain management decisions are very significant to theoretical literature debating the “globalization” versus “localization” of manufacturing and various combinations in between (Cammett, 2006). The last two decades have seen newly industrialized countries in East Asia joining the ranks of major textile firms, often by establishing vertically integrated spinning and weaving capabilities (Cammett, 2006). Apparel firm ownership is, by contrast, more diverse, with many small factories, a significant home-based component and extensive subcontracting relationships between buyers or big retailers and small to medium-sized firms (Cammett, 2006; Labowitz & Baumann-Pauly, 2014).

**Supply Side Challenges**

Economic challenges to suppliers (aside from trade restrictions) include poor quality of infrastructure (e.g., roads, ports, telecommunications networks, utilities, etc.), limited trade facilitation measures, and limited access to finance. Adhikari & Yamamoto cite cases in which delays and inefficiencies in Indian ports put Indian companies at a 37% cost disadvantage in shipping containers of clothing from Mumbai, relative to those originating in Shanghai. Similar scenarios were discovered in Bangladesh’s Chittagong port. Out of the six major exporters from Sub-Saharan Africa, only South Africa and Mauritius have relatively good facilities (Adhikari & Yamamoto, 2007).
OECD Areas for Action in Trade Facilitation

The OECD was created in 1961 with a mission to “promote policies that will improve the economic and social well-being of people around the world” (OECD, 2014, para.1). OECD researchers have now proposed a multilateral agreement to streamline international trade procedures and reduce total trade costs by an estimated 10% in advanced economies and by 13-15.5% in developing countries (Moïsé & Sorescu, 2013). Reducing global trade costs by just 1% would increase worldwide income by more than USD $40 billion, most of which would accrue in developing countries, according to the OECD (OECD, 2013).

The OECD’s quantitative analysis for the group of low-income countries shows that the “harmonization and simplification of documents, automated processes and risk management, streamlining of border procedures, good governance and impartiality” are the areas that can have the greatest impact on trade flows and costs (Moïsé & Sorescu, 2013, p. 5). Cammett suggested that, due to the increasingly technical and computerized nature of production (logistically speaking), the average size of internationally competitive suppliers must increase (2006). The OECD perspective suggests instead that the system around the companies must decrease and streamline first and the cost savings can be reinvested to increase growth.

Access to credit is a major challenge for small and medium-sized textiles and clothing ventures in many Asian and African countries. Especially in light of the global economic downturn, banks will not even consider enterprises with little or no collateral. Exporters are compelled to borrow from local moneylenders at high rates (Adhikari & Yamamoto, 2007).

Each of the aforementioned supply side constraints adds an extra financial burden, as well as a countering competitive strain, on that most important of all factors under the current system, the price of final delivery of goods into the warehouse. Price ultimately drives the sourcing decisions of the majority of buyers, according to Adhikari & Yamamoto. However, rising awareness of ethical concerns as well as advances in the ability to measure impact is slowly taking effect (Chouinard, Ellison, & Ridgeway, 2011). For now, several Asian countries (Bangladesh, Pakistan, Indonesia and Vietnam) stick to a low-cost strategy to lure potential buyers, though critics point out this keeps them perpetually vulnerable to

Price is not the sole focus of powerful buyers in the global market. Reliability is another and preferences in regards to size of production capacity/market share of global producers may affect some buyers’ sourcing decisions. Likewise, how much risk or control buyers want to maintain has an influence on their supply chain strategy as well: they may spread the risk through diversified sourcing or utilize different countries for varying levels of product. Overall, the trend is towards contractors who can do it all – provide high quality finished goods, not just assembly work, at a competitive price (Cammett, 2006).

The practice of producing finished goods from start to finish, or full package production, has become increasingly common (Adhikari & Yamamoto, 2007; Cammett, 2006). East Asian manufacturers especially are transitioning from cut fabric assembly to being total solution providers who cover all stages of production and operate as transnational middlemen between retailers and their networks of producers (Adhikari & Yamamoto, 2007). Full package production offers the highest value-added but the greatest inventory and sourcing risks for the manufacturer. The same production mode with a slight twist is that the buyer asks the contractor to purchase all inputs from pre-selected suppliers at established terms. Then, the manufacturer assembles the garment according to buyer specifications (Cammett, 2006).

**From Lean Retailing to Fast Fashion**

In an increasingly decentralized and crowded market, with technology and the internet bringing instantaneous access to information and imagery, brands and retailers must do whatever it takes to stand out and capture the consumer’s attention, as well as tune into its latest whim. Rapidly changing tastes and competing trends mean buyers need speed and flexibility to respond. Adhikari & Yamamoto (2007) note the practice of lean retailing and buyers’ move away from maintaining high levels of inventory in their warehouses or stores, as well as a preference for suppliers who can provide a quick turnaround time. Retailers increasingly want to offer an expanding array of goods in smaller quantities, creating the need for rapid replenishment of orders in frequent but smaller shipments (Cammett, 2006),
shifting more risk to manufacturers and subcontractors and increasing pressure to speed up production and delivery.

Manufacturers are no longer able to plan production schedules well in advance or work according to predictable guidelines (Cammett, 2006). Instead, they have had to develop flexible production techniques that could respond to fast changes in fashion trends. Out of this has evolved the more extreme method of “fast fashion,” offering consumers the latest trends at low prices, just weeks after they appear on the catwalk (Morgan and Birtwistle, 2009). This would never be possible without the enormous supplies of cheap labor in developing countries, willing to compete for a near impossible task:

“According to Mintel (2007), the exceptional growth of fast-fashion retailers can be attributed to high impulse buying, an increase in sourcing from low-cost countries and a change in consumer attitudes, with the removal of stigma attached to buying from value retailers. This successful recipe has allowed retailers to generate large profits selling vast quantities of low-price clothing to shoppers seeking something new to wear every week.” (Morgan & Birtwistle, 2009, p.190).

The Current Social Context

Figure 2 affords some perspective on just how cheap labor is. As Adhikari & Yamamoto explain, “even in countries where export growth has been robust, increased exports do not necessarily translate into more employment, better wages or better working conditions.” (Adhikari & Yamamoto, 2007, p.193). Roughly four million workers are employed in 5600 factories in Bangladesh’s booming garment industry (BGMEA, 2013). These workers on average take home less than a dollar a day. And as the chart shows, Bangladesh stands out with 50% of the population – almost 82 million people – living on less than $1.25 per day. The minimum wage does not meet the barest minimum needs of half the country’s citizens (New York Times, 2012, August 23.) Yet, as previously mentioned, apparel exports represent about a fifth of the economy overall; clearly the country cannot afford to lose these jobs.
Figure 2. Wages and poverty among top apparel exporters. Sources: Taken from the New York Times, August 12, 2012; United States Association of Importers of Textiles and Apparel. (data through May 31, 2012); World Bank (wages for 19-year old worker or apprentice).

The information in Figure 2 appeared in the New York Times less than two months before the Tazreen factory fire on the outskirts of Dhaka, the capital of Bangladesh, that took the lives of 112 workers in November of 2012 (NYTimes, 2012, November 26). This was not the first, but rather another instance of a “persistent problem”: according to the International Labor Rights Forum, some 700 workers have been killed in Bangladesh factory fires since 2005 (ILRF, 2012, November 25, para. 5). Statistics like this draw a lot of concern among buyers and sourcing agents. As the chief executive of a design and distribution firm in the US told the New York Times in a more recent news story, sourcing from Bangladesh “has been politically incorrect ever since problems started there, so a lot of major players were already looking for alternatives.” (NYTimes, 2013, May 15, para. 2).

Continued disaster and ineffectual solutions. The design executive’s comments above refer not only to the fires but also to 33 regional or national strikes since the beginning of 2013, hundreds of deaths in factional street fighting since February, the kidnapping and murder of one labor organizer in early April, and at the end of the same month -- the collapse of Rana Plaza, in which 1,129 workers died, making it the worst disaster in garment industry history (NYTimes, 2013, May 16). The following July, the Bangladesh government amended
its labor laws to make it easier for unions to form, yet the law still requires support from 30% of a factory’s workforce before a union can be made official. Recent investigations by Human Rights Watch find that workers involved in organizing unions continue to be intimidated, threatened, and abused by factory management – making it very difficult to meet the 30% support requirement (Human Rights Watch, 2014). In any case, the impact that unions would have on worker conditions anyway is up for debate: recent research into the contributing factors behind labor compliance finds no statistical association between union presence and compliance (Oka, 2010).

**Bangladesh’s key to success: ‘docile’ women.** Dr. Fauzia Ahmed (2004) agrees with earlier findings by Kabeer (1994) that, “The preference for hiring women is, in fact, an employer preference for a compliant and low cost workforce. It is the ‘docility and dispensability’ of these women that makes them so attractive to employers (Kabeer 1994, p.168).” (Ahmed 2001, p. 38). Further, Ahmed draws from interviews with workers to explain that some factory owners purposefully employ mixed classes of mostly uneducated, rural women to prevent unionization. They segregate them from the male workers, ostensibly as a promise to their families that they will not be in danger of sexual exploitation. There is a cultural perception, according to Ahmed, that single women who take these factory jobs are less desirable for marriage because of the potential exposure to sexual harassment or exploitation. They are treated differently than the men, are less empowered and paid lower wages (Ahmed, 2004).

**The significance of the gender gap.** The World Economic Forum has been tracking the gap in gender equality since 2006 through its Global Gender Gap Index. The 2013 report explains the strong correlation between a country’s gender gap and its national competitiveness, income and development: “A country’s competitiveness depends on its human talent—the skills, education and productivity of its workforce. Because women account for one-half of a country’s potential talent base, a nation’s competitiveness in the long term depends significantly on whether and how it educates and utilizes its women.” (WEF, 2013, p. 36)
The index does not reflect the specific income of a country but measures the distribution of available income, resources, and opportunities among men and women. It provides rankings for each country in four categories: economic, political, health and educational. The goal is to enable comparison across regions and income groups and over time as well as obtain a comprehensive view of current global performance and progress that strengthens awareness of the challenges and opportunities presented by gender disparities. While the big picture looks reassuringly balanced in health outcomes, where over 96% of the gap on average has been closed, and in educational levels (93% of the gap has been closed), the gaps in economic participation and in political empowerment are troubling, at 60% and 21% respectively worldwide.

No country in the world has achieved gender equality, however the study finds that Nordic countries have come closest, with Iceland at the top of the list of 136 participating countries. A few more examples to give perspective are: the United States at 23rd (virtually unchanged since 2006), China at 69th (down from 63th in 2006), Bangladesh at 75th (an improvement from a 91 ranking in 2006), and Cambodia at 104th (down from 89th in 2006) (WEF, 2013). However, the picture changes when the economic participation and opportunity metric is isolated. Then the US moves to the number 6 position, while China ranks 62nd, Cambodia moves up to 77th and Bangladesh drops to 121st (WEF, 2013).

By contrast, all five of the Nordic countries are at the top of the Economic Participation and Opportunity sub-index, reflecting economies that, according to the WEF Report, make it easier to combine work and family, resulting in high female employment, better work balance for men and women, higher labor activity and a more robust economy (WEF, 2013, p. 20). The report acknowledges that even though correlation does not prove causality, it is “consistent with the theory and mounting evidence that empowering women means a more efficient use of a nation’s human capital endowment and that reducing gender inequality enhances productivity and economic growth.” (WEF, 2013, p. 31).

Consider the reverse reality. Survivor accounts of the Tazreen Factory fire (as reported by the New York Times) revealed the vulnerability and danger of disempowered women workers: factory management told the workers the fire alarm was just a drill and to
keep working, as they stood blocking the stairwell. The women obeyed because, whether they believed the managers or not, they did not have the confidence to do otherwise. In contrast, men on the higher floors ignored the managers, pushed past them and got out safely. They knew the managers were wrong and they had the confidence to act on it (NY Times, 2012, December 07).

**Lack of basic safety training.** Gender differences aside, workers are further disempowered and endangered by a lack of basic safety training or know-how. A Baseline Worker Survey Report, conducted at the end of 2013 and sponsored by The Alliance for Bangladesh Worker Safety, revealed that most Bangladeshi ready-made garment (RMG) workers “lack basic knowledge of fire and building safety and only 2 percent can correctly identify what a fire hazard is” (Donaldson, Sourcing Journal Online, 2014, February 25, para. 1).

Some 3,207 garment workers from 28 factories in the Dhaka and Chittagong regions were surveyed through multiple choice questions and off-site focus group discussions. The factories were randomly selected but the sample was stratified across factory size, product type and location (Donaldson, SJO, 2014, February 25). Researchers found that workers feel unsafe due to exits being frequently locked. Yet they also do not feel empowered or responsible to prevent fires, and existing training is ineffective. Workers further showed little faith that an appropriate response would follow if they did report safety concerns. And again, focus group findings demonstrate that men are often selected over women to participate in training even though more females work in factories than males (Donaldson, SJO, 2014, February 25).

An Assistant Professor of Occupational Health connected to the report commented that “if we are to see a real improvement related to garment workers’ safety, we need to support our garment industry communities in their aspirations to let the workers live healthier and happier lives by taking more control over their working conditions.” (Donaldson, SJO, 2014, February 25, para. 17). The author of the SJO article includes some of the Alliance recommendations, namely the design of “training programs based on education levels,” that
workers are taught the reasoning behind safety rules, and that programs include “significant female representation” (Donaldson, SJO, 2014, February 25, para. 16).

Outright negligence and endangerment by factory owners and management also contributed to the deaths and injuries in the Rana Plaza Collapse. Bangladesh Sangbad Sangstha (BSS), the country’s official news source said: "The factory owners reportedly forced several thousand workers to join the production lines even after cracks were reported and warnings were issued about their exposure to fatal collapse." (Bangladesh Sangbad Sangstha, 2013, para. 9). Senior management and engineers were also arrested for their participation. The building's upper three floors had been constructed illegally, and the materials were found to be “substandard,” says the BSS report, causing the building to give way under the weight of heavy machinery and generators (CNN, 2013, May 03, para. 2, 5).

In the case of the Tazreen fire, the New York Times (December 07, 2012) reported that “fire safety preparations were woefully inadequate. The building itself was under construction — even as sewing work continued inside — and mounds of flammable yarn and fabric were illegally stored on the ground floor near electrical generators.” (New York Times 2012, December 07, para. 5) Yet in both cases – the fire and the building collapse – workers were producing clothes for some of the world’s largest retailers: Wal-Mart, Sears, and even Benetton - the failing Italian brand whose prior success was largely due to its “progressive” marketing. Retailers connected to the scandals claimed not to have known their products were being sourced from these high-risk suppliers (NYTimes, 2013, May 01; NY Times, 2012, December 11).

**Risk-related Factors of the Global T&C Industry**

Unwittingly sourcing from high-risk suppliers highlights two troubling features of the global market: poor communication and low transparency (Laudal, 2010). Companies at the top of global textiles and clothing supply chains may withhold the names of their suppliers, or, as in the case above, they may not know (Laudal, 2010; OECD, 2004). Laudal includes these traits among six that classify the global T&C industry as having “high potential for Corporate Social Responsibility (CSR)” (Laudal, 2010, p. 63). In other words, Laudal somewhat counter-intuitively measures a company’s potential for CSR impact (or
community-focused initiatives) according to these “risk-related factors” (2010, p. 64) that define the extent to which the larger industry may burden society (thus increasing the need for CSR performance):

1. labor intensive production and traditional technology;
2. large differences in cost between source and recipient regions;
3. a buyers’ market;
4. short deadline and low predictability in ordering procedures
5. poor communication
6. low transparency

Figure 3. Risk factors determine CSR potential, performance. Source: Laudal, 2010.

These risk-related features of the international clothing market appear to be attributes of the global economy in general, which Laudal describes as a web of asymmetric international relationships between companies in wealthy recipient regions and factories in poor or impoverished source regions that closely resemble Johan Galtung’s definition of “structural imperialism” (Laudal, 2010).
Buyers’ Previous Lack of Interest in Safety Concerns

The recent tragedies in Bangladesh are not unlikely events. On the contrary, Social Accountability International (SAI), a non-governmental, multi-stakeholder organization, responded publicly to the Rana Plaza collapse by saying, “This tragedy underscores broader infrastructure risks faced by workers everyday.” (SAI, 2013, April 24, para. 1). At least three suppliers for Walmart had orders in production at Tazreen when the fire happened, yet Walmart reportedly blocked efforts in 2011 to have global retailers pay higher prices for apparel to help Bangladesh factories improve their electrical and fire safety (New York Times, 2012, December 06). Meanwhile, the giant retailer touts its new Global Women’s Economic Empowerment Initiative to “empower women across its supply chain” on the “Global Responsibility” page of its corporate website (Walmart Corporate, 2011, September 14).

This seeming contradiction of values is less surprising when considered in light of the passage of the 2010 California Transparency in Supply Chains Act, which “compels companies…to disclose their efforts to eradicate slavery and human trafficking from their supply chains” on a disclosure page in their corporate websites (Fair Labor Association, 2012, September 11, para. 1). Like the Bangladeshi government’s new labor laws regarding unions, this example reflects the ineffectual behavior change frequently accomplished by government regulation. After all, what good are “empowering initiatives” (Walmart Corporate, 2011) for women if their very lives are in danger because the factories they work in cannot afford basic safety upgrades? However, in the wake of the Rana Plaza collapse, a labor-backed building and fire safety agreement known as the Alliance, was reached (Alliance for Bangladesh Worker Safety, 2013). Zara’s parent company Inditex, Dutch retailer C&A, Swedish retailer H&M, and British giants Primark and Tesco have all signed, while US brands and retailers have created their own safety alliance, known as the Accord (The Bangladesh Accord on Fire and Building Safety, 2014).
Auditing is Often Ineffective

Even when regular inspections are performed, violations are often hidden or overlooked. Tazreen was audited on behalf of Walmart twice in the year before it caught fire, receiving an orange-level “high risk violation” rating in May 2011 that was improved to a yellow-level “medium risk violation” rating in August 2011 (New York Times, 2012, November 26, para.17) With regard to audits, Dr. Anita Chan demonstrates the difficulties Walmart has faced in implementing codes of conduct and the ineffectiveness of its attempts to monitor its Chinese factories: “the factory that experienced repeated monitoring nonetheless continued to impose worse conditions on its workers than the one that was not monitored” (Chan, 2011, p. 5). Effective auditing requires skilled personnel, extensive training and rigorous enforcement, all of which are cited by factory management (in China) as lacking, when asked about obstacles to achieving compliance and better working conditions (Tsoi, 2010). International institutions have sought to address this problem with mixed results.

The next section reviews the existing practice, which represents the “available inputs” to the proposed solution of this thesis, the Manufacturing Manager Accreditation. International organizations and documents are followed by discussion of the federal labor laws of the United States and the example of the Better Factories Cambodia program. Alternatives to government regulation, including third party certification standards and corporate codes of conduct are covered, followed by analysis of the role and potential of corporate social responsibility (CSR). Final observations on compliance close the chapter.

Current Market Governance and Regulation Systems

The OECD Guidelines for Multinational Enterprises

As an international organization of member countries with the mission to “promote policies that improve social and economic wellbeing around the world,” (OECD, 2014, para.1) the OECD continually collects data and analyzes it, makes decisions based on committee discussion, and then publishes recommendations that are potentially implemented by governments (OECD, 2014). Its Guidelines for Multinational Enterprises (GMNE) is a comprehensive code of responsible business conduct that governments have singularly
committed to promoting. In the OECD’s own words, the Guidelines “express the shared values of the governments of countries from which a large share of international direct investment originates and which are home to many of the largest multinational enterprises. The Guidelines aim to promote positive contributions by enterprises to economic, environmental and social progress worldwide.” (OECD GMNE, 2011, p. 3). National Contact Points (NCPs) support implementation of the Guidelines. These are agencies established by adhering governments to assist enterprises and their stakeholders in applying the guidelines. They also provide a mediation platform for resolving practical issues that may arise (OECD GMNE, 2011).

The International Labor Organization

Founded in 1919 in the wake of World War I, the International Labor Organization aimed to establish lasting peace based on social justice. With the head of the American Federation of Labor (AFL) in the United States as chairperson, representatives from nine countries (Belgium, Cuba, Czechoslovakia, France, Italy, Japan, Poland, the United Kingdom and the United States) formed a unique tripartite organization which brought together representatives of governments, employers and workers to promote the creation of decent work, prosperity and progress. In 1946, the ILO became the first specialized agency of the UN (ILO, 2014). Today, there are 185 member countries and its agenda is still focused on the same four main objectives: creating decent jobs, guaranteeing worker rights, extending social protection, and fostering social dialogue by publishing labor standards that serve to protect and engender these goals (ILO, 2014).

The ILO’s work demonstrates the importance of collaboration between governments and employers’ and workers’ organizations in advancing social and economic growth (ILO, 2014). The International Labor standards include eight Fundamental Conventions, four (priority) Governance Conventions, and 177 Technical Conventions. More than 138 countries have ratified all eight of the Fundamental Conventions, including the five Nordic countries that achieved the top ratings in Economic equality in the World Economic Forum’s 2013 report, as well as France, Germany, Spain, and the United Kingdom (ILO Normlex, 2014). All but two of these countries have ratified all four priority Governance Conventions
as well, and the two exceptions have ratified three of the four (ILO Normlex, 2014). The United States stands out among industrialized and developing countries alike as having ratified only two of the eight Fundamental Conventions (ILO Normlex, 2014). And of the four priority Governance Conventions, the United States has only ratified one. Out of 190 countries participating in this priority set of conventions, the only other countries who have only ratified one of the four priority conventions are Afghanistan, Bahrain, Botswana, Cambodia, Ethiopia, Georgia, Haiti, Iran, Lao, Mexico, Namibia, Nepal, Niger, Quatar, Saudi Arabia, Tanzania, Thailand, United Arab Emirates, and Uzbekistan (ILO Normlex, 2014).

Referring again to the WEF’s 2013 Gender Gap Report, the unifying thread among these countries and the United States is very low scores on political equality (ILO Normlex, 2014; WEF, 2013). While conclusions about correlation or causality cannot be drawn from this information, the researcher noted the presence of higher equality scores for countries who have formally embraced the ILO labor standards, as well as the breadth of formal acceptance, as sufficient justification for the inclusion of these standards in the inputs of the proposed Manufacturing Manager’s Accreditation (MMA).

The Rise of Sustainability and the United Nations’ Agenda 21

The notion of sustainable development came into being through the United Nations’ (UN) efforts to examine human impact on the natural environment, as well as its evolving understanding of the interdependence of economy and ecology (Ministry of Sustainable Development, Government of Quebec [MDDEP], 2014). The roots of the UN’s effort trace back to 1945 and the trauma of two world wars within a generation. Only after such destruction was it realized that mere political or economic agreements would not guarantee peace. Instead, to quote the UN’s own language: “Peace must be established on the basis of humanity’s moral and intellectual solidarity.” This idea was the basis for the UN’s Educational, Scientific and Cultural Organization (UNESCO) (UNESCO, 2014). It is UNESCO that first proposed an environmental conference in 1968 (UNESCO, 2005). The initial result was an Intergovernmental Conference of Experts on the Scientific Basis for
Rational Use and Conservation of the Resources of the Biosphere (UNESCO, 1968, September 4-13).

Two years later came the more widely known Stockholm Summit of 1972. In 1987, the World Commission on Environment and Development (WCED) published the now famous report, “Our Common Future,” in which Gro Harlem Brundtland, then prime minister of Norway and chairperson of the WCED, used the expression “sustainable development” for the first time (UNESCO, 2005, p. 2). These events provided the foundation for the United Nations Conference on Environment and Development (UNCED) in 1992, also known as the Earth Summit. The outcome was the legally non-binding declaration, Agenda 21: Program for Sustainable Action. The document was drafted and signed by 178 countries as a guide to comprehensively addressing the social, environmental and economic concerns on the global horizon. Figure 4 below shows the landmark events in the UN’s ongoing development effort.

![Figure 4. Timeline of UN sustainable development activity. Data taken from United Nations Department of Economic and Social Affairs, Division for Sustainable Development, 2014.](image-url)
According to Jim MacNeill, Secretary General of the World Commission on Environment and Development (WCED) and one of the chief architects of Our Common Future (Smith, Hargroves, & Desha, 2010, p.xxxiii-xxxiv, a.), there has been a lack of progress “at the pace and scale needed to keep up with the unsustainable trends” charted in 1987 (Smith et al., 2010, p. xxxiv, b.). He cites the ‘forgotten imperative of sustainable development’ as the urgent need to integrate decision-making, “not only in the cabinet chambers of government but also in the board rooms of industry and the kitchens of our own homes.” (Smith et al. 2010, p. xxxiv, c.). This notion of integration is central to Agenda 21, distinguishing it from prior documents. Figure 5 illustrates this integration of the three pillars that sustainable development seeks to balance, popularly referred to today as people, planet, and profit.

![Figure 5. Venn diagram of sustainable development.](source: adapted from Lozano, 2008; Mann, 2009; Williams, 2008.)

Also one of the most common diagrams used to illustrate sustainability, the Venn model’s value is its acknowledgement of what causes unsustainable development in the first place – decision-making that handles economic, social and environmental goals separately. Yet this model has also been interpreted as allowing “externalities to be externalized” and
failing to reflect “the ecological constraints that humans, other species, markets, policies and developments must operate within” (New Zealand Parliamentary Commissioner for the Environment [NZ PCE], 2002; as quoted by Williams, 2008). To correct these inaccuracies, another model has been developed, as shown in Figure 6.

![Figure 6. Graphical representation of “strong sustainability.” Source: adapted from Lozano, 2008; Mann, 2009; Williams, 2008.](image)

This model is seen by some to represent “strong” sustainability (Williams, 2008) and uses non-concentric, adjacent ellipses that nest the economy within society within the environment. Thus, it “recognizes that the economy is a subset of society (i.e. it only exists in the context of a society), and that many important aspects of society do not involve economic activity. Similarly, human society and the economic activity within it are totally constrained by the natural systems of our planet.” (NZ PCE, 2002, quoted by Williams, 2008, p. xii.). Figure 6 makes clear the hierarchy of dependence, while letting the viewer determine the appropriate response. Lozano argues that it nonetheless “diminishes the complex inter-connectedness that actually exists” among these relationships (2008, p. 1842),
and both diagrams fail to incorporate the passage of time (Lozano, 2008). A framework from the Sweden-based, global non-profit, the Natural Step (TNS), that includes the time/pressure dynamic is shown in Figure 7 (Lozano, 2008, p. 1842).

![The Natural Step Framework: the A-B-C-D Process](image)

**Figure 7.** The Natural Step Framework Funnel. Source: Lozano, 2008, p. 1842.

Rather than simply defining sustainability, the framework describes a four-step process of actually becoming sustainable: step A represents the building of awareness of the unsustainable context and the decreasing time left to address it. The remaining steps, B, C, and D show the current state of affairs: today’s “baseline” activities, along with the “compelling” sustainability “vision” (step C) that allows for “backcasting,” which is strategic decision-making in the present based on principles derived from a future ideal. This is an approach to sustainable action that the Natural Step pioneered (Holmberg & Robert, 2000). Step D represents the supportive measures such as “appropriate training, techniques, and
tools for implementation,” needed for executing initiatives, calculating progress and adjusting strategy as needed (Lozano, 2008, p. 1844).

Following the release of Agenda 21, the UN published a “guide” to the document that includes a diagram of the methodology that can be applied to various “priority action areas” (on multiple scales) for integrating environmental and development issues into decision-making (see Figure 8).

![Figure 8. Diagram of Agenda 21 methodology. Source: UN Global Partnership for Environment and Development (GPED), 1993.](image-url)
There are three vertical components to the diagram and they can be assessed from left to right: problems to be solved on the left (‘priority action areas’), the productive (development) activities of life on earth in the center, from the economic drivers at the top of the central column to the effect of these activities on present and future generations (or human welfare) at the bottom of the central column; and finally, shown on the far right, a menu or list of recommended strategies (‘essential means’) for addressing the problems from the left. To summarize: the means of funding, technology and information sharing, strengthening roles, and so on, from the right are to be applied to production and consumption activities, shown in the central column, in order to accomplish the priorities on the left. The directional arrows pointing inward reflect the integrated, non-linear, and continuous approach to the process: precise goals (based on measured data) should continuously drive decision-making that is simultaneously shaped by the application of the essential means. The box of natural resources reflects another driving force, the decline of natural capital that development depends on. (GPED, 1993).

**The Millennium Development Goals**

The UN launched the Millennium Development Goals (MDGs) in 2000 to focus efforts on eight core objectives of greatest significance. These MDGs are still driving the sustainable development agenda today and represent the largest scale targets for impact.

![Figure 9. The United Nations Millennium Development Goals. Source: UN MDG, 2014.](image)
The United Nations Global Compact

To organize and motivate action towards these goals by global industries, the UN created the Global Compact (UNGC) in 2000 as well. With 12,000 members from more than 145 countries, the UNGC is the largest voluntary corporate responsibility initiative in the world (UNGC, 2014, para. 3). Membership represents an alignment with “ten universally accepted principles in the areas of human rights, labor, environment, and anti-corruption,” (UNGC, 2014, para. 1) as well as a strategic partnership with governments, civil society, labor groups, and the UN (UNGC, 2014, para. 2). Below are the 10 principles.

1. Support and respect the protection of internationally proclaimed human rights;
2. Make sure that they are not complicit in human rights abuses;
3. Uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. Eliminate all forms of forced and compulsory labor;
5. Abolish child labor;
6. Eliminate discrimination in respect of employment and occupation;
7. Support a precautionary approach to environmental challenges;
8. Undertake initiatives to promote greater environmental responsibility;
9. Encourage the development and diffusion of environmentally friendly technologies;
10. Work against corruption in all its forms, including extortion and bribery.


The UNGC also offers a supportive framework for implementing and reporting sustainability practices, including a “wide spectrum of work streams, management tools and resources.” (UNGC, 2014, para. 4). The initiative does not monitor or measure participants’ performance. However, it does require annual communication of progress and reserves the right to publish the names of companies who are expelled from the compact for two consecutive years of non-communication (UNGC Integrity Measures, 2014, para. 7). The UNGC claims a commitment to a transparent and fair process for handling allegations of abuse of its aims and principles (UNGC Integrity Measures, 2014, para. 8, 15).
In 2011, a new platform called Global Compact LEAD was added for increased corporate sustainability leadership. Its 50+ participants are companies with a long history of engagement with the UNGC who are challenged to “reach further, to innovate, to experiment and to share learnings” towards implementing the Blueprint for Corporate Sustainability (UNGC LEAD, 2014, para. 4). Though international bodies strive to strengthen working conditions and benefit society, their best efforts may be undermined by protectionist tendencies at the national level.

**US Federal Laws Related to Business and International Trade**

The United States has included labor standards in every bilateral and regional trade agreement since 1994 (Lazo Grandi, 2009). However, in many cases, labor rights requirements are simply more “aspirational” than they are enforceable. Regional and bilateral trade agreements often include problematic requirements for the exporting country that challenge their ability to compete. And it is widely argued that such agreements tend to weaken labor conditions (Wells, 2006).

Wells notes the North American Agreement on Labor Cooperation (NAALC), as part of NAFTA, has had “limited effectiveness, particularly in relation to labor standards in Mexico.” (Wells, 2006, p. 358). Other prominent examples that have been widely criticized include the U.S.-Chile and the U.S.-Singapore FTAs. Both cases lack a “binding obligation” that countries take steps to comply with the core internationally accepted labor standards (Elliott & Freeman, 2003, p. 87). Below are the United States Federal labor laws related to employment practices.


- **Equal Pay Act of 1963**: amends the fair Labor Standards Act by requiring equal pay to men and women for doing equal work.


- **Occupational Safety and Health Act** of 1970 (last amended 2004): created the Occupational Safety and Health Administration (OSHA); assures safe and healthful
working conditions for employees by setting general occupational safety and health standards, and requiring that employers maintain records of occupational injuries and illnesses. Administered by the Department of Labor/OSHA.

- **Equal Employment Opportunity Act of 1972:** prohibits discrimination by employers in hiring, promotions, discharge, and conditions of employment if such discrimination is based on race, color, religion, sex, or national origin.
- **Americans with Disabilities Act (ADA) of 1990:** prohibits discrimination against qualified individuals with disabilities in all aspects of employment; prohibits discrimination on the basis of disability by requiring that public accommodations and commercial facilities be designed, constructed, and altered in compliance with accessibility standards. Administered by the Office of the ADA, Department of Justice.
- **Family and Medical Leave Act of 1993:** grants eligible employees up to a total of 12 work weeks of unpaid leave for one or more family and medical reasons (e.g., birth of a child, care of an immediate family member).
- **Immigration and Nationality Act (last amended 2000):** establishes conditions for temporary employment in the United States by non-US citizens.
- **Trade Adjustment Assistance Reform Act of 2002 (last amended 2006):** reauthorized the Trade Adjustment Assistance Program (first established in 1974), which provides aid to workers whose employment is negatively affected by increased imports.


**The United States Generalized System of Preferences.** The main policy in U.S. trade law that promotes labor standards is the United States Generalized System of Preferences (GSP), which improves access to US markets for more than 140 countries by removing or decreasing tariffs. Supposedly, countries can only benefit from this arrangement if they are actively “taking steps” to achieve internationally recognized worker rights (Wells, 2006, p. 359).

Though some countries have had their privileges revoked due to labor rights violations and have subsequently adopted reforms to regain those benefits, Wells contends that such situations are more often the product of political and economic interests, not true human rights concern. Wells cites the “near consistent failure of the US to suspend preferences to countries that conduct substantial trade with the US, regardless of their observance of international workers’ rights.” In fact, they say, in such cases (of substantial trade relationships), the US has “been willing to construe even the most serious violations of
workers’ rights to be ‘taking steps’ to remedy the situation” (Wells, 2006, p. 359). However, a noteworthy anomaly is the case of Cambodia.

**The United States Cambodia Trade Agreement (UCTA).** The US-Cambodia Trade Agreement (1999-2004) was the only U.S. bilateral trade agreement to link increasing quotas to increasing compliance with labor standards. It was an experiment in using a rewards system to promote compliance, versus the negative incentives (monetary fines) under the GSP and free trade agreements (Wells, 2006).

Labor conditions in Cambodia were harsh prior to the UCTA, with frequent violations of both domestic law and international standards: debt bondage, illegal excessive and forced overtime, wage infractions, repression of unions and poor health/safety conditions were common and worsened in response to the Asian Financial crisis of 1997, which cut foreign investment in half and drained Cambodian banks. Yet garment industry exports surged and worker strikes increased (Wells, 2006).

A 1998 media scandal involving child labor at a Nike supply factory led to increased public concern over the offshoring of US jobs, Nike pulling out of Cambodia altogether, and the Clinton administration pushing to demonstrate “the viability of a labor standards-trade linkage” (Wells, 2006). In other words, Cambodia was an opportunity to prove that “export-orientated policies could reduce poverty and play a central role in the development process” (Arnold & Shih, 2010, p. 407).

Cambodia is considered a least developed country (LDC) with about 30 % of the population living on less than one US dollar a day. However, this is down from almost 50 % in the mid-1990s. The garment industry employs only about 15 % of the workforce, which is roughly 85% rural-urban migrant women who send a substantial part of their income home to their families in rural areas. Therefore, focusing on this industry and nurturing its growth has made a significant impact on Cambodia’s patriarchal society (Arnold & Shih, 2010).

**The Better Factories Cambodia Program.** The outstanding feature of the plan was that factories were routinely and publicly monitored by the ILO under the program title, Better Factories Cambodia. This unique arrangement was very significant for a number of reasons: first, the ILO had never agreed to monitor a country before and in so doing, it
greatly increased legitimacy of the program because of its reputation for consensus governance as well as its independence from any of the firms involved (Wells, 2006). The ILO also brought a willingness to comply with Cambodia’s own labor laws and the ILO conventions that Cambodia had ratified, nurturing a helpful sense of partnership (also consulting with the Garment Manufacturers’ Association of Cambodia and trade unions, for example). Moreover, the ILO uses Cambodian nationals who are hired locally, extensively trained and well equipped, to ensure sensitive and effective monitoring (Oka, 2010).

The enduring partnership between the government and international stake holders allows for innovative solutions to problems: in 2004, a World Bank-supported analysis of key value chains showed that trade facilitation measures needed streamlining and improving in order for Cambodia to remain competitive. The prime minister established a special task force, which resulted in a comprehensive, multi-agency reform strategy (Abonyi & Van Slyke, 2010).

The Better Factories Cambodia program has been so successful that it has been maintained far beyond the expiry of the US-Cambodia Textile Agreement (UCTA) itself and established Cambodia’s T&C industry’s reputation as an ethical producer (Arnold & Shih, 2010). It has also led to a similar program in Vietnam, Jordan and Haiti in 2008 – the Better Work Program, which is slated to be implemented elsewhere in coming years (Arnold & Shih, 2010).

Even so, more than 200,000 garment workers producing for major brands (Gap, Walmart, Inditex and H&M) went on strike in Cambodia in 2010 for an increase in minimum wage. Two months after the end of the three-day strike, hundreds of workers had still not been allowed back to work after dismissal for demanding a living wage. The local government appeared to be on their side, yet employers would not negotiate and buyers preferred to stay out of the dispute (Clean Clothes Campaign, 2010).

The ILO is emphatic that it must not be seen as a resolver of conflict because that is not its purpose (The Washington Post, 2013). Recently it refused a request from Bangladesh to be part of the Better Work Program until the government has strengthened the local labor laws and improved conditions for unions (The Washington Post, 2013, para. 9).
So the burden of responsibility ultimately falls on the shoulders of local government to foster a minimum level of compliance and cope with the challenges of global production before more powerful international organizations are willing to get involved (Abonyi & Van Slyke, 2010). However governments, especially those of emerging economies, have a steep learning curve in today’s global economy.

One auditing firm employee explained the lack of governmental law enforcement in China this way: “Government officials at the provincial level are not adequately trained in what labor laws entail. There is a gap in the knowledge between top central government officials and provincial grade officials” (Tsoi, 2010, p. 397).

The Current Challenge for Governments

Abonyi & Van Slyke (2010) contend that globalization is changing “the basic role and functions of government” as well as the boundaries of it, and suggest that public administration literature has yet to fully explore how the effects of globalized production impact the relations between governments, business, and civil society, as well as what these impacts represent for public administration (Abonyi & Van Slyke 2010, p. S33). “Key challenges include a proper understanding of global value chains (GVCs), trade facilitation, investment in logistics, the strengthening of enterprise clusters, effective education, skill development and training, and the governance risks inherent in value chains and networks,” (Abonyi & Van Slyke 2010, p. S33).

In the context of an evolving international economic climate, how governments, business, and other stakeholders can work together is an increasingly relevant issue. Abonyi & Van Slyke (2010) cite the 2010 McKinsey Global Survey, in which business executives responded that “government is more likely to affect companies’ economic value than any other stakeholder except customers. . . even though many find that dealing with government is often frustrating and consider government officials to be uninformed about the economies of their industries,” to support the notion that getting strategic collaboration with the private sector right is at the heart of the challenge. One area requiring critical public input is that of certifications and standards setting (Abonyi & Van Slyke 2010, p. s35).
Alternatives to Governmental Labor Standards

In the face of government shortcomings in sufficiently addressing social and environmental concerns and weakness in enforcing regulations, many different types of private alternatives have been developed to fill the void (Bernstein & Cashore, 2007). Research that is supportive of certification standards like Social Accountability International and the Fair Labor Association suggest these “non-state market driven (NSMD) governance systems…offer the strongest regulation and potential to socially embed global markets,” by “recognizing and tracking responsibly produced goods and services” (Bernstein & Cashore, 2007, p. 347). Bernstein & Cashore observe that although NSMD systems must build their legitimacy among the opposing interests of firms and non-governmental organizations and labor groups, they can respond quickly to emerging norms because they are not held up by bureaucratic procedures. In this way they may contribute to the “conditioning effects of global social structure,” (Bernstein and Cashore, 2007, p. 349) and inspire new expectations for standards among even traditional “standard setters” like the International Organization for Standardization (ISO) (Bernstein and Cashore, 2007).

Legitimacy in non-governmental labor standards. In the same way that WalMart’s announced plans for monitoring worker safety are undermined by its track record of ineffective auditing, the reputational power and perception of social standards instruments themselves can be undermined by companies’ misuse or misrepresentation (Mueller, dos Santos, & Seuring, 2009). The increasing array of standards with different requirement levels as well as the growing number of companies who are implementing them, possibly as a “legitimacy front,” (Mueller et al., 2009) increases the likelihood that this could happen. Such an outcome would render the costs of implementation a waste for the companies, creating a tremendous inefficiency in the system as a whole. (However Bernstein and Cashore suggest the contribution to global social structure dialogue and conditioning is not lost in this case.) Therefore Mueller et. al seeks to identify the most important criteria to achieve a company’s aim, while also increasing the validity and relevance of social and environmental standards to assure their continued usefulness for risk reduction (2009).
Mueller et al. note that supply chain management (SCM) dilutes both quality and environmental standards over time, so there is reason to suspect this holds true for social ones as well; certainly the recent tragedies in Bangladesh stand as testament to that assumption, in the sense that the major brands employing those factories all have codes of conduct, CSR programs, subscribe to US federal laws, and potentially require certification in one or more of the international standards under discussion here, and yet that has now been rendered meaningless by the revelation that they do not know when their products are being made in dangerous, exploitative conditions. Table 1 lists the legitimacy criteria that Mueller et al. reference as each standard is discussed (2009).

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Content</th>
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<tbody>
<tr>
<td>Inclusivity</td>
<td>Wide integration of all stakeholders concerned</td>
</tr>
<tr>
<td>Discourse</td>
<td>Developing the criteria of the standards in a process of discourse</td>
</tr>
<tr>
<td>Control</td>
<td>Control by certification and accreditation criteria</td>
</tr>
<tr>
<td>Supply Chain</td>
<td>Integration of all participants along the supply chain</td>
</tr>
<tr>
<td>Transparency</td>
<td>Transparency of the results</td>
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Source: Mueller et al., 2009.

**Social Accountability 8000 Standard for Decent Work.** This is a well-known, non-industry-specific tool for implementing international labor standards with currently over 3000 certified production facilities in 65 countries and 66 industries (SAI, 2013). It identifies universal, globally acceptable rules to audit workplace conditions (Rasche, 2010) and since its establishment in 1997, SAI has convened 20 national or regional multi-stakeholder consultations on the SA8000 system.
The SA 8000 was the first auditable social standard to be created and is based on international workplace norms of the ILO as well as the Universal Declaration of Human Rights of the UN in order to improve the working conditions in practical life (Mueller et al., 2009). The standard identifies the minimum requirements that production facilities and their suppliers should meet. Independent audits are based on the behavioral rules covering nine essential areas: child labor, forced labor, health and safety, freedom of association and right to collective bargaining, discrimination, discipline, working hours and compensation (Rasche, 2010). Figure 10 lists these specific guidelines.

| **Child Labor:** | No workers under the age of 15; minimum lowered to 14 for countries operating under the ILO Convention 138 developing-country exception; remediation of any child found to be working |
| **Forced Labor:** | No forced labor, including prison or debt bondage labor; no lodging of deposits or identity papers by employers or outside recruiters |
| **Health and Safety:** | Provide a safe and healthy work environment; take steps to prevent injuries; regular health and safety worker training; system to detect threats to health and safety; access to bathrooms and potable water |
| **Freedom of Association and Right to Collective Bargaining:** | Respect the right to form and join trade unions and bargain collectively; where law prohibits these freedoms, facilitate parallel means of association and bargaining |
| **Discrimination:** | No discrimination based on race, caste, origin, religion, disability, gender, sexual orientation, union or political affiliation, or age; no sexual harassment |
| **Discipline:** | No corporal punishment, mental or physical coercion or verbal abuse |
| **Working Hours:** | Comply with the applicable law but, in any event, no more than 48 hours per week with at least one day off for every seven day period; voluntary overtime paid at a premium rate and not to exceed 12 hours per week on a regular basis; overtime may be mandatory if part of a collective bargaining agreement |
| **Compensation:** | Wages paid for a standard work week must meet the legal and industry standards and be sufficient to meet the basic need of workers and their families; no disciplinary deductions |
| **Management Systems:** | Facilities seeking to gain and maintain certification must go beyond simple compliance to integrate the standard into their management systems and practices. |

**Figure 10. SA 8000 guidelines.** Source: Social Accountability International, 2013.
**SA8000 implementation.** In her 2010 paper, The Limits of Corporate Responsibility Standards, Rasche lays out the rules of implementing SA 8000; companies can do so in two different ways. Those who operate their own production facilities can have them individually certified through audits conducted by SAI-accredited certification groups. In case of successful certification, the facility is awarded the SA 8000 seal for 3 years. Monitoring is conducted by third party auditing groups, who must apply the rules of SA 8000 with respect for the geographical, societal, political and economic context of the specific production facility being certified.

To guarantee compliance, auditors are permitted to conduct follow-up visits and may withhold certification if the facility no longer meets the requirements. After certification, corporations are obligated to actively handle all areas of social accountability that can be controlled and influenced. The “sphere of influence” of a certified facility includes its suppliers but certification of a local production facility does not cover the company’s entire value chain (Rasche, 2010).

The second way of utilizing the SA8000 standard is for retailers, wholesalers and sourcing agents: they may choose the Corporate Involvement Program (CIP), which helps buyers assure that their products are made under decent working conditions by seeking SA 8000 certification from their suppliers.

**SA8000 requires management systems integration.** The standard attempts to guarantee a lasting improvement in workplace conditions by requiring implementing facilities to integrate the standard into staff training, strategic planning and supply chain management. SA 8000 requires the appointment of one management-level representative who takes direct responsibility for the standard, as well as one worker representative who interacts with management if no trade union representative is available (Rasche, 2010).

This focus on the establishment of management systems is in line with other widely held standards, the ISO 9000 and ISO 14000 standards (Leipziger, 2001, p. 9, as cited by Rasche, 2010). The benefit is that ISO users will have existing knowledge regarding the set-up of management systems when it comes to implementing the SA 8000 (Rasche, 2010).
**SA8000 legitimacy.** Mueller *et al.* (2009) find the SA8000 inclusive and legitimate only in the sense that it covers social norms that are broadly accepted. They contend that the standard should be *more* inclusive and should require dialogue among all stakeholders as part of its general guidelines. But they ultimately reject the standard for the following reasons: “No concrete reporting rules for the parties involved are stipulated. Transparency and certification results do not exist, as they are confidential and the results are published only as part of a summary. Accordingly, sufficient controls do not exist, transparency of certification results is objectionable, and legitimacy cannot be presumed.” Therefore, Mueller *et al.* conclude that “previous success has to be seen in a critical light, “and of those currently participating in the system, “…even their quality of discourse would be viewed as low.” (Mueller *et al.* 2009, p. 514, 515).

**Fair Labor Association (FLA) Standard.** The Fair Labor Association (FLA) is the oldest and most familiar standard in labor regulation (Oka, 2010). The FLA Workplace Code of Conduct is similar to the SA8000 in that it is a non-industry-specific, auditable set of rules designed to protect workers’ rights. Both the SA8000 and the FLA were born through multi-stakeholder dialogues in response to the “so-called sweatshops practices in the year 1996” (Mueller *et al.*, 2009, p. 515); FLA’s Workplace Code was published in 1997 and began being utilized in 1999.

**Transparency and discourse.** In contrast to the SA8000, however, the FLA Standard builds continued discourse into the standard guidelines and provides for lodging complaints, via the FLA’s Third Party Complaint (Mueller *et al.*, 2009). Thus, the collaborative approach reflects a high level of legitimacy as ongoing stakeholder involvement is intentionally cultivated. Another significant improvement is “transparent and independent assessments, the results of which are published online;” (FLA, 2014, para. 3). Colleges and universities, NGOs and companies, are equally represented on the policy-making Board of Directors of the association (FLA, 2014), and actively engage local NGOs and trade unions as important participants in collaborative projects, such as the Joint Initiative for Corporate Accountability and Workers Rights (Mueller *et al.*, 2009).
The importance of independence. Companies that enter the FLA submit to an annual internal examination of up to 50% of the production facilities within the first year and 100% in the second year (Wick, 2005). They also must undergo external examination procedures annually, and these principles had to be altered in 2002 to improve upon clear deficiencies in ensuring independence. Before this, companies chose which enterprises to verify as well as the inspectors who were paid by them; companies were also able to inform those enterprises who were going to be examined (Jenkins, Pearson, & Seafang, 2002). So the FLA took ownership of the accreditation hiring and financing by contracting the accredited auditors themselves and mandating them to verify chosen suppliers. Regular skill enhancement training of investigators is enforced to reach a high quality level and to maintain it (Mueller et al., 2009).

Flaws in FLA certification. The FLA code’s weaknesses are several. First, certification requirements need to be more comprehensive: a company only has to verify 30% of suppliers to receive certification (Wick, 2005). Further, verification takes too long relative to the frequency of supplier exchanges and this encourages code avoidance rather than active compliance. Mueller et al. (2009) also site the lack of trust between workers and examiners within the monitoring process, as well as the absence of union participation in this process, as an area in need of improvement.

Regarding the monitoring process there is also a loophole: The FLA code refers to all companies that are part of the supply chain, from the operational facilities of the main company itself, their suppliers, contractual partners and licensees. Yet any small facilities with contracts of six months or less within a two-year period, and any who deliver less than 10% of their annual production to the company pursuing certification may be exempt. Short-time contracts are very common, which leads to a potentially high number of small suppliers. So the system can be easily and “legally” bypassed (Wick, 2005).

Finally, the standard is too rigid and inflexible, particularly in the textiles industry where supply chains are often in flux (Mueller et al, 2009). According to Mueller et al. (2009), FLA scores well on transparency and communication: it publishes an annual report.
describing the certification and monitoring process in the individual companies, providing an overview of the compliance of FLA procedures (Mueller et al., 2009).

The FLA also makes public the details of companies’ compliance – the points that have yet to be accomplished as well as developments from the participating companies’ training. Mueller et al. recommend that the internal and external publications should be differentiated. The verification reports are only available to FLA members and are used to release an official annual report on the homepage, where the publicly available tracking charts are located as well. Mueller et al. assert that in terms of transparency, this standard can be seen as a role model (Mueller et al., 2009).

**Fair trade certification in the T&C industry.** Fair trade is an area typically thought to refer strictly to agriculture, though it has recently found its place in textiles and apparel as well. Transfair USA is the only third-party certifier of fair trade products in the U.S., and an affiliate of the international umbrella group, Fairtrade Labeling Organizations International (FLO) (Golden et al., 2010). In 2009, Transfair USA announced its new pilot standard for Fair Trade Certified apparel and home goods. The result of nearly five years of talks with advocacy organizations, workers’ rights groups, trade unions, factory managers, garment workers, companies, and consumers, Transfair USA’s label seeks to facilitate consumer choice, achieve higher earnings for cotton farmers and garment workers, and promote worker empowerment and participation (Golden et al., 2010).

The pilot standard’s labor provisions are drawn from the ILO’s Conventions to factory workers and sewing cooperatives involved in the apparel and home goods industry. In its support of cotton, the standard models fair trade principles for agriculture: it guarantees a minimum price to cotton farmers and a fair trade premium to invest in community projects, including health centers, schools, and infrastructure.

Cut-and-sew workers also receive a fair trade premium, which they collectively determine how to use. U.S. companies sourcing Fair Trade Certified apparel and home goods will pay an additional percentage above the price of the garment to cover the fair trade premiums. Transfair USA will collaborate with FLO to track the chain of custody from farm to finished product; FLO will use its Fair Trade standard to certify cotton producers and audit
processors (such as ginners and spinners), while Transfair will certify cut-and-sew operations using the pilot standard. In order for a finished product to receive the Fair Trade Certified label, the whole chain of custody must be certified (Golden et al., 2010).

The mainstreaming of the Fair Trade movement by multinational corporations first got underway almost a decade ago so the disadvantages and drawbacks are easier to identify and measure at this point. Namely, studies show a dilution of certification standards, and potential to decrease consumer awareness of and commitment to Fair Trade’s core principles (Doherty, Davies, & Tranchell, 2012). Researchers in a 2010 Corporate Sustainability Initiative at Duke University say more studies are needed: “Despite this extensive review of the literature, we found very little evidence of empirical studies that assessed the causal link between certification and ecolabeling efforts, and real improvements in social and/or environmental outcomes.” (Golden et al., 2010, p.44).

**Buyer-driven regulation: problems and possibilities.** Poverty and labor research reflect that terms of trade in large retailer-driven value chains are “intimately connected to working conditions.” (Bolwig et al., 2010, p. 182). For instance, avoiding contracts, negotiating discount prices or engaging in just-in-time ordering and/or supplier switching translate to poor worker conditions like “lack of job security, low wages, pressure to work overtime and the employment of large numbers of temporary workers” (Bolwig et al., 2010, p. 182).

Price pressure appears to be a major factor in poor working environments in China: most managers complain that as pressure rises due to shorter lead times and less time between the release of new fashions, they cannot find the money to prepare for inspections, train workers, improve conditions, or even ensure that only the legal amount of hours are worked and are paid for correctly (Welford & Frost, 2006).

Third party auditing, the tactic that many buyers get by on to ensure their suppliers are upholding proper labor standards, has been shown to be unreliable at best. Auditors say their job is not to find out whether companies are cheating but how; meanwhile there is the contention that factory inspectors are aware of the deception (Welford & Frost, 2006). Yet, the commitment to ethical standards itself has been shown to enhance company performance on multiple levels, from increased financial performance (Orlitzky, Schmidt, & Rhynes,
2003; Verschoor, 1998) to cost reduction (Gege, 2004), product differentiation and brand equity (Chen & Bouvain, 2008; Erwin, 2011). It follows to ask what types of buyer behavior might foster better conditions for workers.

**Corporate codes of conduct.** Corporate codes of conduct are near ubiquitous among multinationals today to communicate internally, as well as to customers, the company’s particular ethical principles and detailed commitment to that vision. Codes of conduct are perceived as fundamental to establishing and sustaining ethical organizational culture (Erwin, 2011) and may improve a company’s public image (Diller, 1999; Matten, 2003). However, as with the increased use of non-government standards creating a potential threat to standard legitimacy, so too does the incidence of insincere, rhetoric-based codes rise as adoption becomes the norm (Erwin, 2011). In such cases, codes of conduct are merely an exercise in seeking compliance with local law (Welford & Frost, 2006). This is supported by Tsoi’s (2010) investigation of regional and local stakeholder perceptions in Hong Kong and China, in which she interviewed 21 different organizations: two academics, three auditing firms, a Hong Kong government department, four multinational corporations, two supply chain consultancies, two NGOs including a trade association and chamber of commerce, two human rights organizations, four labor rights and research NGOs and one trade union. Table 2 shows how the interviewees ranked the “top five criteria of a responsible corporation”:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet local legislative requirements</td>
<td>16</td>
</tr>
<tr>
<td>Protect the environment</td>
<td>13</td>
</tr>
<tr>
<td>Adhere to international standards</td>
<td>11</td>
</tr>
<tr>
<td>Respect consumers</td>
<td>0</td>
</tr>
<tr>
<td>Personal development of workers and employees</td>
<td>10</td>
</tr>
<tr>
<td>Protection of livelihood</td>
<td>9</td>
</tr>
</tbody>
</table>

Cooke & He’s survey of senior managers at 31 textile and apparel companies in China found similar results: 75 percent of respondents rated “complying with existing regulations” as the most important definition of corporate social responsibility (Cooke & He, 2010, p. 365).

**Corporate Social Responsibility (CSR).** Today it is generally agreed that companies should be responsible to the people and communities that are affected by their actions (Tsoi, 2010). This is effectively demonstrated by investor support for such behavior. Professionally managed socially responsible investing strategies have increased more than 380%, from $639 billion in 1995 to $3.07 trillion in the US at the start of 2010, according to Delmas & Burbano (2011) in their study of the drivers of “greenwashing,” or the practice of misrepresenting an environmentally (or socially) responsible public image. In addition, as of 2009, more than 75% of S&P 500 companies had web pages disclosing environmental and social policies and performance (Delmas & Burbano, 2011).

Even so, there is still much debate over the extent and definition of responsibility. Tsoi cites Business for Social Responsibility’s (BSR) definition of Corporate Social Responsibility (CSR) as “business decision-making linked to ethical values and respect for people, communities, and the environment.” (Tsoi, 2010, p.391). The European Commission (2001) green paper on CSR (as cited by Tsoi, 2010) emphasizes the importance of interaction with internal and external stakeholders – customers, employees, NGOs, public organizations, etc. – and building partnerships between companies up and down the supply chain (Tsoi, 2010).

**CSR then and now.** For contrast, Cooke & He (2010) revisit Milton Friedman’s “narrow focus on stakeholder value” through his explanation of the philosophy behind his Efficiency Perspective (1962): “There is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud. (Friedman, 1962, p.133, as cited by Cooke & He, 2010, p. 356). They follow by noting the more recent, integrated strategy perspective (Baron 2001): “Socially
responsible companies not only try to be economically sustainable and profitable, but also endeavor to work with their employees, families, local communities and nation states to improve the quality of life in ways that are both ethical and sustainable in relation to society and the environment. (Cacioppe et al. 2008, p. 68, as cited by Cooke & He, 2010, p. 356).

In researching their study of attitudes and knowledge of senior managers in 31 Chinese textile and apparel firms, Cooke & He review existing critical analysis of CSR such as Hillman & Keim’s 2001 study showing that strategic stakeholder management will contribute to the financial performance of the firm while social issue participation does not necessarily. Cooke & He (2010) note others who have questioned firms’ motives for engaging in CSR, seeing it as public relations and an attempt to pre-empt interventions from government and pressure groups (Rodriguez et al., 2006, as cited by Cooke & He, 2010). Cooke & He further highlight that those who are concerned with sincerity call for better regulation and enforcement instead of voluntary measures to ensure that large corporations act responsibly (Chan & Ross 2003, as cited by Cook & He, 2010).

**The CSR and HRM connection.** Cooke & He identify a “two-way relationship” between CSR and HRM (human resources management) to illustrate other supportive evidence that reflects the positive impact of CSR practices, namely greater employee commitment, heightened competitive advantage through increased attraction to talented employees, and the ability to motivate and retain them, and favorable reputation with clients and surrounding communities. This connection between CSR practices and enhanced HRM outcomes is shown in Figure 11.
Despite growing CSR awareness, Cooke & He acknowledge evidence that suggests firms are not getting the full benefit of their investments for reasons such as a “top-down approach” and a “lack of clear understanding” of how to use CSR to fulfill employees’ needs and enhance productivity through greater organizational identification and commitment (Cooke & He, 2010, p. 359).

**The source of motivation and its impact on results.** Moore, de Silva, & Hartmann (2012) uncovered a similar “theme” in their investigation of the financial return on CSR in the apparel industry: an approach to CSR that served to “avoid government and industry penalties, while also avoiding public scrutiny resulting from media exposure” (Heal, 2008, as cited by Moore et al., 2012, p. 108). Moore suggests that *intrinsically* motivated firms are
more likely to see a financial or value benefit from CSR, while extrinsically motivated firms approach CSR as a risk mitigation tool with no financial benefit (Moore et al., 2012).

Such extrinsically motivated firms may also fail to achieve the desired effect of compliance, according to Jiang’s (2009) model of supplier commitment to codes of conduct, shown in Figure 12. The model distinguishes between market governance, which requires little to no investments in resources, intent and time, and hierarchical governance, where both sides are making idiosyncratic investments that cannot be re-deployed elsewhere, such as training and technical/informational support (Jiang, 2009, p. 85). Jiang’s calculations demonstrate no significant influence from market governance, but rather from the development of relational norms under the influence of hierarchical governance. Such process leads to mutual and self-regulation as the “relationship-specific investments lead both parties to incorporate safeguards into the relationship to protect the investments from opportunistic expropriation” (Jiang, 2009, p. 80).

![Figure 12. Structural framework for supplier’s commitment to COCs. Solid line indicates significance. Source: Jiang, 2009, p. 85.](image-url)
**How market governance is ineffective.** To clarify the distinction further, auditing is an example of market governance. Beyond the previously mentioned issues of cover-ups and lack of inspection integrity, is the inherent sense of “threat.” Auditors leave a list of problems to be solved when they go, they do not tend to stay and help factories figure out how to make the necessary changes – or how to pay for them. Jiang explains that suppliers are “passive players,” given codes of conduct and told to comply or face consequences. There’s no opportunity for them to “discuss how audits should take place and what they think is achievable” (Jiang, 2009, p. 87). Managers are often daunted by the list of problems. A frequent complaint of factory managers interviewed is that they have too many different codes of conduct to adhere to, and often with contradictory requirements (Welford & Frost, 2006).

According to Tsoi (2010), multinational buyers who were interviewed saw simply meeting local laws as insufficient and focused on meeting international standards, as well as those of their country of origin (Tsoi, 2010). But only four interviewees out of the 21 recognized that a responsible corporation should seek to go beyond minimum local legislation (Tsoi, 2010). The majority of interviewees said that Chinese law is enough but implementation is the problem. Welford and Frost have also found that despite clear labor laws “one of the most common complaints from CSR managers is the lack of local government involvement in enforcing the local law” (Welford & Frost, 2006, p. 171).

Especially when the laws are not clear, a lack of enforcement causes an additional problematic effect: “...variation in regulation across countries and complexity regarding appropriate jurisdiction of cross-country practices contribute to a particularly uncertain regulatory environment for multinational corporations. The regulatory context is a critical direct driver of greenwashing due to the limited legal ramifications, (Delmas & Burbano, 2011).

**Obstacles to compliance.** The academics interviewed by Tsoi explained that the unresolved problems in complying with local laws are the barrier to going beyond these minimum requirements. Price pressure is clearly one of these unresolved problems, an issue on trend to get worse: the academics cited the policy of WalMart to reduce prices by five
percent a year (Tsoi, 2010). However, the many millions now being spent by companies linked to the tragedies in Bangladesh to address safety issues and compensate victims reveals that price pressure is not prohibitive forever, though it grows with passing time. The piper will get paid one way or another and the true cost will be at society’s expense.

**Costing: what really matters.** On the subject of price, Birnbaum’s *Global Guide to Winning the Great Garment War* (2000) notes right away that few garment importers actually include the most important cost factors in their decisions. Written by a garment and textiles sourcing specialist with decades of experience, the book is a guide to buying and producing at the lowest cost (Birnbaum, 2000); the first myth dispelled is the idea of direct correlation between labor rates and manufacturing costs (Birnbaum, 2000). Instead, his cost data show direct labor is usually only about 5% of the Wholesale Price.

Under the heading of “Indirect Costs,” Birnbaum explains that, before a factory ever cuts the stock order, there are 86 separate steps that must be carried out in order to manufacture a garment. Worker training and working conditions – aspects directly connected to compliance – also fall in the category of indirect costs, while *macro* costs are those associated with the producing country’s policies and infrastructure.

Birnbaum concludes that macro costs are typically the most significant determinants of total garment cost; in developing countries where these costs are higher, factories will compromise on indirect costs and wages to get the order from a customer at the price they require (Birnbaum, 2000). On the challenges of the global economy, Birnbaum points out that the complex logistics and tight scheduling required to be competitive in the textiles and garment industry far exceed that of industries typically thought of as cutting edge, such as automobiles or technology.

More importantly: “A supplier who cannot operate as an efficient link in that chain raises the costs of every other supplier in that chain.” Birnbaum goes on to specify that human rights conditions in exporting countries, if not a moral issue, are certainly a macro cost that can no longer be separated from retail sales (Birnbaum, 2000). On this matter, researcher Jiang states that the overall message of his data is simply, “If the buying companies are not part of the solution, then they are part of the problem” (Jiang, 2009, p. 88).
**Buyers’ response to non-compliance.** So how do buyers handle non-compliance? Choices range from immediate cutting of contracts to employing a “three strikes” rule, to the rarely seen long term programs of partnership to resolve the non-compliance issues (Welford & Frost, 2006). One of the auditing company respondents in Tsoi’s survey, plainly aware of the shortcomings of his work, says a responsible corporation should provide a “framework to help suppliers achieve targets and improvement… Multinational companies must hold hands with suppliers.” (Tsoi, 2010, p. 397).

**The need for partnerships based on trust.** This sentiment was echoed by the majority of respondents, as shown in Table 3, where 76% of respondents listed an attitude of buyer/producer “partnership” as a top method for improving factories. Increased internal training was the second highest rated method.

<table>
<thead>
<tr>
<th>Types of Solutions Suggested by Stakeholders</th>
<th>Count</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership</td>
<td>16</td>
<td>76.2</td>
</tr>
<tr>
<td>Increased frequency of internal factory training</td>
<td>10</td>
<td>47.6</td>
</tr>
<tr>
<td>Integrated Stakeholder dialogue</td>
<td>6</td>
<td>28.6</td>
</tr>
</tbody>
</table>


Welford & Frost also noted agreement between many buyers and suppliers that the time has come to move beyond policing and inspections, towards building relationships based on trust. (This reiterates the greater effectiveness of idiosyncratic investments in relationships findings from Jiang’s diagram of supplier commitment to codes of conduct.) Most favored among Tsoi’s respondents is the idea of “shared responsibility” between groups of various stakeholders, such as the buyer, a government agency and an NGO.

Currently there are significant trust issues between the multinational corporations (MNCs) and NGOs. NGOs are strongly skeptical of both self-regulation and MNCs, while MNCs fear that NGOs will disclose and exaggerate situations to the media (Tsoi, 2010). One
of the MNC respondents saw the benefit of partnership among corporations on “developing a standardized human resource management system to share the cost and effort of bringing about long-term changes.” (Tsoi, 2010, p. 399).

In terms of how to form and foster these partnerships, 15 out of 16 respondents (in Tsoi’s survey) suggested a pilot program that allows trust to be built up before committing to a long-term working relationship. All parties need to prove they are trustworthy and exhibit behaviors that instill trust. Sharing information, taking an advising role, facilitating ongoing stakeholder dialogue and training to build capacity together – these are ways China and the global T&C industry at large can improve in the future (Tsoi, 2010). Tsoi also proposes creating a “regional supply chain task force” of multiple stakeholders employing the partnering techniques just described (Tsoi, 2010, p. 402).

In the meantime, is there a solution that is faster to implement? An answer that can transmit and embody the interests of a broad range of stakeholders, yet requires less direct and continuous coordination from whole (and diverse) organizations? Is there a key individual, central to each of those 86 essential, day-to-day, minute-by-minute activities, whose performance directly impacts the livelihood of the factory owner, the experience of the workers, and ultimately the success of the brand?

Could such an individual be empowered with the best information, and vested with the proper authority, to begin addressing the multitude of problems faced by the global textiles and clothing industry? Could the solution also help bolster the fragile communities that this industry relies on? If so, then perhaps slowly but surely, one of mankind’s oldest endeavors – making clothing – could profoundly transform the global economy, from a downward spiral of exploitation, to a soaring orchestra of sustainable success that echoes around the world. Chapter 3 explains the methodology utilized in this research.
CHAPTER THREE:
RESEARCH METHODOLOGY

The Problem

This study began by observing mainstream environmental sustainability initiatives, as exemplified by the world’s largest corporation announcing publicly its “sweeping sustainability strategy” (Plambeck, 2007, para. 1, 2) in the face of repeated human rights failures within the garment industry, such as violent protests in Nicaragua (The Nation, 2013) strings of factory fires in Bangladesh (The Guardian, 2013, para. 24) operators fainting in Cambodia (Truthout News, 2012) and, most notably, the collapse of Rana Plaza (The New York Times, 2013).

There was a clear need to understand what true sustainability in the global garment industry should look like and bring this understanding to bear on the critical problems of compliance. The research questions this study attempted to answer are:

1. What is the context surrounding non-compliance within the T&C industry?
2. What are the obstacles to compliance, and the weaknesses in current modes of regulation?
3. What, if any, value can still be obtained from current governance?
4. Is there a connection or overlap between the goals of international sustainable development efforts and the T&C industry’s interests in sustainability?
5. Is there a comprehensive compliance solution that can achieve the following?
   a. harness and harmonize the value of existing governance
   b. address the problems of compliance on a global scale
   c. increase the T&C industry’s overall sustainability
   d. contribute to sustainable development efforts in producer regions
These questions are addressed on the following pages:

1. The background of public awareness of garment industry labor issues is given in the Introduction of the thesis on p. 1, while the context of non-compliance is analyzed in detail throughout Chapter 2, p. 16 - 30.

2. Obstacles to compliance and weaknesses in current regulation modes are discussed in Chapter 2, p. 49-58.

3. Potential value in current regulation is given in Chapter 2, p. 30-43, and p. 45-55, and included in the available inputs of the refined model on p. 69.

4. The connection between sustainable development and industrial interest in sustainability is described in Chapter 2, in p. 34-39.

5. The potential solution to comprehensively address a, b, c, and d is described in Chapters 4 and 5, p. 74-77, p. 86-88, and p. 95-100.

**Locating an Ideal Frame of Reference**

In-depth review of the origin and history of the sustainability concept itself began, leading to extensive study of international environmental and human rights-associated literature. The United Nations’ Agenda 21 Program for Sustainable Action became a particular focus as it laid out the role for business and industry, entrepreneurs, trade unions, and workers, in terms of specific behaviors and methods for contributing to sustainable development. This and subsequent related documents from the UN also explain the supporting functions of all levels of government, scientific and academic institutions and organizations, as well as community, labor and trade organizations. Importantly, they identify the interdependence of social and environmental impact, making clear that progress cannot be made in one area while neglecting the other. While not legally binding, these treaties have been agreed on, committed to, and signed by 178 countries. As such, they represent the legitimate global consensus and an internationally accepted authority on this subject.
Phase I: Industry Questionnaire

An application was submitted to the Institutional Research Board (IRB) on September 30, 2013 (Appendix A) to administer a survey to industry professionals at the environmental committee meeting of an industry trade association. Formal approval and notice of exemption from the policy as outlined in the Code of Federal Regulations (Exemption: 46.101. b.2) was received on October 2, 2013, (Appendix B) and the survey was administered soon after (Appendix D). There were 14 participants of varying ages and experience to complete the 20-question survey, which used a Likert scale to capture data on industry perceptions, attitudes, and behaviors relating to both environmental and social aspects of sustainability. An 11-point scale of 0 to 10 was chosen to allow for subtle variation of opinion, given the possibility that the issues covered in the statements could be seen as complex. This was an initial glimpse into the current mindset regarding social sustainability concerns, within a microcosm of professionals who are already engaging in environmental sustainability themes, as evidenced by their membership on an environmental committee of an industry trade organization and their attendance at the environmental committee meeting.

Developing an Initial Model of the Problem

Further review of available literature on social sustainability in supply chain management, obstacles to factory compliance, the challenges of globalization, as well as critical analysis of all current methods of market governance was conducted to develop a comprehensive understanding of the context. A detailed contextual model was then constructed by the researcher (see Figure 13) to illustrate the layers of complexity that exist between a product’s end-user (consumers), whose desire drives the industry, and the worker who makes the product to begin with, whose individual rights may be undermined in the effort to satisfy consumptive desire. The model further served to highlight the areas of opportunity for impact that are presently not penetrated by existing regulations and standards. A corresponding solution was identified that could potentially address both the immediate concerns within the core area of opportunity, as well as larger, longer term matters of sustainable development. To evaluate the model, a survey-based form of research known as the Delphi Method was chosen.
The Delphi Method

Developed in the 1950s by Rand Corporation, a policy research institution, to forecast the impact of technology on warfare (Rand Corporation, 2014), the Delphi Method is a technique for obtaining expert consensus on complex problems through iterative survey and discussion (Reid, 1988; Williams & Webb, 1994). Anonymity between the experts is maintained throughout the process to avoid the pitfalls of interpersonal interaction that frequently occur within group communication (Goodman, 1987; Linstone and Turoff, 1975; Reid, 1988). Kennedy suggested that the process could be viewed as, “a constructive effort in building knowledge by all who share in the process,” (Kennedy, 2004, p. 505). However, Delphi is commonly used not just for complex problem solving, but as a means of reliable futures forecasting (Baker, Lovell & Harris, 2006). This is in line with its namesake, the legend of the Greek Delphi oracle, in which a number of informants deliver the 'truth', arrived at via data from multiple sources (Baker et al., 2006; Kennedy, 2004).

Halal & Bojes’ 2005 study of 15 forecasting methods, comprised of ratings by 93 of the Professional Members of the World Future Society, identified Delphi as its third most preferred method, in terms of ‘confidence’ in the validity of outcomes and ‘usefulness’ of the method itself (Halal & Bojes, 2005). The two methods rated higher were: actual interviews with experts (second preferred) and identifying “possible futures” via “storylines [of] scenarios,” (or ostensibly, using one’s own logic and reasoning to extrapolate the present circumstances into the likeliest future events) (Halal & Bojes, 2005). In the absence of opportunity for in-person interviews, Delphi represents the strongest option available. Over its near 60-year history, usage of this technique has been widespread in business and government as well as healthcare and social research (Baker et al., 2006).

Defining An Expert

Care was taken to pinpoint the attributes required for the discussion, which necessarily targeted specific practitioners. Baker et al. (2006) offer questions to guide researchers in this task, as seen in the list below.

1. What is your definition of an expert?
2. What sample are you aiming for (homogenous or heterogeneous)?
3. How has the sampling method influenced your choice of experts (snowballing etc)?

4. What are your inclusion criteria? (Walker & Selfe 1996, as cited by Baker et al., 2006).

5. What are your exclusion criteria? (Walker & Selfe 1996, as cited by Baker et al., 2006).

6. How do you define knowledge? What level is required and how can this be identified?

7. How do you define experience? What level is required and how can this be identified?

8. How do service users/care givers/patients feature within the study? If excluded, why and how will their views be taken into account?

9. Were non-participants followed up? (Mullen, 2003, as cited by Baker et al., 2006)

10. Each expert needs to be clearly labeled. Walker et al. (2000) defined their sample in terms such as 'non-funding GP' and 'academic' to enable expertness to be understood (as cited by Baker et al., 2006).

Source: Baker, Lovell, and Harris, 2006, p.68.

While Baker et al. (2006) point out Sackman’s (1975) view that expert and non-expert panels make little difference to outcomes, “especially in relation to forecasting or evaluating social phenomena,” the two studies which are cited to support this idea are nevertheless comparing similar groups, such as “physiotherapist researchers” and “newly qualified physiotherapists,” to find that the true level of expertness needed is “uncertain” (Duffield, 1993; Walker, 1994; as cited by Baker et al., 2006, p. 66).

For the purposes of this research, expertness was defined by the years of professional experience in relevant areas. The theory that mastery of an activity requires around 10,000 hours of practice was developed and tested over the 1980s and 90s by Swedish psychologist, Anders Ericsson. It was popularized by best-selling author and journalist, Malcom Gladwell in his 2008 book, Outliers: The Story of Success, yet the notion is still fairly controversial. In light of the fact that the 10,000 hours must be time dedicated to improvement, not just time spent in experience or training (Ericsson, Prietula, & Cokely, 2007), the researcher set
the bar for the Delphi panelists beyond the roughly five years of full time (40 hours per week) work that 10,000 hours translates to.

The question of homogeneity versus heterogeneity of the panel group is emphasized as highly debated in the literature due to its strong implications for sample size. Baker et al. (2006) cite researchers Hardy et al. (2004), Mead & Moseley (2001), Mullen (2003), and Powell (2003) to demonstrate that heterogeneity is widely preferred for increasing validity (Baker et al., 2006). However, the researchers agree that the most reliable samples for Delphi studies should be small, fewer than 20 participants, which is somewhat contradictory to heterogeneity (Baker et al., 2006). For the purposes of this research, it was possible to satisfy these apparently conflicting prescriptions: the first Delphi panel would be kept homogenous and small to test the hypothesis, and if the concept went forward, subsequent phases could be increasingly diverse.

**Phase II: Testing the Model**

Criteria for inclusion was limited to the previously mentioned level of direct professional experience in the areas of fashion and textiles sourcing and production, supply chain management, manufacturing compliance, labor practices, and environmental sustainability. Further, it was desirable to identify such experts within a local network of industry contacts in order to increase the likelihood of response. Criteria for exclusion was limited to a lack of the requisite expertise or a lack of direct means for contacting the prospective panelist.

A study revision request to go beyond the original industry questionnaire of Phase I was submitted to the IRB on February 13, 2014 (Appendix D) and approval was received on February 20, 2014, with exemption status unchanged (Appendix E). Six professionals with 10 to 25 years of direct working experience in these areas were chosen from industry contacts and sent an explanatory email (Appendix F) to which the contextual model (Figure 13) was attached.
Phase III: Refining the Concept

Once feedback was received, a second diagram was constructed, based on the new information. This refined model captured the main inputs in terms of existing market governance systems (MGS) and internationally accepted global guidance from the United Nations, as well as the main outputs expected from implementation, and finally, those modules which would be needed to accomplish said outputs. Figure 14 shows the refined model.

Figure 13. Contextual model of the MMA opportunity, 2014.

An additional input that was not discussed in the literature review is the aqua-colored box to the left of the central “door.” This input area details a leading firm’s positive approach to worker wellbeing. The information is drawn from a global technology firm that has topped...
Forbes Magazine’s list of best places to work in the US since 1998. The firm exhibits the benefits of employee well being, including lower turnover, high productivity and profitability, as well as long-term customer relationships (SAS, 2014).

A significant anticipated output is the benefit to investors as described in the pink box in the bottom left corner of the diagram. The reason for anticipating a benefit to this group is that interest in socially responsible investing (SRI) has grown 380% since 1995 despite the global economic recession (Delmas & Burbano, 2011). The CEO of Patagonia believes investors will increasingly seek out sustainable companies because those are the most viable in the long run (Chouinard, Ellison, & Ridgeway 2011). Supportive of this claim is the fact that 75% of all S&P 500 companies had specific webpages for environmental impact and social policy disclosure as of 2009 (Delmas & Burbano, 2011).

An online survey was drafted, with 10 open-ended questions relating to implementation and feasibility (APPENDIX H). Both the survey and the second diagram were shared with the original expert panel, along with sixteen additional industry professionals, ranging in years of experience and specific expertise for greater diversity, yet still focused in the areas of concern previously mentioned: fashion and textiles sourcing and production, supply chain management, manufacturing compliance, labor practices, and environmental sustainability. Survey data was collected and analyzed that would be valuable in compiling specific content for Manager Accreditation.
CHAPTER FOUR:
RESULTS AND DISCUSSIONS

Table 4 lists the professional position of the participants who responded to the Phase I Industry Questionnaire, administered at a trade association’s environmental committee meeting in 2013. Males and females were represented near equally, and ages ranged from 27 to 62.

Table 4. Area of Experience of Phase I Participants

<table>
<thead>
<tr>
<th>Respondents’ Areas of Experience in Textiles and Clothing Industry</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>education software provider</td>
<td>material technology</td>
</tr>
<tr>
<td>no answer</td>
<td>testing/inspections</td>
</tr>
<tr>
<td>product safety</td>
<td>product chemistry</td>
</tr>
<tr>
<td>trade association</td>
<td>importer/retailer/legal</td>
</tr>
<tr>
<td>industry strategist</td>
<td>thread/efficiency/sustainability</td>
</tr>
<tr>
<td>regulatory</td>
<td>social compliance</td>
</tr>
<tr>
<td>Textile product development</td>
<td>online catalog retailer</td>
</tr>
</tbody>
</table>

The survey (Appendix C) consisted of 20 statements that the respondent could rate his or her agreement with, based on a Likert scale of 0 to 10, with zero meaning no agreement at all and 10 representing extremely strong agreement. Figure 15 plots the mean rating for each statement, in descending order from strongest agreement to weakest.
Figure 15. Mean responses to Phase I industry questionnaire.

Results of Phase I

The chart above shows that those surveyed perceive that the companies they work for maintain an interest in improving sustainability, if not an equal motivation to do something about it. The statement with unanimous “extreme agreement” at 9.5 out of a maximum of 10 was: “Worker exploitation and/or poor labor practices concerns me personally.” The second and third most strongly agreed with statements were, “I feel welcome to voice concerns about unsustainably practices at work,” and “My company wants to have a positive impact in the world.” Meanwhile, the two strongest negative statements, “My company only chooses sustainable initiatives that immediately cut costs” and “My company has announced
sustainability initiatives (either internally or publicly) without following through on them,” received very low agreement at 4.25 and 2.23 respectively. While this could be interpreted as company loyalty, that view becomes weaker in light of the neutral ratings given for the statements, “My company accurately represents its sustainability to its customers;” “I work at a sustainable company;” and, “When a sustainability initiative fails there are specific employees tasked with evaluating and resolving the challenges;” implying only minor agreement with these statements.

Underscoring this message is that respondents indicated a definite lack of familiarity with Agenda 21 (an implementation tool) and doubt that it could be a helpful resource for companies interested in becoming more sustainable. This raises an important question about the level of actual sustainability knowledge in the industry as well as the failure of the United Nations to promulgate their sustainability action plan. Yet moderately strong agreement at 7.6 that more information about Agenda 21 is needed to determine usefulness reflects, again, an interest or aspiration in spite of the failure to implement. Overall, this positive position suggests that additional progress in implementing social sustainability may be attainable – particularly if clear, informed and feasible ideas for implementation are provided.

A final point is that statements designed to parse any bias towards environmental concerns over social ones actually reflected the opposite: “A profitable company with strong CSR programs is sustainable” achieved a stronger agreement rating of 8 than “An environmentally friendly and profitable company is sustainable;” (received an average rating of 7.3) while the comprehensive statement that “A company’s sustainability depends on its environmental, social, and economic impact both global and locally” was the fourth most agreed with statement at 8.75. This indicates an instinct, if not an overt acknowledgement, that social (i.e. human rights) issues are sustainability issues.

**Phase II Delphi Panel Responses**

Detailed feedback on the first contextual model (Figure 13) and explanatory email (Appendix F) was received from five of the six practitioners. Each of these professionals was selected from a network of local industry contacts based on criteria defining them as experts, namely at least a decade of experience specifically in the areas of fashion and textiles
sourcing and production, supply chain management, manufacturing compliance, labor practices, and environmental sustainability.

Respondent No. 1

“There are no global regulations or sensibility in the same way there is globalization of trade. The lack of globalization has created communities of practice that are based on the rigor or lack of rigor of regulation and enforcement within the region only. This may or may not meet expectations of the consumer's region. Individual training is really important but the sphere of influence of managers needs to be clearly defined and even this is much different throughout the world.”

These comments provide strong support for the usefulness of the proposed manager’s accreditation while raising the possibility that such a solution could contribute toward regulation that is more globally consistent or harmonized.

Respondent No. 2

“What I think you might be referring to here is the issue of ‘socially responsible management,’ or ‘ethical management...’ or ‘sustainable compliance.’ The latter is what we envisioned...by requiring a management systems approach to compliance to ensure that the internal policies, procedures, functions and audit methods were in place so that compliance became rooted in the business, and was not something to be concerned with when the external auditors came knocking.

Given the areas you're suggesting for certification for a manager, it could easily encompass a four-year specialized degree, or at least a two-year program of study, almost full time...You might want to consider two or three levels of certification and winnow down the total areas to make them more digestible rather than trying to eat the whole elephant at one sitting.

As you note, this cuts across legal, human resources, regulatory, trade, culture and many more areas - a dashboard that will spin the heads of most managers. I would guess that candidates for this program will need a reasonable level of sophistication to start with or they will quickly become overwhelmed. Having said that, there are many very good facility managers around the world who could quickly embrace this opportunity.

It's also important to remember that... the owners of the business must fully buy in and lend their personal and management support by providing sufficient resources for the factory manager to implement his vision of social
responsibility at the factory. He is also going to have to get the support of his staff and invest in substantial education and training across the whole facility. This could be a time-consuming and expensive process.”

Respondent 2 recognized the intersection of HRM, CSR, SCM, and sustainable development that this research is targeting and validates the logic of such a “management systems approach” to “ensure that compliance becomes rooted in the business.” The usefulness is further supported by the suggestion that most managers will be overwhelmed with the amount of material and the recommendation to streamline into levels of accreditation. Respondent 2 offered additional support with the affirmation that many managers around the world are ready to embrace this opportunity. Finally, the insight that complete commitment will be necessary from the owner and the rest of the staff attests to the comprehensiveness and transformative potential of the proposed MMA program, if also the proportionate challenges to implementing it.

**Respondent No. 3**

“The underlying problem with the Human Resource related Sustainability issue is the lack of sincere commitment from Brands / Retailers / Suppliers. Their focus is all on **LOW PRICE**. The following are serious issues:

- Brands / Retailers demand compliance, but are not willing to pay for it.
- The suppliers don't comply, but say they do (by issuing certificates) because they are not paid adequately.
- Staff at Brands / Retailers / Suppliers are not well versed in Sustainability.
- There are no true Customer - Supplier partnerships.
- Customers are not educated in this area

Having noted all of the above, I feel there needs to be several tiers of certification programs for various groups listed below:

- Brands; Compliance, Sourcing, & Design Staff
- Retailers; Compliance & Sourcing Staff
- Suppliers; Factory management
- Consumers; education through media

Once you design the certification programs, a group like WRAP can train the Brands / Retailers / Supplier groups in various countries.”
Respondent 3 affirms several points of context that were highlighted in the literature review, namely that buyers expect compliance but don’t want to pay for it, and that suppliers are often dishonest about compliance. This latter point affirms the weakness of auditing, the dilution of legitimacy in certification standards, the problem of pricing pressure, and the need for customer-supplier partnership.

Respondent 3 also echoes the findings from the pre-study questionnaire that there is interest in sustainability (or the benefits in terms of compliance) without commitment to implementation, as well as a lack of sustainability knowledge. Respondent 3 expresses clear support for the idea while recommending the proposed concept go beyond manufacturing managers to the relevant staff (design, compliance, sourcing) of the brands and retailers as well.

**Respondent No. 4**

“I agree with your conclusion that factory management and leadership are key in improving and maintaining better working conditions for the factory employees. It has long been known in the CSR world that embedding management systems within a factory, owned by the factory leadership and transparently shared with the employees is the key sustainable manner to drive change. Special program after program simply address the "issue of the day" while not evolving the underlying management system under which that factory operates.

The challenge, as I believe you articulate, is that many factory leadership personnel do not understand management systems. They grew up in families running factories, and the factory has always operated this way so why change?

Today management systems approaches exist to drive better social and labor performance (along with production improvement). ISO 9001, ISO14001, SA8000, SAI Social Fingerprint, GSCP, Higg index, etc. Some of these are comprehensive certification programs while others are methods to measure the integration of management systems within a factory. I would suggest you look at the research on management system certifications and determine if an additional certification scheme is truly needed. “

Respondent 4 expresses support for the proposed MMA with comments similar to those of Respondent 2, that embedding compliance through a management systems approach
that harmonizes HR and CSR is the most sustainable way to “drive change.” Respondent 4 also repeats the point made by Respondent 2 that there is a lack of understanding to overcome. Respondent 4 ultimately questions the need for another management system while still implying that better integration is needed to “evolve the underlying operating system” of the factory.

**Respondent 5**

“...most companies do the baseline, just mitigating risk...worker voice is a powerful input. The challenge is that many suppliers have multiple brands, compliance is a downstream cost...

There is a need to consolidate some of these standards, a need to be harmonized: merging of business practices and standards...voice without consequence, an open door policy because an empowered workforce is the most productive workforce. Brands have to decide whether to go for this, suppliers react to what gets pushed their way, no supplier has a retail presence.

Higg Index is still in development...there is a labor and factory component of Higg – perhaps a standard for labor could be inserted. How do you commercialize the sustainable development aspect?

If you think about where sustainability is now, there is a melting pot of really great and smart ideas - the trick is harmonizing and making it easy to implement. But these things will be transformational. What about measurable benefits?

Build something that can be broadly adopted. Look at brands in categories, capture a majority. It’s always easy to add modules.”

Respondent 5 echoes Respondent 3 that there is interest without commitment due to price pressure, and agrees with Respondent 2 and 4 that an overall challenge to implement the standards of multiple brands into actual business practice exists (a lack of understanding of management systems or inability to manage them) and emphasizes the need to harmonize all the “great and smart ideas” into something that is easy to implement. Respondent 5’s focus on the power of incorporating the “worker voice” repeats the sentiment from
Respondent 4 that a management system that is “transparently shared with employees is the key sustainable manner to drive change.”

In questioning how to “commercialize the sustainable development aspect,” Respondent 5 touches on the lack of sustainability knowledge noted in the Phase I. Industry Questionnaire results and in the comments of Respondent 3. While this point is an obvious challenge to implementation, it is also indicative of the larger need for help on both sides (buyers and suppliers) with accomplishing sustainable compliance. Respondent 5 clearly expresses support for the proposed MMA, emphasizing both the need and potential for widespread adoption.

**Overall Analysis of Phase II Feedback**

The Expert’s Input from Phase II illustrate that there are ongoing issues with respect to social sustainability. Further, there is an interest among this group in working to improve social sustainability. This input was sufficiently encouraging to test the concept of manager accreditation with a broader audience.

**Phase III Results**

More heterogeneous feedback was desired for Phase III so the original panel of six experts was expanded to include 15 additional practitioners. Most of these were identified through professional networks in the industry, and a few were contacted for the relevance of their position (for example, Head of Sourcing) at multinational corporations, in which cases their email addresses were found online.

This group of 21 was sent the diagram of potential inputs and anticipated outputs, attached to an explanatory email that included a link to an anonymous online survey. The survey was comprised of ten open-ended questions for evaluating the concept as illustrated by the Phase III model (Figure 14). Nine responses were obtained, including one Japanese sourcing agent who is an expert on Asian markets. Following are the answers to questions 1-10 with analysis given after each. Table 5 lists the panelists’ involvement with sustainability.
Table 5. Responses to Q1.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>What is your current involvement with sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I was the former EVP, CAO &amp; GC of . . . and I am not on sabbatical.</td>
</tr>
<tr>
<td>2</td>
<td>minor</td>
</tr>
<tr>
<td>3</td>
<td>I work in the field everyday.</td>
</tr>
<tr>
<td>4</td>
<td>I head our Sourcing, Production Development and Technical Design team - Sustainability falls under my world</td>
</tr>
<tr>
<td>5</td>
<td>Indirect</td>
</tr>
<tr>
<td>6</td>
<td>Consultant to Industry. . .</td>
</tr>
<tr>
<td>7</td>
<td>I work for an auditing firm who assesses overseas facilities compliance with local or national human rights &amp; environmental regulations and international human rights &amp; environmental standards.</td>
</tr>
<tr>
<td>8</td>
<td>Our company has no current sustainability policy.</td>
</tr>
<tr>
<td>9</td>
<td>trading and import of apparel products from China to Japan. Sustainability is very important to continue and develop the business as always.</td>
</tr>
</tbody>
</table>

Table 6. Responses to Q2.

| How many years of experience do you have in the textiles/apparel industry? |
|-----------------------------|-----------------------------|
| 1. Approx. 7 years          | 6. 30 years                 |
| 2. 9 years                  | 7. 3 years                  |
| 3. 30+ years                | 8. 25 years                 |
| 4. 30 years                 | 9. 32 years                 |
| 5. 30 years                 | 10. 32 years                |

As more diversity was desired at this stage, the group’s “current involvement with sustainability” ranged from none, up to a Head of Sourcing and a former compliance advisor ombudsman. Years of experience range from 3 years to 32, and more than half the respondents have at least 25 years of direct industry experience.
Responses to Q3.

What do you think are the three biggest challenges this industry faces today?

1. In no particular order, 1. Environmental Challenges 2. Sourcing and Resource Constraints 3 Ongoing Labor & Environmental Issues when Onboarding a New Country for Production in the Apparel Supply Chain 4. Supply Chain Transparency

2. lack of manufacturing/engineering know-how, sustainability, always fighting for lowest cost providers

3. Understanding global systems dynamics and how it effects business. Understanding really what "hot, flat and crowded" means. Correcting accounting practices that currently allow externalization of the value of common resources and social equity.

4. Skilled labor shortages, escalating cost and lead times

5. safe workplace, environmental impact, productivity


7. Education, economic incentives for performance, regulatory enforcement by local/national governments

8. Pricing pressure, reducing/consistent leadtime from Asia, certification of factories abroad

9. The challenges differ from country to country.
   ●Japanese market:
     -Long deflation/economy shrink has made the fashion industry less profitable
     -Because the production in Japan is too costly, more and more production facilities and labors are shifted to Asia. Now Chinese production cost is going up, so it is shifting to other Southeast Asian countries.
     -For better quality tailoring apparel and quick delivery, and small lot flexible production, there are shift back to Japanese local production these days.
   ●Chinese market:
     - Internet sales have increased a lot in China and so in fashion apparel market. For Chinese market, many counterfeits and pirated goods are in market which is not healthy for the growth of the industry. Some says 70% of the business is done by informal business, i.e., flea market, individual net re-sale, etc.
     -As the production cost, especially the labor cost increase rapidly, the Chinese apparel company is seeking for shifting its factory to other remote area or other countries.
Responses to this question vary considerably – perhaps an indication in itself that the system is ripe for change. The most cited challenge (six out of nine) was cost or pricing pressure. Five also listed a lack of “skilled labor,” or “know-how,” affirming that education and training is necessary. Respondent 9 cites the loss of technical skill as a primary focus. He further recommends adding this module to the list of manufacturing manager accreditation topics. The observation is duly noted as the research heretofore overlooked this significant factor in improving factory compliance, while recognizing that Agenda 21 emphasizes both the transfer of technology and the preservation of craft as fundamental sustainable behaviors (and thus, would account for this concern regardless as a foundational input to the proposed MMA).

Five out of nine also listed environmental issues as a main concern, yet sustainability accounting and reporting (internalizing costs to actually address environmental challenges) is mentioned only once. The next most common set of concerns fall under the umbrella of “global systems dynamics”: reducing lead times, supply chain transparency, sourcing constraints, certification of factories, the particular challenges of adding a new country to the supply chain, and regulatory enforcement by local governments.

“Safety” (specifically) is listed only once. Recalling that an extensive study into fire safety training and awareness among factory workers was only conducted after some 700 deaths from factory fires since 2005 in Bangladesh alone, and only after the worst disaster in garment industry history forced the formation of western brands and retailers into The Accord to address the deaths of more than 1100 workers, the panel of industry experts’ lack of attention on safety as a major challenge comes as a surprise. And in light of the fact that “factory safety” has been a prime focus of media attention on clothing industry challenges since April 2013 when the Rana Plaza collapse occurred, this lone listing raises the notion that safety might tend to be an after-thought that is not instinctively considered in terms of achieving business goals until and unless the subject is forced.
Table 7. Responses to Q4.

<table>
<thead>
<tr>
<th></th>
<th>Please list known accreditation programs for manufacturing managers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. OSHA certification, 2. Various ISO certifications, 4. Third Party Social Responsibility Certifications (e.g., WRAP, SA8000, etc.), 4. Lean Manufacturing (the Toyota-based model which has an HR Component)</td>
</tr>
<tr>
<td>2</td>
<td>CSCMP</td>
</tr>
<tr>
<td>3</td>
<td>Factory- STeP by OEKO-TEX®, ISO quality certification, Lean-Blackbelts</td>
</tr>
<tr>
<td>4</td>
<td>Don't know of any such programs in the Apparel industry</td>
</tr>
<tr>
<td>5</td>
<td>ISO, GOTS, OEKO-TEX® Various Retail accreditation programs</td>
</tr>
<tr>
<td>6</td>
<td>None known for Mfg Managers, but many such as ISO, etc.</td>
</tr>
<tr>
<td>7</td>
<td>FLA, WRAP, ISO 9001, ISO 14001, SA8000</td>
</tr>
<tr>
<td>8</td>
<td>APICS (production/supply chain), I know no other and nothing that covers all areas you imply</td>
</tr>
<tr>
<td>9</td>
<td>In Japan, we have accreditation program as Textiles E valuation S pecialist, we call TES. The organization is non-governmental, inter-industrial one, please see <a href="http://www.jasta1.or.jp/index_english.html">http://www.jasta1.or.jp/index_english.html</a></td>
</tr>
</tbody>
</table>

When asked to list known accreditation programs for manufacturing managers, three respondents acknowledged they did not know of any similar programs in the T&C industry that cover all the areas implied in the diagram and certify an individual manager. Three others listed the most common managerial standards such as the ISO 9000 series, SA8000, FLA, OEKO-TEX®, GOTS, WRAP, and STeP by OEKO-TEX®, while two listed supply chain management-specific standards such as APICS and CSCMP. These last two should be further investigated as part of this research and potentially included as inputs in the MMA diagram.

It should also be noted that current standards certify an entire facility, while this research, by contrast, proposes an individual training and accreditation so that the manufacturing manager becomes fully equipped and specialized to successfully address
today’s production demands. Further, this proposed MMA would include in-depth sustainability training and emergency preparedness, among others; existing standards, on the other hand, at best merely require proof that training like this has taken place in order to get the certificate. That said, there is valuable content within these standards that should inform the MMA so that standards are harmonized.

Table 8. Responses to Q5.

<table>
<thead>
<tr>
<th>Referring to the diagram’s central list, do you think any modules should be added or removed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think the modules could be organized around reporting relationships/functions rather than just as a list. And, I believe you need to explained on what you mean by each category - these are very broad terms.</td>
</tr>
<tr>
<td>2. I actually think this needs to be streamlined, if this is for professionals.</td>
</tr>
<tr>
<td>3. If a manager was vested in all of these areas, they would be worth their weight in gold.</td>
</tr>
<tr>
<td>4. I think it is very comprehensive assuming that this a Social compliance focused program</td>
</tr>
<tr>
<td>5. Add Risk Assessment and Management</td>
</tr>
<tr>
<td>6. Remove OECD Guidelines. No one I know of pays attention to them, at least outside Paris.</td>
</tr>
<tr>
<td>7. Quality Assurance, Management Systems should be added;</td>
</tr>
<tr>
<td>8. Seems pretty thorough</td>
</tr>
<tr>
<td>9. The maintaining and transferring of apparel production technology / techniques.</td>
</tr>
</tbody>
</table>

Most respondents suggested that the potential module list at the center of the diagram was very comprehensive, and two shared the view that the extent of suggested training is possibly unrealistic. The challenge of delivering the right amount of material would presumably vary from factory to factory. This could be assessed more precisely through
closer observation and experimentation further along in an implementation process. Still, identifying the general scope of the role under consideration and understanding where the industry experts envision boundaries is necessary for determining the level of impact that may be achieved. Table 9 shows the proposed list of training modules that respondents were asked to evaluate.

**Table 9. Suggested Modules for the MMA from Phase III diagram (Figure 14.)**

<table>
<thead>
<tr>
<th>Proposed Training Modules for Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor Laws</strong></td>
</tr>
<tr>
<td>Human Relations</td>
</tr>
<tr>
<td>Optimal Work Culture Development</td>
</tr>
<tr>
<td>Sustainable Development</td>
</tr>
</tbody>
</table>

Respondent 1 called for greater detail and a reorganization of the modules into “reporting functions” rather than a list. Follow-up discussion should explore this suggestion further as well as garner more information as to which modules could be eliminated to “streamline” the proposed training. Only one respondent specified a module to remove, naming the OECD guidelines. This suggestion is illuminating but cannot be used for the following reasons: the OECD guidelines are not included as an actual training module per se, but rather an input that would influence or shape (inform) the specific content in relevant modules. Further, even if few people in the industry utilize or recognize them, their global authority legitimizes them and contributes to the desired global credibility of the proposed MMA.

Modules to add include: risk assessment and management, Quality Assurance, Management Systems, and sharing production techniques.
Table 10. Responses to Q6.

<table>
<thead>
<tr>
<th>What items do you think are priority for the manager’s dashboard?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. people, processes &amp; tools, as well as engineering, garment construction &amp; quality management</td>
</tr>
<tr>
<td>3. See the modules within the STEP by OEKO-TEX® and these are the priorities</td>
</tr>
<tr>
<td>4. Clear visibility to new hires (so they can be audited) Overtime, access to customer Social compliance audits, results of regular interviews with workers by a non-management people, access to third party hotline calls, easy access to US/European social compliance websites</td>
</tr>
<tr>
<td>5. Labor Laws, Safety, Project Management, Financial Statements, Sustainable Development</td>
</tr>
<tr>
<td>6. Measurement tools</td>
</tr>
<tr>
<td>7. labor laws (general regulatory compliance); safety</td>
</tr>
<tr>
<td>8. Depends on the organization's priorities. Generally, for a mfg mgr, I suggest production output, efficiency, quality, financials, safety, HR</td>
</tr>
<tr>
<td>9. The Japanese technology of apparel production know-how has been transferred to China and to make good products in Chinese factory, Japanese professional technology has been taught to Chinese people by Japanese instructors. So the product quality has been raised dramatically. Even though the production facility is brand-new updated machine, but the know-how to make the high-quality apparel really depends on the technical professional’s ability. Nowadays, Japanese specialist with high level get older and very few are still in career (Many are already retired.) So, these important technologies could be transferred and gained in China and for Chinese workers in doubt.</td>
</tr>
</tbody>
</table>

The manager’s dashboard is an easy to read user interface that shows a current snapshot of key performance indicators (KPIs) to enable quick decision-making (Palpanas, Chowdhary, Mihaila, & Pinel, 2007). Figure 16 shows a typical example for a garment production facility.
Figure 16. Typical garment production KPI reporting dashboard. Source: Sarkar, Online Clothing Study, 2014.

When asked about priority items for a garment manufacturing manager’s dashboard, several answers were in line with manufacturing dashboards commonly in use today, with a few key aberrations. Respondent 1 added waste reduction as a day-to-day priority measure to track. Respondent 3 cited the OEKO-TEX® STeP (see listing in the Definition of Terms) certification modules, which are predominantly environmentally focused priorities including, “management of chemicals, environmental protection, environmental management, health and safety, social responsibility and quality management” (OEKO-TEX® STeP, 2014). Respondents 4 and 7 honed in on auditing- and compliance-related priorities, including
“regular interviews with workers” and a “3rd party hotline” tracker, while Respondent 5 cited “sustainable development” measures. Three panelists cited “safety” as a specific priority item to keep track of. Respondent 9 called for production quality techniques as a priority dashboard measure. This range of suggested new priority considerations highlights the apparent challenge confronting factory managers in today’s global economy: they need to be able to weigh all aspects of the business in their decision making.

This holistic perspective is the definition of a sustainable mindset. Further investigation of the limits of dashboard functionality would be worthwhile. Dashboard design that reinforces the understanding and awareness of the interrelatedness of these features could serve to bolster and embed the integrated logic of the holistic approach. Table 11 discusses the basic consideration of implementing locally versus distance learning.
Table 11. Responses to Q7.

<table>
<thead>
<tr>
<th></th>
<th>Responses to Q7.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Any factory-level middle and lower management training is best done locally (whether domestically or internationally) especially in view of challenges with local cultural nuances and to address language barriers (even with those who have arguably good English speaking skills).</td>
</tr>
<tr>
<td>2.</td>
<td>Distance learning</td>
</tr>
<tr>
<td>3.</td>
<td>Distance learning needs to be global to insure quality and uniformity. If allowed to be local without global controls then you have no credibility.</td>
</tr>
<tr>
<td>4.</td>
<td>I think it could be done at a distance (probably out of necessity) but with periods of hands on learning and experience building very necessary</td>
</tr>
<tr>
<td>5.</td>
<td>Either.</td>
</tr>
<tr>
<td>6.</td>
<td>Must be implemented locally to be effective. Distance Learning would not have the same impact.</td>
</tr>
<tr>
<td>7.</td>
<td>Locally.</td>
</tr>
<tr>
<td>8.</td>
<td>Both can work as long as there is a quality instructor and consistency in training information, materials and validation.</td>
</tr>
<tr>
<td>9.</td>
<td>On-site, hands-on learning is necessary and important. But we don’t have enough people who can teach these techniques. Please refer to Uniqlo, Fast retailing company, <a href="http://www.fastretailing.com/eng/csr/customer/safety.html">http://www.fastretailing.com/eng/csr/customer/safety.html</a> <a href="http://www.fastretailing.com/eng/group/strategy/tactics.html">http://www.fastretailing.com/eng/group/strategy/tactics.html</a></td>
</tr>
</tbody>
</table>

Answers to Question 7 indicate a combined approach of localized training and globally distributed distance learning would balance the need for cultural relevancy and clear communication with a need for global consistency and credibility. The lack of teachers noted by Respondent 9 raises the need to train new trainers. Table 12 examines the challenges to implementation.
Table 12. Responses to Q8.

<table>
<thead>
<tr>
<th></th>
<th>What are the biggest hurdles you see in implementing the proposed manager accreditation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>There are a plethora of training programs around and while I support more training, to take a Manager away from their daily factory production schedule requires significant input from all levels of the organization and is a VERY difficult scheduling challenge.</td>
</tr>
<tr>
<td>2.</td>
<td>drawing interest from Corporations</td>
</tr>
<tr>
<td>3.</td>
<td>1- getting your accreditation recognized and accredited by an outside group. 2- making sure that your graduates receive quid pro quo for the accreditation.3- Demonstrating the business case for your graduates.</td>
</tr>
<tr>
<td>4.</td>
<td>availability of time off the job and the attitude of the company. Enlightened companies will have no problems with such an initiative.</td>
</tr>
<tr>
<td>5.</td>
<td>Too broad. Focus on a few core competencies.</td>
</tr>
<tr>
<td>6.</td>
<td>Gaining support from employers. These functions are now handled by HR, MFG, Legal, Environmental, etc.</td>
</tr>
<tr>
<td>7.</td>
<td>educational outreach, capacity, associated costs</td>
</tr>
<tr>
<td>8.</td>
<td>Agreement on standards, assuming you are talking apparel/textiles only, different channels have different focuses--high-end retail vs discount retail vs B2B uniforms vs rental, not assuming apparel/textile only--addressing issues unique to certain industries (food processing vs textiles vs heavy machinery), either way where is the value-add</td>
</tr>
<tr>
<td>9.</td>
<td>Just an accreditation system is not enough to raise and maintain the production quality, I think. The professional in that position requires lots of experience at the production site and everyday matter. Also the problem of the accreditation is how you judge the ability or skill of the person with various different places and situation, and different career. I hold TES accreditation, but actually have not worked at factory or production site, but the TES accredits for planning and sales. Even though I’m a TES accreditor, I don’t believe in these systems to judge that I am really the qualified person for hands-on production management, honestly.</td>
</tr>
</tbody>
</table>

For Question 8, the responses can be divided into two categories of equal weight: four panelists identify sufficient commitment (or interest) from the employer and time away from work as the main challenges, while according to four others, achieving real legitimacy and value to stakeholders (the graduates of the program, the varying buyer businesses, the staff
members who may currently handle some of these functions themselves, as well as the industry at large who must recognize the accreditation) is the main hurdle. Educational outreach, capacity, and necessary costs are cited by Respondent 7; these potentially would be primary factors in winning commitment, legitimacy and ensuring value so they can be viewed as initial, significant hurdles to get over in the process of solving the larger concerns.

Time away from work is an intriguing topic. Clearly, this is a real issue and awareness of it should inform decision-making and/or design, yet the perception of it as an obstacle is also part of the pernicious cycle of “business as usual”: companies and the industry at large can perpetually decide that there is not enough time to address serious problems and they will continue to fight fires (literally, in many cases) rather than prevent them – which will keep them too busy fighting fires to learn how to prevent them. Table 13 provides the panelists’ insights on whether the proposed MMA could impact the industry.
### Table 13. Responses to Q9.

<table>
<thead>
<tr>
<th></th>
<th>If implemented, could the Manufacturing Manager Accreditation impact the industry?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Yes, of course but it requires a measurable ROI for the organization.</td>
</tr>
<tr>
<td>2.</td>
<td>depends on the final structure</td>
</tr>
<tr>
<td>3.</td>
<td>For sure. It is well recognized that education is the only way out of this mess, but the systems are large and complex.</td>
</tr>
<tr>
<td>4.</td>
<td>Only if it is an ongoing program where the Manager is regularly tested and &quot;re-calibrated&quot; by a very credible third party team - in the same way testing laboratories are accredited annually</td>
</tr>
<tr>
<td>5.</td>
<td>Yes</td>
</tr>
<tr>
<td>6.</td>
<td>Maybe</td>
</tr>
<tr>
<td>7.</td>
<td>Sure--having a certification or third party qualification standard for what qualifies a person to be a manufacturing manager could impact overall quality and also improve other business needs.</td>
</tr>
<tr>
<td>8.</td>
<td>If the industry (individual companies and then the industry as a whole) accepts the accreditation as value-added (do customers care?), then yes it could impact the industry. Many companies won't see the value today unless there is financial incentive to do so--that is, either customers or government requirements drive them to change.</td>
</tr>
<tr>
<td>9.</td>
<td>it may not be the accreditation program, but the hand-on, on-site teaching training program and the real and effective education to raise these professional human resources are necessary. The production technique is really a valuable tradition, not only for apparel industry but also any other areas and it is urgent matter before the generation changes.</td>
</tr>
</tbody>
</table>

The nearly unanimous response to this question is, “Yes, but...” Respondents 1 and 8 focus on the need to clearly communicate value in order to have an impact. Respondent 4 hinges impact on the strict, ongoing testing and re-calibration of the program. Maintenance and management of the MMA should be accounted for in a design plan so subsequent discussion could include what this would entail, how to implement, etc. Respondents 3, 5, and 7 offer definitive positives while 2 and 6 are vaguely on the fence. Respondent 9 seems to call for a similar approach of educational training that is specifically on-site and perhaps
focused on production technique more than sustainability and CSR/HRM aspects. Table 14 offers final remarks from five panelists.

Table 14. Responses to Q10.

<table>
<thead>
<tr>
<th></th>
<th>Any other comments or suggestions on the proposed Manufacturing Manager Accreditation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>One strong recommendation is to reach out to the owners, HR and accounting teams of manufacturing organizations (not just brands) as well as factory-level managers and HR personnel to see what they believe they need training in and what they believe will serve them for their current business and/or to attract future business. They are inundated with too many compliance requirements and training regimes and certifications, so before you market another, you need to understand the local barriers to implementation,</td>
</tr>
<tr>
<td>2.</td>
<td>should look at a sourcing module &amp; insure that you reaching across US &amp; international manufacturing entities...cannot be US focused.</td>
</tr>
<tr>
<td>3.</td>
<td>I think this is a great idea and you should seek endorsements from groups like the AATCC, AAFA, WRAP, OEKO-TEX®, OIA, SAC, ZDHC and others</td>
</tr>
<tr>
<td>7.</td>
<td>Consideration of whether this is a qualification program that will be done in a phased approach.</td>
</tr>
<tr>
<td>8.</td>
<td>If I interpret your intentions correctly, you are suggesting a manufacturing manager accreditation that encompasses not only practical process management but also international law, sustainability, and other societal considerations. It is not impossible to suggest implementing such an accreditation process, but it is a very broad base of information to winnow down to a commonly accepted standard. With so many different supply chain models (including subcontracting, CMT, full package, etc.), agreement on an accreditation basis can be a challenge. While I don't claim to be an expert or know everything about all issues, I would find it interesting to be a part of the dialog. I wish you well on you endeavor!</td>
</tr>
</tbody>
</table>

Final comments touch on the key issue of inclusion. Respondents 1 and 2 concur that a real solution to these global problems must not be U.S.-centric. The full perspectives of factory owners, managers, HR personnel and accounting teams must be included and
influential in further evaluation/testing/design. Respondent 3 focuses on expanding dialogue to include trade organizations, other standards, sustainability-focused groups within the industry or directly connected to it, and seeking to gain/build broad-based support. This could be seen as a subsequent step to engaging supplier side stakeholders. Respondent 8 recommends consulting a wide range of companies within this industry that have varying supply chain models to ensure maximum relevance and usefulness. This step should come before engaging supplier side stakeholders so that varying supplier models can be examined in conjunction with their corresponding western customers. In the event that further research is undertaken, a cross-section of companies and their varying supply chains could perhaps be consulted as a unit. Respondent 7’s suggestion for considering the phases of qualification would be an important step further on, in the event that implementation becomes a reality.
CHAPTER FIVE:
CONCLUSIONS & RECOMMENDATIONS

Introduction

The purpose of this research was to investigate the need for an individual training and accreditation program for factory managers, as a compliance solution that would address the need for greater social sustainability in the global garment supply system. Corporate interest in environmental sustainability has yielded products that are safer for consumers, and many hazardous chemicals have been taken out of the textile and garment supply chain. Sustainability practices in industry, market governance through regulations and standards, and Corporate Social Responsibility within the global textiles and clothing industry are widely represented in the literature. A review of existing literature revealed many challenges and shortcomings yet few comprehensive solutions, such as the example (cited by an expert panelist) of fast-fashion retailer and CSR leader, UNIQLO, currently demonstrates. This thesis investigated solutions to fill this need while addressing the most commonly cited problems, namely a lack of skill and training among factory managers, weak relationships between buyers and suppliers, and too many standards that are not penetrating the core problems.

Research Methodology

Data was collected in three phases: In Phase I, a 20-statement survey using a Likert scale (APPENDIX C) was administered to 14 industry professionals at an environmental committee meeting of a US trade association. Phase II utilized a Delphi panel of six experts to evaluate a contextual model and hypothesis. In Phase III, a broader panel of nine reviewed a second, more refined model and responded to questions concerning need, implementation, and impact in an online survey.

Important Observations from Phase I of the Study

Phase I results reflected an interest in improved sustainability without an equal motivation towards implementation. The importance of worker exploitation and “having a
positive impact in the world” was represented by near unanimous extreme agreement. Statements about the actual level of sustainability of a firm, as well as how that level is represented to customers and how actively it is managed, received only minor agreement.

Underscoring this impression of “interest without action” is a clear lack of familiarity with the United Nations’ Agenda 21 document (an implementation tool). This suggests a disconnect in sustainability knowledge in the garment industry, as well as a failure of the United Nations to promulgate their sustainability Agenda 21 action plan. Survey participants showed strong agreement that more information about Agenda 21 would help determine its usefulness for the current global garment supply chain.

A final point is that survey responses suggested an instinct, if not an overt acknowledgement, that human social issues are sustainability issues: “A profitable company with strong CSR programs is sustainable” was more strongly agreed with than “An environmentally friendly and profitable company is sustainable,” while the comprehensive statement that “A company’s sustainability depends on its environmental, social, and economic impact both global and locally” was the fourth most agreed with statement (out of 20) overall. The data suggests additional progress in implementing social sustainability may be attainable – particularly if clear, informed and feasible ideas for implementation are provided. A larger, more diverse study of sustainable aspirations within the industry versus motivation to act would be useful in confirming these initial findings and moving more aggressively toward an implementation plan.

**Important Observations from Phase II**

The detailed contextual model was created as part of this research to illuminate the many layers between consumers, whose desire drives the industry, and the individual worker, whose rights may be undermined in the effort to satisfy consumptive desire. When viewed alongside the findings from the literature, what was discovered is that even in ideal scenarios where there is some level of certification, the label sewn to the product by the individual worker may only signify those outer layers of brand intention and aspiration to the customer. The context within the facility walls, inside the realm of the factory owner and management,
may remain largely unseen; regulatory schemes do not consistently or reliably penetrate this core area.

From this first contextual model, the factory manager was identified as the crucial actor with the potential to impact this area for the better, bringing it into harmony with the outer world’s beliefs and expectations. This insight, in addition to the findings from the Phase I industry survey as well as the literature review, formed the hypothesis that a comprehensive training and certification program of factory managers could provide a global compliance solution that helps industry implement social sustainability values, harmonizes existing standards and contributes to sustainable development.

The Delphi method was employed in Phase II to test this hypothesis and gauge industry interest among select practitioners who met criteria defining them as experts. Each individual had more than two decades of experience in the textiles and apparel industry, with direct knowledge in the areas of fashion and textiles sourcing and production, supply chain management, manufacturing compliance, labor practices, and environmental sustainability. The panelists’ overall response to the contextual model and explanatory email (APPENDIX F) reflects both an agreement with the root obstacles to social sustainability identified by the research and an interest in working to improve these issues within the industry. This was viewed as sufficiently positive to move the concept forward towards further refinement and assessment with a wider audience.

**Final Conclusions from Phase III**

The refined model captures the available inputs of existing practice (in terms of the internationally accepted global guidance produced by the United Nations, as well as current market governance systems, and an example of a leading firm’s philosophy of worker wellbeing), the main outputs expected from implementation (including benefits to socially responsible investors, whose investments have increased 380% since 1995, according to Delmas & Burbano, 2011), and the new modules which are needed to accomplish these outputs. Most notable among these are “emergency preparedness,” “uncertainty management,” “optimal work culture development,” and “sustainable development.” Sustainable development can only be attained in global garment manufacturing when
conditions favor a long-term relationship between the consumer, brand, and supply base. Opportunistic short-term relationships lead to exploitation and a lack of investment in the local community as far as employment multiplication is concerned.

A more diverse group of industry practitioners were identified for input on Phase III. The group’s involvement with sustainability ranged from none, up to a Head of Sourcing and a former compliance advisor ombudsman. This group was sent the refined model attached to an explanatory email (APPENDIX G) that included a link to a confidential online survey (APPENDIX H). Nine responses were obtained, including one Japanese sourcing agent who is an expert on Asian markets. Years of experience range from 3 years to 32, with at least 25 years of direct industry experience for more than half the respondents.

While the fact that nearly half of those contacted participated could be seen as a supportive reception in itself, results from the second round of discussion indicate strong support for and interest in the idea, as well as numerous useful insights for overcoming the hurdles in implementation that were identified by the panel.

One surprising outcome when asked about current challenges to industry was the panel of industry experts’ lack of attention on “safety.” Only one respondent cited it specifically. In light of the fact that factory safety has been a prime focus of media attention on the clothing industry since April 2013 when the Rana Plaza collapse occurred, this lone listing raises the concern that, even among experts who are actively engaged in an evaluative process regarding improvements to their own industry, safety might tend to be an after-thought that is not instinctively considered in terms of achieving business goals until and unless the subject is forced. This highlights the need for targeted, precise education and training on several of the modules proposed in the second model: facilities planning and layout, safety, emergency preparedness, and uncertainty management.

Another instructive observation is that five respondents listed environmental themes as challenges to industry yet only one mentioned correcting accounting practices to internalize costs that are currently externalized, which is otherwise known as sustainability reporting. Assessing environmental impact details and reframing them as financial costs is a first step for organizations in beginning to actually address environmental issues. Further,
sustainability reporting contributes to building collective action on key environmental concerns by communicating their significance to the public and raising awareness.

Though the explanation for this general oversight by the panel is not likely as simple as a lack of sustainability know-how, the value of detailed and thorough process training on implementing and achieving greater sustainability is nevertheless underscored. The situation indicates that even when looming problems such as global warming, overpopulation, scarce resources, etc. are recognized as pressing challenges, their massive scale may obscure the fundamental steps required to actually make changes. Factory managers who are trained in basic sustainable principles can approach the subject methodically and devise a realistic plan that builds on its own progress incrementally, so that sustainability becomes embedded in the production activities and workplace culture over time.

Not surprising was a majority inclusion of “price pressure” as a major challenge to industry. A May 1, 2014 article in the economy section of The New York Times includes a chart showing that in less than 10 years, clothing prices in the United States have dropped some 18%. Meanwhile childcare and healthcare costs have increased the same amount and the percentage increase of college tuition prices is more than twice as much (Lowrey, for the NY Times, 2014).

The point of the article is that the cost of getting ahead has become out of reach for many Americans even while the price of consumer goods have plummeted and are more affordable than ever. If the trend continues, the need for higher quality products produced with greater efficiency, as well as increased customer loyalty and market growth will only intensify. Production disruptions and public relations/liability nightmares such as the negative social sustainability reports seen in the past few years pose challenges for both the consumer and the brand.

The cost of manufacturing manager training such as this research proposes may be significantly lower than the price of reparations. This is supported in a general sense by the strong views of the architects of the United Nations documents on sustainable development that “the economic costs of action are far less than those of inaction,” as explained by Dr. Gro Brundtland in her foreword remarks in the 2010 book, Cents and Sustainability (Smith et
Further studies to evaluate both the extent of textiles and clothing industry accidents as well as the costs to various stakeholders in recovering from them should be conducted to have a full understanding of the value of prevention.

Continuing on the subject of major challenges to industry, a lack of skilled labor and production technique was mentioned by five respondents, which once again affirms the need for increased education and training. This problem also echoes the United Nations’ Agenda 21 Program for Sustainable Action, which cites both the transfer of technology know-how and the preservation of craft as critical elements of sustainable development. Given the lack of familiarity with Agenda 21 observed in Phase I, it is worth noting the alignment between the panel of experts’ cited challenge and what Agenda 21 recommends. A final category of responses on this subject is “global system dynamics,” such as improving lead times and supply chain transparency, sourcing constraints, factory certification, bringing a new country into the supply chain, and the regulatory enforcement of local governments. The competence of factory managers is critical to many of these and could be seen as insurance against those aspects (such as government regulatory enforcement or sourcing constraints) that are not directly linked.

When asked about similar known accreditation programs, the responses supported the notion that many standards exist that touch on various topics this research tries to address. However, none exist that are as comprehensive and that focus on the training and certification of the manager specifically; instead, the standards are designed to certify an entire facility and/or supply chain. An exception to this is the TES (Textiles Evaluation Specialist) certification in Japan, which does certify an individual, yet is focused on product quality, marketing, and customer service rather than topics relating to compliance management and factory safety. Responses confirmed the need to harmonize with existing standards while reflecting the gaps in standards that this study seeks to address.

Regarding the modules that the refined model proposes, responses were generally approving of the list overall. Most found the list to be satisfactorily comprehensive while three panelists suggested additional topics that are closely related to what was proposed, such as “risk assessment/management” (similar to the proposed “emergency preparedness” and
“uncertainty management”), “quality assurance” and “management systems” (similar to “product integrity” and “project management”), and “apparel production technology/techniques,” which could possibly fall within “product integrity” and “project management” but may indeed merit a specific training module all its own.

Answers to the question of whether the proposed Manufacturing Manager Accreditation (MMA) could be implemented locally or via distance learning emphasized the need for both methods, reflecting, again, support for key elements of the hypothesis. Respondents’ comments describe the necessity of local, hands-on training and communications in order to be effective, as well as the importance of global consistency in order to maintain credibility and legitimacy. Further studies are necessary to evaluate the challenges of a combined approach as well as how to achieve both cultural relevancy in varying regions and global credibility of materials that will also be effective in application.

When asked about the biggest hurdles to implementation, panelists were split into two camps: those who saw employer commitment and time away from work as the biggest hurdles and those who were concerned with legitimacy to stakeholders. On both fronts, it is clear that demonstrating value and emphasizing the vital contributions of surrounding stakeholders is key. Further investigation of how best to measure and transmit this information (via pilot program, concentrated review of similar training programs and impact, or some other method) would be essential to developing strategy. However, continued dialogue with diverse stakeholder groups should drive the evolution of a solution that meets the needs of and is valuable to all who are impacted.

With regard to whether the proposed MMA could impact the industry, six out of nine responses were affirmative while two were on the fence. One panelist suggested a very similar program that is more focused on production technique. The need to communicate value, the need for strict, ongoing testing and re-calibration, as well as the potential need for a financial incentive such as customer demand for change, or government enforcement of it, were all cited as conditions for potential impact. The final comments of the panelists are further affirmative in that they call for expanding the research to include the relevant stakeholders on the manufacturing side to inform the proposed MMA, to ensure that the
design is sufficiently global rather than “US focused,” to acquire “endorsements” from industry trade groups, and to ensure accommodation of varying supply chain models. One respondent described it as “a great idea” and another indicated interest in participating further.

**Limitations of the Study**

The solution proposed in the work is intended to be global, yet the survey data substantially reflects the views of North America, which may not be shared by industry professionals in other parts of the world. The variations that exist in the models and needs of companies on both sides of textiles and clothing trade have not been fully investigated in this research. Further, the intent of the Delphi Method is to conduct iterative rounds until absolute consensus is achieved. However, only two rounds were possible under the time constraints. Even though unanimous agreement was not achieved, it should be noted that consensus is not necessary at this stage of investigation. The range of views shared by the panel is useful to gaining a better understanding of industry professionals’ response to the problems plaguing the global textiles and clothing industry, as well as this initial proposed solution to some of them.

**Recommendations for Future Work**

As suggested by the Phase III panelists, the scope of study should be expanded to include perspectives from companies within the textile, fashion and apparel complex with varied supply chain models, as well as other sourcing nations, Europe, Australia, etc. (Japan and the United States were the only countries represented in this study.) Further, input from supplier side stakeholders should be a priority focus, with efforts to capture the distinctive struggles from region to region.

Once a fuller perspective is attained, next steps could be:

1. Engage trade associations, certification organizations, sustainability-driven industry groups, and sustainable development-focused global groups
2. Explore delivery options for the MMA
3. Build a new model for the MMA and evaluate by engaging practitioners
4. Develop a pilot program for testing
REFERENCES


Donaldson, T. New survey reveals only 2% of Bangladeshi garment workers can identify a fire hazard. Sourcing Journal Online, , February 25, 2014.


Appendix A: IRB Submission Form
North Carolina State University
Institutional Review Board for the Use of Human Subjects in Research
SUBMISSION FOR NEW STUDIES

GENERAL INFORMATION

1. Date Submitted: September 30, 2013
2. Title of Project: Study of Sustainability Attitudes and Practices in the Textiles and Apparel Industry
3. Principal Investigator: Anna Troupe
4. Principal Investigator Email: antroupe@ncsu.edu
5. Department: COT, Textiles Technology and Management
6. Campus Box Number: 8301
7. Phone Number: 919-515-6500
8. Faculty Sponsor Name if Student Submission: Dr. Hoon Joo Lee
9. Faculty Sponsor Email Address if Student Submission: hlee@ncsu.edu
10. Source of Funding (Sponsor, Federal, External, etc):
    If externally funded, include sponsor name and university account number:
    RANK:
    Faculty: [ ] Student: [ ] Undergraduate [ ] Masters [ ] PhD [ ] Other:

As the principal investigator, my signature testifies that I have read and understood the University Policy and Procedures for the Use of Human Subjects in Research. I assure the Committee that all procedures performed under this project will be conducted exactly as outlined in the Proposal Narrative and that any modification to this protocol will be submitted to the Committee in the form of an amendment for its approval prior to implementation.

*Electronic submissions to the IRB are considered signed via an electronic signature*

Principal Investigator:

Anna Troupe
(typed/printed name) 09-20-2013
(signature) (date)

As the faculty sponsor, my signature (or electronic submission) testifies that I have reviewed this application thoroughly and will oversee the research in its entirety. I hereby acknowledge my role as the principal investigator of record.

Faculty Sponsor:

Hoon Joo Lee
(typed/printed name) 09-20-2013
(signature) (date)

PLEASE COMPLETE AND E-MAIL TO: irb-coordinator@ncsu.edu

Please include consent forms and other study documents with your application and submit as one document. *Electronic submissions to the IRB are considered signed via an electronic signature. For student submissions this means that the faculty sponsor has reviewed the proposal prior to it being submitted and is copied on the submission.

**********************************************************************

For SPARCS office use only

Reviewer Decision (Expedited or Exempt Review)
[ ] Exempt [ ] Approved [ ] Approved pending modifications [ ] Table

Expedited Review Category: [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8a [ ] 8b [ ] 8c [ ] 9

Reviewer Name

Signature

Date

10/11/13

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Appendix B: IRB Exemption Form
From: Jennifer Ofstein, IRB Coordinator  
North Carolina State University  
Institutional Review Board  

Date: October 2, 2013  

Title: Study of Sustainability Attitudes and Practices in the Textiles and Apparel Industry  
IRB#: 3519  

Dear Anna Troupe,  

The research proposal named above has received administrative review and has been approved as exempt from the policy as outlined in the Code of Federal Regulations (Exemption: 46.101. b.2). Provided that the only participation of the subjects is as described in the proposal narrative, this project is exempt from further review. This approval does not expire, but any changes must be approved by the IRB prior to implementation.

NOTE:  
1. This committee complies with requirements found in Title 45 part 46 of The Code of Federal Regulations. For NCSU projects, the Assurance Number is: FWA00003429.

2. Any changes to the research must be submitted and approved by the IRB prior to implementation.

3. If any unanticipated problems occur, they must be reported to the IRB office within 5 business days.

Please forward a copy of this letter to your faculty sponsor, if applicable.

Thank you.

Sincerely,  

Jennifer Ofstein  
NC State IRB
North Carolina State University
Institutional Review Board for the Use of Human Subjects in Research
GUIDELINES FOR A PROPOSAL NARRATIVE

In your narrative, address each of the topics outlined below. Every application for IRB review must contain a proposal narrative, and failure to follow these directions will result in delays in reviewing/processing the protocol.

A. INTRODUCTION

1. Briefly describe in lay language the purpose of the proposed research and why it is important.

   My thesis goal is to improve sustainability in the textiles and clothing industry. I use the United Nations' Agenda 21 document as the main resource because it is a comprehensive action plan that is both voluntary and internationally agreed upon. The decision to make this my thesis came as a result of being invited by the American Apparel and Footwear Association (AAFA) to present Agenda 21 to their members. I intend to distribute a survey at this event.

   The purpose of the survey is to understand what these companies’ knowledge of sustainability is, what their attitudes, assumptions, and actual practices are. I also need to study the relationship between company communications about sustainability to their customers and the sustainability attitudes and knowledge that their customers maintain.

2. If student research, indicate whether for a course, thesis, dissertation, or independent research.

   This is my MS thesis.

B. SUBJECT POPULATION

1. How many subjects will be involved in the research?

   20 to 100

2. Describe how subjects will be recruited. Please provide the IRB with any recruitment materials that will be used.

   I'm going to give a survey during the meeting of the American Apparel and Footwear Association to any member who volunteers to take it.

3. List specific eligibility requirements for subjects (or describe screening procedures), including those criteria that would exclude otherwise acceptable subjects.

   All present members of this industry organization are eligible.

4. Explain any sampling procedure that might exclude specific populations.

   This sampling procedure focuses on employees of the textiles, apparel and footwear industry without excluding any population.

5. Disclose any relationship between researcher and subjects - such as, teacher/student; employer/employee.

   I myself am a member of the AAFA, through my affiliation with NCSU COT, but I am not otherwise connected to the other member companies who may be represented at this event. I will be making a presentation on related material later in the afternoon, after the survey has been completed.

6. Check any vulnerable populations included in study.

   □ minors (under age 18) - if so, have you included a line on the consent form for the parent/guardian signature
   □ fetuses
   □ pregnant women
   □ persons with mental, psychiatric or emotional disabilities
C. PROCEDURES TO BE FOLLOWED

1. In lay language, describe completely all procedures to be followed during the course of the experimentation. Provide sufficient detail so that the Committee is able to assess potential risks to human subjects. In order for the IRB to completely understand the experience of the subjects in your project, please provide a detailed outline of everything subjects will experience as a result of participating in your project. Please be specific and include information on all aspects of the research, through subject recruitment and ending when the subject's role in the project is complete. All descriptions should include the informed consent process, interactions between the subjects and the researcher, and any tasks, tests, etc. that involve subjects. If the project involves more than one group of subjects (e.g. teachers and students, employees and supervisors), please make sure to provide descriptions for each subject group.

The survey will take place at the environmental committee meeting of the American Apparel and Footwear Association on November 19, 2013 during the lunch recess. Prior to recess, an announcement will be made that the afternoon speaker (Anna Troupe) has brought a questionnaire and would appreciate the participation of anyone who is interested in contributing to sustainability research. They will be reminded to read and sign the consent form before filling out the survey. They will be given a chance to ask any questions. I will pass out the forms and pencils to anyone interested, and take up the completed forms when they are finished. The completed forms will be sealed in a large envelope and kept until data can be recorded onto a password-protected computer; originals will then be shredded.

2. How much time will be required of each subject?

   30 minutes

D. POTENTIAL RISKS

1. State the potential risks (physical, psychological, financial, social, legal or other) connected with the proposed procedures and explain the steps taken to minimize these risks.

   I see no risks connected with these procedures.

2. Will there be a request for information that subjects might consider to be personal or sensitive (e.g. private behavior, economic status, sexual issues, religious beliefs, or other matters that if made public might impair their self-esteem or reputation or could reasonably place the subjects at risk of criminal or civil liability)?

   No.

   a. If yes, please describe and explain the steps taken to minimize these risks.

      N/A

   b. Could any of the study procedures produce stress or anxiety, or be considered offensive, threatening, or degrading? If yes, please describe why they are important and what arrangements have been made for handling an emotional reaction from the subject.

      No.

3. How will data be recorded and stored?
Data will be recorded onto a password-protected computer; original forms will then be shredded.

a. How will identifiers be used in study notes and other materials?
   Survey is anonymous.

b. How will reports will be written, in aggregate terms, or will individual responses be described?
   Both will be used. The aggregate picture is important but insightful and relevant individual comments that do not jeopardize the identity of the company or employers may be used as well.

4. If audio or videotaping is done how will the tapes be stored and how/when will the tapes be destroyed at the conclusion of the study.
   N/A

5. Is there any deception of the human subjects involved in this study? If yes, please describe why it is necessary and describe the debriefing procedures that have been arranged.
   No.

E. POTENTIAL BENEFITS
   This does not include any form of compensation for participation.
   1. What, if any, direct benefit is to be gained by the subject? If no direct benefit is expected, but indirect benefit may be expected (knowledge may be gained that could help others), please explain.
   The respondent will be contributing to the advancement of sustainability and sustainable development in their industry.

F. COMPENSATION
   Please keep in mind that the logistics of providing compensation to your subjects (e.g., if your business office requires names of subjects who received compensation) may compromise anonymity or complicate confidentiality protections. If, while arranging for subject compensation, you must make changes to the anonymity or confidentiality provisions for your research, you must contact the IRB office prior to implementing those changes.
   1. Explain compensation provisions if the subject withdraws prior to completion of the study.
   There are none.

   2. If class credit will be given, list the amount and alternative ways to earn the same amount of credit.
   N/A

G. COLLABORATORS
   1. If you anticipate that additional investigators (other than those named on Cover Page) may be involved in this research, list them here indicating their institution, department and phone number.
   N/A

   2. Will anyone besides the PI or the research team have access to the data (including completed surveys) from the moment they are collected until they are destroyed.
   NO

H. CONFLICT OF INTEREST

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1. Do you have a significant financial interest or other conflict of interest in the sponsor of this project? **NO**

2. Does your current conflicts of interest management plan include this relationship and is it being properly followed? **N/A**

I. ADDITIONAL INFORMATION
1. If a questionnaire, survey or interview instrument is to be used, attach a copy to this proposal. ATTACHED

2. Attach a copy of the informed consent form to this proposal. ATTACHED

3. Please provide any additional materials that may aid the IRB in making its decision. N/A

J. HUMAN SUBJECT ETHICS TRAINING
*Please consider taking the Collaborative Institutional Training Initiative (CITI), a free, comprehensive ethics training program for researchers conducting research with human subjects. Just click on the underlined link.*
Appendix C: Phase I Industry Questionnaire

This is a voluntary, anonymous survey that you may participate in if you so choose. Please read carefully the attached document of informed consent before deciding whether to participate. If you do choose to complete this survey, please be sure to sign the consent form. If you have any concerns or questions related to the survey, please follow the instructions and contact information provided on the consent document.

First, a few questions about you:

How old are you? _____ What is your gender? _____

What is your industry and department?

How long have you been in this position?

For the next several questions, please choose a number from 0 to 10 and write it next to each statement to indicate how much you agree with that statement.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
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<td></td>
<td></td>
<td></td>
<td>Extremely</td>
</tr>
</tbody>
</table>

_____ An environmentally-friendly and profitable company is sustainable.

_____ A profitable company with strong corporate social responsibility (CSR) programs is sustainable.

_____ A company’s sustainability depends on its environmental, social and economic impact on a global level, as well as a local level.

_____ I work at a sustainable company.

_____ Sustainability along the supply chain is a major concern at my company.

_____ Worker exploitation and/or poor labor practices concerns me personally.

_____ I feel welcome to voice concern about unsustainable practices at work.

_____ I feel welcome to propose sustainable initiatives at work.

_____ My company only chooses sustainability initiatives that immediately cut costs.

_____ My company wants to have a positive impact in the world.

_____ My company wants to be seen as having a positive impact in the world.

_____ Our customers/clients care equally about social issues like worker safety and the environment.

_____ The subject of sustainability comes up frequently at work.

_____ My company discusses sustainability with customers/clients frequently.
My company accurately represents its level of sustainability to customers.

My company has announced sustainable initiatives (either internally or publicly) without following through on them.

When a sustainability initiative fails, there are specific employees tasked with evaluating and resolving the challenges.

I am familiar with the United Nations’ sustainable action plan, Agenda 21.

I believe Agenda 21 could be a helpful resource for my company to become more sustainable.

I need more information to know whether Agenda 21 could help my company become more sustainable.
Appendix D: IRB Revision Request Form

North Carolina State Institutional Review Board
STUDY REVISION REQUEST FORM

To have a study revision approved, please complete this form and send it to ncsuirboffice@ncsu.edu with any necessary attachments.

<table>
<thead>
<tr>
<th>Study Information</th>
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</thead>
<tbody>
<tr>
<td>IRB #: 3519</td>
</tr>
<tr>
<td>IRB Approval Expiration Date: N/A</td>
</tr>
<tr>
<td>Project Title: Study of Sustainability Attitudes and Practices in the Textiles and Apparel Industry</td>
</tr>
<tr>
<td>Principal Investigator(s): Anna Troupe</td>
</tr>
<tr>
<td>E-mail Address for Principal Investigator(s): <a href="mailto:amtroupe@ncsu.edu">amtroupe@ncsu.edu</a></td>
</tr>
<tr>
<td>Best Contact Phone Number: 503.704.6975</td>
</tr>
<tr>
<td>Faculty Sponsor(s): Dr. Trevor Little</td>
</tr>
<tr>
<td>E-mail Address for Faculty Sponsor: <a href="mailto:tlittle@ncsu.edu">tlittle@ncsu.edu</a></td>
</tr>
</tbody>
</table>

IMPORTANT NOTES:
- Approval for a revision does not change the IRB approval date of your study.
- Do NOT attach a revised protocol. If revisions dramatically change your approved protocol, you may be asked to submit a new or revised protocol later.
- Please make sure to submit all changes to your study materials with revisions/edits clearly tracked or highlighted.
- In the body of this form, please indicate what attachments pertain to what revision.

******************************************************************************
(For IRB office use only)

<table>
<thead>
<tr>
<th>Review Received:</th>
<th>Administrative</th>
<th>Expedited</th>
<th>Full Board</th>
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</thead>
<tbody>
<tr>
<td>Review Decision:</td>
<td>Approve</td>
<td>Approve with Modifications</td>
<td>Not Approved</td>
</tr>
</tbody>
</table>

Review Notes:

Reviewer: ______________________ Signature: ______________________ Date: _____________
Appendix E: Revision Approval Form

North Carolina State Institutional Review Board
STUDY REVISION REQUEST FORM

To have a study revision approved, please complete this form and send it to ncsuirboffice@ncsu.edu with any necessary attachments.

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<td>Principal Investigator(s): Anna Troupe</td>
<td></td>
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<tr>
<td>E-mail Address for Principal Investigator(s): <a href="mailto:amlroupe@ncsu.edu">amlroupe@ncsu.edu</a></td>
<td></td>
</tr>
<tr>
<td>Best Contact Phone Number: 503.704.6975</td>
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</tbody>
</table>

Faculty Sponsor(s): Dr. Trevor Little
E-mail Address for Faculty Sponsor: tlittle@ncsu.edu

IMPORTANT NOTES:
- Approval for a revision does not change the IRB approval date of your study.
- Do NOT attach a revised protocol. If revisions dramatically change your approved protocol, you may be asked to submit a new or revised protocol later.
- Please make sure to submit all changes to your study materials with revisions/edits clearly tracked or highlighted.
- In the body of this form, please indicate what attachments pertain to what revision.

(For IRB office use only)

Review Received: Administrative Expedited Full Board

Review Decision: Approve Approve with Modifications Not Approved

Review Notes:

Reviewer: ___________________________ Signature: ___________________________ Date: 2/19/14
Thank you so much for your willingness to contribute to our research in the field of sustainability. We have looked at the issues of sustainability from the human resources perspective with a goal of improving our industry’s practices and image.

First, we prepared a basic contextual model of connectedness from the consumer to the direct labor source. Attached is the model of the key activities and entities that separate the consumer and the individual worker. It became clear that talking to the consumer about any direct labor issues may make the consumer stop purchasing from a country or region even though there may be a number of sound labor practices already in place. Further, it became clear that encouraging a Brand to source from a different region or country does not provide a long term solution.

The current means of addressing compliance - namely, public and private regulation including codes, laws, certifications, and standards -- are challenged to penetrate the numerous layers of context to solve the core human labor issues in an enduring (sustainable) way. In no way does this imply that standards and certifications are not important, only that they have yet to create an integrated solution to manufacturing management.

We see (based on the contextual model) manufacturing management as a central stakeholder with significant untapped potential to improve this scenario on a broad scale. Therefore, we are investigating if a certification program for “factory” managers would result in an improved global fashion supply system that brings sustainability to countries, regions, and the human resources. In turn, this has the potential to transform manufacturing into a trusted ally - for human resources, for brands, for owners, for investors, and all the buyer companies who depend on safe and efficient production every day.

As an expert in this industry, your input is invaluable as we form our concept. At this stage of the investigation, we are seeking input as to the viability of the concept. Clearly, if viable, there are many additional tasks in terms of defining content, implementation, etc.

We look forward to hearing from you.

Sincerely,
Anna Troupe and Trevor Little
Appendix G: Additional Material for IRB# 3519 Revision,
Phase III Email to Expanded Delphi Panel

Thank you for your feedback on our concept for establishing a program leading to Manufacturing Managers that have the background needed to produce apparel. The premise is that the factory supplying garments should have a certified (accredited) Manager in charge of their operations and the brand should be able to show that they are sourcing from such a factory.

Attached is a revised model that captures current inputs and anticipated outputs, based on collective feedback and our own research. A short survey available at https://www.surveymonkey.com/s/RXQ5SZ5 documents and permits interpretation of the issues and opportunities for the global apparel complex as you see them.

We call on your expert perspective regarding Global Sustainability Stewardship to comment on all aspects of the proposed Manager Accreditation program, especially in terms of content and implementation, by completing the survey. Your input will contribute to Anna Troupe’s Master’s Thesis, which explores business solutions for our industry that could also impact global sustainable development efforts. It is desirable to receive your completed survey no later than March 21st, 2014.

We truly appreciate your interest in this subject matter and again encourage completion of the survey.

Sincerely,
Anna Troupe and Trevor Little
# Expert Panel Survey on Manufacturing Manager Accreditation

1. What is your current involvement with sustainability?

2. How many years of experience do you have in the textiles and apparel industry?

3. What do you think are the three biggest challenges this industry faces today?

4. Please list known accreditation programs for manufacturing managers.

5. Referring to the diagram’s central list, do you think any modules should be added or removed?

6. What items do you think are priority for the manager’s dashboard?

7. Do you think Manufacturing Manager Accreditation can be implemented substantially locally? Or via Distance Learning?

8. What are the biggest hurdles you see in implementing this proposed Manufacturing Manager Accreditation?

9. If implemented, could Manufacturing Manager Accreditation impact the industry?

10. Any further comments or suggestions on the proposed Manufacturing Manager Accreditation?