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Miriam Bodenheimer

BEHAVIORAL TRANSITIONS TO SOCIAL SUSTAINABILITY IN GLOBAL PRODUCTION NETWORKS

Case Studies from the Smartphone and Garment Sectors

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Behavioral Transitions to Social Sustainability in Global Production Networks:

Case Studies from the Smartphone and Garment Sectors

Inauguraldissertation

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vorgelegt von

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

AGT *Dutch Agreement on Sustainable Garments and Textiles*

AIP *Apparel Industry Partnership*

BBC *British Broadcasting Corporation*

BMZ *German Ministry of Economic Cooperation and Development*

BSCI *Business Social Compliance Initiative*

BTS *Behavioral Transitions to Sustainability*

CADM *Comprehensive Action Determination Model*

CAP *Corrective Action Plan*

C-CADM *Corporate Comprehensive Action Determination Model*

CCC *Clean Clothes Campaign*

C-DILC *Cyclical Dialectic Issue Lifecycle*

CEO *Corporate Executive Officer*

CLB *China Labor Bulletin*

CLW *China Labor Watch*

CMT *Cut-Make-Trim*

CSR *Corporate Social Responsibility*

CTSCA *California Transparency in Supply Chains Act*

DILC *Dialectic Issue Lifecycle*

DRC *Democratic Republic of the Congo*

ECCHR *European Centre for Constitutional and Human Rights*

EICC *Electronics Industry Citizenship Coalition*

EMS *Electronics Manufacturing Service*

EPZ *Export Processing Zone*

ETI *Ethical Trading Initiative*

EU *European Union*

FLA *Fair Labor Association*

FWF *Fair Wear Foundation*

GCC *Global Commodity Chain*

GeSI *Global e-Sustainability Initiative*

GPN Global Production Network

GPST *German Partnership for Sustainable Textiles*

GVC *Global Value Chain*

ICT *Information and Communications Technology*

ILO *International Labor Organization*

ISO *International Organization for Standardization*

ITRI *Indonesian Tin Working Group*

KComWel *Korea Workers' Compensation & Welfare Service*

MFA Multi-Fiber Arrangement

MLP *Multi-Level Perspective*

NAM *Norm-Activation Model*

NBC *National Broadcasting Company*

NGO *Non-Governmental Organization*

NLC *National Labor Committee*

OBM *Original Brand Manufacturers*

ODM *Original Design Manufacturers*

OECD *Organization for Economic Cooperation and Development*

OEM *Original Equipment Manufacturer*

PBC *Perceived Behavioral Control*

PILC *Public Issue Lifecycle*

PR *Public Relations*

RMG *Ready Made Garment*

SACOM *Students and Scholars Against Corporate Misbehavior*

SAI *Social Accountability International*

SDG *Sustainable Development Goal*

SHARPS *Supporters for the Health and Rights of People in the Semiconductor Industry*

SMO *Social Movement Organization*

SSBC Model *Stage Model of Self-Regulated Behavioral Change*

SSI *Social Sustainability Issue*

TEF *Triple Embeddedness Framework*

TNC *Transnational Corporation*

TPB *Theory of Planned Behavior*

UK *United Kingdom*

UN *United Nations*

US *United States*

USAID *United States Agency for International Development*

USAS *United Students Against Sweatshops*

WRC *Worker Rights Consortium*

WTO *World Trade Organization*

PART I: INTRODUCTION

1 Social Sustainability in Global Production Networks

The process of globalization has increased the complexity of global production networks (GPNs) significantly. The working conditions, especially in those developing countries that make up the beginning of GPNs, are often precarious at best. As a result of social problems, some argue that the global division of labor may often not lead to development and progress, but rather to an increase in the gap between the rich and the poor (Bhatia 2013).

From a long-term perspective, this approach to production is problematic not only with regard to the social, but also the economic dimension of sustainability. Already in 2006, the Harvard Business Review described corporate social responsibility (CSR) both as an "inescapable priority for business leaders in every country" (Porter and Kramer 2006, p. 78) and as a source of innovation potential and competitive advantage. Likewise, the European Commission sees CSR as "behaviour by businesses over and above legal requirements, voluntarily adopted because businesses deem it to be in their long-term interest" (COM(2002)347, p. 5). While CSR activities are normally aimed at those areas of society that are directly affected by the conduct of a particular business, social sustainability in the business context is here defined as a broader concept. Savitz and Weber describe a sustainable corporation as

> "one that creates profit for its shareholders while protecting the environment and improving the lives of those with whom it interacts. It operates so that its business interests and the interests of the environment and society intersect. [Corporate social sustainability includes] a wide array of business concerns about the natural environment, workers' rights, consumer protection, and corporate governance, as well as the impact of business behavior on broader social issues, such as hunger, poverty, education, healthcare and human rights - and the relationship of all these to profit" (2006, pp. x–xii).

To achieve the degree of social sustainability described here, it is not enough to focus only on the corporation itself; rather, both its entire value chain and customer base must be examined. Kaplinsky and Morris argue that taking into consideration the "dynamic flow of economic, organisational and coercive activities between producers within different sectors […] on a global scale" (2001, p. 2) is key to accurately portraying and understanding the power asymmetries that characterize many of the supplier-buyer relationships along the chain. These dynamics lead not only to a "process of unequalization" (Kaplinsky 2004, p. 1; as cited in Bhatia 2013, p. 316), in which gains are distributed unequally among the participants,[1] but often also to significant short-comings with regard

1 Most value capture in GPNs takes place during pre- and postproduction phases (design and marketing, in particular), which are often situated in industrial countries, rather than during production, which frequently takes place in developing countries.

to social sustainability that go far beyond the distribution of income (Kaplinsky and Morris 2001).

The implementation of Savitz and Weber's ambitious definition presents a number of significant challenges, particularly in the context of GPNs. Due to their transnational nature, GPNs cannot be fully regulated on a national or even supranational (i.e. EU) basis, since the laws of any given state or organization always touch on only a small portion of the entire chain. Moreover, the complexity of most GPNs leads to a lack of transparency regarding its members, so that brand-name firms often do not know who participates in their value chain beyond the first or second tier. This obscurity is becoming increasingly problematic for brand-name manufacturers, since supply chains are "sticky", meaning that the final manufacturer is often held publicly accountable for problems in the production network, even if he was completely unaware of them (Lessard 2013, p. 213).

This chain liability leads to considerable reputational risk for all firms with a complex and global production network (Benoit et al. 2018). It also indicates that both consumers, using their demands as an instrument to put pressure on companies, and suppliers of alternative products with a strong orientation towards sustainability can play an important role in furthering a transition towards greater sustainability in global production and consumption networks. Since the trend towards greater media attention not only on environmental, but also on social risks in production is likely to continue increasing (Rathke 2016a, 2016b), it is advisable for all companies to begin proactively anticipating (and preventing) such problems, rather than only reacting to them after the fact (Leitschuh-Fecht and Bergius 2007). This means firmly embedding aspects of social sustainability in their management, sourcing, and marketing practices and striving for continuous improvement in their compliance with sustainability criteria, both internally and throughout the entire production network.

While a few approaches have been tried on a small scale, an extensive focus on social sustainability in GPNs is still rare. Studies predict, however, that the demand for "fair" products will continue to rise (BMBF 2014b; The Nielsen Company 2015) and thus it is key for such socially sustainable approaches to disseminate so that firms can continue to stay competitive. While this transition process may initially be met with resistance, meeting the challenge early on will likely open up valuable opportunities in the future (BMBF 2014a; Henderson 2015).

From a theoretical perspective, comprehensive approaches to enshrine social sustainability in GPNs can be seen as a social innovation, which Howaldt and Schwarz define as follows:

> "The substantive distinction between social and technical innovations can be found in their immaterial intangible structure. The innovation does not occur in the medium

> of technical artifact but at the level of social practice. A social innovation is [a] new combination and/or new configuration of social practices in certain areas of action or social contexts prompted by certain actors or constellations of actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices" ((2010, p. 21)).

Furthermore, a shift from current operational practices in GPNs to more socially sustainable ones can be categorized as a transition. These types of transitions are described in theories such as Technological Innovation Systems, Transition Management, Strategic Niche Management and the Multi-Level Perspective (Lachman 2013), of which I will focus primarily on the last of these.

The aim of this dissertation is therefore two-fold. First, to expand upon prior theoretical work to create a model with which the status of ongoing behavioral transitions to sustainability can be analyzed and secondly, to test the applicability of this model by applying it in two case studies. With regard to the theoretical work, I will present a heterodox and heuristic model to analyze what I call behavioral transitions to sustainability (BTS), using a combination of the Multi-Level Perspective (MLP), Dialectic Issue Lifecycles (DILC) and two behavioral models. With strong roots in science and technology studies, transition theories like the MLP approach have to date had a strong focus on technological transitions. However, in the context of sustainability transitions, which often require a change in behavior (Kemp and van Lente 2011), technological innovations are not always an effective solution (Lachman 2013). Particularly in the context of social sustainability, which so far has been neglected in the field of sustainability transitions, the focus of transitions needs to be first and foremost on changing attitudes, behaviors and the criteria used for decision-making, rather than on changing the technology employed, both on the part of producers and consumers (Lachman 2013). The focus in BTS is therefore on social innovations that involve changing existing behaviors to address specific sustainability issues.

I suggest that an analysis using the birds-eye view approach provided by the MLP can lead to valuable insights for behavioral transitions to sustainability. However, as "an abstract analytical framework that identifies relations between general theoretical principles and mechanisms," (Geels and Schot 2010, p. 19) it cannot be used to study specific details of the processes and interactions taking place during a transition: complementary theories are needed to operationalize the MLP (Geels 2011). However, while a number of authors have applied Strategic Niche Management and/or Transition Management to concepts akin to BTS as they will be defined in Chapter 3.1 (Morris et al. 2014; Rotmans and Fischer-Kowalski 2009), few studies have used the MLP for this purpose (Elzen et al. 2011 being a notable exception). This dissertation seeks to address this gap in the current literature by introducing a heterodox and heuristic model based on the MLP, the

DILC model and two models of behavioral change to operationalize the analysis of behavioral transitions to sustainability.

Once the BTS model has been presented in detail, it will be applied to two in-depth case studies on possible behavioral transitions towards greater social sustainability in the smartphone and garment sectors. On the supply side, both of these sectors involve complex GPNs that include both large branded transnational corporations as well as smaller, less well-known enterprises throughout the supply chain, whose power within the global network differs substantially in accordance with their size and position in the GPN. The two sectors differ on the supply side in that the smartphone sector features a much smaller number of prominent brands than the garment sector. This difference also extends to the niches of each sector: whereas there are already quite a few (more or less) 'fair' providers of clothing, there are only one or two companies providing more socially sustainable smartphones.

Within the realm of public discourse, both industries have been subject to a continuously increasing amount of media and political attention over the last 25 years with respect to working conditions and the social impact of their GPNs. In both cases, there have also been a few significant scandals and events that have caused spikes in public attention on an international scale. Finally, on the demand side, Western industrialized societies are currently experiencing an era of (over)abundance in which conspicuous consumption of branded products is frequently used to convey particular identities (Han et al. 2010; Dobers and Strannegård 2005). Both the smartphone and garment sector feature prominently in this context, selling products whose value is perceived to be made up of far more than the sum of their functions. At the same time, the two product categories differ in that smartphones are much larger investments than individual items of clothing, usually resulting in a larger number of discrete purchasing decisions in the garment than in the smartphone sector. These two industries are thus characterized by enough similarities to allow for a plausible comparison, while also including a number of key differences along which insights into the different developmental stages of a BTS can be examined. Methodologically, the two case studies use an empirical mixed-methods approach consisting of a quantitative media coverage analysis and a qualitative systematic process analysis of historical events.

The dissertation is divided into four parts: Part I introduces the subject matter and motivations, Part II focuses on theory, Part III on the case studies and Part IV on the discussion and conclusion of the work as a whole.

In Part II, Chapter 2 sketches the current state of the art of those theories and models that form the basis of the Model of Behavioral Transitions to Sustainability, which is presented in detail in Chapter 3. Chapter 4 concludes the theoretical section with an overview of the theoretical basis of Global Production Networks.

Part III begins with a presentation of the methodology and data sources used in the case studies in Chapter 5. Chapter 6 presents the first case study on smartphones. The second case study on the garment industry in Chapter 7 is sub-divided into two sections, one on the US and one on the European garment sector, because their development with regard to BTS progressed quite differently. Chapters 6 and 7 are primarily focused on detailing the empirical results of each case study, while the analysis and interpretation of the results takes place in Chapter 8. This chapter compares the results of the two case studies and seeks to interpret the development of each transition to date from a broader, more generalizable perspective. This also includes conclusions pertaining to the current status of the transition in each sector.

In Chapter 9, which makes up Part IV, the findings of the dissertation are summarized and discussed. I provide recommendations for action for brand name firms, policymakers, civil society[2] and trade unions, as well as presenting future research questions that have arisen in the course of this work. Finally, the chapter concludes with methodological reflections on the theories and methods that were used in this dissertation.

[2] In this dissertation, I use the term 'civil society' in the sense of the "activist version" described by Mary Kaldor, meaning "'new social movements' [...] that developed after 1968 concerned with new issues, like peace, women, human rights, the environment and new forms of protest" (2003, p. 588). Since the 1990s, these also increasingly include "transnational networks of activists who came together on particular issues - landmines, human rights, climate change, [... and] corporate responsibility" (Kaldor 2003, p. 588). This definition stands in contrast to what Kaldor calls the "neoliberal version", where "the key agents are not social movements but NGOs," which she describes as "tamed social movements, [i. e.] the respectable opposition - the partner in negotiations" (Kaldor 2003, p. 589). Nevertheless, NGOs - in their role as members of a larger social movement alongside e.g. trade unions, activist journalists, niche actors and affected workers - will play an important role in the analysis.

PART II: THEORY

2 Theoretical Background[3]

This chapter will review the state of the art of those three theoretical constructs that form the foundation of the Model of Behavioral Transitions to Sustainability. Chapter 2.1 focuses on socio-technical transitions, the structure of the MLP, sustainability transitions and transition pathways. Chapter 2.2 shows the evolution from Public to Dialectic Issue Lifecycles, including their recent empirical applications. Finally, Chapter 2.3 introduces two related models of behavioral change, the stage model of self-regulated behavioral change (focusing on individuals) and the corporate comprehensive action determination model (focusing on companies).

2.1 The Multi-Level Perspective on Socio-Technical Transitions (MLP)

Socio-technical transitions "are seen as co-evolutionary processes, which take decades to unfold and involve many actors and social groups" (Geels 2012, p. 471). The Multi-Level Perspective on socio-technical transitions shown in Figure 1 shows a visual representation of these processes and consists of a three-tiered framework made up of the landscape, regime, and niche levels, where each level represents a "heterogeneous socio-technical configuration" (Geels and Schot 2010, p. 18).

2.1.1 Socio-Technical Regimes

At the center of the three levels is the socio-technical regime. As originally developed in the context of engineering, a regime is "the rule-set or grammar embedded in a complex of engineering practices, production process technologies, product characteristics, skills and procedures, ways of handling relevant artifacts and persons, ways of defining problems – all of them embedded in institutions and infrastructures" (Rip and Kemp 1998, p. 338). While technological regimes primarily involve engineers, socio-technical regimes can involve a much larger set of actors, including researchers, regulators, users and consumers, lobbyists and civil society. These groups interact based on clear and articulated rules and are, in various configurations, mutually dependent upon each other within the regime (Geels and Schot 2010, pp. 18–20). Because regimes are often complex constructs whose individual components have to be well-coordinated in order to function, they tend to be fairly stable. Their harmonization and continuity leads to path dependencies, so that the selection environment within the regime is strongly shaped by

[3] A prior version of Chapters 2 and 3 was previously presented at the International Sustainability Conference 2016 in Wuppertal, Germany and was subsequently published as a working paper (Bodenheimer 2018a).

"webs of interdependent relationships with buyers, suppliers, and financial backers (…) and patterns of culture, norms and ideology" (Tushman and Romanelli 1985, p. 177; as cited in Geels 2004, p. 911). This does not imply, however, that regimes cannot change; rather, they are characterized by a dynamic stability that allows for incremental adjustments, but is strongly resistant to major changes (Geels and Schot 2007, 2010).

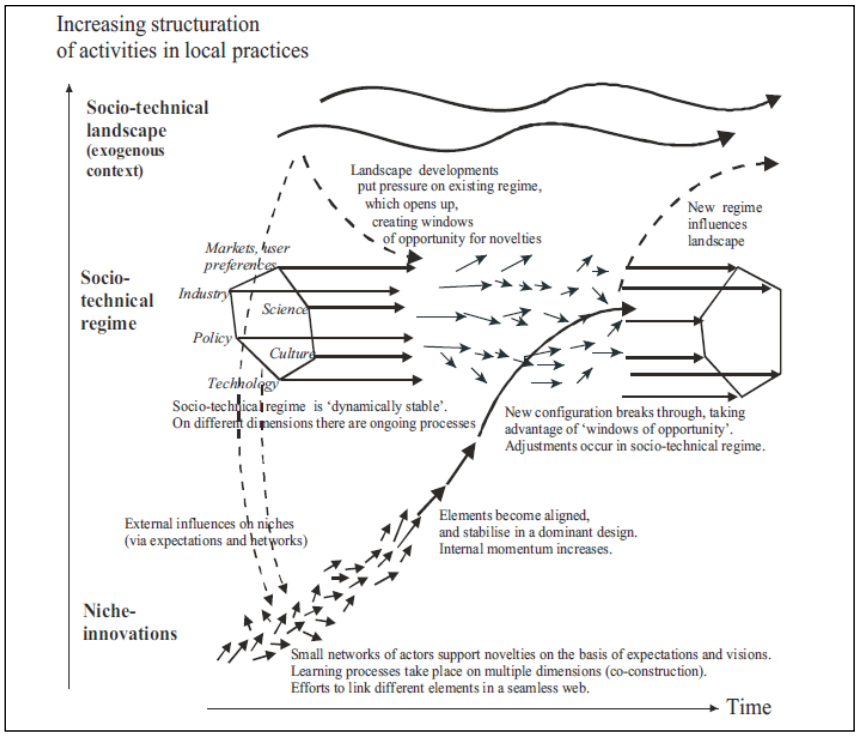

Figure 1: Multi-Level Perspective on Transitions (Geels and Schot 2010, p. 25)

2.1.2 Niches

Radical innovations, in turn, usually develop in niches that form at the bottom level of the framework in Figure 1. Niches are spaces that "are protected or insulated from 'normal' market selection in the regime [and can thus] act as 'incubation rooms' for radical novelties" (Schot 1998; as cited in Geels 2002, p. 1261). They are not inherently part of the world, but rather come (and go) based on the creation and acceptance (or failure) of innovative ideas and activities: "niches do not pre-exist, waiting to be filled, they materialize as the product of organizational activity. Organizations do not […] fortuitously fit into predefined sets of niche constraints; rather, they opportunistically enact their own operating domains" (Astley 1985, p. 234). Consequently, whether a niche will be successful or not cannot be predicted ahead of time, since the process is heavily actor-centric (Sarasvathy and Dew 2005): first, early niches are strongly shaped by the objectives, skills,

values and identity of the entrepreneurs involved; second, success depends in no small part on the willingness of various (external) stakeholder groups to support a new idea or process, commit to it for a potentially long period of uncertainty and accept the possibility of changes in the concept along the path of development.

Novelties that develop in niches are often suboptimal and not yet ready for large-scale deployment; instead, they are tested and improved within the safe confines of the niche until they are ready to be introduced to the market at large. This phase can last a long time – Geels and Schot suggest that two to three decades are quite realistic (2010) – and only a small number of these "hopeful monstrosities" (Goldschmidt 1933; as cited in Mokyr 1990) ever makes it out of the niche.

However, the difficulty of leaving the niche is not based only on characteristics of niche innovations. Regimes in the MLP are considered to be co-evolutionary, which means that there are reciprocal effects between the evolution of technologies and corresponding institutions and infrastructures in society, contributing significantly to the stability of existing regimes. Path dependencies are created and niche innovations are forced to compete not only against a mature technology, but also against the entire set of institutional rules, practices and organizational norms that are associated with it. Thus, "[t]he regime's cognitive, normative, and regulative institutions act to establish and reinforce stability and cohesion of societal systems" (Rotmans and Fischer-Kowalski 2009, p. 9), making it particularly difficult for niche innovations to break into the regime. In fact, such a development often requires that a number of factors outside of the niche and regime align, which is where the landscape level comes into play.

2.1.3 Landscapes

The 'socio-technical landscape' is "an external structure or context for interactions of actors" (Geels 2002, p. 1260) located above the regime in Figure 1. It consists of all of the factors that make up the environment within which a regime and niche exist, but that are not part of these levels. Examples of landscape factors can include the political environment, culture, and global grand challenges, such as climate change (Köhler 2011).

As can be seen in Figure 1, the landscape exerts an influence both on regimes and niches and can, after a transition to a new regime, likewise be influenced by the new regime. However, the landscape changes much more slowly than regimes and niches, due to its size and internal interrelatedness: "Fluctuations in one trajectory (e.g. political cycles, business cycles, cultural movements, lifecycle of industries) are usually dampened by linkages with trajectories" (Geels and Schot 2010, p. 21). But when one change is particularly extreme or multiple related changes come together at the same time, these

“changes in trajectories [can be] so powerful that they result in mal-adjustments, tensions, and lack of synchronicities” (Geels and Schot 2010, p. 21). These tensions can put pressure on the existing regime, leading to a ‘window of opportunity‘, through which niche innovations can diffuse more widely. Often, this is the necessary external assistance that niche innovations require to break out of the niche.

2.1.4 Sustainability Transitions

The MLP originated in the realm of historical-technological analysis, most famously to analyze the transition from sailing ships to steamships (Geels 2002). More recently, scholars have begun to distinguish between historical transitions and sustainability transitions (Geels 2010; Smith et al. 2010; Lachman 2013). In contrast to historical transitions, which use hindsight to analyze transitions that have already taken place, sustainability transitions are more “purposive” (Geels 2011, p. 25) and forward-looking (Lachman 2013; Geels 2011; Kemp and van Lente 2011). They are also clearly goal-oriented: a concrete objective is set from the beginning and attempts are made to steer the transition towards that end.

Like all transitions, sustainability transitions usually encounter resistance from the existing regime, which is “stabilized by lock-in mechanisms” like previous investments, production processes, infrastructure systems, skill sets, built-up tacit knowledge and laws and regulations (Geels 2010, p. 495). Many realms where questions of sustainability are particularly pressing are dominated by large firms with corresponding economies of scale and complementary assets, such as advanced skills and extensive networks. Moreover, since sustainability is a collective good, achieving it often does not bring immediate individual benefits, meaning that sustainable products often perform worse on price/performance aspects than do conventional products. All of these factors combine to give the proponents of a stable regime a significant advantage over those actors who create niche innovations (Geels 2011). The path dependence that results from these lock-in mechanisms thus makes sustainability transitions complex and multi-dimensional processes whose success depends on a large number of interrelated factors being just so at the right time.

2.1.5 Transition Pathways

To clarify the process of diffusion when a window of opportunity opens up, Geels and Schot have defined four different transition pathways: transformation, de-alignment and re-alignment, technological substitution and reconfiguration (2007). This is to say that

not all transitions take place identically. Geels and Schot have identified two key variables that determine which transition pathway is expected to apply in a given scenario: the timing and nature of interactions between the three MLP-levels.

As described above, when the regime experiences enough pressure from the landscape, a window of opportunity opens up for niche innovations. The level of maturity attained by a niche innovation at this point in time plays a key role in determining the course of the remaining transition. While innovation maturity is a subjective concept,

> "the following proxies [have been suggested] as reasonable indicators for the stabilisation of viable niche-innovations that are ready to break through more widely: (a) learning processes have stabilised in a dominant design, (b) powerful actors have joined the support network, (c) price/performance improvements have improved and there are strong expectations of further improvement (e.g. learning curves) and (d) the innovation is used in market niches, which cumulatively amount to more than 5% market share" (Geels and Schot 2007, p. 405).

If the innovation is ready to be rolled out to a larger and more competitive market, it can take advantage of the window of opportunity and diffuse more widely. On the other hand, if the innovation is still in the early stages of development and still dependent on the protective nature of the niche, the window of opportunity may close prior to successful diffusion.

In either scenario, the second important factor in determining the transition pathway is the nature of the interaction between niche innovations and the current regime: "Niche-innovations have a *competitive* relationship with the existing regime, when they aim to replace it. Niche-innovations have *symbiotic* relationships if they can be adopted as competence-enhancing add-on in the existing regime to solve problems and improve performance" (Geels and Schot 2007, p. 406, sic, emphasis in the original).

Table 1: Overview of transition pathways (own representation based on Geels and Schot 2007)

		Nature of interaction	
		Symbiotic	Competitive
Status of niche innovation	Immature	Transformation pathway	De-alignment and re-alignment pathway
	Mature	Reconfiguration pathway	Technological substitution pathway

Using the different possible manifestations of these two variables, four distinct transition pathways emerge, as can be seen in Table 1.

2.2 Dialectic Issue Lifecycle (DILC) Model

The Dialectic Issue Lifecycle Model arose out of the Public Issue Lifecycle, which examines the development of public responses to a specific trigger event or issue. In this context, 'issues' are defined as "social problems that may exist objectively but become 'issues' requiring managerial attention when they are defined as being problematic to society […] by a group of actors or stakeholders […] capable of influencing either governmental action or company policies" (Mahon and Waddock 1992, p. 20). This implies that, first, social problems can exist without becoming issues and second, there is a developmental process necessary to turn social problems into issues.

This process is represented by the Public Issue Lifecycle (PILC) (Figure 2), which shows changes in public awareness and concern with regard to a particular issue over a period of time. The cycle, as it is shown here, consists of four phases, beginning with a trigger event that leads to an expectational gap (Gap Phase) and ending either in a resolution of the issue (Litigation Phase) or, in the case of failure to resolve the issue, alternately in intensified concern or apathy amongst the public (Coping Phase).

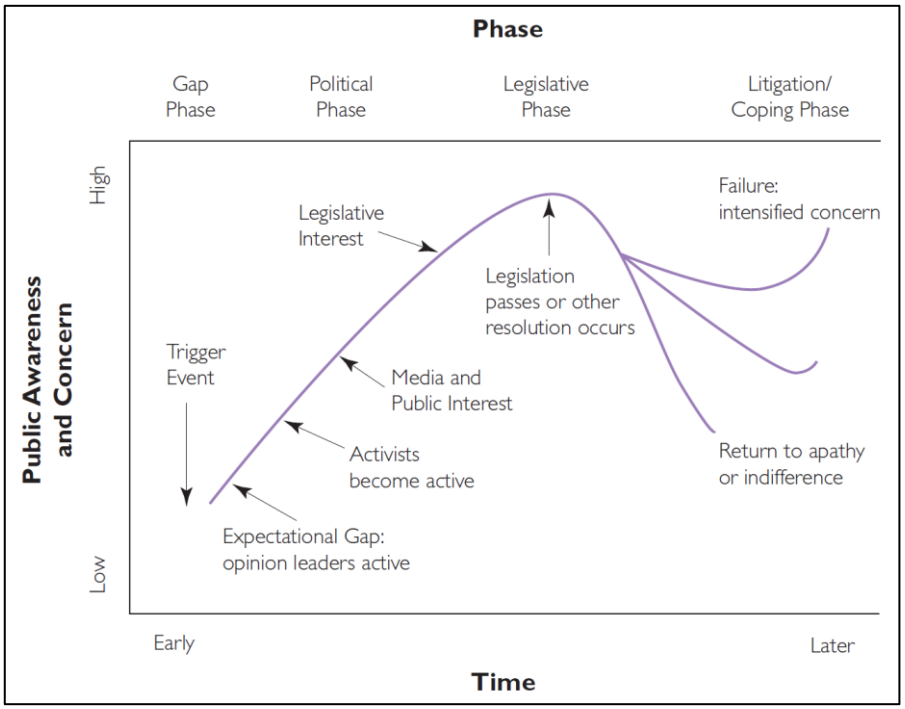

Figure 2: Public Issue Lifecycle (Waddock and Rivoli 2011, p. 91)

To describe company reactions to a particular issue throughout the lifecycle, Waddock and Rivoli cite a quotation by Gandhi: "First they ignore you, then they laugh at you, then they fight you, then you win" (Mahatma Gandhi, as cited in Waddock and Rivoli 2011,

p. 87). Thus, in the first two phases, companies try to downplay an issue, in the third phase they become defensive, and in the final phase, they acquiesce and change their behavior in accordance with the issue of concern, perhaps even discovering new business opportunities in the process (Henderson 2015).

Building upon this Public Issue Lifecycle, Geels and Penna have created the Dialectic Issue Lifecycle (DILC) model, which "conceptualizes the co-evolution between the dynamics of a societal problem ('issue lifecycle'), in terms of social and political mobilization processes leading to pressures on an industry, and the dynamics of industry responses, including technical innovation and broader corporate strategies" (Penna and Geels 2015, p. 1030). The authors elaborate the model in a series of case studies analyzing corporate behavioral changes that result from public 'issue pressures' (Penna and Geels 2012, 2015; Geels and Penna 2015). They first introduce the descriptor 'dialectic' to the name to draw attention to the pressures in the model resulting from opposing views and opinions held by various actors involved in the issue lifecycle (Penna and Geels 2012). This conflict is further illustrated by the structure of their five phases, which each include 'problem-related pressures' and corresponding 'industry responses' (Geels and Penna 2015). A summary of the five phases can be found in Figure 3.

In their second elaboration of the model, the authors argue that the lifecycle, as previously described, is too linear and that many issue lifecycles are of a more cyclical nature, where issues can move back and forth between different phases repeatedly before any type of end point (resolution or failure of the issue) is reached (Geels and Penna 2015).

In their final elaboration of the model, Penna and Geels introduce a combined quantitative/qualitative approach. Four proxies are used to measure issue awareness for various actor groups:

- public attention is measured through a media analysis (keyword-based *LexisNexis* searches);
- similarly, political attention is assessed using *HeinOnline* searches in the *Congressional Record* and *Federal Register*;[4]
- industry attention is measured twofold: first, through a keyword-based article count in an industry magazine, and
- second, technical developments are taken into account through patent analysis (Penna and Geels 2015, p. 1033).

4 The paper specifically focuses on the American automobile market.

Phases	Dynamics of societal 'problems' and associated 'pressures'		Dynamics of 'solutions' and strategies of incumbent industries	
	Socio-political pressures	Economic pressures	Socio-cultural, and political strategies	Technology and innovation strategies
1: Problem emergence, and industry neglect	The problem first emerges when activist groups articulate concerns. Uncertainty about causes and consequences gives rise to sense-making.	No specific pressure from task environment.	Incumbent firms do not recognize the problem, or downplay its importance.	No technology strategy is deployed in response to the issue.
2: Rising public concerns, and defensive industry responses	Activists create a social movement that pushes the issue onto public agendas. Increasing public worries create pressures on policymakers who express concerns and create committees (symbolic actions).	Relative regime outsiders (e.g. suppliers, foreign firms, new entrants) begin to develop technical solutions.	If further denial of the problem damages reputations, firms defend themselves by creating a closed industry front that contests claims from social movements and lobbies policymakers.	Firms may develop incremental technologies that stay within the bounds of the existing regime.
3: Political debates/controversies, and defensive hedging	Rising public attention pushes the problem onto policy sub-system agendas, leading to formal hearings and investigations.	Alternatives may find a foothold in small market niches linked to 'moral consumers'.	Industry actors argue that regulations are not necessary, because they will 'voluntarily' implement (incremental) solutions. They may also emphasize costs or technical complexity.	Incumbents *publicly* portray radical solutions as unfeasible. For defensive reasons, however, industry actors may hedge and privately explore radical solutions in laboratories.
4: Formation and implementation of substantive policy, and industry diversification	Escalating public concerns pushes the problem onto macro-political agendas where politicians may introduce radical legislation. This is followed by policy implementation by administrative agencies.	Regime outsiders lead developments targeted at the growing (but limited) 'moral consumer' market segment. However, concerns do not (yet) spill over to mainstream markets.	Firms and industry associations contest the formation and implementation of radical policies. First-mover firms may, however, argue for tougher regulations to raise costs for competitors.	Firms diversify and increase R&D investments in radical alternatives. Individual firms embrace the new technology more enthusiastically to 'jockey for position' in the expectation of growing markets. This could cause cracks in the closed industry front and lead to an 'innovation race'.
5: Spillovers to the task environment, and strategic reorientation	The problem may lead to new markets when public discourses lead to changes in mainstream consumer preferences or when regulators substantially change economic frame conditions (through taxes, incentives, legislation).		To take advantage of economic *opportunities*, incumbents reorient towards the new technology and markets. Addressing the problem also becomes part of the industry's core beliefs and mission, leading to further transformation of the industry regime.	

Figure 3: Summary of DILC phases (Penna and Geels 2015, p. 1032)

The quantitative data is used to identify sub-periods in the 33-year period of the case study, which are matched with major events identified from literature (both specific to the issue at hand (internal) and tangentially relevant (external)). Causality is then examined more closely using a longitudinal qualitative case study that aims to create a "comprehensive multi-dimensional analysis" of the issue and corporate responses (Penna and Geels 2015, p. 1034) that is in part based on the Triple Embeddedness Framework (TEF) shown in Figure 4.

While the TEF is related to the MLP, it focuses primarily on the industry regime and includes niche and landscape actors only indirectly insofar as they impact this industry regime at the center of the model. It thus takes on only a meso-perspective, whereas the MLP also allows for both a macro-perspective (landscape level) and a micro-perspective (niche level).

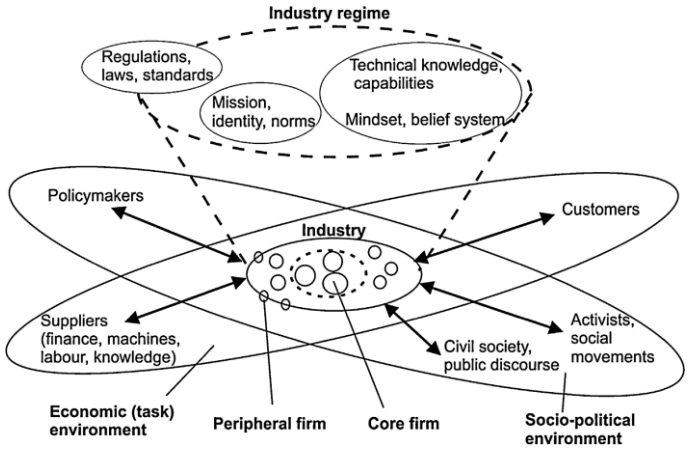

Figure 4: Triple Embeddedness Framework (TEF) (Geels 2014, p. 266)

2.3 Models of Behavioral Change: SSBC and C-CADM

An increase in sustainability necessarily requires a change in behavior, both on the part of individuals and corporations. While corporations are made up of individuals, their collective structure and internal routines and processes must be taken into consideration when analyzing behavioral changes, which is why two separate – but closely related – behavioral models will be discussed below, one for individuals and one for corporations. Both models build upon foundations from the psychology of environmental decision-making and behavior, including Ajzen's theory of planned behavior (TPB) (Ajzen 1991) and Schwartz and Howard's norm-activation model (NAM) (Schwartz and Howard 1981; see Klöckner 2013 for a detailed review). The TPB assumes that an intention leads to a behavior and that this intention is based on attitude, norms and perceived behavioral control (PBC).[5] The NAM extends the TPB and specifically models helping behavior, which takes place when pre-existing norms become 'activated'. This activation process requires the following four conditions to be met:

> "(1) a person needs to be aware of the need for help […](2) a person needs to be aware of the consequences [of] a certain behaviour […] (3) a person needs to accept responsibility for his or her actions […] and (4) a person has to perceive him- or herself as capable of performing the helping action, which is a construct comparable to perceived behavioural control" (Klöckner 2013, p. 1030),

which then lead to the activation of the personal norm and consequently a specific (change in) behavior. These and other similar theories thus focus primarily on the process of forming an intention (or activating the personal norm) and assume that the corresponding behavior then follows automatically. However, a number of studies have

5 PBC is defined as „people's perception of the ease or difficulty of performing the behavior of interest" (Ajzen 1991, p. 183).

shown that this assumption does not reliably hold true and “that intervention techniques targeting the intention determinants attitude and [perceived behavioral control (PBC) have] negligible effects on actual behavior” (Bamberg 2013, p. 151).

2.3.1 Stage Model of Self-Regulated Behavioral Change (SSBC)

With regard to individuals, one suggested explanation for this discrepancy is that “events like unforeseen barriers/temptations or simply forgetting the intention may interrupt the intention-behavior relation,” so that an actual change in behavior requires an individual to pass through a series of sequential steps or stages, from the recognition of a problem through the identification of a possible solution and finally the implementation of said solution in the form of an action (Bamberg 2013, pp. 151–152). Along the way, various factors influence the success or failure of this undertaking: Figure 5 shows the stage model of self-regulated behavioral change (SSBC Model), including four different stages (predecision, preaction, action and postaction) and the processes that take place within each stage.

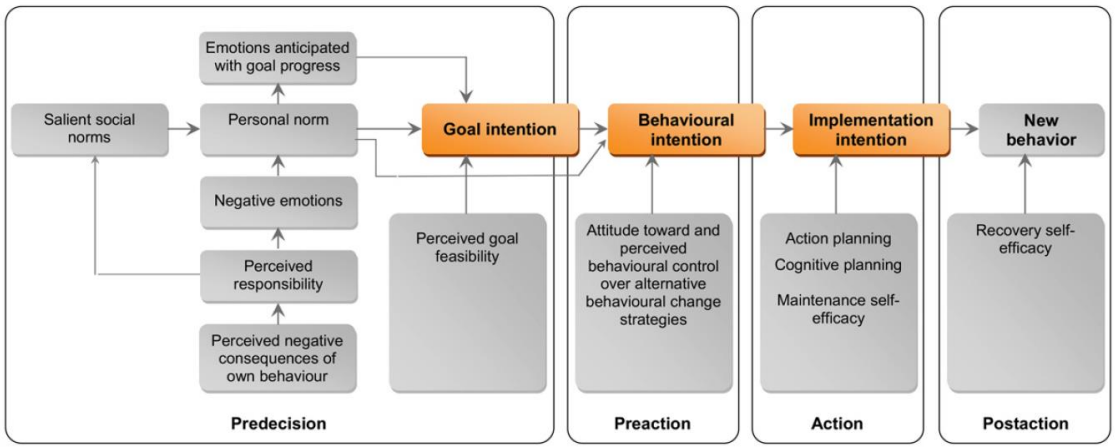

Figure 5: Stage model of self-regulated behavioral change (Bamberg 2013, p. 153)

The basic assumption of the stage model is that people generally act in a habitual manner and only change their behavior if such a change is specifically motivated (Bamberg 2013). Since the predecisional stage is closely modeled on the NAM, which is a model of altruistic behavior (Schwartz and Howard 1981), the motivation in this case is that a person realizes that his/her personal behavior has or may have negative consequences on others (development of problem awareness) and assigns him-/herself responsibility for it. This assignment of responsibility leads both to negative emotions (such as guilt) and/or reputational concerns if the behavior or negative consequences are seen to break with accepted social norms. Either of these responses can activate a ‘personal norm’,

which is a perceived moral obligation to help others in a given situation (Klöckner 2013). The activation of the personal norm leads to the formation of a goal intention and, if the goal appears feasible, the person commits him/-herself fully to it. If, on the other hand, the accomplishment of the goal seems unlikely, he/she “will probably choose ‘escape’ as the best strategy to reduce negative feelings, for example, by denying personal responsibility” (Bamberg 2013, p. 153).

Once a goal intention has been formed, the person must decide how to accomplish this goal. This process takes place in the preactional stage, where advantages and disadvantages of different behavioral options, including perceived behavioral control, are weighed against each other. When a behavioral intention has been set, the action can be performed in the appropriate situation (action stage). In the postaction stage, the individual evaluates the action and its outcomes and decides how to handle the given situation in the future.

2.3.2 Corporate Comprehensive Action Determination Model (C-CADM)

With regard to organizational behavioral change, only the TPB had been applied to corporations up until recently, thus neglecting both the role of personal norms and other relevant factors, such as habits and routines that are essential in structuring a firm’s day-to-day operations. To address this gap in the literature, Lülfs and Hahn modified Klöckner’s comprehensive action determination model (CADM) (Klöckner 2013), which is quite similar to the SSBC, to create a corporate version that will be referred to as the C-CADM here (corporate comprehensive action determination model) and can be seen in Figure 6 (Lülfs and Hahn 2014).

The C-CADM is not shown as a stage model,[6] meaning that unlike in the SSBC, time is not shown as an explicit component. Instead, however, the C-CADM includes habitual processes and organizational routines. Habits are an implicit part of the underlying assumptions of the SSBC, but do not show up explicitly in the model. Organizational routines, on the other hand, exist only in corporations: Lülfs and Hahn posit that

> "in the corporate context, […] individual habits are molded by organizational routines […]. These routines are included in organizational culture as they are linked to “higher order” corporate assumptions and values […]. They can have a fundamental impact on sustainable behavior in companies because they determine and require (interdependent) individual routines and habits (carried out by multiple actors)” (Lülfs and Hahn 2014, p. 54).

6 Note that the numbers in Figure 5 do not indicate an order of steps, but are rather references to the textual explanations in the work of Lülfs and Hahn.

Another subtle difference between the two models is that between PBC and perceived sustainability-related climate: “We propose to include […] “perceived sustainability-related climate” […] as a specific form of perceived behavioral control in the model, as it covers more overt, observable attributes of the organization […] than organizational (sub)culture” (Lülfs and Hahn 2014, p. 53). As examples of such attributes, they cite “*objective* constituencies at the organizational level, such as incentive systems or company codes of conduct [, which have…] an influence on the employee’s perception of the company’s sustainability-related climate” (Lülfs and Hahn 2014, p. 53, emphasis in original).

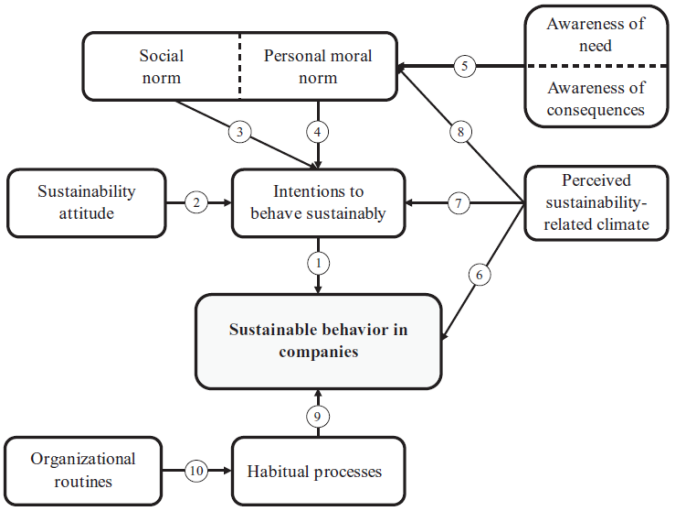

Figure 6: Determinants of sustainable behavior in companies (Lülfs and Hahn 2014, p. 49)

It thus follows that a person’s perception of behavioral control varies depending on whether he/she is acting as an individual – which generally implies both a greater degree of independence, but also a smaller degree of power and financial means – or as an employee of a larger organization, expected to conform (to some degree) to the firm’s values, but also able to make use of its larger influence and resources. These differences should be kept in mind when comparing behavioral changes in individuals with those in corporations.

3 The Model of Behavioral Transitions to Sustainability

The prior chapter described the relevant existing literature on the MLP, DILC, SSBC and C-CADM. In order to apply this existing work to questions of social innovation, such as global production networks oriented toward social sustainability, a few modifications need to be made. In this chapter, I therefore propose a heuristic and heterodox approach to analyzing sustainability transitions that places a stronger emphasis on behavioral aspects than has been done in most transitions studies to date. Traditionally, MLP studies focus on transitions that take place on the supply side (Shove and Walker 2010). Furthermore, supply and demand are often treated as abstract variables on the macro-level of an economic model. Here, instead, the goal is to provide better insight into the decision-making and behavioral processes that take place on the micro-level, looking at transitions in behavior both inside individual corporations (on the supply side) and in individual consumers (on the demand side) in global production networks.

Some work has been done in this area. Particularly the contributions by Penna and Geels (2015; 2015; 2012) on Dialectic Issue Lifecycles provide important foundations for the model presented here. In contrast to the prior work on the DILC model, the approach presented in this dissertation uses the MLP, rather than the TEF, as a framework for transition and to explain the stability of the regime through co-evolutionary processes. Furthermore, the DILC model will be modified to better illustrate the *cyclical* nature of the issue lifecycle and the process of change over time. It will also be combined with two behavioral models: the C-CADM to show and analyze changes in corporate behavior, and the SSBC to incorporate the same processes for consumers.

The Model of Behavioral Transitions to Sustainability that results from these modifications is a single, integrated approach that can be operationalized for an empirical analysis of behavioral transitions to sustainability. As such, it lends itself better to the analysis of transitions towards greater *social* sustainability, which tend to be less technology-focused and therefore arguably more subtle and harder to grasp than transitions involving technological innovations. Nevertheless, I believe that the approach can likewise be applied to corresponding questions of ecological sustainability and behavioral transitions in the adoption of new technologies.

3.1 Behavioral Transitions to Sustainability

3.1.1 Defining Characteristics

To date, sustainability transition scholars have primarily focused on technological solutions to sustainability problems, i.e. socio-*technical* transitions with a focus on technical, rather than social, innovations. As a result, they have defined concepts and analyzed transitions from a very technology-centric point of view. As Shove and Walker point out,

> "the *socio* element of *socio*technical change typically refers to the fact that innovations are shaped by social processes rather than to the ways in which technical systems are implicated in defining and reproducing daily life. Partly because of this tendency to focus on questions of supply, somewhat less attention has been paid to patterns of demand inscribed in what remain largely technological templates for the future. Where the *socio*- of sociotechnical does refer to forms of practical know-how and to routines and expectations that sustain and are part of incumbent regimes, the driving interest is in how these arrangements configure the conditions of future innovation: not in how they evolve themselves" (Shove and Walker 2010, p. 471, emphasis in original).

However, regardless of whether the solution to a sustainability issue involves technological innovations or not, it almost always requires adjustments in people's behaviors in order to be effective. Kemp and van Lente remind us that "[c]atering to people's desire for comfort, convenience and low costs may not lead to sustainability transitions. […S]ustainability transitions require that people accept constraints and are willing to live and behave differently" (2011, p. 124). In order to assess whether such a transition in behavior is taking place, several characteristics of both the MLP and transitions need to be redefined. First, in the context of behavioral transitions to sustainability, a regime is made up of structure, culture, and practices:

> "By structure, we mean physical infrastructure (physical stocks and flows), economic infrastructure (market, consumption, production), and institutions (rules, regulations, collective actors such as organizations, and individual actors). By culture, we mean the collective set of values, norms, perspective (in terms of coherent, shared orientation), and paradigm (in terms of way of defining problems and solutions). And by practices we mean, collectively, production routines, behavior, ways of handling, and implementation at the individual level, including self-reflection and reflexive dialog" (Rotmans and Fischer-Kowalski 2009, p. 8).

In BTS, therefore, regimes are characterized not by the employment of a particular set of technologies, but rather by a particular set of norms and values (culture) that manifest themselves in a certain type of behavior (practice) and are supported by corresponding infrastructures and institutions (structure). In the context of GPNs for consumer products, the current regime is primarily oriented towards profit-maximization, and concerns regarding sustainability, particularly social aspects early in the production process, are still

the exception. The corresponding niches, in turn, differentiate themselves from the regime not primarily through the use of innovative technologies, but rather through innovative practices, i.e. social innovations based on novel underlying structures and norms. With regard to consumer products, there are various niches that promote possible solutions, from independently certified products to those produced locally in Europe or the US under corresponding labor laws. Note that traditional socio-technical transitions can include behavioral transitions to sustainability as well: as described above, a move towards sustainability almost always requires a corresponding change in behavior. The primary difference between socio-technical transitions and BTS, then, is one of focus. Recalling the statement by Shove and Walker above, the primary interest of BTS is in the evolution of structure, culture, and practices, and not "in how these arrangements configure the conditions of future innovation" (2010, p. 471). It therefore also becomes easier to analyze non-technological, or purely social, innovations using BTS, because the emphasis is not specifically or necessarily placed on technological innovation.

Second, if we continue with the assumption that sustainability transitions require a change not only in technological systems and structures, but also in attitudes, behaviors, and the "*criteria* that actors use to judge the appropriateness of products, services and systems" (Kemp and van Lente 2011, p. 122, emphasis in original), it quickly becomes evident that such transitions are inherently normative. The idea of an "explicitly normative orientation" as a driver for socio-technical transitions has previously been explored by Elzen et al. in the context of animal welfare concerns in pig husbandry, "where the initial impulse for change consist[ed] of normative contestation from regime outsiders" (2011, p. 263), rather than commercial or environmental motivations.

Having a normative orientation as a central driver has a number of important implications. It means that questions of "power, legitimacy, responsibility, [and] governance" (Pettigrew 2012, p. 1325; as cited in Geels 2014, p. 262) become centrally defining characteristics of the transition. In the context of (global) sustainability, moreover, these questions are often directly connected to the sphere of economic decision-making: When a consumer product is purchased, who is responsible for the social, environmental and economic impacts of its production (and eventual destruction)? The brand that commissioned its creation or the owners of the factories where it was manufactured? What about the governments of the countries where it was made, or the consumers purchasing it? The answers to these questions are necessarily complex and can lead to far-reaching implications, which makes BTS particularly challenging.

Finally, as pointed out by Shove and Walker, socio-technical transitions traditionally have a "focus on questions of supply" (2010, p. 471), thus paying significant attention to industrial and governmental actors. While these groups continue to be important in the

analysis of BTS, the range of actors that must be taken into consideration when examining the questions of power, legitimacy and responsibility that arise when considering questions both of supply *and* demand (as described in the consumer product example above) must be expanded using a more holistic perspective. All types of actor groups that may have an influence on or be involved in the transition, including but not limited to firms, consumers, policymakers, social movements, civil society organizations and social enterprises (see also Geels 2010, p. 506) should be incorporated in the analysis. Moreover, each of these actor groups should be able to occupy any of the three levels of the MLP, depending on the role it plays with regard to the issue under examination.

3.1.2 Co-Evolution in Behavioral Transitions to Sustainability

As described in Chapter 2.1, co-evolution plays a significant role in creating the stability of regimes. Speaking of socio-technical transitions, Geels states that "[t]he MLP has a focus on technology-in-context and emphasises [sic] co-evolution of technology and society" (2005, p. 682). The DILC-model, in turn, "emphasizes the co-evolution between the dynamics of societal problems and the emergence and application of (technical) solutions, and the struggles, disagreements, and conflicts involved in this co-evolution process" (Geels and Penna 2015, p. 67). Behavioral transitions to sustainability, similar to the DILC model, focus on the dynamics of societal problems specifically in combination with the emergence of alternative behaviors as solutions, including, as above, the conflicts that result from this process. Examples of behavioral niches that might lead to such transitions with regard to social sustainability in GPNs include the production and consumption of fair trade products, certain aspects of the sharing economy and the use of the so-called Common Good Balance.[7]

3.2 Operationalization of BTS

The contributions by Penna and Geels (2015; 2015; 2012) on Dialectic Issue Lifecycles are strongly intertwined with the Triple Embeddedness Framework rather than the MLP. As previously explained in Chapter 2.2, the TEF represents a meso-perspective with a strong focus on the industry regime, while the MLP incorporates both a micro (niche level) and macro (landscape level) perspective. Since cultural changes must be situated at the macro-level and behavioral/normative changes ultimately take place on the micro-level, the micro- and macro-perspectives are key components of behavioral transitions to sustainability, making the MLP the more appropriate approach for BTS. However, the micro-perspective of the MLP with its focus on niches is still not detailed enough to show

[7] See https://www.ecogood.org/en

changes on an individual level and will therefore be combined with the SSBC and C-CADM.

The general dynamics of the transition process as shown in Figure 1 and described in Chapter 2.1 are the same for BTS as for socio-technical transitions. The MLP thus provides a useful birds-eye-view perspective also for BTS, but it is missing a key element: a method to operationalize the insights provided by the approach. For socio-technical transitions, it may often be possible to quantify the maturity and diffusion of a technological innovation by looking at indicators of efficiency, production volumes, cost, etc. Still, even for technology-focused transitions, the missing operationalizability of the approach has been criticized repeatedly (Lachman 2013; Genus and Coles 2008; Genus and Nor 2007). For BTS, quantification is considerably more difficult as there are few measurable indicators and much of the transition itself takes place on a subjective (normative) level. In order to enable empirical analysis of BTS nevertheless, the MLP must therefore be combined with other approaches that are more readily operationalizable, as has been suggested numerous times before (Geels 2011; Geels and Schot 2010). The remainder of this chapter will present a heterodox approach to BTS that combines the MLP with both the DILC model and the SSBC/C-CADM in order to increase its operationalizability.

3.2.1 Combining the MLP and DILC

Both the MLP and the DILC model show a transformation taking place over time, where time is on the x-axis. However, because the y-axis in the two models cannot be matched up – the MLP uses it to illustrate multiple levels, while the DILC model presents a measure of public awareness and concern – the two models cannot simply be overlaid. But mapping the five DILC phases described by Penna and Geels (2015, p. 1032) onto each of the models begins to illustrate their relationship, as can be seen in Figure 7. To clarify it further, Table 2 describes the characteristics of each DILC phase as they apply to the three MLP levels, based on the problem-related pressures and industry responses described in Geels and Penna (2015). A similar progression of the phases of a transition has also been proposed by Loske (2015, pp. 86–94).

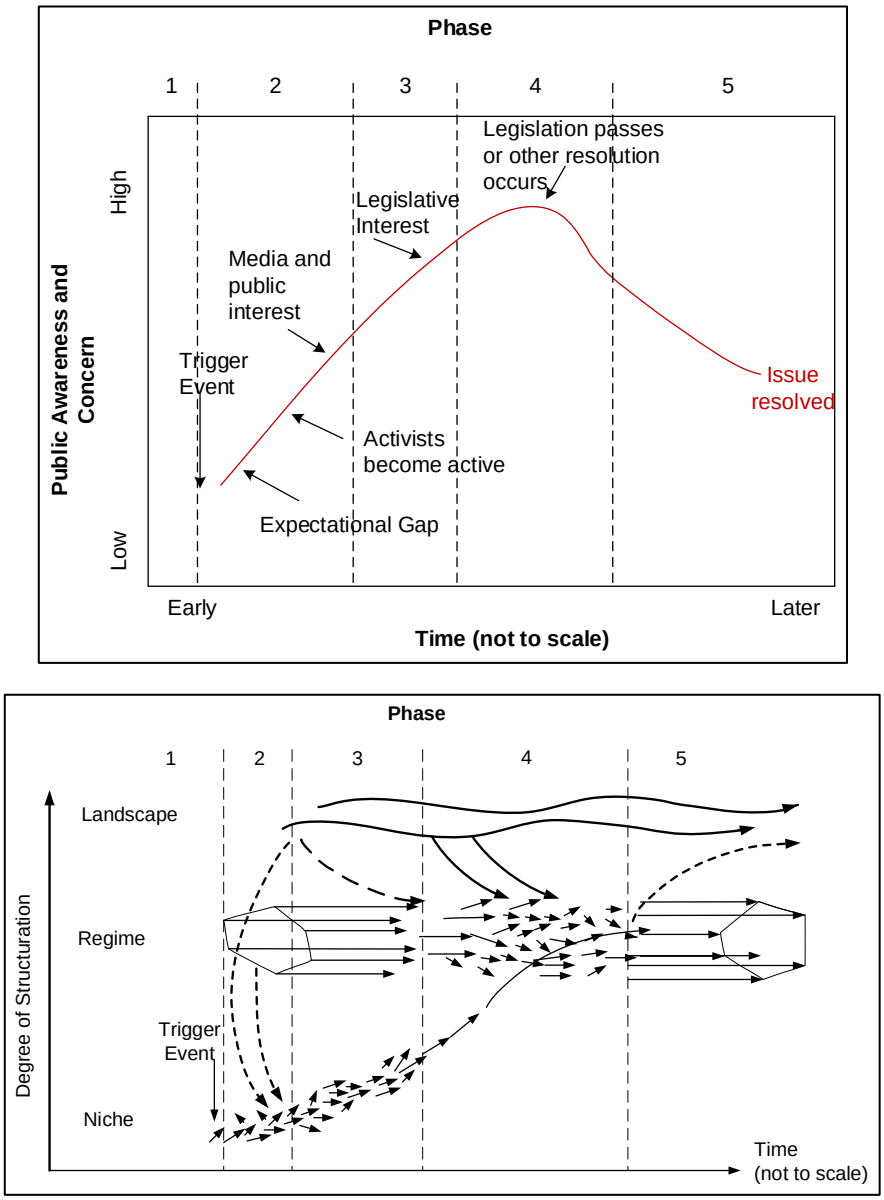

Figure 7: Mapping the DILC phases onto the Issue Lifecycle (a) and MLP (b) (own representations based on prior work by Waddock and Rivoli 2011; and Geels and Schot 2010)

The landscape level of the MLP has sometimes been criticized as being too vague (Genus and Coles 2008; Genus and Nor 2007); while the DILC phases in Table 2 include all three levels, the actual curve in the DILC model can be seen as representing primarily landscape pressures, where the peak in Phase 4 is the window of opportunity for niche innovations to break into the regime. This means that in the context of transitions, issues are often resolved through 'other resolutions' (regime transition) rather than legislation, although particularly in the context of (social) sustainability, issues do usually include a political component.

Table 2: Characteristics of each DILC Phase by MLP Level (own work based on Geels and Penna 2015)

DILC Phase	MLP Level	Characteristics
Phase 1	Niche	- Issue identification & articulation
	Landscape	- General public, policymakers unaware/indifferent
	Regime	- Corporations can safely ignore the issue
Phase 2/ Trigger Event	Niche	- Social movement emerges, resource mobilization
		- New entrants explore radical alternatives
	Landscape	- Trigger event increases media reporting & public awareness
	Regime	- Politicians take symbolic action
		- Companies downplay issue (framing)
		- Industry invests in early incremental R&D attempts
Phase 3	Niche	- Niche markets form and sell to 'moral consumers'
	Landscape	- Media reporting & public attention increase further
		- Issue framing and negotiations take place in public debate
	Regime	- Companies defend status quo, threaten economic decline
		- Some companies begin to invest in R&D of radical alternatives
		- Policymakers are under pressure to take a stand
Phase 4	Landscape	- Public attention rises dramatically - issue attains "celebrity status"
	Niche/Regime	- Strategic competition for power: early-mover incumbents & new entrants
	Regime	- Policymakers forced to take action
		- Infrastructure emerges to address the issue
		- Companies change status quo at varying speeds
		- Dual approach: fighting changes, investing heavily in new alternatives
		- Changing expectations create both economic threats and opportunities
Phase 5	New Regime	- Option 1: Alternatives become commonplace, accepted, expected
		- Option 2: Alternatives become mandated by law
		- Consumer preferences reflect issue resolution
		- Firms reorient and the regime transforms

3.2.2 The Cyclical Dialectic Issue Lifecycle Model (C-DILC)

Note that the DILC model in Figure 7a is limited to the curve showing a successful issue resolution, since this is the outcome that most closely resembles the complete transition process of the MLP (Figure 7b). However, both models leave room for alternative outcomes in theory, but while these alternatives are worked out in detail through the various transition pathways of the MLP, for the DILC model, they have only been discussed rather vaguely. Figure 8 therefore shows some modifications to Waddock and Rivoli's PILC model, including the implementation of Geels and Penna's suggestion that issue lifecycles are often more cyclical than linear (2015).

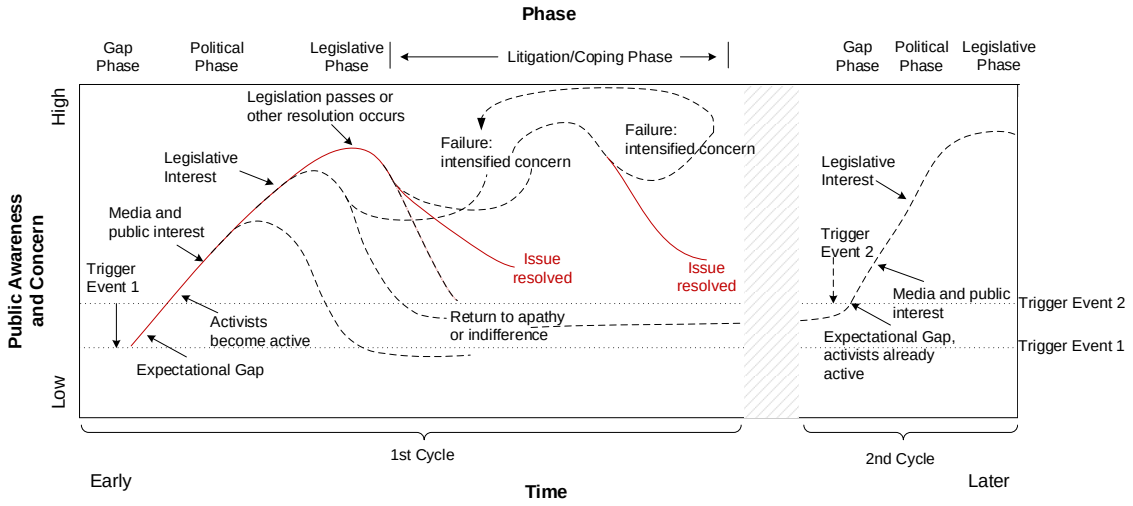

Figure 8: Cyclical dialectic issue lifecycle (C-DILC) model (adapted from Waddock and Rivoli 2011, p. 91)

First, the complete lifecycle ('1st Cycle') has been branched out further, beginning with a return to apathy or indifference shortly after the start of media and public interest. The previous representation of the lifecycle from the PILC model seems to imply that all public issues follow the same path to (and eventually reach) the legislative phase. In reality, however, many issues that are discussed publicly never reach the point of legislation. Instead, public attention often decreases after a short 'hot phase' and stays minimal unless another trigger event rekindles concern for the issue. Because the vertical axis shows *public* awareness and concern, a problem must at least have reached the stage 'media and public interest' in order to fit the definition of an 'issue' given in Chapter 2.2.

The next curve (after legislative interest) reflects a similar branching as in the original model: once public awareness has increased enough to peak political interest, a failure to reach the legislative phase may, in addition to a return to apathy, also already lead to intensified concern.

The two solid red lines in the first cycle lead to issue resolution, making them the only paths that end the issue lifecycle completely. For all other paths leading either to apathy/indifference or to intensified concern, future cycles are possible. If failure leads to intensified concern, a return to apathy is unlikely, so that concern will stay high until the issue is resolved ('intensified concern cycle').

A return to apathy or indifference, in turn, becomes the new status quo until a new trigger event resurrects the issue and the initial cycle repeats itself, albeit at a more advanced rate. Note that the level of public awareness and concern stays somewhat higher during the apathy phase than it was prior to the first trigger event. Consequently, the level of

public attention also starts at a higher level after a subsequent trigger event and the further 'milestones', i.e. activist involvement, media reporting and legislative interest are reached more quickly in future cycles, since the public, media and political apparatus have all been primed for the issue already. While only the start of the second cycle is shown here, *n* future cycles can follow according to the same pattern, subject only to the development of a particular issue.

Expanding the DILC model in this way to create a *cyclical* dialectic issue lifecycle (C-DILC) model is important for the application to the MLP, because transitions often take place over two to three decades and tend to be anything but linearly continuous. Landscape pressure on the regime is unlikely to increase so dramatically as to open up a window of opportunity for niche innovations as a result of a single trigger event. Thus, it is key to have a clearer understanding of what happens at the end of each cycle in the C-DILC model, as most transitions probably require a significant number of cycles before being completed.

3.2.3 The Role of the SSBC and C-CADM in BTS

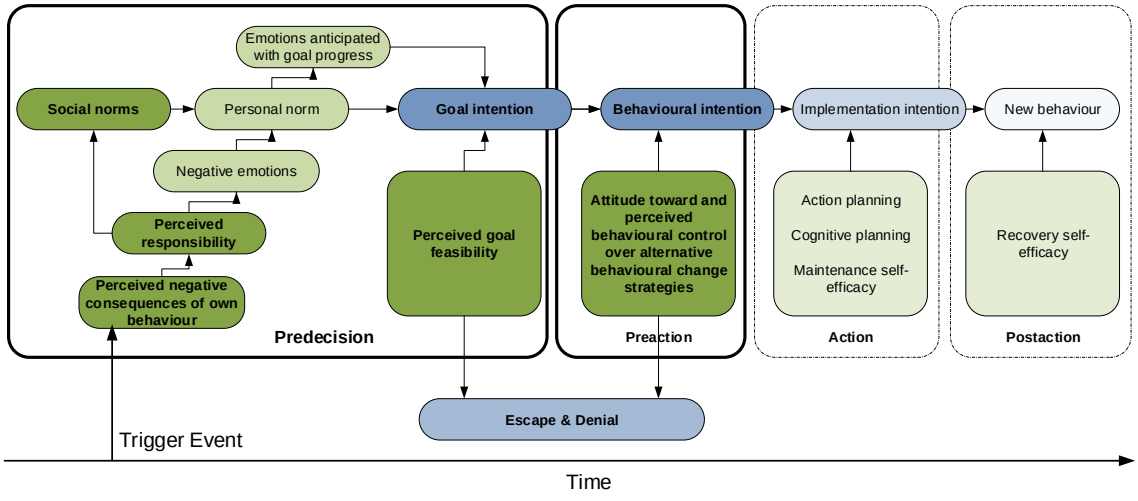

Figure 9: SSBC model highlighting points of particular relevance for BTS in darker colors (adapted from Bamberg 2013)

There are several points in time in the C-DILC model where, if issue resolution is not achieved, the curve of public awareness either drops to apathy or rises to intensified concern. While the model accounts for these turning points descriptively, it does not explain how each outcome is determined. In the context of BTS, the SSBC and C-CADM models can provide valuable insights into this process. Note that the 'public' in the C-DILC model can consist both of individuals as consumers and individuals as corporate employees. Since decision-making in a corporation continues to be a process carried out

by individuals, albeit with added constraints in the preaction and action stages (see Figure 10), the following description will explain the turning points in the public awareness curve using the SSBC model of individual behavioral change. The developments are quite similar in the corporate context, with the main difference being that individuals are not making decisions for themselves, but rather in the context of their organization, meaning that there are additional constraints, such as the attitudes, habits and routines of coworkers and the expectations of supervisors. While these are quite relevant when behavioral changes are put into action, they do not much impact the process being described here.

From the perspective of BTS, the first two stages of the SSBC model are of particular interest, since they are most strongly dependent on external influences. First, in order for individuals to become aware of the negative consequences of their actions and their personal responsibility in the matter, they need to understand the impacts of their own behavior. For questions of sustainability, these impacts are often far removed, either in time or in geography. An understanding of the complex relations between individual decision-making and sustainability-related outcomes thus requires extensive research (usually by experts), the results of which must be communicated to the public via the media or in awareness-raising campaigns before individuals can be expected to commit to behavioral change.

Moreover, in addition to awareness, the SSBC model shows that individuals must also perceive their goal intentions to be feasible and their behavioral change to lie within their control. If, then, an individual becomes aware of the negative consequences of his/her behavior but sees no readily-available and adequate solutions in society or on the market, he/she will abandon the goal intention and instead choose escape and denial, thus returning to apathy or indifference. Here, niche alternatives can play a critical role: for individual consumers, buying more sustainably produced niche products can represent a feasible alternative to their previous behavior, i.e. consumption habits. For corporate employees, the availability of sustainability consultants, trainings, software, labels, NGO partners, etc. could represent a viable alternative that can support the firm in its attempt to adjust its behavior without having to first perform extensive research on questions of sustainability.

This still leaves the question of when the public awareness curve turns to intensified concern. If, at the time of increased public awareness, there is a niche available that can provide an adequate solution to the issue, this availability allows concerned individuals to follow through on their behavioral change intentions. However, a stable regime will

likely become defensive rather than changing immediately, which then leads to intensified concern among the public, assuming that enough individuals have already changed their behavior and continue to uphold public concern.

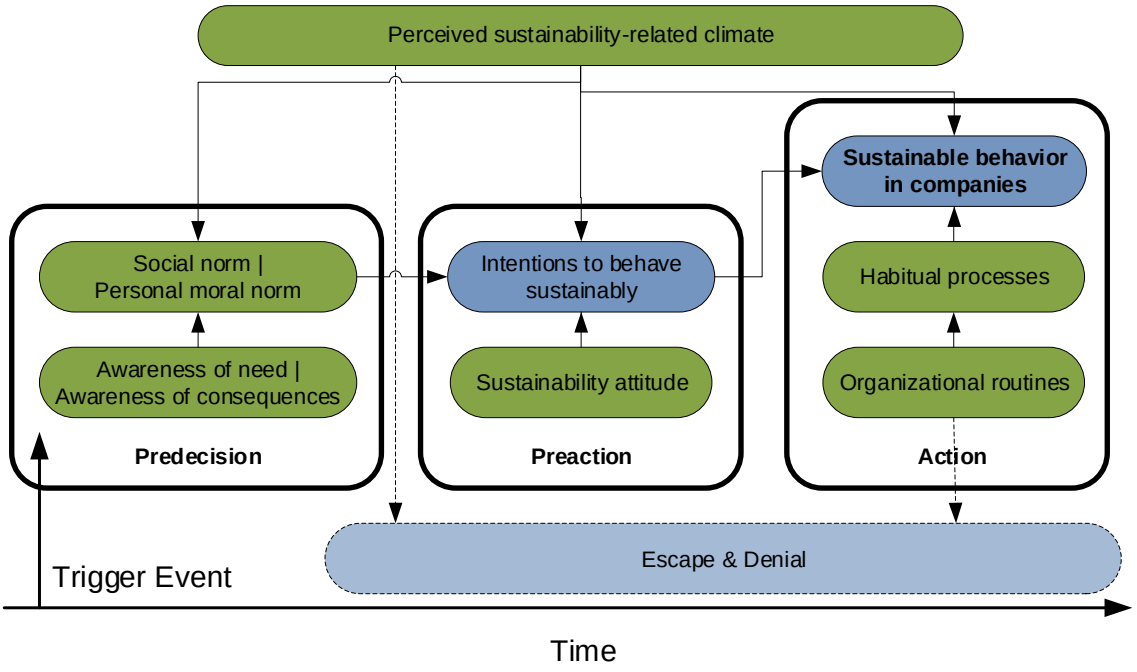

Figure 10: C-CADM presented as a stage model, including a trigger event (adapted from Lülfs, Hahn 2014)

To illustrate the processes described above more clearly, I first modified the C-CADM to reflect the stage approach of the SSBC to ease comparison between the two models. As this change is primarily cosmetic, it should not impact the validity of the original model. Thereafter, I adapted both the SSBC (Figure 9) and C-CADM (Figure 10) models to more clearly indicate the passage of time and the trigger event using a superimposed x-axis. Lastly, I explicitly show the option of “escape & denial” in the models (as explained in Chapter 2.3), which individuals would likely choose if the perceived goal feasibility, behavioral control or sustainability-related climate are too low.

As can be seen in Figure 11, which finally combines the MLP, C-DILC, and SSBC/C-CADM into a single Model of Behavioral Transitions to Sustainability, if a niche fails to grow adequately after a trigger event because too many actors choose escape & denial rather than changing their behavior towards greater sustainability, the BTS process breaks down, leading to a return to apathy. In this case, the old regime is unaffected. If, on the other hand, a significant number of actors engage in behavioral change – thus becoming part of the niche – at the same time as public awareness and concern increase

landscape pressure on the regime, a window of opportunity opens up. If the BTS succeeds and the regime undergoes transition, the issue is resolved and a new regime forms.

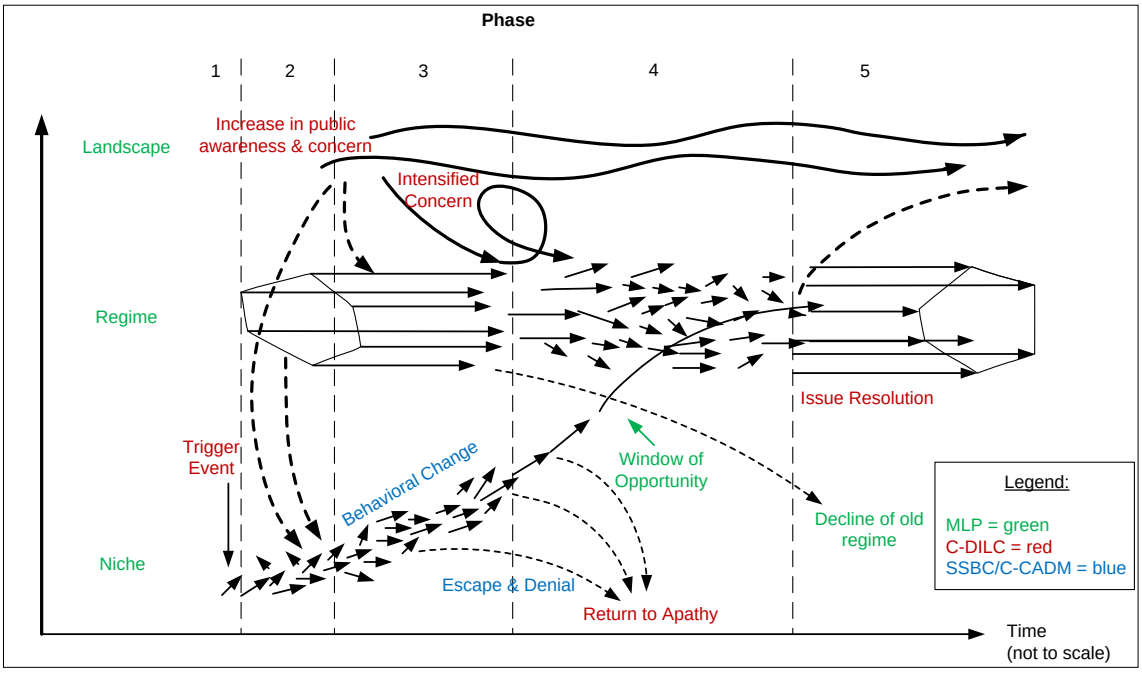

Figure 11: Model of Behavioral Transitions to Sustainability (own representation)

Since the MLP illustration shows a linear (and successful) process of transition, it is somewhat difficult to incorporate the path of intensified concern into the figure. The looping arrow in Phase 4 is nevertheless an attempt to include the intensified concern cycle already shown in Figure 8 in the BTS model.

4 Global Production Networks

In this dissertation, the BTS model will be used to examine the potentially ongoing transition towards greater social sustainability in the production and consumption of consumer products. Specifically, I will present two case studies, one in the smartphone and the other in the garment sector. In both cases, I hypothesize that a behavioral transition is in progress, but not yet complete. In addition to the BTS model, I will examine the two case studies through the perspective of the Global Production Networks (GPN) framework. In this chapter, I will provide a brief overview of other approaches that can be used to analyze supply chains before introducing the GPN framework in greater detail.

4.1 Sustainability Analysis in Supply Chains

There are several theoretical approaches available for analyzing the systems involved in the creation of consumer products. Sustainable supply chain management (Seuring and Müller 2008; Carter and Rogers 2008; Pagell and Wu 2009) focuses on “specific managerial actions that are taken to make the supply chain more sustainable with an end goal of creating a truly sustainable chain” (Pagell and Wu 2009, p. 38). This truly sustainable supply chain is further defined as one that “would at worst do no net harm to natural or social systems while still producing a profit over an extended period of time; [it] could, customers willing, continue to do business forever” (Pagell and Wu 2009, p. 38). It is clear from both definitions that the focus in sustainable supply chain management is very much on the firm as the central actor in terms of finding solutions, but also with regard to the end goal (“do no net harm […] while still producing a profit”). This perspective is too narrow for the research at hand, as I am interested in the interactions of many different actor groups and not only the firm. Moreover, I find the definition of a truly sustainable supply chain as one that does no *net* harm to be problematic, since it implies that harm can be done, as long as it is “made up for” in other places along the supply chain.

A similar critique also applies to Porter and Kramer’s concept of 'shared value', which the authors define as “policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates,” by incorporating “value principles [, … which are] defined as benefits relative to costs, not just benefits alone.” (Porter and Kramer 2011, p. 3). As Crane et al. point out in their altogether scathing critique of the shared value concept, “[w]hile seeking win-win opportunities is clearly important, this does not provide guidance for the many situations where social and economic outcomes will not be aligned for all stakeholders [,…] but rather will manifest themselves in terms of dilemmas” (Crane et al. 2014, p. 136). As these are precisely the situations that interest me in this research, the shared value concept is poorly suited for this purpose.

4.2 The Global Production Networks Framework

I have instead chosen to use the Global Production Networks (GPNs) framework, which evolved out of prior work first on global commodity chains (GCCs) (Gereffi and Korzeniewicz 1994; Gereffi 1999a) and then global value chains (GVCs) (Gereffi et al. 2001; Gereffi et al. 2005). A production network "is, at its core, the nexus of interconnected functions, operations and transactions through which a specific product or service is produced, distributed and consumed. A global production network is one whose interconnected nodes and links extend spatially across national boundaries and, in so doing, integrates parts of disparate national and subnational territories." (Coe et al. 2008, p. 274). The GPN framework, in turn, is

> "a conceptual framework that focuses upon how companies organize and control their global operations, including the ways that these can be influenced by states, trade unions, NGOs and other institutions in particular localities, together with what the implications of this are for industrial upgrading, adding value, poverty reduction and encouragement of a generalized prosperity in these localities" (Henderson et al. 2002, p. 458).

Both this definition and the representation of the GPN framework seen in Figure 12 differ from the previous approaches discussed. While firms' organization and control of global operations certainly plays an important role in the framework, the actions of other actor groups are just as much taken into consideration and it is in fact their interactions and the outcomes of these interactions that are the primary object of analysis.

Moreover, to adequately represent these interactions, the framework also incorporates both time and space as key variables. Time always plays a role when interactions between actors are analyzed, as these do not happen instantaneously. With regard to space, the "uneven geographical distribution of 'goods' and 'bads' [and] 'winners' and 'losers'" (Coe et al. 2008, p. 273) are prominently included on the bottom level in Figure 12. Thus, this framework approaches the outcomes of GPNs from a very different perspective than either sustainable supply chain management or the shared value concept, namely by explicitly pointing to the dilemmas mentioned by Crane et al. (2014).

Geographical distribution also represents a key difference between the GPN framework and the competing concept of GVCs, which "had little to say about territorial or institutional context and so remained relatively 'placeless' (Bair, 2008)," (Rainnie et al. 2011, p. 158). The GPN framework instead explicitly incorporates the influence of geography and its impact on production networks through different political, institutional, judicial, economic and social contexts. Moreover, this influence is further differentiated for the various actor groups:

> "Each of the major non-economic actors—states, civil society organizations, labour and consumers—have very different spatialities from those of firms/GPNs. There

> are, in other words, marked spatial asymmetries involved between what Mattsson (2007) terms the polycentric spatiality of GPNs and the essentially mono-territoriality of states and other actors. This translates into complex bargaining processes" (Coe et al. 2008, pp. 280–281).

These bargaining processes translate into struggles "over the construction of economic relationships, governance structures, institutional rules and norms, and discursive frames" (Levy 2008, p. 944), which ultimately determine the distribution of both the 'goods' (i.e. monetary value created) and 'bads' (i.e. poor working conditions, environmental destruction, etc.) of global production and consumption processes (Coe et al. 2008). The fairness of this distribution lies at the heart of my research.

However, as several authors have pointed out, while the GPN framework is far more inclusive and "space-sensitive" than other approaches (Coe et al. 2008, p. 272), there are still three important actor groups that have mostly been neglected: workers, consumers and civil society organizations. Rainnie et al. argue that "workers have tended to be seen as passive victims of current restructuring processes: workers are typically viewed simply as being on the receiving end of a new international division of labour" (2011, p. 156) while Coe et al. point out that labor in the GPN literature is, "most commonly, simply assumed to be an intrinsic part of the production process" (2008, p. 284).

With regard to consumers, Hughes criticized as early as 2000 – still in the GCC context – that "retail and consumption [are often treated] as simple, unproblematic starting points from which to embark on a more worthy examination of exploitation in the productive sphere" (Hughes 2000, p. 177). Coe et al. echo these same sentiments almost a decade later with regard to the GPN framework, pointing out that it is particularly *final consumption* that is neglected in research, drawing a clear line between business-to-business supplier relationships and business-to-consumer sales (Coe et al. 2008).

Finally, there has also been little work done on civil society organizations in the GPN framework context. Given the shortcomings on labor and consumers discussed above, this neglect does not seem surprising, as civil society organizations often represent precisely these two actor groups.

The GPN framework's networked conception of embedded actor systems including actors both inside and outside the direct production process lends itself well to my case study analysis, since the BTS model assumes that change is the result of ongoing interactions between actors at different levels of the supply chain and those outside of it. The strong geographical focus, likewise, plays a key role in the choice of this theory. Bonacich and Wilson point out that "[d]isruptions in the flow of goods can be very costly to [a] company. In addition, the fact that global production depends on extended supply lines means that these lines can be cut by organized strikes and protests" (2005, p. 74). As a

result, particularly in the era of just-in-time production, there are clear weaknesses in corporate supply chains that should not be ignored.

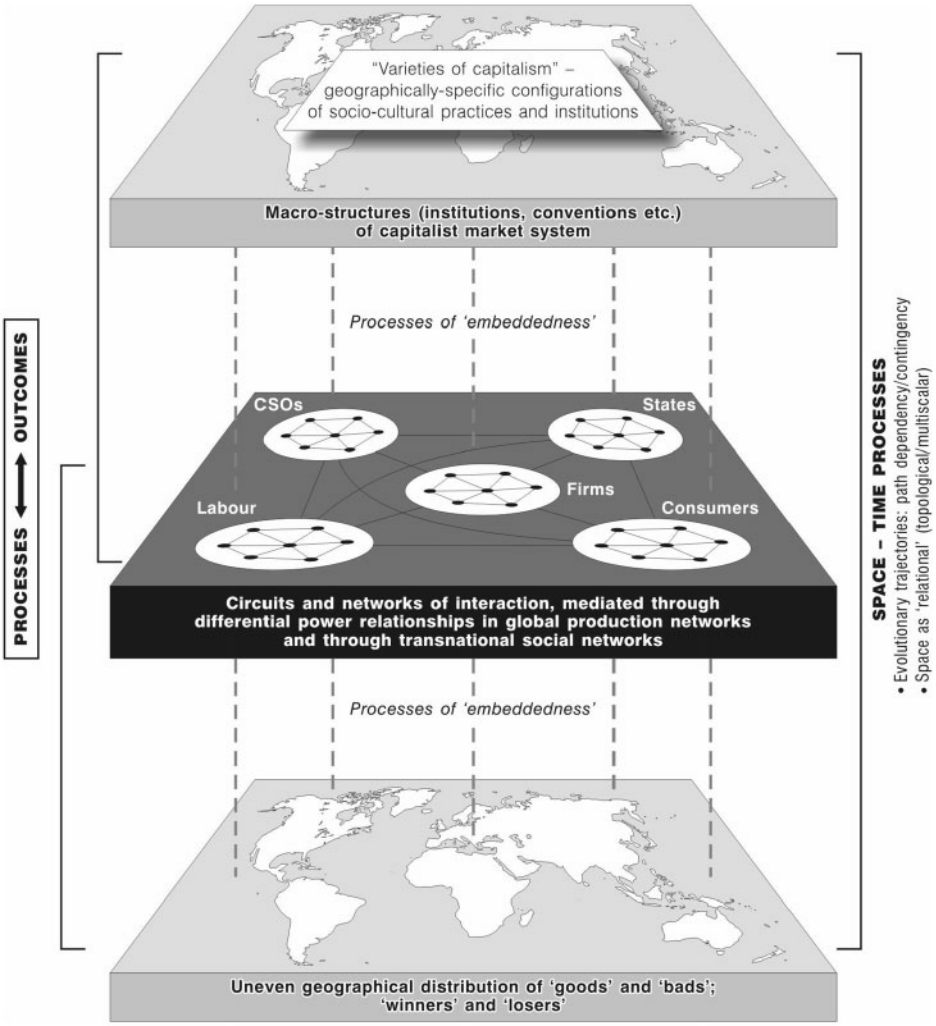

Figure 12: The Global Production Network (GPN) framework (Coe et al. 2008, p. 273)

Using the GPN framework as a foundation for this research helps identify and sharpen the focus on such key nodes of influence within production and consumption processes. In turn, because I am not using GPNs as my primary analytical tool (but rather the BTS model), the fact that certain key actor groups have been underrepresented in GPN research to date is unfortunate, but ultimately acceptable.

PART III: CASE STUDIES

5 Methodology and Data Sources

Since the BTS model consists of a combination of four separate approaches (MLP, C-DILC, and SSBC/C-CADM), the empirical application likewise needs to take place in a stepwise fashion to account for all four underlying models. In the case studies that follow, the C-DILC model serves as the starting point of the entire model. A method akin to Hall's systematic process analysis is used (2006) to analyze both quantitative and qualitative data. Using searches in the media database LexisNexis, the level of public and industry-specific attention to social sustainability issues in the relevant sector is measured over time from the early 1990s to 2016 (1994 for smartphones, 1990 for garments). An examination of this data allows for a preliminary determination of the issue lifecycle phases. The quantitative data is then supplemented with a qualitative systematic process analysis of historical events (Hall 2006), which allows me to uncover relationships and examine interactions between various stakeholders in greater detail. The specific events are gathered using a mixed search strategy as described in Greenhalgh and Peacock (2005). These results, in combination with information gained from expert interviews, are then analyzed using the two behavioral models to better understand the decision-making processes underlying the actions of both corporations and consumers in the context of each industry. In the end, all of these results combined are used to garner insights into the transition according to the multi-level perspective. The following sections will describe the methodology used in greater detail.

5.1 Systematic Process Analysis

Like prior similar endeavors (Geels and Penna 2015; Penna and Geels 2015, 2012), I use the method of systematic process analysis to conduct my quantitative and qualitative analyses. Systematic process analysis, a form of process tracing, is a methodological approach aimed at explaining a particular outcome of events that is used in social science research where statistical methods are not appropriate. This may be due to the small number of available cases, due to causal factors that cannot readily be measured quantitatively or due to the fact that outcomes are "the product of an intricate strategic interaction among reformers, extremists and defenders of the old regime" (Hall 2006, p. 26). In the case studies presented here, all three of these factors apply.

Hall (2006) further identifies three separate modes of explanation in the social sciences: historically specific explanations, multivariate explanations and theory-oriented explanation. Systematic process analysis is used for theory-oriented explanation, which is described as follows:

> "[Theory-oriented explanation] construes the task of explanation as one of elucidating and testing a theory that identifies the main determinants of a broad class of

> outcomes and attaches special importance to specifying the mechanisms whereby those determinants bear on the outcome. In contrast to historically specific explanation, the object is not to provide a complete explanation for why one outcome occurs at a particular time and place, but to identify the most important elements in the causal chain generating this class of outcomes. In contrast to multivariate explanation, this approach attaches less value to securing precise parameter estimates for a few key variables seen as the 'ultimate causes' of the outcome and more value to identifying regularities in the causal chain through which the relevant outcome is generated. **The focus is on elucidating the process whereby the relevant variables have effects**" (Hall 2006, p. 25, emphasis added).

Systematic process analysis is particularly useful for research with small-n designs, where the focus is on examining the causal chain of a small number of cases in great depth using an approach guided by a specific theory. When conducting these case studies, observations should be made

> „about the events that can be expected to occur if a theory is valid, the sequence of those events, the specific actions taken by various types of actors, public and private statements by those actors about why they took those actions, as well as other observations designed to establish whether the causal chain that each theory anticipates is present in the cases" (Hall 2006, p. 28).

All of these actions and interactions of various actor groups in the case studies presented here take place in the specific context of global production networks. While my focus will be on analyzing specific events and actors' resulting responses, it is important to understand the underlying political and economic structures, interdependence among various actors and historical path dependencies that characterize the situation within which these specific events take place. I will therefore begin each case study with an introduction to the sector being studied from the perspective of the GPN framework described in Chapter 4. I then move on to the analysis of both quantitative and qualitative data, both of which are necessary to perform a comprehensive analysis according to the BTS model.

5.1.1 Analysis of Media Coverage

A first element of the C-DILC model analysis is the evaluation of public awareness of social sustainability issues in each sector using a media coverage analysis. As described by Penna and Geels (2015), the measurement of public awareness and concern requires the identification of relevant proxy variables, as it cannot be measured directly. In democratic societies, the media is a primary vehicle of public communication and, as such, agenda-setting in society. Media coverage of a topic is therefore an appropriate indicator for public issue-attention and following the work of Newig (2004), I measured the level of media coverage as the number of articles on a specific topic per year.

As in prior work (Penna and Geels 2015), media searches were conducted as keyword searches in the database "LexisNexis News and Company" (hereafter LexisNexis). This

database includes 23,000 international press sources, such as newspapers, magazines, trade journals, news wires and agency news.

Penna and Geels limited their searches to four large newspapers and articles that included their search strings in the headlines. Since my case studies are quite current (what Elzen et al. refer to as “transitions in the making” (2011, p. 263)), I chose to use a more fine-grained search approach. Specifically, when looking at an ongoing transition that may not yet have progressed to the later C-DILC-stages where public awareness rises significantly, it makes sense to conduct searches on a monthly basis,[8] including all sources, and allowing references to the search terms to be found anywhere in an article.[9] This way, early references to the issue can be caught even before it has reached mainstream newspapers. Moreover, using a monthly search approach, the data can be used to more easily identify relevant events for the qualitative part of the case study.

The search results were generated using LexisNexis’ pre-defined source list “All News, All Languages” and all searches were run from January 1, 1990 through December 31, 2016 (garments), respective January 1, 1994 through December 31, 2016 (smartphones). Duplicate articles were counted multiple times, since the diffusion of a single article through multiple sources increases the size of the readership and thus the potential for public awareness.

My analysis included multiple search strings for each case study, each made up of multiple keywords (see Appendix 1). As Lacy et al. (2015) point out, the use of single-keyword searches can lead to imprecise results and be tainted by the researcher’s bias. By combining a series of literature-based keywords into search strings, the search validity is increased. The search strings were created in an iterative process using Boolean search operators. Manual spot-checks were used to check for precision, i.e. the relevance of articles found (Stryker et al. 2016). Where necessary and possible, the operator AND NOT was used to exclude obviously irrelevant search results. Searches were conducted both in English and in German and adjusted according to the respective Boolean search operators of each database.

The analysis of public attention using media coverage as a proxy has a series of advantages over other methods of measurement. First, it is widely applicable to any topic

8 Since it is very labor intensive to conduct monthly searches over a longer period of time manually, I used an AutoHotkey-Script to automate part of the process. Many thanks go to Benedikt Schneyer for his invaluable help with this task.

9 Since the search terms used are case study specific, these will be discussed in detail in Sections 6.3 and 7.3, respectively.

of interest and comparatively cheap and efficient. In contrast to other methods of measuring public attention, such as polls or surveys, there are no inherent limits to the issues that can be quickly and easily analyzed using media coverage. Search strings on any topic can be used without the added cost and time otherwise necessary to design and carry out large-scale data collection projects, since newspaper archives present a readily available data set of enormous size (Newig 2004).

Second, using searches in a large database like LexisNexis, rather than searching through the archives of individual newspapers is both more time- and cost-efficient and more likely to catch innovative niche approaches early on. Reporting on niche activities may only reach major, large-scale newspapers once a niche has reached a more advanced degree of diffusion, whereas smaller local newspapers or industry-specific magazines may write about it at a much earlier stage.

Finally, media analyses allow for the creation of both historical and current time series on any issue of interest, allowing for a quickly accessible overview of the development of the level of public attention to any topic over a broad range of time. The database LexisNexis is updated daily, although the historical coverage of the included sources is strongly variable (see further discussion below).

The interplay of these advantages allows this methodology to be applied particularly well to issues that are still in the early stages of development: “Polls, by contrast, most often only cover issues already ‘established’, thereby excluding the most sensitive first stages of attention cycles” (Newig 2004, p. 159). Yet an early identification of niche activities is key in the context of socially desirable sustainability transitions, since these should be identified and fostered early on to ensure their diffusion to a larger scale.

Nevertheless, there are also a number of disadvantages to using LexisNexis as the basis for media coverage and public attention analysis that should be taken into consideration when interpreting the results. The most critical of these are the possible biases inherent in conducting searches in any database with limited sources. While LexisNexis at present includes over 23,000 international press sources, not all of these sources provide the same historical coverage. For example, while some sources extend quite far back in the database (*Washington Post*: 1977; *The New York Times*: 1980; *Neue Zürcher Zeitung:* 1993; *Süddeutsche Zeitung:* 1994), others have only been added quite recently (such as *Die Zeit:* 2008; *Financial Times Daily:* 2013; *BILD:* 2017).[10]

10 While it is possible to ascertain the historical coverage of each individual source, LexisNexis unfortunately does not provide summary details of how many sources are available for each year in the past. Given the large number of available sources, checking each source individually to reach a total per year is not economically feasible.

Finally, the quality of search results is dependent on how well issues can be captured in keywords. This can be problematic when relevant keywords are not distinct or unambiguous enough, although this issue could be resolved in the present study through the use of exclusions ("AND NOT"). Related to this are questions of recall and precision: recall is a search string's "ability to accurately call up items of interest," while precision refers to the relevance of articles found (Stryker et al. 2016, p. 413). In theory, both measures can be quantified for the use in statistical analyses (see e.g. Lacy et al. 2015). However, to achieve an accurate measure, all search results would need to be manually coded, which is a very time-consuming and involved process that is not realistic for large numbers of search results.

Unlike the work of Geels & Penna (2015), I did not perform statistical analysis on the data for the case studies, but rather performed an exploratory visual examination of the data (Keim 2002). As Hall describes, statistical analysis may not always be the right approach for theory-oriented explanations, since "recent theoretical developments in social science tend to specify a world whose causal structure is too complex to be tested effectively by conventional statistical methods" (Hall 2006, p. 26). Examining the data visually provided a general overview of the progression of the issue lifecycles and overall transition, including pinpointing the timing of specific trigger events (which cause a spike in media attention) and indicating whether and when issue lifecycles took place.

Within the media coverage analysis, I also focused more specifically on industry attention. I generated an industry attention measure by running search queries in LexisNexis within a set of limited sources made up of sector-specific trade journals, which will be detailed in Chapters 6.3 and 7.3 for each case study respectively.

5.1.2 Analysis of Historical Events

The second component of the C-DILC model application is an analysis of historical events, which are divided up into five phases:

- Phase 1: problem identification and definition by early activists
- Phase 2: social movement formation and defensive industry/regime responses
- Phase 3: public discussion and framing, formation of a market for moral consumption and defensive industry/regime hedging
- Phase 4: dramatic increase in public attention, industry/regime split between early-mover incumbents and those actively fighting changes
- Phase 5: issue resolution and new or adjusted regime

Each C-DILC phase is characterized by specific behavioral patterns to be found among activists and social movements, policymakers, and the industry under pressure. In the

case studies, I determine specific date ranges for each phase based on the behavioral patterns that *dominate* during that time range. However, it needs to be understood that this categorization is not absolute, meaning that behavioral patterns expected in phase 2 may still occasionally appear in phase 3 or 4, or vice versa. The distinction between phases 2 and 3 is particularly blurry, both for problem-related pressures and industry responses. On the pressure side, social movement organizations (SMOs) begin to emerge during phase 2, but as time goes on, further organizations are founded even in later phases. Moreover, the role of these SMOs both in phase 2 and 3 is to create public awareness for their issues by mobilizing resources, organizing public events such as protests or demonstrations and promoting their own frames in public discourse. The main difference between the phases is the amount of public attention the issues can command, the beginning involvement of policymakers in phase 3 and the intensity with which the industry responds. Here, likewise, the difference between phase 2 and 3 is often difficult to determine; Geels and Penna (2015, p. 71) distinguish the two phases by whether the issue affects the secondary (phase 2) or primary (phase 3) involvement arena of a corporation.[11] I would add to this the degree (low in phase 2 and high in phase 3) to which a company's reputation is seriously in danger or even damaged by an issue and the corresponding urgency, with which the corporation responds and pursues concrete issue management strategies.

Dialectic issue lifecycles can be, but are not always linear and continuous, i.e. they do not always move steadily from phase 1 to 2, 2 to 3, and so on, especially when the resolution of the issue at hand requires a large-scale or long-term transition. Instead, the development of the dialectic issue lifecycle can be cyclical, meaning that it moves repeatedly both forward and backward between the different phases, before eventually reaching some type of issue resolution.[12] While different cycles can be separated by periods of public apathy to the issue, each subsequent cycle builds upon its predecessors, since the public, media, industry and political apparatus have already been primed by prior cycles, as was already explained in Chapter 3.2.2. This cyclicality can therefore be an important factor in propelling a transition forward if a single trigger event is not powerful enough to open up a window of opportunity for a transition. Note that cyclical dialectic issue lifecycles, like transitions, can take place over several decades.

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11 The primary involvement arena is defined as the company's "area of specific tasks and responsibilities", whereas the secondary involvement arena consists of "those areas that company products or activities affect or are affected by but are not central to its mission" (Mahon and Waddock 1992, pp. 26–27).

12 Note that the term 'issue resolution' simply denotes the end of the issue lifecycle, not necessarily an outcome in favor of those who raised the issue in the first place.

An evaluation of a transition using these C-DILC phases requires a detailed understanding of events related to the issue in question. I define the term 'event' quite broadly in this context. Examples from the niche include civil society actions, such as the publication of investigative reports or the staging of protests, trigger events that catapult the issue into the media, as well as milestones (or failure) of niche projects that demonstrate alternative behaviors. Events from the regime can consist of press releases or official statements in response to the niche or trigger events, symbolic actions to address rising concerns, or research and development of alternative behaviors. Depending on the issue in question, there may also be lawsuits, political investigations, hearings or debates. Note that in the early stages of a transition (primarily Phase 1), a regime's lack of acknowledgment (i.e. ignoring) of problem articulation by niche activists should also be included as an 'event', since it is an indicator of the regime's early behavioral pattern.

My approach to finding relevant events included both formal and informal components. The formal strategy consisted of protocol-driven searches (Greenhalgh and Peacock 2005) using Google Alerts, SCOPUS searches, the systematic review of the news archives of several NGOs that were identified as key civil society actors with regard to social sustainability issues in each industry and the subscription to relevant newsletters. Many other sources provided a significant amount of information, but were not consulted as exhaustively. These included online information from NGO and civil society initiatives, blogs, user forums and corporate homepages as well as online news sources.[13] In addition to the targeted searches listed above, I also employed more informal search methods, such as "browsing, 'asking around,' […] being alert to serendipitous discovery" as well as "snowballing" (Greenhalgh and Peacock 2005, pp. 1064–1065).

The events included in the analysis consisted of:

- Sustainability and NGO reports and corresponding civil society or industry responses;
- suicides, accidents, cancer clusters, explosions;
- laws, lawsuits and legal decisions; and
- the emergence and activities of niche actors.

Since time is an important factor in all of the approaches that make up the BTS model, I organized the list of relevant events chronologically and assigned each event to one of the five C-DILC phases based on the characteristics found in Appendix 2. Coding the

13 Detailed information on the specific sources used can be found in the Publication bibliography.

events by C-DILC phase allows patterns to emerge that indicate the path of the lifecycle over time. Each phase includes 'problem-related pressures' and 'industry responses', which in my study always relate to social sustainability issues in the two case study industries. As Penna and Geels suggest, the aim of the qualitative approach is the development of "a comprehensive multi-dimensional analysis" (2015, p. 1034), whose level of detail allows me to postulate causal relationships and gain greater insights into the outcome of various interactions between different stakeholders.

5.2 Expert Interviews

Given this dissertation's focus on transitions in the making, an underlying assumption is that the transitions in question have not yet been completed. This means that some of the changes I am interested in are subtle and hard to measure as 'facts'. I was thus interested not only in concrete evidence-based information, but also in experts' personal insights. During the introduction of each interview, experts were therefore invited to openly communicate their experiences and opinions and it was emphasized that I was just as interested in impressions and personal assessments (in their capacity as an expert) as in hard facts.

As regards content, the focus of the expert interviews was to gather information that could be matched to the behavioral models to identify which stages of each model are generally passed successfully, resp. where escape and denial is taking place. More specifically, with regard to the BTS model, there are three milestones of particular relevance:

1. *Perceived negative consequences*: Has public awareness of an issue risen enough to make individuals and/or corporations aware of the negative consequences of their own actions?
2. *Perceived goal feasibility*: Have social innovations in the form of alternative behavior solutions been developed and communicated sufficiently to make the goal appear manageable to an individual and/or a corporation? Which drivers and obstacles for such a change are perceived to be the most significant?
3. *Perceived behavioral control over alternative behavioral change strategies*: Are the necessary institutional and infrastructure prerequisites readily available for behavioral alternatives, so that these behaviors can actually be put into practice? If not, what is missing?

To ascertain opinions on these questions, the expert interviews were semi-structured and guided using a set of open questions as described by Gläser and Laudel (2009).[14]

[14] The experts interviewed as well as the specific questions used for each case study are described in greater detail in the case studies.

This approach ensured that the interviews were similar enough to be comparable while at the same time providing enough flexibility regarding the order and follow-up of questions for the interview to take place as a natural conversation (Mayer 2009, p. 37).

With permission of the interview partners, all interviews were digitally recorded and transcribed. I then coded the interview transcriptions using the software MaxQDA. An initial list of codes was created based on the underlying theoretical concepts of the BTS model. This list was then supplemented with a few additional content-based codes that arose during the early stages of the coding process.[15]

Once all interviews were coded completely, the codes were merged into six sets for further analysis:

1. Consumer Behavior
2. Corporate Behavior
3. Drivers of a BTS
4. Obstacles of a BTS
5. Factors pertaining to the Global Production Network
6. Political Solutions

The final list of codes used as well as the mapping of codes to sets can be found in Appendix 3.[16] The coded passages of each set were then examined individually to create a list of statements concerning each set, divided by sub-topics, which resulted from the content of the interviews. For example, in set 5, sub-topics included statements regarding

- governments of producing countries,
- factories in producing countries,
- social audits,
- transparency,
- structural problems, and
- the processual nature of change in GPNs

For each statement, I noted which interview partners had made this assertion, to get a sense of whether each statement represented a common or rather unique opinion. Insofar as contrasting statements were made on an issue, all opinions were included as

15 Insofar as codes were added during the analysis of later interviews, those interviews already coded earlier were re-examined once more to see if and where the new codes were applicable.

16 Some codes were not included in any set as they were either deemed irrelevant for the analysis or never occurred on their own, since multiple codes can be assigned to the same text passages.

separate statements, each time with a notation of how many of the interview partners had presented such an opinion.This list of statements for each set was then used as the basis for the behavioral analyses presented in each of the case studies (Chapters 6.6 and 7.6, respectively).

The qualitative analysis of events described above can give insight into the status of each of the milestones described above, which are prerequisites for a successful behavioral transition towards sustainability. Identification of the most likely points of escape and denial in the behavioral stage models allows actors pushing towards a sustainability transition to tailor their actions more clearly to the stage where behavioral change is most likely to break down and thus increases their chances of success.

6 Case Study 1: The Smartphone Sector[17]

6.1 Introduction

I now turn to the first case study, which focuses on the smartphone sector. Although smartphones are still a relatively new invention, they have quickly become ubiquitous throughout large parts of the world. As a result of rapid innovation cycles and poor repairability, they are also frequently replaced after as little as one to two years of use. Although there is beginning to be a general awareness of the negative ecological effects of this practice, only very few consumers are fully aware of the social implications of smartphone production. Like in other industries, the globalization of the production process of electronics has led to the creation of complex GPNs whose early stages are often characterized by poor working conditions. Particularly in supplier factories in developing countries, social sustainability issues (SSIs), including low wages, excessive overtime, child and forced labor, as well as a disregard for occupational safety and health standards, are still common. However, in recent years, public awareness of these issues has begun to increase somewhat as a result of publicity campaigns by NGOs and journalists, as well as the provision of alternative products with a focus on greater sustainability, such as the Fairphone.

In this first case study, I will therefore examine whether and to what degree a behavioral transition towards greater social sustainability is taking place in the smartphone sector. The case study is organized as follows: chapter 6.2 provides a brief overview of GPNs in the smartphone industry. Chapter 6.3 outlines the data sources specific to this case study. Chapters 6.4 through 6.6 present the empirical results and chapter 6.7 summarizes.

6.2 Global Production Networks in the Smartphone Industry

6.2.1 Historical Development

Beginning as early as the 1960s, labor-intensive manufacturing in the electronics industry was moved from US and European sites to Asian factories to reduce production costs through the use of cheaper labor and lower regulatory standards. This outsourcing trend continued with increasing speed throughout the 1970s and 1980s. China emerged as

[17] A prior version of Chapter 6 was previously presented at the International Sustainability Conference 2017 in Göteborg, Sweden and was subsequently published as a working paper (Bodenheimer 2018d).

the dominant location for electronics manufacturing by creating special export processing zones to attract more foreign direct investment and increase its sales through exports as well as offering an abundance of cheap labor that consisted primarily of young rural migrants (Chan et al. 2013).

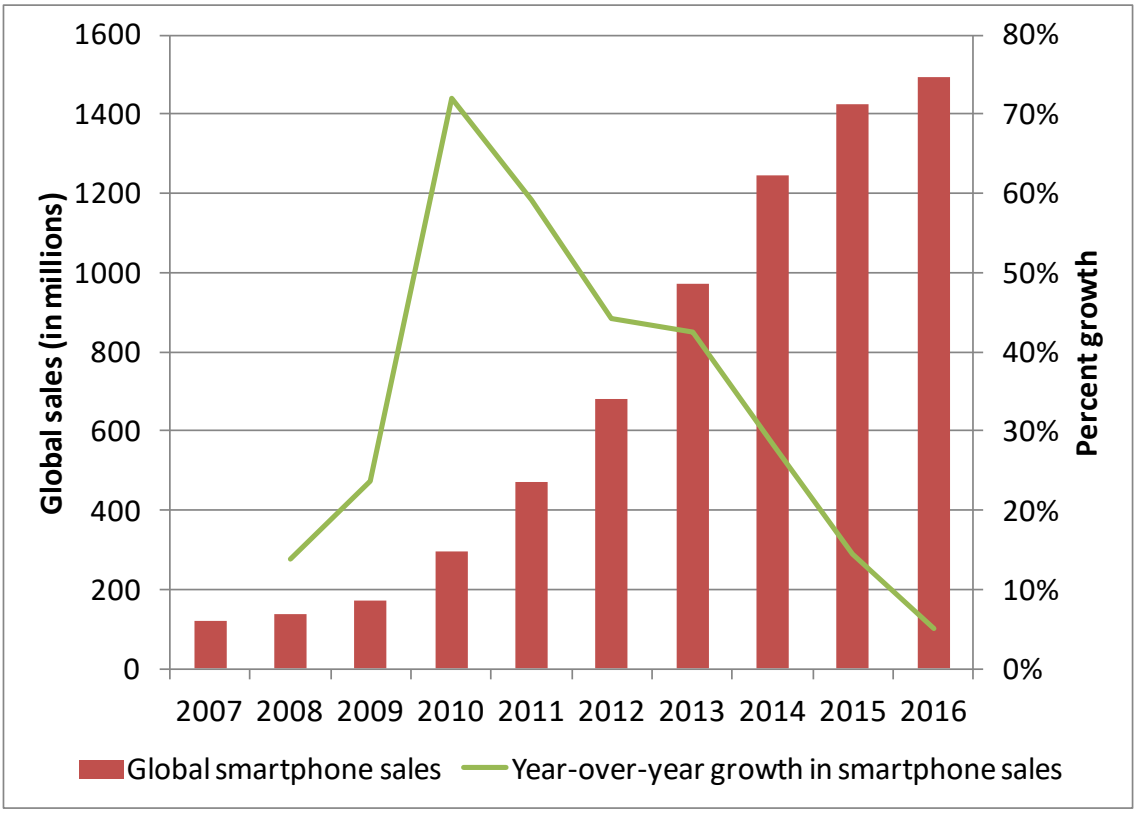

Figure 13: Global smartphone sales to end users (Data source: Statista 2017b)

Hon Hai Precision Industry Company (also known as Foxconn) was founded in Taiwan in 1974 (Pun et al. 2016) and became China's leading exporter after the country ascended to the World Trade Organization in 2001 and liberalized its international trade (Chan et al. 2013). Electronics manufacturing service (EMS) providers that started out in North America or Europe increasingly moved their operations to Asia, closing plants in Western countries. While the top five exporters of mobile phones in 2001 (Germany, UK, South Korea, US, Finland) accounted for 52% of all exports, by 2011, all of the original top exporters except South Korea had been replaced, with the top countries being China (43%), Korea (10%), Hungary (7%), Hong Kong (7%) and Mexico (5%). Together, these five countries accounted for 73% of all mobile phone exports, showing that production had become much more geographically concentrated in just one decade (Lee and Gereffi 2013). At the same time, the mobile phone sector also grew significantly, with global

exports almost tripling between 2001 ($63 billion) and 2006 ($183 billion) (Lee and Gereffi 2013).

Beginning in the mid-1990s, mobile phone manufacturers began introducing phones with mobile internet capabilities. While the first models saw popularity among early adopters, the introduction of Apple's iPhone (2007) is credited with truly revolutionizing the mobile phone industry (PC Mag n.d.).

As can be seen in Figure 13, global smartphone sales have been increasing continuously since 2007, with the most significant year-over-year growth taking place from 2009 to 2010. By 2013, a UN study found that 6 out of the world's 7 billion people had access to a mobile phone (Wang 2013). Growth rates in smartphone sales have decreased steadily since then as the market has become increasingly saturated and new innovations in the smartphone sector have slowed down (Gartner 2016a). By early 2016, Gartner assumed a smartphone penetration rate of 90% in developed countries and predicted that users would stop replacing their smartphones as often as in the past, thus increasing their devices' lifespans (Gartner 2016b).

6.2.2 Current Regime: Actor Groups, Interactions and Power Relationships

The smartphone industry is dominated by Samsung and Apple, who together control roughly 40% of the global market share of sales to end users. Samsung has consistently been the top smartphone vendor since 2012, with its market share hovering between 20 and 30 percent (Statista 2017a). However, although it does not sell the largest number of phones, Apple has for years captured the lion's share of the smartphone industry's profits, with 'as little' as 76% (Q4 2013) and as much as 93% (Q4 2014) of profit shares going to the US firm (Chen 2014, 2015).

The smartphone industry has undergone simultaneous processes of fragmentation and consolidation over the last decade: Fragmentation has taken place in the *breakdown of activities*: while brand name companies continue to perform high-value added activities such as R&D and marketing themselves, low-value added tasks such as production and assembly have been almost entirely outsourced to suppliers (Lee and Gereffi 2013). Because significant changes in the volume of production in the smartphone sector are commonplace, suppliers must operate with "extreme employment flexibility and huge fluctuations of the workforce" (Lüthje and Butollo 2016, p. 220).

This flexibility is also necessary in order to keep up with the industry's demand, which has been fuelled by the rising significance of smartphones as a consumer product and status symbol. While times between the release of new iPhone models amounted to

more than a year in 2008, Samsung's "new product rollout time" was as little as 91 days in 2013 (Bartley et al. 2015, p. 183). This has significant implications for the necessary production capacities, where output sometimes needs to increase by as much as 20 % prior to a new model release. For giant Foxconn, this would mean hiring 200,000 short-term employees prior to each new product launch (Chan et al. 2013). Since hiring – and training – such a large number of workers in a short period of time is nearly impossible, overtime tends to skyrocket during peak production times, such as during pre-holiday sales and when new models are released (Chan et al. 2013).

Consolidation, in turn, has taken place *within activities*. This can be seen both among brand name original equipment manufacturers (OEMs), such as Samsung and Apple, and their suppliers: "lead firms facilitate the agglomeration of production in a specific region […] by co-locating their key suppliers, which multiplies the effect of their relocation on job creation" (Lee and Gereffi 2013, p. 9). For smartphones, sub-contracted manufacturing takes place primarily in the Pearl River Delta in China, "with complete supply chains, including software, displays, [printed circuit board] design and production, and chip development" (Lüthje and Butollo 2016, p. 223). Some argue that this strategic consolidation is the only way for OEMs to effectively meet market demand (Yeung and Coe 2015).

However, while seven EMS companies made the Fortune 500 list in 2016 and lead firms are clearly dependent upon them, value distribution still clearly favors lead firms (Lee and Gereffi 2013), as do power relations. In discussing last-minute changes to production, a Foxconn manager conceded that "'[n]aturally, Apple's supplier code on worker safety and workplace standards and China's labour laws are all put aside' (*Interview*, 7 March 2011)" when necessary to meet demand (Chan et al. 2013, p. 107).

6.2.3 Social Sustainability Issues

Thus, while suppliers have managed to improve certain labor standards outside of peak production times, such as the number of overtime hours, the welfare of employees continues to be subservient to just-in-time production and profits. The problems associated with working conditions in the current smartphone (and more generally, electronics) regime are amply documented by many different sources, such as Lüthje and Butollo (2016), Bartley et al. (2015), Lüthje et al. (2013), Duhigg et al. (2012), and Smith et al. (2006). They include, but are not limited to, the following issues:

- Poor working conditions, especially with regard to occupational safety and health
- Excessive overtime hours
- Less than one day off per week

- Minimum wages too low to support an acceptable living standard
- No health insurance or other forms of social security
- Use of child labor
- Use of forced or bonded labor, recruiting fees and involuntary student interns
- Discrimination on the basis of gender, age, origin, religion, sexuality, health (i.e. Hepatitis, HIV, pregnancy, etc.)
- Inadequate, company-mandated living quarters
- Militaristic management style
- No right to collective bargaining or the formation of unions
- No freedom of association
- Use of conflict minerals

6.3 Data Sources

Since I have already described my methodology in depth in chapter 5, here I will only briefly cover the data sources used specifically for the smartphone case study.

6.3.1 Quantitative Data

The analysis of public attention based on media coverage included six search strings for the smartphone case study, each made up of multiple keywords. The search strings can be found in Appendix 1.

With regard to industry attention in the smartphone sector, I used two American trade journals from the electronics industry, *Communications Daily* and *Consumer Electronics Daily*. To cover the German market, I also ran a search directly in the online archive of the website Heise.de, which includes a number of different electronics and technology publications, including *c't*, *Technology Review* and *iX*.

6.3.2 Qualitative Data

There were a very large number of relevant sources for the historical event analysis, which can be found in the publication bibliography. However, four NGOs were identified as key civil society actors with regard to social sustainability in the smartphone industry: WEED e. V., China Labor Watch, Students and Scholars Against Corporate Misbehaviour, and Electronics Watch. For these organizations, I performed a systematic and complete review of their online news archives.

It should also be noted at this point that at the outset of the case study, no specific focus on brands or geographical locations was set. However, a focus on the companies Apple

and Samsung emerged, simply because these are the largest and most dominant corporations on the market and are therefore discussed most prominently by the media, NGOs, and generally in the public realm. The same thing applies to the producing countries: without specific intention, China and South Korea quickly emerged as focal areas, because much of the research and reporting that is available focuses on these two countries.

6.3.3 Expert Interviews

To supplement the second-hand data described above, a total of nine interviews were conducted for the smartphone case study with experts from the following organizations:

- WEED – Weltwirtschaft, Ökologie & Entwicklung e. V.
- Students and Scholars Against Corporate Misbehaviour
- PowerShift für eine ökologisch-solidarische Energie- und Weltwirtschaft e. V.
- Germanwatch e. V.
- Verbraucherzentrale Nordrhein-Westfalen e. V.
- c't – Magazin für Computertechnik
- Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)
- Two brand name smartphone manufacturers (under the condition of anonymity)

The experts were selected in such a way as to include perspectives from all parts of the value chain being considered in this research.

6.4 Quantitative Analysis of Public and Industry Attention

Having described my data sources for this case study, I now present the findings with regard to a possible transition towards greater social sustainability in the smartphone sector. The chapter begins with the quantitative analysis of media coverage of SSIs in the smartphone industry.

6.4.1 Media Coverage and Public Awareness

The amount of media coverage for SSIs related to individual brands is used as a proxy for public awareness. Figure 14 shows the amount of media coverage of SSIs among smartphone brands from the regime. Since there were no relevant articles published prior to 2006, data is only shown as of 2005. Apple's iPods were included in the search as the direct precursor to smartphones and are the subject of a 2006 article in the British

Mail on Sunday (2006), which published a first exposé on the working conditions of Apple's Chinese production lines.

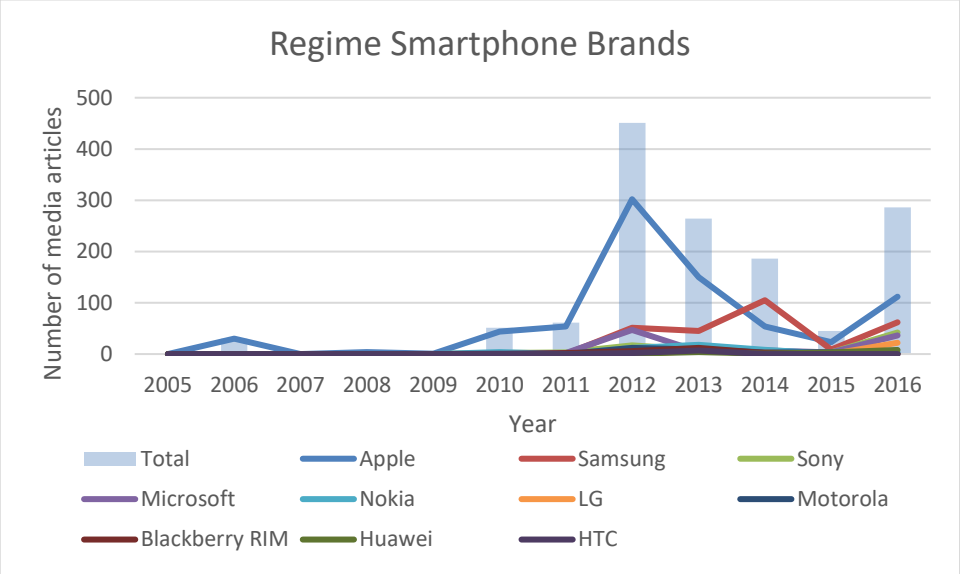

Figure 14: Media coverage of SSIs among smartphone brands from the regime (Data source: LexisNexis)

Thereafter, the media returned to silence concerning SSIs in the smartphone sector until 2010, when the number of articles reached 50 for the first time in large part due to the wave of suicides at Chinese Foxconn plants. In 2012, probably in part as a result of a nine-part, Pulitzer Prize winning New York Times series on the "iEconomy" (Duhigg et al. 2012), 450 media pieces were published and more than half of them focused on Apple. The reporting in 2014 focused overwhelmingly on Samsung and its handling of a cancer cluster among its employees manufacturing semiconductors. Following a noticeable slump in 2015, reporting again increased drastically at the beginning of 2016, due to a significant extent to Amnesty International's revelations regarding the use of child labor in the Democratic Republic of the Congo for the extraction of cobalt used in electronics supply chains, including smartphones (2016).

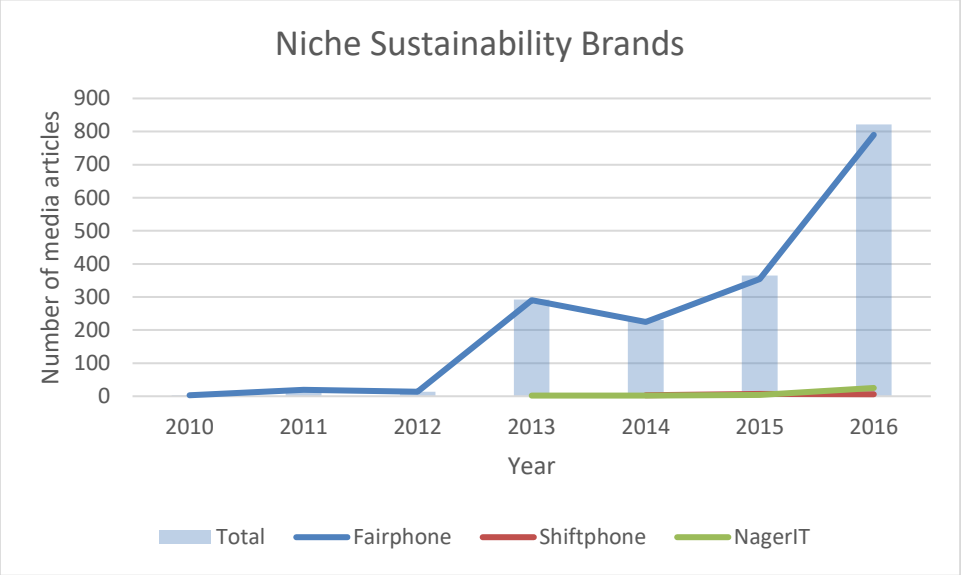

Figure 15: Media coverage of SSIs among niche sustainability brands (Data source: LexisNexis)

Beginning in 2013, the media also began to be interested in niche brands with a specific focus on social sustainability – especially the company Fairphone (Figure 15). Counting articles in all languages, Fairphone calculated that it was mentioned over 6000 times in 2016 alone (van Abel 2016). My search, conducted only in German and English, yielded approximately 800 search results for the same year.

While the SSIs examined above focus mainly on working conditions in factory settings and their impact on individual workers, social sustainability issues can also be of a larger, more political nature. This is the case for the issue of conflict minerals, which impact individual miners, but also an entire region in Africa covering several countries. Since conflict minerals have been treated as a separate issue from other SSIs both in the public discourse and political discussion, I have chosen to also cover them separately in my analysis. Figure 16 shows both coverage of conflict minerals in general and with specific reference to smartphone brands.

As early as the year 2000, almost 500 articles were published on the subject of conflict minerals. In 2006, 2010 and 2012, there were significant increases in coverage leading to about 12,000 articles in 2012, followed by a dramatic spike in 2015 and 2016, with over 50,000 articles being published in 2016 (Figure 16a). This certainly makes conflict minerals a "celebrity issue" in the public discourse. However, there was fairly limited media coverage specifically tying the issue of conflict minerals to the production of smartphones by specific brands (Figure 16b). Once again, Apple and Samsung received the most individual coverage on this topic.

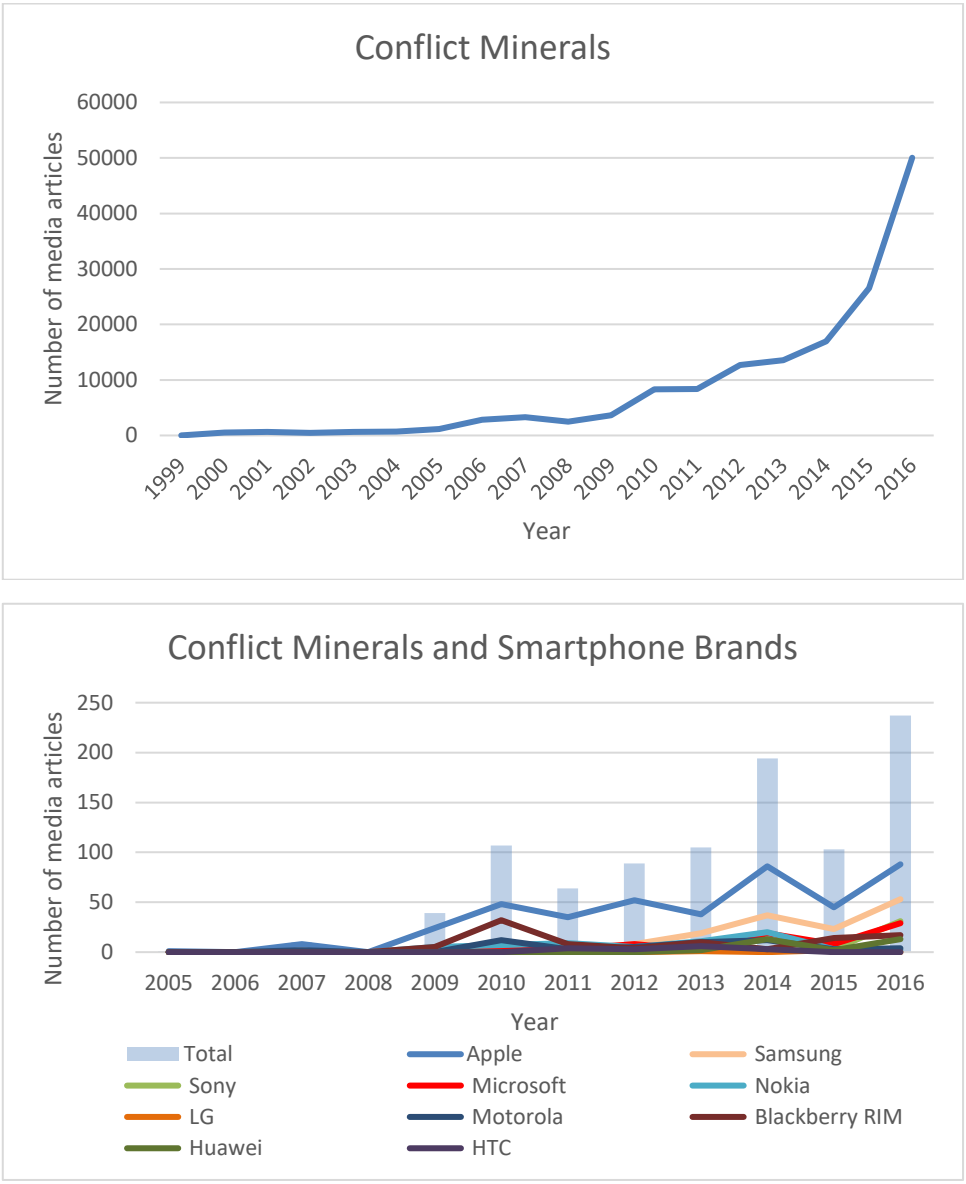

Figure 16: (a) Media coverage of the issue of conflict minerals; (b) media coverage of conflict minerals and smartphone brands (Data source: LexisNexis)

6.4.2 Industry Attention

In addition to examining media coverage of SSIs in sources aimed at the general public, I also analyzed coverage of SSIs and smartphones in relevant trade journals for the industry. As can be seen in Figure 17, the US trade journal *Consumer Electronics Daily* includes only a handful of articles in total over the entire time period examined. *Communications Daily* only published a single article on the subject in 2011. Industry coverage

looks quite different for Germany, where the various publications of the Heise group included first articles on SSIs as early as 2003 and published more than 40 separate articles on the subject in 2013.

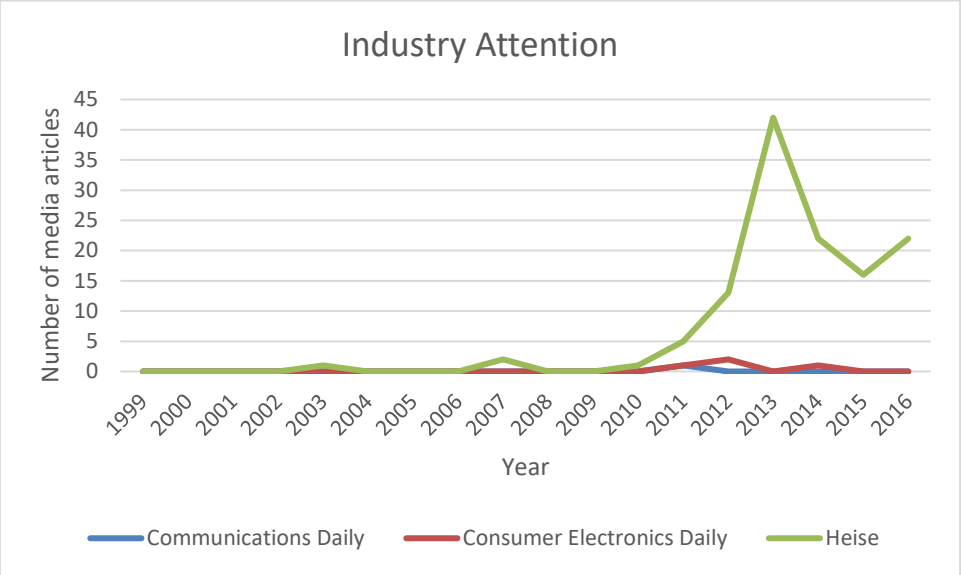

Figure 17: Coverage of SSIs in representative German and US trade journals for the smartphone sector (Data source: LexisNexis)

6.5 Systematic Process Analysis of Historical Events

I now turn to an in-depth qualitative analysis of relevant events that impact the transition towards greater social sustainability in the smartphone sector. While the focus of this case study is on smartphones, the transition I am looking at concerns the entire electronics sector and started well before smartphones were commonplace. Therefore, the historical analysis begins prior to the sale of the first smartphone.

6.5.1 Phase 1 (1994 - 2005)

As a significant amount of electronics manufacturing moved to Asian countries with cheaper labor costs, phase 1 began with activists identifying, defining, and articulating the problem of poor working conditions in Asian (particularly Chinese) factories and their connection to global trade regimes. Several NGOs were founded to address these poor labor conditions: the China Labor Bulletin (CLB), whose primary focus is on increasing the ability of workers to effectively engage in collective bargaining, was founded in 1994 in Hong Kong. China Labor Watch (CLW) followed in 2000 in the US and Students and Scholars Against Corporate Misbehavior (SACOM) was founded in 2005, also in Hong

Kong. These NGOs have regularly published investigative reports since 2003, focusing primarily on factory working conditions (Friedman 2003).

While “the electronics-manufacturing sector started to appear on the radar of labour rights activists, NGOs and investigative journalists” as of the early 2000s, there was almost no reporting on the issue in mainstream media (Clarke and Boersma 2015, p. 5). Given the absence of newspaper reporting, the majority of the public likely had little awareness of SSIs associated with the electronics industry, as is to be expected in phase 1.

The lack of public concern also made it easy for individual companies to ignore NGO accusations and simply refrain from commenting on their reports. It is difficult to know to what degree electronics brands were aware of specific reports internally during this time, but the industry as a whole had certainly become aware of the general relevance of SSIs by 2001, when the Global e-Sustainability Initiative (GeSI) was launched. This was soon followed by the Electronics Industry Citizenship Coalition (EICC), which was founded in 2004 by eight electronics brands and Tier 1 suppliers, “seeking to create a [sic.] industry-wide standard on social, environmental and ethical issues in the electronics industry supply chain.” (EICC 2017b). To this day, the EICC Code of Conduct is employed by many electronics manufacturers as the primary standard-setting document for suppliers with regard to working conditions. In 2004, GeSI also launched a Supply Chain Working Group and as of 2005, the EICC and GeSI began working together. The closed industry front (with regard to (social) sustainability issues) that was forged through this cooperation is one of the key factors that moved the transition into Phase 2.

6.5.2 Phase 2 (2006 - 2009)

A second key factor in moving into phase 2 of the transition is a first increase in media and public attention to SSIs in the electronics, and later the smartphone industry. Three reports are particularly important: first, in May 2006, a 25-year old software engineer at Huawei in China died from exhaustion as a result of excessive working hours. This triggered an intense media outcry in China (Metz 2007). Second, in the summer of 2006, the British *Mail on Sunday* reported on the working conditions at Foxconn’s Longhua iPod factory and connected these problems directly to Apple (Mail on Sunday 2006). Finally, in 2009, the British *Global Post* published a five-part series entitled “Silicon Sweatshops” that reported in detail on labor issues in those factories producing for the electronics industry (McLaughlin and Adams 2009).

In 2007, Apple published its first Final Assembly Supplier Audit Report as a response to the allegations of poor working conditions by the *Mail on Sunday* in 2006. The company

states that third-party auditors first focused only on the factory mentioned in the press, but then “expanded our compliance activities and completed audits of all Mac and iPod final assembly manufacturers in 2006” (Apple 2007, p. 1). The audits consisted of records reviews, interviews with over 500 employees and physical inspections of 11 facilities. The auditors also conducted follow-up inspections after corrective action plans had been issued. This appears to be the first time an electronics brand ordered third-party audits of its facilities and published (a summary of) the results, which can be seen as a first allocation of funds towards incremental innovation in Apple's GPN to address SSIs and fits to industry response activities for phase 2.

Beginning in 2006, the early efforts by individual activists also increased and began including successful resource mobilization, issue framing in public discussions and public protest activities. The resulting emergence of a social movement is the third key factor moving the transition to phase 2. In terms of resource mobilization, the EU funded the international awareness raising campaign ‘makeITfair’ from 2007 to 2014 “to inform young people […] about labour abuse […] in the electronics industry and activate them to improve the situation” (González 2014). The campaign published over 40 reports and reached over 70 million consumers. In 2007, the EU also began funding GoodElectronics, an international network on human rights and sustainability in electronics. By 2016, its members included more than 90 different public and civil society organizations worldwide (GoodElectronics).

Meanwhile, the industry’s closed-front organizations invested some resources into the creation of programs addressing SSIs. For example, one report concludes: “[t]here is growing recognition of a connection between CSR and a company’s ability to attract and retain international customers. In particular, companies within the […] ICT sector are increasingly requiring that their suppliers […] improve social and environmental standards” (FIAS 2007, p. 7). As a result, FIAS, the multi-donor service of the World Bank, launched a project to “develop a capability-building strategy for the ICT sector in Shenzhen to help it meet international social and environmental requirements and improve the soft competitiveness of the industry” (FIAS 2007, p. 7).

The industry used such projects in phase 2 to counter-frame the social movement's messages and to suggest that it was actively involved in improving the situation and no further action – especially of a regulatory nature – would be necessary. Many civil society actors, however, argue that most industry-driven solutions do not set the bar high enough and are not sufficiently transparent. In the FIAS project, for example, it is unclear which “international social and environmental requirements” will be met and how compliance will be verified (2007, p. 7).

Therefore, while publicly-funded activities focused on network-building and awareness-raising, individual NGOs began addressing companies directly and demanding public responses, again seeking to influence the framing of SSIs in the public discourse. In 2006, SACOM launched the “Clean up your Computer” campaign, which addressed working conditions at factories supplying seven brand name companies, including Samsung and Motorola (SACOM 2006). In 2007, Brot für Alle, the Swiss Catholic Lenten Fund and SACOM launched the campaign “High Tech – No Rights?”, demanding responses from 32 brands and GeSI/EICC. By 2008, GeSI had submitted a response - deemed unsatisfactory by the NGOs – and Dell had promised to undertake a study on three surveyed facilities within 90 days, likely an example of symbolic action in phase 2. No other companies – including smartphone producers Apple, Ericsson, Flextronics, Foxconn, LG, Microsoft, Motorola, Nokia, and Samsung – responded (GoodElectronics 2008), so that most regime actors stuck to their closed industry front.

Motorola, meanwhile, distinguished itself as an early forerunner by hiring an independent third-party audit firm to follow up on results published by makeITfair in 2008 (Chan et al. 2008). Similarly, when SACOM’s investigations raised concerns of n-hexane poisoning among workers at a Motorola supplier factory in 2006, Motorola withdrew more than 50% of its orders from this supplier. This was likely a response to the negative media attention it had received as a result of worker rights violations (SACOM 2007). While it is commendable that Motorola acted on SACOM’s report rather than ignoring it, their actions led to the supplier firing half of its employees. A more sustainable - but also more radical - course of action would have been to support the supplier in improving its working conditions. Motorola's response can therefore be seen as exploring incremental innovation with regard to its responses to SSIs, which is not uncommon in single regime actors in phase 2.

As NGOs put pressure on corporations, their employees (i.e. those affected by the issues) likewise began raising their voices and in doing so, became part of the larger social movement. After developing cancer, former employees of Samsung’s semiconductor factories in South Korea demanded compensation through the Korea Workers’ Compensation & Welfare Service (KComWel) in 2007, but lost their claim in May 2009 (Jekutsch 2012). In the same context, the organization Supporters for the Health and Rights of People in the Semiconductor industry (SHARPS) was created in South Korea, which includes human rights and occupational safety and health groups, progressive political parties, and workers’ organizations. SHARPS is at the forefront of the fight for health-related worker compensation and will play a significant role in phase 3.

In China, meanwhile, 7000 workers went on strike in April 2009 at the Wintek subsidiary Dongguan Masstop in Donguan (SACOM 2009a), which produced parts for Apple,

Nokia, HTC and Huawei (SACOM 2009b). The workers protested because overtime pay was lower than the legal minimum and subsidies were being held back. Management eventually agreed to pay the legal mimimum in overtime pay, but other issues remain unresolved. Following this strike, Huawei reduced its Wintek orders by 35%: “Due to the Winteck's [sic] bad behavior regarding to social responsibilities and the adverse effect caused by the CSR Event to Huawei's brand of social responsibilities, Huawei has determined to reduce the orders placed for Winteck products, exerting pressure to Winteck and urging Winteck on the CSR improvement” (Huawei 2009, p. 1).

While at first glance this seems like a very progressive response by Huawei, the NGO SACOM expressed serious doubts as to whether Huawei’s motivation really stemmed from the social responsibility component of the strike:

> “Huawei claims their policy is to give suppliers three to six months to improve conditions before Huawei will reduce orders […]. However, it has not been three months since the 7,000-worker strike at Wintek’s Dongguan Masstop in mid-April 2009, but Huawei have already cut their orders.
>
> It sounds as if Huawei were already planning to reduce the orders anyway and are taking advantage of the coincidence by pretending to have cut the orders as an act of CSR. It seems to us that Huawei reduced the orders because they thought their supply chain would be disrupted by further worker actions” (SACOM 2009b).

If SACOM's assessment is correct, Huawei's actions were more likely symbolic action meant to improve its public image, rather than a radically innovative response to SSIs.

Finally, during phase 2, the issue of conflict minerals began being widely discussed in the press, although only a few articles connected it specifically to the smartphone supply chains of individual electronics brands (see earlier discussion in Chapter 6.4.1). Politically, the issue became increasingly significant, as Republican Senator Brownback of Kansas attempted to introduce conflict minerals legislation in the US Congress both in 2008 and 2009. The Conflict Coltan and Cassiterite Act of 2008 died in Congress, while the Congo Conflict Minerals Act of 2009 was vetoed in Committee (Govtrack 2008, 2009). Although ultimately unsuccessful, these two pieces of legislation are more an early attempt at radical change by an activist policymaker (phase 3) than symbolic action (phase 2) and they were likely important steps towards the US conflict minerals legislation that was successfully passed in 2010 (in phase 3).

While the smartphone production of individual brands was not a significant target of media coverage, the electronics industry as a whole was certainly strongly impacted by the conflict minerals discussion. EICC/GeSI therefore also began taking action on the issue of conflict minerals in phase 2. In June 2008, the organization published a joint report on raw materials used in the electronics industry, including associated conditions along the supply chain. The study concludes that “there are opportunities for the EICC and GeSI

members to influence social and environmental performance in mining and metals production" and recommends that the electronics industry engage with existing initiatives and stakeholders (GeSI/EICC 2008, vi). Shortly thereafter, EICC/GeSI created the Conflict-free Sourcing Initiative, which also runs the Conflict-Free Smelter Program (EICC 2017a) and continues to remain one of the key certifying organizations with regard to conflict minerals.

6.5.3 Phase 3 (2010 - Present)

Three major trigger events, two of them in 2010, moved the transition into Phase 3: 1) the suicide wave at Foxconn that began in 2010; 2) passage of the Conflict Minerals Rule as part of the US Dodd-Frank Act in 2010; and 3) the emergence of the niche company Fairphone in 2013. Moreover, the discussion that was triggered by these events has been kept alive by a series of smaller occurrences that were reported on by civil society and the media and have forced brand name companies to change their strategy in dealing with these issues. A subset of these events will be discussed below.

In 2010, Foxconn received significant global attention, both from the media (Guo et al. 2012) and academics (Chan and Pun 2010; Cheng et al. 2011; Guo et al. 2012; Litzinger 2013; Xu and Li 2013; Ngai et al. 2014) when 13 Foxconn workers committed suicide and 5 more attempted to commit suicide. While media attention to the issue waned over the following years as the frequency of suicides decreased, these events continued to occur for at least another 4 years, with a minimum of 42 Foxconn employees attempting suicide between 2009 and 2014. At least 31 of these attempts resulted in completed suicides.

The most critical time for Foxconn was between March and the end of May 2010, when 12 of the suicides happened, sometimes on a daily basis. Based on articles in the Chinese press, Xu and Li conducted a detailed analysis of Foxconn's crisis management during this time, which they largely describe as a failure (2013, p. 371). Interestingly, Foxconn's communication with regard to the suicide wave follows the expected industry responses of the C-DILC model. The company made no public statement until after the third death and continued not to comment substantively on the suicides until after the fifth case, simply confirming until then that the suicides or attempts had taken place and largely ignoring the issue, i.e. phase 1 behavior. However, "the lack of response from Foxconn's senior management left the dissatisfied voices of the employees and the public unanswered [and …] led to a more negative perception of its reputation" (Xu and Li 2013, p. 376).

Starting after the fifth case, the company began to publicly blame the suicides on employees' personal problems, thus defending itself by denying its own responsibility as well as the presence of more systemic problems (phase 2). Spokesperson Liu Kun "explained that all the workers who committed suicide had been born in the 1980s and 1990s and suggested that they were psychologically weak by comparing them with the elder generation of workers who 'worked well in a much tougher environment' (Chen et al. 2010, April 10)" (Xu and Li 2013, p. 377). Foxconn thus offered two possible explanations for the suicide spade, either personal weakness among the affected employees or societal causes, but certainly not the company's military management style or poor working conditions.

In fact, at one point, Foxconn argued that there was no problem at all since the number of suicides among its workforce were below the national average in China, implying that the situation was perfectly natural (Guo et al. 2012). However, a number of details make this interpretation rather unlikely. First, one of the employees who committed suicide in 2014 was an internationally published poet (Yang et al. 2015) whose poems refer clearly to the burdens of overwork, poor working conditions, withheld wages and health concerns (Nao 2014) and paint the suicides at Foxconn as an instrument used by workers "to testify / that we were ever alive at all, / and that while we lived, we had only despair" (Chan and Pun 2010, p. 1).

Second, already prior to the Foxconn suicides, psychiatric scholars had analyzed demographic trends among those who commit suicide in China and the results do not match up with the spade of suicides at Foxconn: 93% of Chinese suicides happen in rural China, not in urban factory settings (Law and Liu 2008, p. 82). Only 3-7% of Chinese suicides are committed by jumping from a high place (Law and Liu 2008, p. 82) – which is how all but between one and three[18] of the 42 suicides/attempts at Foxconn took place. Additionally, jumping from the roof of factory buildings to areas that are constantly frequented by other workers is a particularly public form of suicide that could well be interpreted as making a final statement – an interpretation that is in line with the quoted poem above. Suicides are also much more common among women then among men in China: "in those younger than age 60 years, female rates exceed male rates by an average of 26%, with rural female rates exceeding rural male rates by 66%" (Law and Liu 2008, p. 82); of the Foxconn suicides and attempts, at least 26 of the 42 employees were male, with information on the gender missing in four cases.

Law and Liu also provide insight on common reasons for suicide in China:

18 For two of the cases, information on the manner of committing suicide could not be obtained.

> "well-known suicide risk factors and triggering events [include] previous suicide attempt, acute stress, interpersonal conflict within days before suicide, low quality of life, high chronic stress, family history of suicide, and having known another person with suicide behavior […]. Suicide risk increase[s] with exposure to multiple risk factors in a "dose-dependent" fashion […]" (Law and Liu 2008, p. 83). Moreover, in China, "[t]hese individuals typically are found not to be clinically depressed, but socially powerless and marginalized" (Law and Liu 2008, p. 84).

In discussing Foxconn management's belief that workers „had hidden and troubled psychological problems, which supposedly predated their arrival on the factory floor," Litzinger comments: "It was as if suicide in a factory setting could not have anything to do with the conditions under which these young workers toiled—the long hours, the repetitious tasks on the factory floor, the lack of overtime pay, the crowded dormitory spaces, the alienation from home, and the empty modernity promised through a life of urban factory living" (2013, pp. 172–173). This description seems to fit Law and Liu's risk factors rather well.

Following the ninth suicide, Foxconn hired the PR firm Burson-Marstaller to handle its interactions with the media, a clear indicator that it was struggling to regain control over the framing of the suicide issue in the public discourse (phase 3). Burson-Marstaller's strategy included another typical phase 3 behavior - the willingness to make small concessions - by granting unprecedented factory access to journalists as well as an in-depth interview with Foxconn CEO Terry Guo. In the interview, however, Guo described the firm's philosophy with quotes such as: "'work itself is a type of joy,' 'a harsh environment is a good thing,' [and] 'hungry people have especially clear minds'" (Elmer-DeWitt 2010), thus not helping to improve Foxconn's public image very much.

Publicly, CEO Guo did not become involved until after the tenth suicide. On May 24, 2010, four months after the first suicide, Guo "stated that Foxconn is definitely not a sweatshop and that he was confident the situation would be under control within a short period of time (China News Net 2010, May 24)" (Xu and Li 2013, p. 377). Following the 11th suicide, Guo sent a letter to employees entitled "A Letter to Foxconn Colleagues" in which workers were asked to sign a "no suicide pledge", including the following passage:

> "2. […]I will not harm myself or others; I agree that, in order for the company to protect me and others, it can send me to a hospital should I exhibit abnormal physical or mental problems.
>
> 3. In the event of non-accidental injuries (including suicide, self mutilation, etc.), I agree that the company has acted properly in accordance with relevant laws and regulations, and will not sue the company, bring excessive demands, take drastic actions that would damage the company's reputation or cause trouble that would hurt normal operations" (Chow 2010).

The next morning, Guo opened up Foxconn's Shenzhen complex, also known as the „Forbidden City", to 200 national and international journalists to show off the factory's

modern infrastructure (Xu and Li 2013, p. 377) and announce that nets would be put up around buildings to prevent future suicide attempts from being successful (Spiegel Online 2010b). Hours later, the 12th suicide took place (Xu and Li 2013, p. 378).

In June 2010, Foxconn increased its wages by 30%, arguing that this would allow employees to enjoy more free time, which would surely be good for their health (Spiegel Online 2010c). The NGO SACOM, however, was quick to point out that the legal minimum wage in China was about to increase by similar amounts and the company simply increased wages slightly ahead of schedule (SACOM 2010), making this more of a symbolic gesture than a substantive and radical change.

In the immediate aftermath, Apple responded to the Foxconn suicides by publicly defending its supplier, with then-CEO Steve Jobs stating in June 2010 that he finds the suicides “troubling”, but reiterating Guo's statement that Foxconn “is not a sweatshop” (Oreskovic 2010). Behind the scenes, the company convinced Gou to drop a libel lawsuit against two Chinese journalists who had reported on poor working conditions at Foxconn’s factories (Elmer-DeWitt 2010). Apple was hedging, trying to simultaneously voice some concern and downplay the issue, which places its response somewhere between phases 2 and 3.

Similar to Huawei's response to Wintek Dongguan's issues in phase 2, Apple began moving some of its production to Foxconn-rival Pegatron, another China-based supplier, in 2011. While Apple never commented on this decision publicly, the ‘official’ explanation for this move was the diversification of and risk reduction in its supply chain after Foxconn delivered several iPhone 5s with scratches (Campbell 2013). Unofficially, however, rumors abounded that Foxconn’s wages had risen too much as a result of the suicide wave and its subsequent attempts to improve working conditions, and that Apple was looking for a cheaper alternative (Osborne 2013). These conjectures found some support when CLW released its first critical report of Pegatron two months later, arguing that the working conditions at Pegatron were even worse than at Foxconn (China Labor Watch 2013; Neate 2013). Regardless of the motivations behind the move, Chan et al. point out that “[t]his diversification demonstrates the power asymmetries between Apple and its manufacturers as Foxconn and others seek to retain market position as producers of the iPhone and iPad” (2013, p. 106).

While this is certainly true, Apple was in turn also increasingly under pressure from the media. In addition to the Foxconn suicides, the Pulitzer-Prize-winning “iEconomy” series published in 2012 in *The New York Times* raised a lot of public attention to issues of

social sustainability in the electronics sector (including smartphones), with particular regard to Apple (Duhigg et al. 2012). In general, the media has been quick to focus on a few individual companies while ignoring the rest:

> "When a Foxconn plant producing Apple products is accused of mistreating its workers, it triggers a media firestorm. Apple is then forced to address the issue to try to contain the fallout.
>
> But when the same Chinese company is accused of abusing workers on behalf of any other major technology company, the reports are greeted with a relative yawn by Western media" (Tsukayama 2013).

This trend could already be observed in 6.4.1, which showed that Apple and Samsung have received by far the most attention of any smartphone brands with regard to SSIs.[19]

Throughout phase 3, NGOs have also continued publishing critical investigative reports on the electronics and smartphone industry, which with time also increasingly felt forced to respond. In one example, CLW and Samsung engaged in a prolonged exchange over child labor that lasted several months: On August 8, 2012, CLW published an investigative report on HEG Electronics, one of Samsung's supplier factories, indicating that roughly 80% of the workforce is made up of student laborers, as well as 50 to 100 children, "working under same [sic.] harsh conditions as adult workers, but [being] paid only 70% of the wages […]. Moreover, these child workers were often required to carry-out dangerous tasks that resulted in injury" (China Labor Watch 2012a, p. 3).

The next day, Samsung responded with a press release, stating that

> "in March and May of 2012, Samsung Electronics conducted two separate on-site inspections of working conditions at HEG Electronics [,…which] did not reveal the allegations mentioned in the China Labor Watch report. Following the recent allegations, Samsung immediately dispatched a team of in-house inspectors […] to the HEG facility in Huizhou. […] Companies that largely outsource their production for cost-cutting purposes may face a far higher risk of encountering problems with labor rights, working conditions, and worker safety. In contrast, companies like Samsung, which rely almost entirely on in-house manufacturing, are far less likely to expose itself [sic.] to such risks" (Samsung Electronics 2012a).

In particular the last two sentences are a clear attempt by Samsung to improve its public reputation by differentiating itself from its competitors, indicating some tension in the closed industry front (phase 3). One month later, Samsung published the official audit results, stating that no instances of child labor had been found, but a number of other issues, such as excessive overtime, "potentially unsafe practices" and "failure to provide

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19 This should not be taken as proof that these two companies have definitively done the most – either in the positive or negative sense. It does mean that this analysis is heavily focused on these two brands, simply because the most information is available for them.

access to a medical clinic" had been discovered (Samsung Electronics 2012b). The strategy of making some smaller admissions to less incendiary issues while denying the more dramatic ones, such as child labor, is a common industry response in phase 3.

This exchange of reports and press statements continued as CLW published three more investigative reports on Samsung's supplier factories (China Labor Watch 2012b, 2012c, 2012d), one of which was also reported on by Germany's weekly magazine Der Spiegel (Schmundt 2012), while Samsung announced the results of its in-house audits of 105 Chinese suppliers. It again found no evidence of child labor, but a series of other problems requiring attention. However, in spite of officially not finding underage workers, Samsung announced the implementation of new corrective measures for its suppliers, including a „New Hiring Process to Avoid Child Labor" (Samsung Electronics 2012c), thus taking some action on this front as well.

In December 2012, Samsung and CLW seemed initially to come to an agreement:

> "We told Samsung that we discovered child labor [at another factory] and that if they agreed to support the study and living expenses of these children until 18 years of age, CLW would give Samsung these workers' names. Samsung responded that they would agree to such terms as long as they confirmed that the workers were in fact underage" (China Labor Watch 2012f).

A meeting between CLW, Samsung and the three underage workers was scheduled, but two of the girls were asked to leave the factory on the morning of the meeting and thus did not attend. The third employee came to the meeting, but CLW claimed that her ID card was faked and that the photo on the card clearly did not match the employee (China Labor Watch 2012f). Moreover, since this factory had also been audited by Samsung two months earlier, CLW argued that their discovery of child labor proved the "ineffectiveness of Samsung's audit system" (China Labor Watch 2012e). Samsung denied these claims (Samsung Electronics 2012d).

With that, this particular cat-and-mouse-game ended. While there is no clear winner and the issue was not resolved by either side, the exchange shows that by phase 3, even huge industrial conglomerates such as Samsung Electronics can no longer afford simply to ignore or deny allegations by NGOs. Instead, they begin hedging and offering compromises – in the form of admitting to some more minor infringements while continuing to deny the more serious allegations, such as child labor – and engaging in lengthy struggles over the framing of an issue in public discussions.

Apple has likewise had to deal with the issue of child labor in its supplier factories. In contrast to Samsung, which continuously denied problems with underage laborers, Apple reported more openly on its findings and thus favored a more innovative approach. Since 2009, the company has regularly admitted in its Supplier Responsibility Reports

that it has found active or historical cases of underage labor. In the 2013 Report, Apple began distinguishing between its final assembly suppliers and the rest of the supply chain, stating that in 2012, “We found no cases of underage labor at any of our final assembly suppliers. […] Many suppliers tell us that we are the only company performing these audits, so when we do find and correct problems, the impact goes far beyond our own suppliers” (Apple 2013). Often, underage labor stems from third-party labor agents who intentionally hire minors, so that Apple’s follow-up actions to such discoveries include not only ending business relationships with certain suppliers but also alerting local governments to these practices (Apple 2013).

While it is undoubtedly problematic that, year after year, Apple continues to discover child laborers somewhere in its supply chain, their willingness to provide a higher level of transparency about both their discoveries and follow-up actions in their Sustainability Reports than many of their competitors does earn the company commendations amidst all of the criticism and can be seen as a radical innovation in its supply chain practices.

This is especially true when Apple is once again placed in direct comparison to prime competitor Samsung. An alternative to trying more progressive and innovative approaches and increasing transparency in phase 3 is to purposely without relevant information in the attempt to control public framing of an issue (Geels and Penna 2015). In Chapter 6.5.2, it was already noted that several of Samsung's employees in semiconductor factories had developed cancer and that KComWel, Korea's workers' compensation service, had denied their claims. In response, the labor organization SHARPS sued KComWel in early 2010 on behalf of affected employees for its decision to deny them compensation (Jekutsch 2012). In May 2010, Samsung publicly denied the possibility that their employees had been exposed to harmful chemicals that could have caused cancer (The Hankyoreh 2010). Nevertheless, in July 2010, a Korean newspaper reported that a number of families had come forward stating that Samsung had offered them lucrative settlements in exchange for their agreement to drop their lawsuits against the company in this matter (Jae-hyeon 2010), which was of course not stated publicly by the company.

Not all families dropped their lawsuits and in June 2011, the Seoul Administrative Court overturned KComWel’s decisions in two of the six cases, ruling that their leukemia must be recognized as an industrial accident and that the affected employees had a right to compensation (Chun-hwa 2011). In response, Samsung released a press statement indicating that the company was not ready to accept the court’s verdict: “Given that the ruling has not yet been confirmed, we will work so that apprehensions are alleviated through the ascertaining of the objective truth about the semiconductor working environment” (Chun-hwa 2011). To this end, Samsung commissioned Environ International

Corp., a consulting firm focusing on environmental and social issues, to conduct a study on health and safety inside its semiconductor facilities, which "concluded that the scientific evidence does not support a link between workplace exposure and the diagnosed cancers in six cases that underwent specific review" (Ramboll Environ 2011). In the media, however, the study was discussed as very narrow and criticism was raised over the fact that neither the underlying data nor the study itself were ever released, although the study was presented at two academic conferences (Ramstad 2011; Samsung 2016). Moreover, in 2012, KComWel recognized two further cancer cases as occupational disease from Samsung's semiconductor factories (SHARPS 2012b, 2012a).

While these decisions represent an important milestone, to date only 10 cancer cases from Samsung's Korean plants have been designated as occupational diseases by KComWel; 23 remain under review (Malone 2016). In contrast, by 2014, almost 200 suspected occupational disease cases at Samsung had been reported to SHARPS (Kyle 2014).

In 2012, benzene and formaldehyde, both known human carcinogens, were detected in Samsung's semiconductor factories. Only at this point did the company officially begin monitoring levels of these chemicals (Lee 2015b; Malone 2016). But even thereafter, Samsung continued to be very tight-lipped in informing its employees about their workplace exposure to potentially harmful chemicals. As was exposed in 2016, the company cited protection of trade secrets as its reason for withholding this information in several court cases. While it is illegal in South Korea to withhold "corporate information needed ‚to protect the lives, physical safety, and health' of individuals on the grounds of trade secrets, […] there are no penalties for violations" and government officials of the Korea Occupational Safety and Health Agency openly admit that "corporate interests take priority, that evaluating trade-secrets claims is difficult, and that they fear being sued for sharing data against a company's will" (Malone 2016).

By May 2014, pressure on Samsung had risen significantly both due to the cancer cases and repeated demonstrations pertaining to employees' rights to form independent unions (Koo 2014). Samsung publicly apologized to the affected workers and families for not supporting them financially in their time of need, but emphasized that their apology was not an admission that the cancers had been caused by work-related exposure to chemicals (Lee 2014). Following its loss in appellate court pertaining to the 2011 occupational disease recognition (Yonhap News Agency 8/21/2014), Samsung agreed to the creation of "an independent arbitration body to investigate all parties' concerns [and] to make recommendations for settlement", referred to as a Mediation Committee (SHARPS 2015a), thus initially appearing to make more substantive concessions. However, after this Committee announced its recommendations in 2015, Samsung suddenly walked out

of negotiations and returned to dealing directly with a subset of families who had split off from SHARPS. While it agreed to provide some financial compensation, making a small concession (phase 3), other aspects of the mediation, in particular measures to prevent the occurrence of occupational diseases in the future, were neither addressed nor commented on by the company (SHARPS 2015a). Moreover, the roughly thirty families who accepted compensation also had to sign a confidentiality agreement, which forbade them from discussing the amount of compensation they had received and from pursuing further legal actions against the company (SHARPS 2015b).

This strategy backfired, exposing Samsung to significant criticism from the international media. For example, the Financial Times wrote: "The long-running controversy has threatened the brand power of the world's biggest electronics company by sales and fueled criticism that South Korea's dominant chaebol conglomerates have shirked their social responsibilities at home while expanding rapidly abroad" (Mundy 2015). Shortly thereafter, another long article was published by the Associated Press, asserting that "Samsung aid for sick workers comes with conditions, secrecy" and criticizing the company's refusal to agree to an independent body "to oversee compensation and monitor safety and preventive measures at its factories", which had been called for by the independent mediator (Lee 2015b). This prompted the company to publish a press release the next day, denying many of the accusations as false and providing its own justifications for others. With regard to the independent organization, Samsung essentially argues that the more radical solution demanded by civil society is too costly (phase 3) by stating:

> "We are not funding an independent body as recommended by the Mediation Committee because the incorporation of such an association and its operational costs and other expenses would consume up to 30% of the fund, a sum of KRW 30 billion ($25.2million). Samsung Electronics believes the greatest percentage of the fund possible should be directed toward providing financial aid. For this reason, we believe that it is in the best interest of families and patients to direct more funds to meeting their needs, which cannot be achieved through an independent fund" (Samsung Electronics 12/12/2015)

There is no mention of the proposed organization's role to oversee safety conditions and preventive measures in the statement. Nor did Samsung provide an explanation as to why its workers' compensation payments are attached to such strict confidentiality agreements (Samsung Electronics 12/12/2015).

In the end, only one month after this press release, Samsung bowed to public pressure and reached an agreement with SHARPS through the official mediation committee that includes an independent monitoring body (Ombudsman Committee) for inspections of Samsung's facilities and the company's promise to "faithfully implement proposed im-

provements from the Ombudsman Committee and remain[...] fully committed to providing a safe and healthy working environment for our valued employees" (Samsung Electronics 1/12/2016).

While the conglomerate of employees, civil society actors and the media put increasing pressure on smartphone brands, so did policymakers during phase 3. Several SSIs from the smartphone industry were regulated using due diligence legislation between 2010 and 2016. Due diligence regulations require affected firms to report on the steps they are taking to prevent certain abuses from taking place in their supply chains (Bayer 2016). This means that corporations are not so much obligated to prevent SSIs as they are obligated to disclose them if they are taking place anywhere in their supply chain. While this is a significant reputational risk for brand-name companies marketing to end users, it should nevertheless be considered an incremental, rather than radical, policy change, as is to be expected in phase 3. Due diligence on modern slavery is regulated by the California Transparency in Supply Chains Act (2010) and the UK Modern Slavery Act (2015) (Bayer 2016).

The other big issue that began being regulated through due diligence is that of conflict minerals, which is regulated through the Conflict Minerals Rule, or Section 1502 of the US Dodd-Frank Act (2010); the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains (2015) (Bayer 2016); and the EU conflict minerals legislation, which passed trilogue negotiations in November 2015 and will come into force starting in 2021 (Thomas 2016).

Even though I consider these regulations to be incremental rather than radical, their significance nevertheless becomes obvious by the industry's response to the passage of the Conflict Minerals Rule in the US. Shortly after it became effective in November 2012, the US Chamber of Commerce, along with the Business Roundtable and National Association of Manufacturers, challenged the Rule before a US court (Thomas 2013). While most of the original Rule was upheld, the court found the requirement for companies to publicly “state on their websites that any of their products have “not been found to be ‘DRC [Democratic Republic of the Congo] conflict free’” (Thomas 2014) to be in violation of the US First Amendment, so that this requirement was stricken.

The attempt to prevent the Conflict Minerals Rule from going into effect is a classic industry reaction of phase 4: “Because the new policies affect ‘primary involvement arenas’ (e.g. requiring firms to meet new standards), […] industry actors use political strategies to oppose policies and hinder implementation” (Geels and Penna 2015, p. 71). However, as this is the only indicator for Phase 4, I view these actions as outliers in a time period that otherwise conforms to the characteristics of phase 3.

Apple has seized the issue of conflict minerals as an opportunity to distinguish itself as an early forerunner and even most NGOs agree that Apple is doing well in this area. The company initially joined the Conflict-Free Smelter Initiative in 2010 and began compiling a list of smelters and refiners involved in its supply chain in 2013. After partnering with a large number of organizations working on the conflict minerals issue, including the Indonesian Tin Working Group (ITRI), the Enough Project, ITRI's Tin Supply Chain Initiative and Solutions for Hope, Apple announced a milestone accomplishment in early 2016:

> "As of December 31, 2015, after five years of devoted effort, 100% of the identified smelters and refiners in Apple's supply chain for current products were participating in an independent third party conflict minerals audit ("Third Party Audit") program. […]
>
> While this is an important milestone, and may be viewed by some companies as grounds to declare themselves "conflict free," Apple does not believe that Third Party Audit program participation alone is sufficient to label products "conflict free." Apple believes it has more work to do. In 2016, Apple is turning its attention to two key areas: enhancing due diligence in the gold supply chain and helping improve local incident reporting and issue resolution" (Apple 2016).

The decision not to declare its products 'conflict-free' earned Apple high praise from the leading conflict minerals NGO Global Witness: "This decision is a big deal. It highlights the very significant distinction between attaching a "conflict free" declaration on products and the need for an ongoing process of supply chain checks, known as due diligence. It is a welcome progression from words to action" (Oboth 2016).

As is expected in phase 3, Apple's responses both to the issues of child labor and conflict minerals and general willingness to increase the transparency of some of its operations may be seen as an example of an early-mover regime actor beginning to invest in somewhat more radical alternatives during phase 3 and causing some tension inside the closed industry front.

Finally, as is predicted by the DILC model, phase 3 has also seen the emergence of a small niche market with radical alternatives that cater to the demands of moral consumers. The first niche actor was NagerIT e.V., founded in 2009. Following its mission statement, "Encouraging humane working conditions in the factories of the electronics industries", the non-profit organization manufactures computer mice and uncovers the many different actors and firms in its small supply chain. This is a lengthy and ongoing process, as can be seen in Figure 18. Nager IT has been an important pioneer, but to date it has stayed relatively small, both in terms of its sales (roughly 10,000 mice by the end of 2016 (Nager IT 2016)) and the amount of public attention it receives.

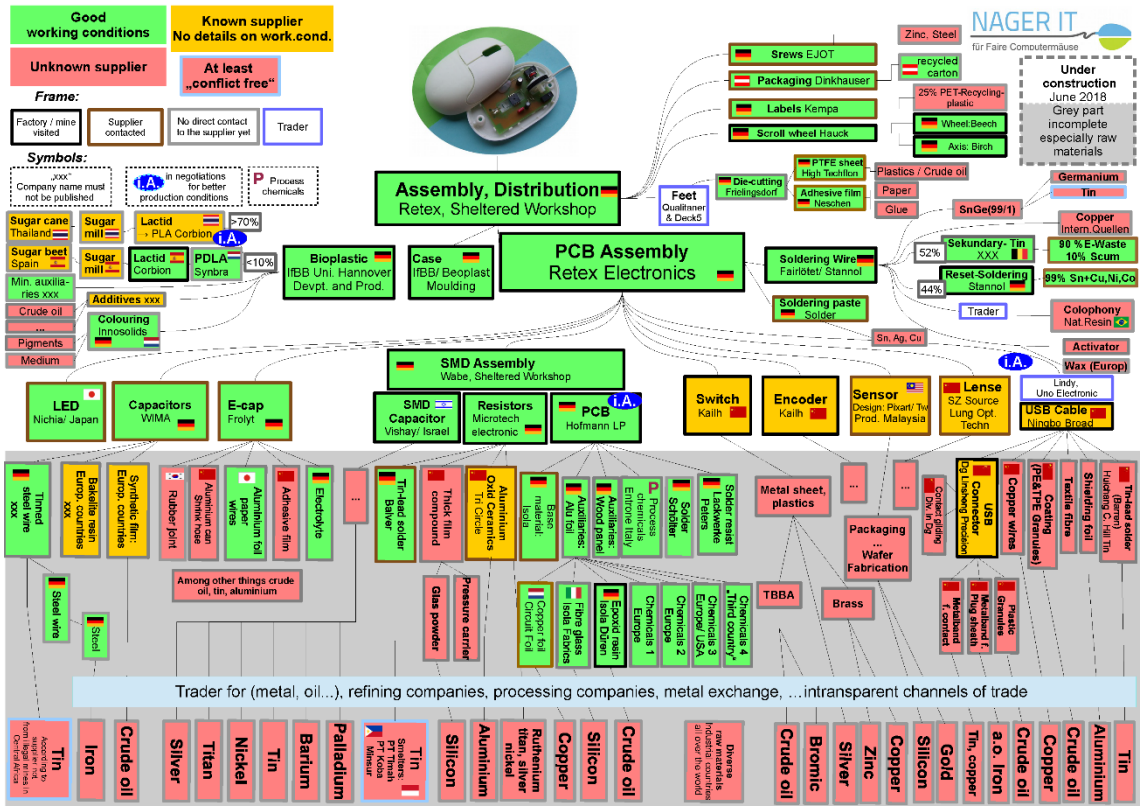

Figure 18: GPN of Nager IT e.V., showing the level of achieved supply chain transparency and state of working conditions as of June 2018 (Nager IT 2018)

Undoubtedly the most successful niche actor in the fair IT sector so far has been the Dutch social enterprise Fairphone, with its smartphone of the same name. The rather unlikely story of its success has been described in detail in many other sources (Best 2014; Hartmann 2014; Wernink and Strahl 2015; Vinter 2015; Joshi and Cerratto-Pargman 2015; Akemu et al. 2016), so that only a few key points will be repeated here.

What started out as a simple awareness raising project for conflict minerals in 2010 (Wernink and Strahl 2015) turned almost accidentally into a company manufacturing smartphones, as a series of actors from the Dutch business community heard of the (purely hypothetical) idea of a conflict-mineral free phone. “Within the month [of March 2011], [a mobile network operator] agreed to buy 1,000 non-existent fair smartphones” (Akemu et al. 2016, p. 855) and a large bank gave the campaign money to begin work on their new product. Suddenly, “the Fairphone team with no smartphone prototype, no intention to start a business and no expertise in the smartphone industry, had gained significant support” for a project they had not even really decided to carry out yet (Akemu et al. 2016, p. 855).

After a year of significant ups and downs (2016), Fairphone began a crowdfunding campaign in May 2013 and announced that it would go into production if it managed to sell at least 5,000 phones in four weeks (Wernink 2013). Instead, they "sold 10,000 handsets in three weeks of a phone that didn't yet exist, from a company that had existed only a month, with no track record" (Vinter 2015). In the end, the company sold 60,000 units of its first smartphone model (Fairphone 1/1U) (Vinter 2015), which shipped to customers with a postcard reading "Failphone" to point a little ironically to its own continuing shortcomings (Hartmann 2014).

But as far from truly fair as the Fairphone 1 was (Leonhardt 2014), it did achieve a number of important accomplishments: "We sourced tin and tantalum from conflict-free mines in the DRC, started a worker-controlled Welfare Fund at our manufacturer in China, contributed to an e-waste collection scheme in Ghana, [and] set up a phone Recycling Program" (Wernink 2014). Both Nager IT and Fairphone believe that it is important to continue sourcing from conflict areas and manufacturing in countries with poor labor rights situations. Rather than boycotting these regions, they want to work on improving the circumstances on-site in order to provide local workers with a source of income that comes, increasingly, with dignified working conditions and respect for their rights. Having to make do with small-step improvements is thus an inevitable part of the process.

Fairphone accomplished a few further steps with its second model, the Fairphone 2, delivered to customers as of late 2015. Perhaps most notably, the Fairphone 2 was the first modular and easily repairable smartphone on the market, a feat that brought it significant industry attention, especially as market giant Google struggled with – and eventually gave up on – its modular Project Ara (Amadeo 2016).

While Fairphone struggled throughout 2016 with delayed deliveries and its customer support was at times completely overwhelmed (Lempers 2015; Mier 2015; Stoop 2016), these problems are primarily an indicator of the company's success to date. Customers are willing to pay a significant amount of money to get what is technically at best a mid-range smartphone, in exchange for knowing that their purchase is making the smartphone industry more fair, one step at a time. As a result, the Fairphone 2, originally only sold online on the company's own website, is now available for purchase through mobile service providers in at least five European countries.

Both the company and its founder received recognition on a larger stage in 2016: CEO Bas van Abel was awarded the prestigious German Environmental Award (DBU 2016) and the Fairphone 2 was the first smartphone to be certified with the Blue Angel environmental label (Der Blaue Engel 2016).

6.6 Behavioral Analysis: Results from Expert Interviews

Both the quantitative and qualitative analysis in Chapters 6.4 and 6.5 have shown that a slow but steady transition toward greater social sustainability in the smartphone sector is in progress. However, in spite of the presence of trigger events, increased media reporting and public awareness, neither most incumbent regime corporations nor their consumers have thus far fully embraced the need to ensure better working conditions and more socially sustainable production environments in global smartphone production networks.

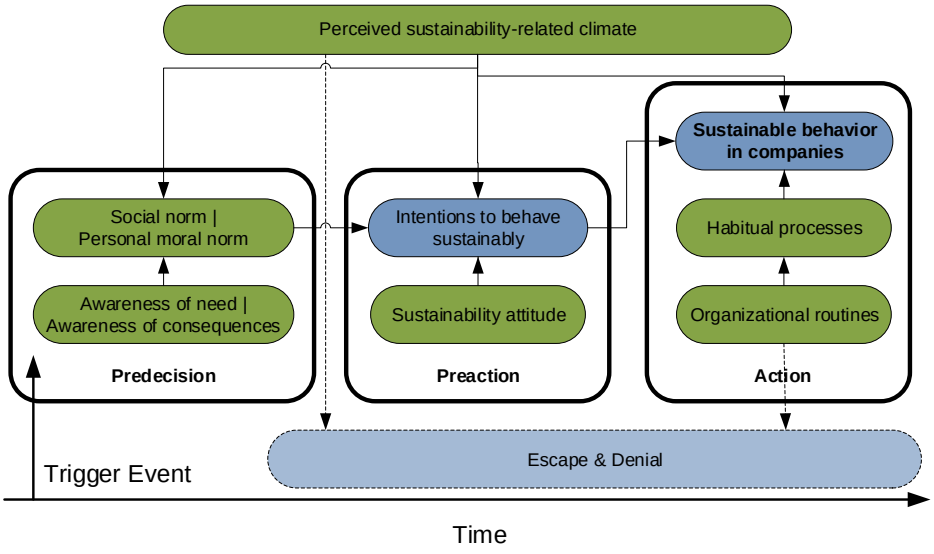

Figure 19: C-CADM model (adapted from Lülfs and Hahn 2014)

Against the backdrop of this analysis, this chapter now seeks to describe the underlying drivers and barriers that have so far prevented the transition process from progressing past phase 3. These insights are based on the expert interviews, in which I focused more explicitly on corporate and consumer behavior through the lenses of the C-CADM (corporate behavior, Figure 19) and SSBC model (consumer behavior, Figure 20).

My goal was to answer the overarching question: “Why are issues of social sustainability in the smartphone industry not being addressed more actively by corporations and consumers?” I broke this query down further into a series of guiding questions aimed at identifying ‘sticking points’ in the SSBC/C-CADM models:

1. In your opinion, are brand-name manufacturers already aware of SSIs in the smartphone industry?
2. Do you think brand-name manufacturers are already addressing some of these issues?
3. In your opinion, are customers already aware of these SSIs?

4. Do you think that customers are taking their awareness of these issues into account when making smartphone purchasing decisions?
5. How would you assess the market prospects of smaller (niche) firms in the short-, medium-, and long-term? Why?
6. In your opinion, which drivers currently exist to further advance issues of social sustainability in the smartphone sector?
7. In your opinion, which obstacles are currently preventing greater social sustainability in the smartphone sector?

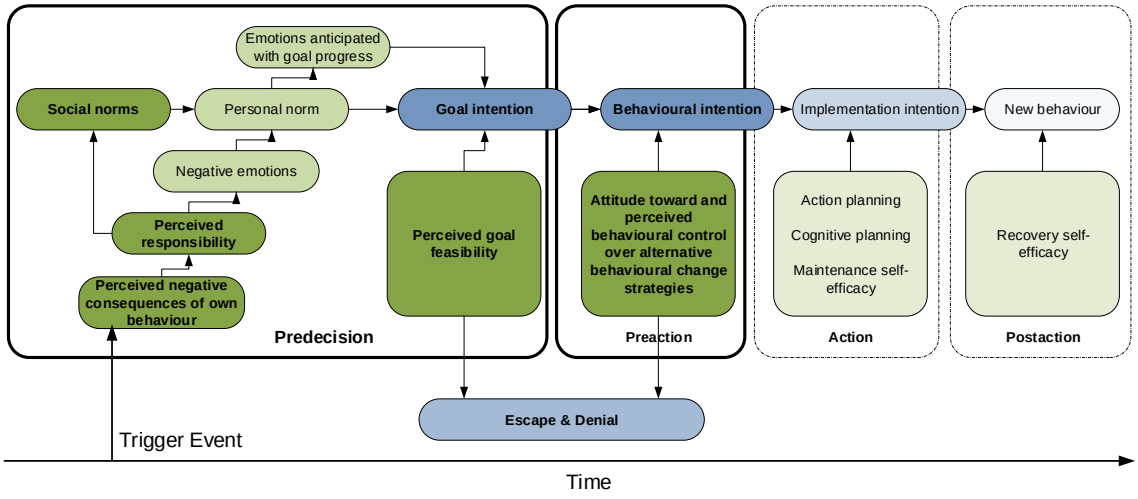

Figure 20: Adapted SSBC model (adapted from Bamberg 2013)

The results from the expert interviews will be presented and analyzed below. I will first focus on corporations and then discuss consumer behavior. For each group, I divide my analysis into a section on awareness, which includes trigger events, the predecision stage and the perceived sustainability-related climate (corporations only), and a section on behavior, where I discuss the preaction and action phases as well as escape & denial.

6.6.1 Corporations

Corporate Awareness

All experts agree that, given the significant amount of media and NGO attention paid to SSIs over the last two decades, all brand-name smartphone manufacturers are *generally* aware of these issues by now. Various events, especially the Foxconn suicides and accusations of child labor, have made the topic strongly scandal-driven. Corporations whose monetary value is deeply rooted in their brand-name value and recognition have a significant intrinsic interest in protecting their reputations from the negative consequences of such scandals and therefore can no longer afford not to be aware of SSIs in

their GPNs. This supports the assertion that the transition is currently in phase 3, where public attention has risen significantly and firms are strongly engaged in a struggle over how an issue is publicly framed.

Nevertheless, the experts identified some areas in the supply chain that may still be blind spots as well as structural problems with where awareness exists inside a company's hierarchy. First, awareness of working conditions decreases as one moves upstream in the supply chain. Brand-name companies are certainly aware of issues with their direct suppliers, but less so with component manufacturers, for example. And while most companies address the issue of conflict minerals, other aspects of working conditions (i.e. health, safety, wages), especially in artisanal mining, are hardly discussed. However, the creation of the Indonesia Tin Working Group and the newly formed Responsible Cobalt Initiative may indicate that this is beginning to change.

Second, the greatest awareness of SSIs tends to exist among those working in the Corporate Social Responsibility department, which is often part of the Public Relations or marketing department and not present during strategic decision-making processes regarding procurement and supplier management. CSR managers may have extensive knowledge of SSIs, but lack the necessary clout to make substantive changes in company policy. Moreover, because their departments are generally charged with generating a positive company image, CSR reports are often overly superficial. Few companies, with the notable exception of Apple, dare to openly acknowledge significant CSR problems in their supply chain.

In general, experts agree that there have been enough trigger events for companies to have the ***awareness of need and consequences*** necessary for the ***predecision*** stage of the C-CADM model (Figure 19). Their PR efforts and concern for their reputations also shows that they are aware of ***social norms*** that condemn poor working conditions and other SSIs in smartphone supply chains.

Corporate Behavior

Because of where awareness is located within corporate hierarchies, many experts argue that an assessment of corporate actions needs to distinguish between communication about versus actual implementation of sustainability-oriented policies. Most brand-name manufacturers publish sustainability reports, but these formats are oriented towards an expert audience and often not obviously advertised on corporate websites.

In their regular marketing materials, brands hardly mention sustainability issues. From this, one expert deduces that there cannot be a demand from customers for this information, since brands would otherwise have an economic interest in including it. While

customers can access brands' sustainability reports, this requires both additional effort and a specific, preexisting interest in questions of sustainability.

A second issue some experts criticize is the superficiality of sustainability reports as well as certain contradictions found therein. Reports often include long lists of sustainability initiative memberships, but fail to address the complex issues involved in the implementation of solutions. For example, a report might state that a certain percentage of workers are members of a union and thus imply that their right to freedom of association is being safeguarded. However, there have been many reports of unions that are either steered entirely by company management or by the government, such as the controversial All-China Federation of Trade-Unions, and that any attempts at creating 'real' employee-organized unions are quickly suppressed (see e.g. Cardinal 2016). Furthermore, assertions in sustainability reports are often contradicted by corporate lobbying: companies whose sustainability reports state that they want to combat the use of conflict minerals are at the same time fighting binding EU conflict minerals regulation or the implementation of the US Conflict Minerals Rule in other arenas.

Regarding the actual implementation of standards, many experts criticized that brand-name companies often only interact with first-tier suppliers and expect these to pass sustainability and labor rights standards up the supply chain in turn. However, most mid-tier suppliers lack the resources (both financial and human) to implement these standards while simultaneously meeting the deadlines and competitive price expectations set directly or indirectly by brand-name companies. Many brand-name corporations also argue that they cannot enforce standards throughout the supply chain, because they do not know who the suppliers beyond the first-tier are. Nevertheless, they manage to dictate specific components and technical standards for their products throughout the supply chain. Moreover, small enterprises like Nager IT and Fairphone, whose resources are negligible in comparison to those of large brand-name companies, have managed to go deep into their supply chains and uncover quite a few of their suppliers.

With regard to the ***preaction*** stage of the C-CADM, therefore, it seems that at the moment many corporations are more interested in *appearing* to behave sustainably than actually intending to do so. This implies that they perceive the ***sustainability-related climate*** to be growing somewhat stronger, but their own ***sustainability attitude*** is still significantly lower on their list of priorities than other factors, such as price/profits and production speed. This status is not precisely the same as the C-CADM's ***escape and denial*** and leads me to think that brand-name companies in the smartphone industry are currently 'stuck' in the ***preaction*** stage – too aware of sustainability issues to choose escape and denial, but not willing enough to commit themselves to ***sustainable behavior*** to truly move on to the ***action*** stage, with a few minor exceptions.

6.6.2 Consumers

Consumer Awareness

Asked what percentage of smartphone users they think is aware of SSIs in the industry, the experts' answers varied extremely, from 20% to virtually everyone. Experts familiar with organizational procurement have noticed an increase in awareness over the last years by large institutional customers like universities and governments. This increase is particularly attributed to the work of the NGOs GoodElectronics and Electronics Watch.

Focusing in on those private consumers who do have some awareness that there are social problems associated with the production of their smartphones, the experts agreed that poor working conditions in factories and the issue of conflict minerals are the most well-known. The latter, however, is a complex topic and while general awareness is increasing, many non-experts do not fully understand what it involves. For example, many people believe that 'conflict-free minerals' are also produced under fair working conditions, which is often not the case. Nevertheless, one clear benefit of the media attention on conflict minerals has been that it has made most consumers more strongly aware of the fact that their electronic devices are made up of many different natural resources and that their exploitation is not without its problems.

As to how customers' awareness comes about, experts pointed to media coverage of trigger events, like the Foxconn suicide wave, as well as coverage of the Dodd-Frank Act and EU conflict minerals regulation. Also helpful have been an increase in films and documentaries, both on factory working conditions and resource exploitation, several museum exhibitions and the inclusion of these topics in school curricula.

Finally, one expert pointed out that many consumers are not as concerned with working conditions – in general, not just regarding smartphones – because they do not have any direct impact on their lives. This makes it more difficult to motivate customers to care in comparison with other sustainability issues, like the use of potentially noxious chemicals in the production of clothing.

Ultimately, three different consumer groups can be distinguished: those who are not aware of SSIs in the smartphone sector; those who are aware of these issues but do not see them as a high personal priority; and those that I refer to as "moral consumers", who are not only aware of the issues but are also willing to prioritize them above other potentially relevant factors. The first of these groups has not begun the process of self-regulated behavioral change described by the SSBC model (Figure 20). The second group has registered some or all of the ***trigger events*** described in Chapter 6.5 and thus enters the ***predecision*** stage**,** where they perceive the ***negative consequences of their own***

behavior. To what extent this group ***perceives responsibility*** for these consequences or whether their awareness activates any ***social or personal norms*** cannot be determined without further research. The group of moral consumers ***perceives responsibility*** and their ***personal norms*** are definitely activated, so that they are next confronted with an evaluation of the (perceived) goal feasibility.

Consumer Behavior

There are several different strategies that consumers can employ to reduce the negative consequences of their mobile phone use, including continuing to use old, but still functional non-smartphones (often referred to as 'dumb phones'); purchasing used smart- or dumb phones; or purchasing a phone from a niche actor seeking to actively improve the conditions in the supply chain, where Fairphone is currently the most prominent.

In discussing what is preventing consumers from changing their behavior through one of these alternatives, the experts cited a series of different plausible explanations. First, some people do not want to add another product category to the list of consumption areas where they take sustainability into consideration. Because problems of social sustainability in the supply chain are also very far away for most consumers, it is often easier and more comfortable to return to ignoring these problems as soon as the latest trigger event has disappeared from the daily news (***escape & denial***). Mobile phone service providers add to this temptation by offering attractive financing deals for a new smartphone every year or two. For many people, in particular young consumers, smartphones are also important status symbols and there is significant social pressure to always keep up with the latest trends. In this case, ***social norms*** do not motivate individuals to change their behavior towards something more sustainable, but rather to do quite the opposite.

Even for those consumers who are generally open towards making their behavior more sustainable, there are a series of obstacles. First, it takes time and effort to do the research necessary for comparing brands on social sustainability criteria, since most companies do not provide these facts in such user-friendly formats as are available for the technical specifications of a smartphone. Then there are simply very few alternatives available: Fairphone is the only smartphone manufacturer whose claims to greater sustainability are uncontested. However, considering the technical standards of the Fairphone, it is quite expensive and likely does not meet every consumer's technical requirements. Finally, for a long time Fairphones were only available either through lengthy crowdfunding campaigns, where the price had to be paid many months in advance of receiving a new phone, or through various e-commerce options, where touching and

testing the phone in real life was not possible prior to purchase. This last point is becoming less relevant as Fairphone has begun cooperating with mobile phone service providers in various different European countries that carry the phones in-store, though sales are still entirely limited to Europe.

With regard to the SSBC model, only two of the consumer groups discussed above are left to analyze here: moral consumers and those that are aware of negative consequences but not willing to act upon this awareness. Moral consumers are aware of the alternative strategies described above and thus ***perceive the goal*** of more sustainable mobile phone consumption to be ***feasible*.** They form a ***goal intention*** and move onto the ***preaction*** stage. Here they evaluate the various ***alternatives*** and choose one that they consider to be within their control or, if multiple alternatives fall into this category, the one that they most prefer. This leads to the formation of a ***behavioral intention*** and leads into the ***action*** stage, where the behavior is implemented.

For the second group, those that are aware of negative consequences of their consumption behavior but do not make behavioral changes, any of the factors described above might lead to ***escape & denial*** for these consumers, who are likely quite heterogeneous.

6.7 Summary of Case Study 1

Based on findings from both the quantitative and qualitative process analysis, the following issue lifecycle phases can be identified for the smartphone sector with regard to SSIs:

- Phase 1 (1994 – 2005): problem identification and definition;
- Phase 2 (2006 – 2009): social movement formation and defensive industry response;
- Phase 3 (2010 – present): public discussion and framing, formation of a market for moral consumption and industry hedging.

The progression through the first three phases of the Cyclical Dialectic Issue Lifecycle Model indicates changes are taking place that could eventually lead to a transition. Trigger events such as the suicide wave at Foxconn or the passage of the Conflict Minerals Rule of the US Dodd-Frank Act increased public awareness of social sustainability issues in the current smartphone regime significantly and have led to the creation of a niche market for moral consumers in the form of social enterprises like Fairphone. Incumbent regime actors like Apple and Samsung appear to be feeling greater pressure on SSIs, but are employing differing strategies in response. While Samsung continues to react defensively to accusations from NGOs, Apple may be trying to gain an early-mover advantage on select issues such as conflict minerals by publicizing efforts to go beyond minimum requirements.

Nevertheless, the transition to greater social sustainability in the smartphone sector is far from complete. My examination of behavioral drivers and obstacles shows that early niche suppliers and 'moral consumers' play an important role by proving the existence of and demand for more sustainable alternatives, even in a high-tech sector with rapid innovation cycles like the smartphone industry. Nevertheless, experts agree that consumers cannot bear the ultimate responsibility for moving the transition forward, because both GPNs and associated problems are too complex to enter into the average consumer's decision-making process. Instead, incumbent regime actors must take social sustainability issues into serious consideration when making strategic management decisions and enforce compliance throughout their entire GPN. Most experts agree that this requires binding due diligence regulations that create a level playing field for all and both *forces* and *allows* incumbent regime actors to change their behavior.

7 Case Study 2: The Garment Sector[20]

7.1 Introduction

In this second case study, I will focus on the garment sector. From its historical origins to today, the garment industry has always been a stepping stone for further development and industrialization. Especially the "cut-make-trim" (CMT) sector is commonly one of the first areas of export-oriented industry in which countries with low levels of development can enter the international market, because it has low entry requirements with regard to technology, equipment and skill level. Even in the 21st century, the production of clothing continues to rely heavily on low-skilled manual labor. Garment manufacturing is also a highly mobile industry, which can easily move from one country to the next, or "cut and run", when wages and benefits rise too much in a particular country. Given these basic parameters, the garment industry has long been associated with social sustainability issues, including low wages, long hours, lacking building safety and overall poor working conditions. Through the work of activists, civil society and the media, the garment sector has faced increasing pressure over the past three decades to combat these "sweatshop" conditions.

In the following sections, I will once again examine whether and to what degree a behavioral transition towards greater social sustainability is taking place in the garment sector. The case study follows the same organization as the first one, with chapter 7.2 providing a brief introduction to global production networks in the garment industry. Chapter 7.3 outlines those data sources specific to this second case study, while chapters 7.4 through 7.6 present the empirical results. Chapter 7.7 summarizes the case study.

7.2 Global Production Networks in the Garment Industry

7.2.1 Historical Development

Since the industrial revolution, the garment industry has been seen as "the typical 'starter' industry for countries engaged in export-oriented industrialization" (Gereffi 1999b, p. 40). This pattern continued after the second world war with the newly industrializing economies of East Asia: as early as the 1950s and 1960s, US and European apparel manufacturing began to be outsourced to Japan. Against the backdrop of the Cold War, the US government, in particular, had a strong interest in strengthening export-oriented industries in countries around the world to prevent the further spread of communism

20 A prior version of Chapter 7 has previously been published as a working paper (Bodenheimer 2018c).

(Bartley et al. 2015). Over time, this included Hong Kong, South Korea Taiwan and China in the 1970s and 1980s and then shifted progressively to other parts of South and South-east Asia (Vietnam, Laos, Cambodia, Philippines, Indonesia, and Thailand) as well as Central America and the Caribbean (Guatemala, El Salvador, Honduras, and the Dominican Republic) as of the mid-1980s and into the 1990s (Bartley et al. 2015; Gereffi 1999b). At the same time, European manufacturers increasingly outsourced production to Eastern Europe and northern Africa, as well as to Bangladesh as of the mid-1990s (Gereffi 1999b; Bartley et al. 2015).

Table 3: Top Apparel Exporting Countries to the US and EU in 2016 (Source: UN Comtrade 2018)

Rank	US	EU
1	China	China
2	Vietnam	Bangladesh
3	Indonesia	Turkey
4	Honduras	India
5	El Salvador	Cambodia
6	India	Pakistan
7	Cambodia	Vietnam
8	Bangladesh	Sri Lanka
9	Mexico	Morocco
10	Sri Lanka	Indonesia

Between the mid-1970s and the mid-1990s, the globalization process of the apparel industry was strongly influenced by the Multi-Fiber Arrangement (MFA). Agreed upon by the United States, Canada and European countries, the MFA established textile import quotas that limited the amount of textiles that any particular country could bring into the markets of the signatory countries (Bartley et al. 2015). The purpose of the MFA was to protect the domestic apparel industries of these countries, while simultaneously allowing them access to lower cost labor in developing countries. While acknowledging this to be its clear intent, Gereffi (1999b) argues that the opposite was in fact true, as the protectionism of the MFA allowed many developing countries to enter the export-oriented textiles and apparel market with significantly less competition than they would otherwise have encountered. With the rising importance of free trade institutions, especially the World Trade Organization (WTO), the MFA began to be phased out in 1995 and was eliminated completely by 2005 (Fernandez-Stark et al. 2011). Following several interim agreements, the textile and apparel industry is now governed only by the general rules of the General Agreement on Tariffs and Trade and the WTO.

As can be seen in Table 3, by 2016, the top exporting countries in apparel and clothing to the US were China, Vietnam and Indonesia. For the EU-28, the top apparel exporters in 2016 were China, Bangladesh and Turkey.

7.2.2 Current Regime: Actor Groups, Interactions and Power Relationships

The garment industry is strongly characterized by contract-based relationships between lead firms and suppliers rather than a vertically integrated production model, meaning that most of the brands known to consumers do not own any of their own factories, instead relying entirely on external suppliers (Bartley et al. 2015). Short-term contracts with many different suppliers, who in turn subcontract out part of the orders to further actors, are commonplace, although the practice of subcontracting is not always transparently communicated throughout the supply chain.

There are a number of different ways in which actors can be classified within the global garment production network. For example, Gereffi and Frederick differentiate lead firms into mass merchant retailers (e.g. Walmart, C&A), specialty apparel retailers (e.g. Gap, H&M), brand marketers (e.g. Nike, Gucci) and brand manufacturers (e.g. Inditex) (2010, p. 16). Alternatively, suppliers can be categorized based on the extent of the pre-sales activities they offer. These can range from the most basic level of Cut-Make-Trim (CMT) factories, who only assemble inputs; to Original Equipment Manufacturers (OEM), who offer full-package services that include sourcing and inbound logistics; to the most advanced level of Original Design Manufacturers (ODM), who cooperate on or are entirely responsible for pre-production activities like design and product development (Fernandez-Stark et al. 2011, p. 16).[21]

While these distinctions are quite relevant in certain analyses, such as those of social or economic upgrading within the value chain, they are less important for this case study, since the public does not distinguish between these categories in its reactions to corporate behavior. I therefore subsume all lead firms under the terms 'brand' or 'retailer', which I use as synonyms in this work, and refer to all suppliers simply by this term or 'supplier factory' without distinguishing further.

Moreover, my focus in the case study is exclusively on garment production (i.e. sewing clothing) and does not include the earlier steps required to produce textiles. While textile production is an equally important part of the process of creating garments, I have chosen horizontal breadth by including a large number of brands in the study rather than

[21] I do not include Original Brand Manufacturers here, since OBM-suppliers tend to cater to local or regional, i.e. developing country, markets and thus fall outside the limits of my case study.

vertical depth, which would have focused on more steps in the supply chain. This decision was again based on my strong focus on public attention and consumer behavior, where there is a much stronger perception of the breadth of the industry than the depth of the production process.

With regard to power relationships, garment GPNs are classically categorized as 'buyer-driven commodity chains', which means that brands generally act as lead firms in the supply chain and are able to exert significant power with regard to contractual negotiations with suppliers (Bartley et al. 2015). While some authors have highlighted a slight shift in power between lead firms and suppliers (e.g. Gereffi et al. 2005), there is little disagreement that the bulk of power still rests with lead firms. Starmanns (2017) instead underscores the fact that different departments within a brand may pursue separate and at times contradicting agendas, such as when the buying department puts pressure on a supplier to reduce costs, while the CSR department demands higher wages in the interest of greater social sustainability. This situation undermines the ability of the weaker actors within the firm to pursue their goals effectively and, in turn, explains why powerful lead firms still 'fail' to dictate higher social standards to their suppliers (Locke et al. 2009). Thus, while "buyers in global supply chains exert various, and at times conflicting forms of power in their supply chains [..., ultimately, these ...] mainly derive from the buyers' ability to switch to new suppliers if they wish to do so" (Starmanns 2017, p. 3), which continues to make (the most powerful departments of) the lead firm the dominant actor in negotiations.

7.2.3 Social Sustainability Issues

Garment production is highly labor intensive, hard to mechanize and often paid on a piece-rate basis. As the historical development has shown, it is also a highly mobile industry, resulting in part from the fact that its technological requirements and subsequent entry barriers are comparatively low. This makes it easy for brands to move their orders not only between individual suppliers, but also between countries, making garment production a highly competitive business. This combination of factors, from the piece-rate wage model to the high degree of mobility of the industry, means that workers face strong incentives to work long hours and employers, in turn, face few incentives to improve working conditions or increase wages, even though labor costs ultimately only make up between 2 and 6 percent of the final price of garments (Bartley et al. 2015, p. 149). Pressure on suppliers has only increased further with the development of the 'fast fashion' model, which demands not only low prices, but also a high degree of flexibility to adapt to frequent changes in production orders and deliver on very tight time schedules (Bartley et al. 2015).

SSIs in the GPN of garments have been documented extensively both in scholarly and civil society publications, including Ferenschild and Schniewind (2016), Johnston et al. (2015), Bartley et al. (2015), Burckhardt (2015a) and Lüthje et al. (2013). The issues they describe include, but are not limited to:

- (Minimum) wages too low to support an acceptable living standard
- Informal employment, often without written contracts, and consequently no social security benefits
- Unpaid, involuntary and/or excessive overtime hours
- Unsafe working conditions, especially with regard to building and fire safety and occupational health
- Use of child labor
- Use of forced or bonded labor
- Obstruction of union activities or no freedom of association at all
- No right or ability to bargain collectively

7.3 Data Sources

In the following sections, I will briefly outline the data sources used for the second case study as well as small methodological differences between the first and second case study.

7.3.1 Quantitative Data

Media coverage

As in the previous case study, I measured public issue attention using a media coverage analysis in LexisNexis. The search strings used can be found in Appendix 1. Unlike the smartphone sector, the garment sector consists of a large number of different brands, so that a media coverage analysis of all brands would have gone beyond the scope of this study. Instead, I selected a group of 28 brands to include in the analysis that cover a broad mixture of regime and niche actors, various market segments in the German retail garment sector, differing levels of social sustainability engagement in their GPN as well as popularity and familiarity among German consumers (Table 4). In addition, while the focus of my case study is more strongly on the European market, and especially Germany, the American anti-sweatshop movement played a vital role in defining issues and achieving early victories, as will be described in Chapter 7.5.1. I therefore also included six large US brands that played a particularly significant role with regard to the US anti-sweatshop movement.

Since social sustainability is the central focus of my work, I used the Clean Clothes Campaign (CCC)'s survey-based assessment of brands' engagement on the issue of living wages as a starting point. The payment of a living wage is one of the most salient social sustainability demands in the garment sector, because it directly impacts many other aspects of a worker's life: "If a worker's salary for a standard working week is not enough to cover the basic needs for them and their family, they face other poverty-related problems, such as low calorific intake, limited access to adequate health services, lack of social security, poor housing, limited access to education and limited participation in cultural and political life" (McMullen et al. 2014, p. 6).

The CCC study analyzed the responses (or lack thereof) of 50 of the most influential brands on the European market regarding the steps they are taking to work towards a living wage. Brands were grouped in 5 categories:

1: "Companies who declined to respond to our survey"

2: "Doing next to nothing to ensure workers are paid enough to live on"

3: "Acknowledge the need for a living wage but doing little to make it a reality"

4: "Mention of work on living wages, but unconvincing so far"

5: "Work started to increase wages, but not enough yet" (McMullen et al. 2014, p. 5)

Table 4: Garment brands selected for media coverage analysis in alphabetical order (Living Wage category based on McMullen et al. 2014)

Brand	Market Segment	Niche/Regime	Living Wage
Adidas	Sportswear	Regime	4
Aldi	Discount	Regime	2
Armani	Luxury	Regime	1
ArmedAngels	Fashion	Niche	NA
Blutsgeschwister	Fashion	Niche	NA
C&A	Fashion	Regime	3
Deuter	Sportswear	Regime	NA
Esprit	Fashion	Regime	2
Gap	Fashion (US)	Regime	3
Greenality	Fashion	Niche	NA
Gucci	Luxury	Regime	2
H&M	Fashion	Regime	2
hempAge	Fashion	Niche	NA
HessNatur	Fashion	Niche	NA

Hugo Boss	Luxury	Regime	1
Inditex (Zara)	Fashion	Regime	5
JCPenney	Fashion (US)	Regime	NA
Kik	Discount	Regime	1
Levi Strauss	Fashion	Regime	1
Lidl	Discount	Regime	3
Macy's	Fashion (US)	Regime	NA
Mango	Fashion	Regime	2
May	Fashion (US)	Regime	NA
Nike	Sportswear	Regime	3
Primark	Discount	Regime	4
Puma	Sportswear	Regime	4
s. Oliver	Fashion	Regime	1
Takko Fashion	Discount	Regime	3
Target	Discount (US)	Regime	NA
Tchibo	Discount	Regime	5
Triaz Group	Fashion	Niche	NA
Vaude	Sportswear	Regime	NA
Versace	Luxury	Regime	2
Wal-Mart	Discount (US)	Regime	NA

From this list of 50 companies, I removed any brands that

- are primarily active in the footwear or leather sector (3),
- are not active in the German market, with the exception of 6 US brands (4),
- are brand management groups rather than retail clothing brands (3)
- have gone bankrupt since the CCC study was conducted (2).

I selected 20 of the remaining 36 brands with a view to achieving an approximately equal distribution of both the market segment (luxury, fashion, sportswear and discount brands) and the living wage categories described above. I also added two further mainstream sportswear brands that are particularly well-known for their social and environmental engagement and six sustainable fashion brands from the niche. These eight brands, as well as most of the US brands, were not part of the CCC study, so that the living wage category in Table 4 is listed as "NA".

I consider 28 of these brands to be regime actors and six brands to be niche actors. This differentiation is based on the primary target audience of each brand - those primarily targeting the mainstream mass market are considered to be regime actors, whereas those that specifically target moral consumers are seen as niche actors.

Industry Attention

As in the prior case study, I measured industry attention by running search queries in LexisNexis within a set of limited sources. For this case study, I used one German and one American trade journal from the garment and textile industry, *TextilWirtschaft* and *Women's Wear Daily*, respectively.

7.3.2 Qualitative Data

My approach to gathering data in this second case study differed somewhat from the first, due primarily to differences in the target industries. The garment industry is older than the smartphone, even electronics sector, and in particular, there are far more brands in the garment sector than in the smartphone sector, making it very difficult to research issues for every single brand in-depth. The anti-sweatshop movement is also, both historically and currently, significantly larger than the fair electronics/smartphone movement. As a result, it was beyond the scope of this work to comb through the sites of even a fraction of the relevant NGOs and news articles, as I tried to do for the smartphone case study.

There has also been a tremendous amount of prior research in this area. I therefore took these previous studies as my starting point, identifying the most significant events in the anti-sweatshop movement primarily from academic literature and then researching these more in-depth to find out how each side - the social movement and the industry - acted during each event and how their reactions changed over time.

Key academic sources for relevant events included: Bartley et al. 2015, Bartley and Child 2012, Bair and Palpacuer 2012, and Ross 2008. I supplemented their information with extensive news searches, especially in the New York Times, Los Angeles Times, The Guardian, and Süddeutsche Zeitung, all of which included extensive and well-researched articles on SSIs in the garment industry. NGOs whose archives were particularly important to my research included the Clean Clothes Campaign, Institute for Global Labour and Human Rights, Worker Rights Consortium, Global Exchange, the Business and Human Rights Resource Centre, as well as many other websites on specific issues or events that can be found in the publication bibliography.

7.3.3 Expert Interviews

The quantitative and qualitative data described above was further supplemented by expert interviews. Within this case study, I conducted eight interviews with representatives of the following organizations and companies, all of whom have significant expertise with regard to social sustainability issues in the global production network of the garment industry:

- Tchibo GmbH
- Hess Natur-Textilien GmbH
- Primark
- Fair Wear Foundation
- Business Social Compliance Initiative (amfori)
- German Partnership for Sustainable Textiles (GIZ) (GPST)
- Südwind Institut für Ökonomie und Ökumene e.V.
- Caspar Dohmen, independent journalist

7.4 Quantitative Analysis of Public and Industry Attention

7.4.1 Media Coverage and Public Awareness

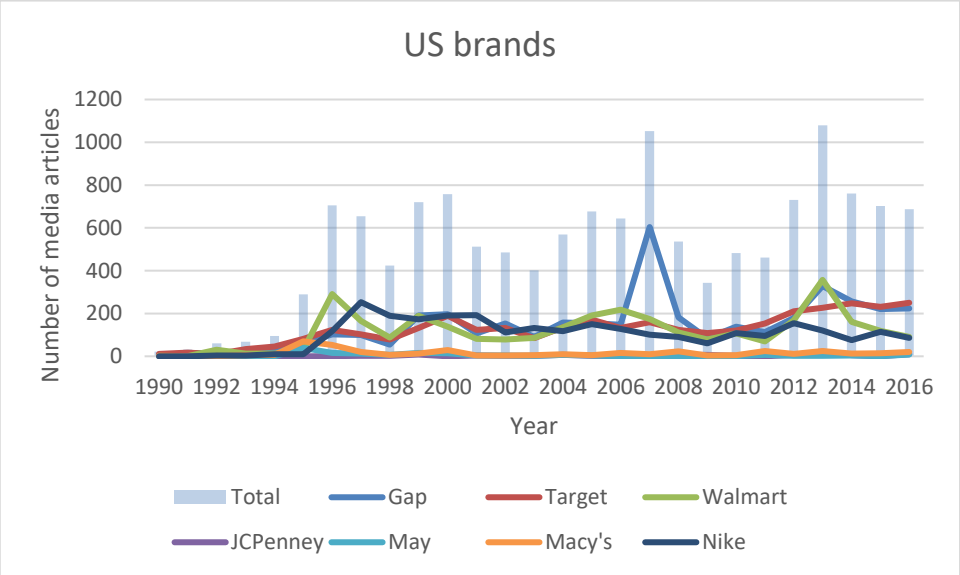

Figure 21: Media coverage of SSIs among US brands (Data source: LexisNexis)

The amount of media coverage for SSIs related to individual brands is used as a proxy for public awareness. Below I will discuss the results of the analysis cumulatively for the US sector and by market segment for Europe (luxury, sportswear, discount, fashion and sustainable niche brands), before comparing the different segments among each other. The maximum of the y-axis of the graphs, which shows the number of media articles for each segment, varies based on the data and ranges from 50 for luxury brands to 1200 for the US brands. A comparison of all examined market segments is included at the end to underscore the significant difference in the amount of media attention received by different market segments in the garment industry.

Public attention related to SSIs increased much earlier in the US than in Europe. As can be seen in Figure 21, beginning in 1996, SSIs were consistently covered in between 400 and 750 articles per year, with spikes to over 1000 articles in 2007 and 2013. Wal-Mart and Nike[22] were particularly in the spotlight in the late 1990s and remained the recipients of a more or less steady amount of SSI-related media coverage ever since, with a slight spike in 2013 after the collapse of the Rana Plaza building. Due to a major child labor

22 Nike will be covered in greater detail below, along with other sportswear brands active on the European market.

scandal, Gap received a lot of press in 2007. Target has received steadily increasing amounts of coverage, however without individual spikes.

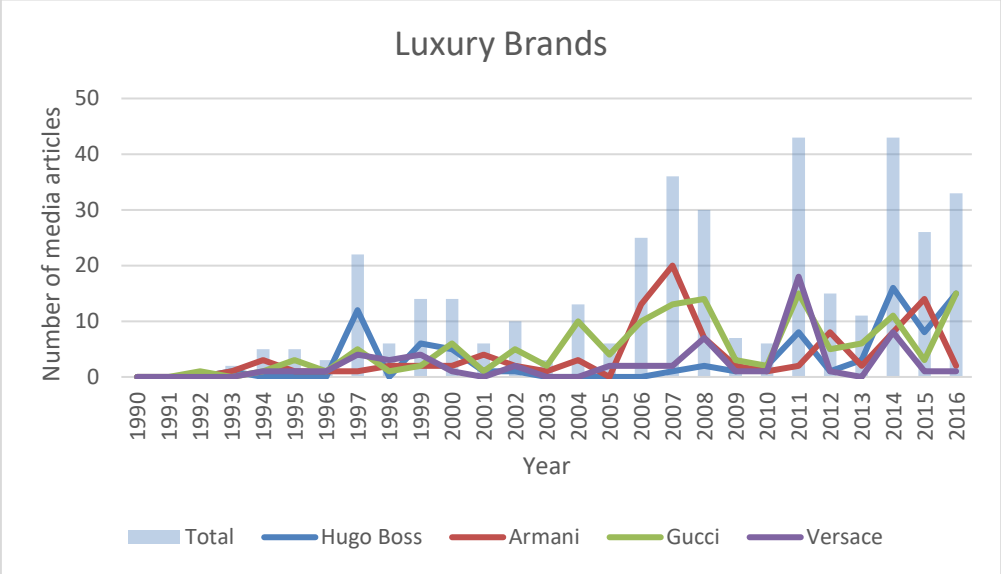

Figure 22: Media coverage of SSIs among luxury brands (Data source: LexisNexis)

Although luxury brands usually commission the production of their goods in the same factories as cheaper brands (Hoskins 2014b; Neuhaus 2014), they have historically received negligible amounts of attention with regard to SSIs, as can be seen in Figure 22. This can be explained in part due to the widespread, but largely incorrect assumption that the higher prices of luxury brand clothing result in the payment of higher wages and better working conditions in the supply chain (Neuhaus 2014).

Sportswear brands present a very different picture. Figure 23 shows the amount of media coverage for SSIs received by sportswear brands since 1990. It reflects quite clearly the sweatshop and child labor scandals that rocked Nike starting in the late 1990s, when the company became a primary target of the anti-sweatshop movement (Bartley and Child 2012). While the attention on the brand decreased somewhat over time, the data shows that Nike has continued to operate under the watchful eyes of the public with regard to the working conditions in its supply chain ever since.

Competitors Adidas and Puma received little media coverage with regard to SSIs until 2012, when Adidas, in particular, was in the spotlight both in the context of a poverty-wage scandal surrounding the uniforms of the 2012 US Olympic team and a controversy regarding severance pay at one of its supplier factories in Indonesia that closed in 2011 (see e.g. Raina 2012; Salinas-Duda 2012).

For both Adidas and Nike, coverage alternates regularly between praise and criticism. For example, Adidas' attempts to remove Uzbek cotton picked under forced labor conditions from its supply chain were publicly praised (Brettman 2014). At the same time, both brands received a lot of pushback from US universities and their students regarding contracts for college apparel (see e.g. UWIRE 2014; Daily Evergreen 2013; Zients 2013) and made the news regarding numerous incidents related to working conditions in their factories around the world, including Cambodia (Sochua 2014), Indonesia (Marks 2012), and India (Overdorf 2013).

Figure 23: Media coverage of SSIs among sportswear brands (Data source: LexisNexis)

In contrast, outdoor brands Vaude and Deuter have received almost no media coverage on SSIs. As brands who do not specifically target moral consumers but are nevertheless members of the Fair Wear Foundation, I consider Vaude and Deuter to be early movers within the regime.

As can be seen in Figure 24, most fashion brands received little to no attention regarding SSIs through the early 2000s. A notable exception is Levi Strauss & Co., which began including human rights criteria in its sourcing decisions as early as 1992 (Ramey 1992) and was included on a 1995 US Labor Department list of 31 "trendsetters", defined as "companies that went 'above and beyond' compliance with the federal Fair Labor Standards Act in order to stem garment-worker exploitation" (Swoboda 1995). In the early 2000s, the company used this early engagement to refuse settlement in a lawsuit, in which countless other brands agreed to settle.

The Bangladeshi garment industry experienced five factory disasters in 2005 and 2006, resulting in 150 deaths and over 300 injuries. Of the fashion brands examined here, Inditex was associated with two of the involved suppliers, but only experienced a small increase in media coverage as a result.

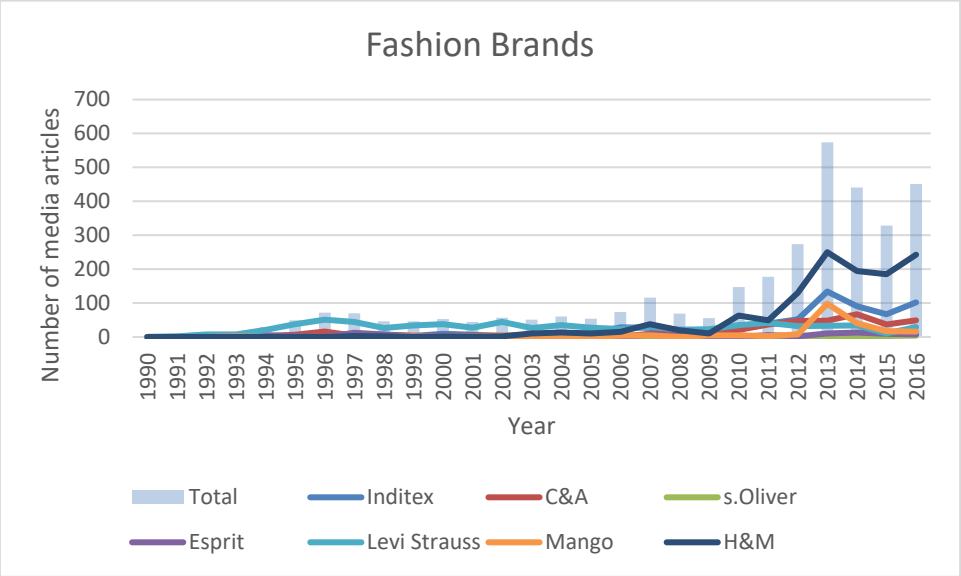

Figure 24: Media coverage of SSIs among fashion brands (Data source: LexisNexis)

As of 2010, SSI-related media coverage began to increase for fashion brands amidst worker strikes in Cambodia (Agence France Press 9/27/2010) and Bangladesh (Burke 2010), child labor accusations in India (Ganguly Mehta 2010) and factory fires in Bangladesh (Hickman 2010).

Three significant industrial accidents took place in the garment sector in 2012 and 2013: fires at Ali Enterprises in Pakistan in September 2012 (ur-Rehman et al. 2012) and Tazreen Fashions in Bangladesh in November 2012 (Ali Manik and Yardley 2012b) as well as the now infamous collapse of the Rana Plaza building in Bangladesh in April 2013 (Lee 2015a). Between the three incidents, over 1,500 garment workers lost their lives, more than 1100 of them in Rana Plaza. Of the fashion brands examined here, Primark, Mango, Inditex and C&A were all linked to the Rana Plaza collapse (ILRF 2018). C&A had likewise placed orders at the Tazreen Fashions factory (ILRF 2018).

In addition to the criticism that brands associated with these factories were confronted with for the poor level of safety standards at their suppliers, the fact that all three factories had been inspected by auditors shortly prior to each accident caused significant public

outrage (Bartley et al. 2015; Walsh and Greenhouse 2012b). Particularly the two incidents in Bangladesh and associated brands have received continued attention since 2013, as NGOs and journalists have tracked contributions to the Rana Plaza and Tazreen Trust Funds as well as signatures to the Accord on Fire and Building Safety in Bangladesh (ILRF 2018).

H&M, meanwhile, was not involved in any of the large industrial accidents in these years. However, they were repeatedly criticized for poor working conditions in Cambodian factories, including a situation in which 300 garment workers at one of their supplier factories collapsed from exhaustion (Surachai 2012). In response to wage issues, H&M promised in 2013 to ensure that workers at 750 of its suppliers, making about 60% of its products, would be paid a living wage by 2018 (Farrell 2013), thereby garnering significant media coverage, both at the time and in the years since.[23]

Figure 25: Media coverage of SSIs among discount brands (Data source: LexisNexis)

Like most fashion brands, discount brands received absolutely no media coverage regarding SSIs through the early 2000s (Figure 25). Then, the NGO “War on Want” published two reports in 2006 and 2008, singling out Primark along with two other brands

23 This promise has since been revised. In January 2018, H&M states on its website: "At 2018, the goal is to have democratically-elected worker representatives and improved wage management systems in place at suppliers representing 50 percent of our product volume" (H&M Group n.d.a). Moreover, the company refers to its use of the "Fair Wage Method", which defines fair wages as "company practices that lead to sustainable wage developments" (Fair Wage Network n.d.; H&M Group n.d.b).

with regard to poor working conditions in Bangladesh. The Guardian published a further special report in 2007, again focusing on the suppliers of the same three companies, including Primark. In combination with an episode of BBC Panorama called “Primark: On the Rack”, which aired in December 2008 and featured filmed footage of under-aged children producing Primark clothing,[24] the brand received significant amounts of media coverage regarding SSIs between 2006 and 2008.

In 2010, advertising by German discounter Lidl stated that the brand sells only clothing that was produced in compliance with certain social standards. After examining these claims more closely, Lidl was sued by several civil society organizations, who refuted the company’s claim. Lidl lost the lawsuit and had to remove claims regarding fair labor from its advertising (Spiegel Online 2010a). Media coverage of the company increased somewhat as a result.

Of the discount brands, only Kik was directly connected to the fires at Tazreen Fashions and Ali Enterprises in 2012 (Walsh and Greenhouse 2012a; Clean Clothes Campaign 2015). However, in the wake of these disasters, as well as Rana Plaza, where Kik and Primark were both customers (ILRF 2018), discount brands in general received critical media coverage since their low prices seem to suggest the closest connection to low pay and poor working conditions. As was already stated with regard to luxury brands, the connection between a brand’s prices at the point of sale and conditions in the supply chain is not as clearly linear as is often assumed (see e.g. Burckhardt 2015b).

In the wake of the Rana Plaza collapse, both the Bangladesh Accord and the German Partnership for Sustainable Textiles garnered significant media attention and with them also many large brands in Germany. This heightened level of media coverage can be seen both for discount and fashion brands.

Moreover, attention on Primark spiked once more in 2014 when several customers found ‘cry for help’ labels sewn into Primark clothing. The retailer investigated and stated shortly thereafter that the labels were a hoax; regardless of whether they were real or not, the labels triggered a further discussion regarding working conditions, particularly in Bangladesh (Hoskins 2014a).

24 Primark disputed the authenticity of this footage and later received an official apology from the BBC for its airing (Primark 2011). NGOs involved in the situation continued to disagree with the findings of the BBC Trust and believe the original footage to be accurate (War on Want 2011).

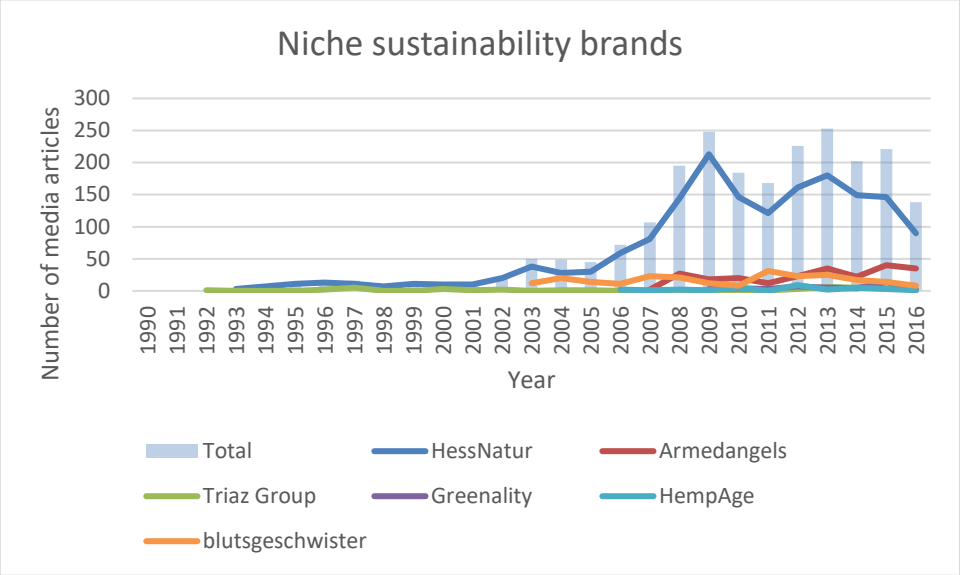

Figure 26: Media coverage of niche sustainability brands (Data source: LexisNexis)

Although some sustainability-oriented niche brands have existed since the 1970s (HessNatur) or 1980s (Triaz Group, which includes the brand names Waschbär and Vivanda), Figure 26 shows that they received almost no media coverage until the early 2000s. Reporting, especially on HessNatur and, to a lesser degree, Armedangels (Social Fashion Company GmbH) and blutsgeschwister, has increased over the past decade and often contrasts these niche brands with their more mainstream competitors.

Figure 27 summarizes the media coverage analysis by showing the sum of all media articles for each market segment. In this figure, Nike is only included under the US brands, not under sportswear. The early spike in attention in the late 1990s surrounding US brands can be seen clearly, as can the impact of the 2012/2013 factory fires and collapses, culminating in the Rana Plaza tragedy, on the fashion brands. As media coverage of SSIs in the garment sector increased for mainstream brands, so did the attention for more sustainability-oriented niche brands. Luxury brands, on the other hand, have been left almost completely out of the SSIs discussion.

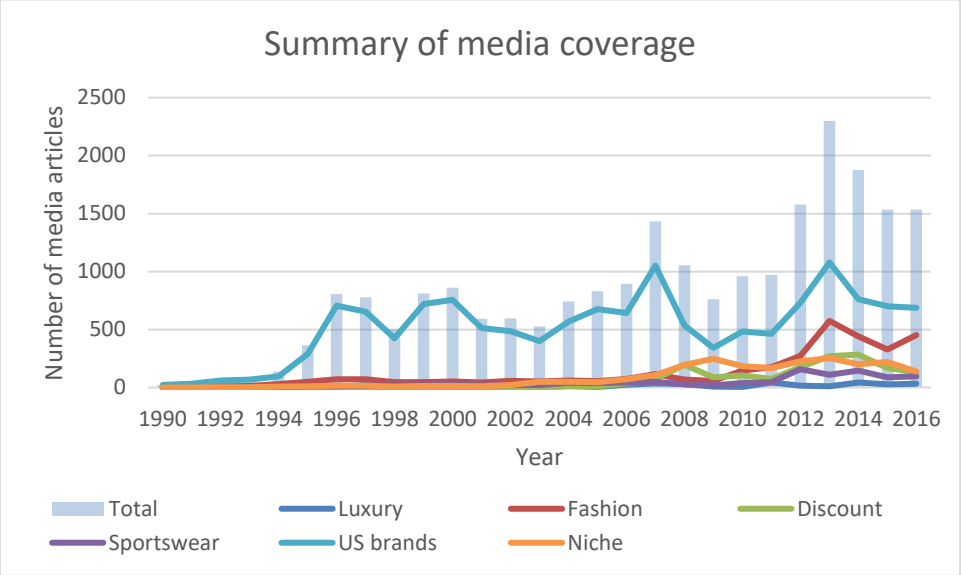

Figure 27: Summary of media coverage by market segment (Note: Nike is included under US brands and not included under sportswear)

7.4.2 Industry Attention

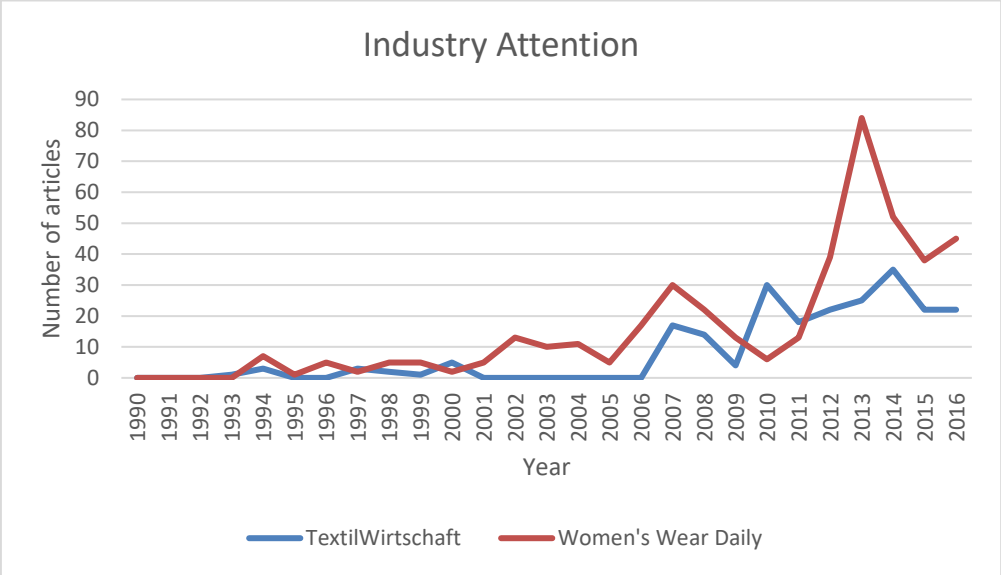

Figure 28: Coverage of SSIs in representative German and US trade journals for the garment and textiles sector (Data source: LexisNexis)

In addition to examining media coverage of SSIs in sources aimed at the general public, I also analyzed coverage of SSIs in two representative trade journals for the garment sector: TextilWirtschaft for Germany and Women's Wear Daily for the US market (Figure 28). Both journals roughly mirror the general development of the issue lifecycles in each

region, with Women's Wear Daily publishing a handful of articles in the late 1990s, then again a larger number between 2005 and 2010 and significantly more on the topic beginning in 2012. The German TextilWirtschaft published a very small number of articles in the 1990s and began publishing a larger number as of 2007, similar to increased media attention on discount and fashion brands in Europe. It is somewhat surprising, however, that the various industrial accidents in 2012 and 2013, including Rana Plaza, did not lead to a greater spike in coverage in this journal.

7.5 Systematic Process Analysis of Historical Events

In the following sections, I describe events between 1990 and 2016 that relate to SSIs in the garment industry and identify the time range of each C-DILC-phase. In particular, I focus on problem-related pressures, meaning in particular scandals, accidents, and associated civil society reports and activities, as well as industry responses to these actions.

In phase 1, issues are initially articulated by researchers, activists and those directly affected by the issue, while firms largely downplay or ignore these early demands. In the garment case study, this phase took place prior to 1990 and therefore technically falls outside the time range of my study. However, to provide a foundation for the remaining analysis, I will briefly outline the events of phase 1 below.

Starting in phase 2, the paths of the anti-sweatshop movements in Europe and the US began to diverge more clearly from one another. While Europe entered phase 2 a few years earlier than the US, it also remained in this phase for a decade longer. As I will describe below, the United States instead alternated back and forth between phases 2 and 3 several times before both regions moved on to phase 4 almost simultaneously. Beginning in phase 2, the two movements also pursued different strategies to achieve their goals, with European civil society organizations tending more towards “oppose and propose”, while US organizations preferred a “name and shame” strategy (Bartley et al. 2015).

7.5.1 United States

7.5.1.1 Phase 1 (1981 - 1991)

By its very nature, it is difficult to determine when phase 1 begins, since awareness of the issues in question is low by definition. One could argue that it started as early as 1911 with the Triangle Shirtwaist Factory fire. I would argue, however, that instead of launching phase 1 of the current issue lifecycle, this incident was in fact a trigger event

in a previous iteration of the issue lifecycle on the topic of social and labor issues in the garment industry.

Based on the initial articulation of SSIs in the garment industry by researchers in academic publications, where the first relevant article was written in 1981 and a total of 14 papers on this topic were published through 1989, I believe that phase 1 of the current lifecycle iteration began in 1981. There was furthermore some limited media coverage of SSIs in the clothing sector in the 1980s (between 19 and 150 articles per year). These articles were primarily focused on child labor and sweatshop working conditions in the domestic United States garment industry as well as whether or not a ban on home work in the US apparel industry should be lifted or stay in place (see e.g. New York Times 1981; Barringer 1981; Efron 1989; Kilborn 1989). While the issues are thus largely the same as those relevant later on in globalized supply chains, during the 1980s the focus was still mainly on domestic manufacturing and thus much "closer to home" than it is today. Nevertheless, the competitiveness of the industry and an early tendency to outsource clothing production to developing countries with lower wages were already discussed in the US as early as 1981 (Serrin 1981). There is no indication that a discussion of SSIs in the garment industry took place in Europe at this time.

When discussions began turning to more stringent legislation to prevent sweatshop conditions in domestic factories, manufacturers argued that

> "broader liability laws will be impossible to enforce, and further regulation will only drive sewing operations underground, out of state or offshore. [...] Freedman[, an attorney representing garment manufacturers,] argued that manufacturers and retailers simply cannot police the labor practices of their suppliers. 'It doesn't happen anywhere in society, and for good reason. It goes against the free market" (Efron 1989).

This attempted equivocation of the situation as an industry response, while still focused on the domestic US clothing industry and therefore only tangential to the issue I want to focus on in this study, is nevertheless indicative of industry attitudes around this point in time, which did not become more favorable to labor needs as labor was moved offshore.

Toward the end of phase 1, in the late 1980s, activist attention did begin to turn on production overseas. In particular, Nike moved part of its manufacturing to Indonesia, where activist Jeff Ballinger was stationed at the time to conduct a minimum wage study for the United States Agency for International Development (USAID) (Wokutch 2001). The study was published in 1989 and followed up by a report by the Asian American Free Labor Institute in 1991 (Waller and Conaway 2010) showing that the wages paid in the export sector, including for Nike productions, were not only below the legal minimum, but the lowest in the entire Indonesian garment sector (Harrison and Scorse 2010). During this

phase, Nike denied any responsibility, since it did not own the factories in question (McDonnell et al. 2015).

7.5.1.2 Phase 2a (1992 - 1994)

In accordance with the strategy of “naming and shaming”, two scandals moved the United States into phase 2 in 1992. First, the news program NBC *Dateline* aired the results of a two-month investigation into Wal-Mart’s suppliers in Bangladesh. As part of the program, video footage of children sewing garments for Wal-Mart - and supervisors confirming their work for the brand on tape - was shown along with an interview with Wal-Mart’s then-CEO David Glass, who responded to photos of child laborers producing garments for his company by saying: “The pictures you showed mean nothing to me. I’m not sure where they were or who they were” (Benoit and Dorries 1996, p. 471). Thereafter, Wal-Mart sent its own team to investigate child labor accusations in Bangladesh. When asked in a follow-up interview two weeks later whether any children had been present at any of Wal-Mart’s suppliers in Bangladesh, rather than giving a clear answer, Glass responded: “You and I might perhaps define children differently” (Benoit and Dorries 1996, p. 470).

Glass’ responses during the interviews illustrate the expected industry response during phase 2. He cast uncertainty on the taped footage (“I’m not sure where they were or who they were”) and tried to portray the interviewer as unreasonable - “perhaps [you] define children differently”. He also directly denied the accusations, citing that his representative in Bangladesh found “no evidence of child labor” and tried to de-dramatize some of the worst claims, stating: “I think the stories of children being locked in and exploited are certainly something that I’ve not been able to verify” (Benoit and Dorries 1996, p. 470).

Around the same time, the controversy around sportswear brand Nike became more publicly visible. Following the USAID-study, Jeff Ballinger published an article in Harper’s Magazine in 1992 that centered around the photo of a young woman’s pay stub from one of Nike’s supplier factories in Indonesia,[25] showing large amounts of overtime (63 hours) along with very low wages (less than $0.14/hour) (Ballinger 1992). Rather than continuing to deny these accusations, as they had done earlier, Nike published one of the first codes of conduct in the industry in 1992 (Waller and Conaway 2010). At the time, this was a novelty and can be seen as the investment in a form of incremental innovation, a typical industry response in phase 2.

25 The factory in question produced footwear, not apparel. However, the scandal that consequently arose around Nike's supply chain standards has had significant impacts on the sweatshop debate in the entire 'apparel and footwear industry' and is therefore included here.

Somewhat uncharacteristically for phase 2, the US government likewise became involved. In 1992, it put significant pressure on the Indonesian government, threatening that the country's zero-tariff benefits would be revoked if human rights issues were not addressed (Harrison and Scorse 2010).

7.5.1.3 Phase 3a (1995 - 1999)

Beginning in 1995, the anti-sweatshop movement grew significantly in the United States for several years. Between 1995 and 2000, at least 25 major brands and retailers in the US became the targets of large boycott campaigns, protests and lawsuits (see e.g. Bartley et al. 2015; Bartley and Child 2012). Rather than examining each and every one of these events in detail, I have chosen to focus on a small subset of occurrences that I believe to have been among the most influential in moving a transition towards greater social sustainability along in the United States.

In July 1995, the Gap first became the target of protests after the National Labor Committee (NLC) uncovered that its Taiwanese-owned supplier Mandarin International in El Salvador had illegally fired 350 women who had recently formed a labor union in the factory. Two of them were invited to tour the US to tell their stories (Herbert 1995a). Both factory management and the government of El Salvador denied the charges (Herbert 1995b) and the Gap insisted that its investigation team found no evidence to substantiate the charges against its supplier.

New York Times columnist Bob Herbert, who had visited the factory in El Salvador personally, wrote a series of scathing Op-Ed pieces about the Gap and its response to the Mandarin International situation (Herbert 1995a, 1995b, 1995c). In response, Stanley Raggio, a senior vice president of the Gap, publicly expressed the company's disappointment with Herbert, who "chose to minimize our efforts" during the investigation. He also reiterated that the Gap makes "every possible credible effort" to ensure that its suppliers comply with the company's standards (Raggio 1995). This exchange between Herbert and Raggio is typical for phase 3, where companies and activists publicly struggle to frame issues in favor of their own perspective, in turn generating an increase in media attention to the issue.

Shortly thereafter, however, the Gap signed an accord with the NLC that set out terms for a negotiation between Mandarin International and the workers and union leaders who had been fired, with the explicit objective of reinstating these former employees to their old jobs. While Mandarin was not party to this agreement, "it is understood that if a fair settlement cannot be reached with the union workers the Gap will no longer do business with Mandarin. And if the Gap severs all ties to Mandarin, other large companies can be expected to do the same" (Herbert 1995c). Moreover, the Gap agreed to let third-party

observers and human rights officials monitor its factories in Central America, thus beginning to make some concessions in the matter of factory working conditions abroad.

In 1996, the NLC uncovered the next major garment scandal, one which Ross refers to as the anti-sweatshop "movement's iconic moment" (Ross 2008, p. 778). Kathie Lee Gifford, "an especially vulnerable celebrity figure, [...] fell into the trap" of having a line of clothing in her name, sold at Wal-Mart, connected to sweatshops in Honduras (Ross 2008, p. 778). To make matters worse, the accusations included child labor, an issue that consumers tend to be particularly sensitive to. At the time, Gifford was the co-host of the popular morning talk show "Live with Regis and Kathie Lee", who went overnight from being America's Sweetheart (Strom 1996) to "America's Sweatshop Queen" (Rosenblum 2000).

In the months that followed, Gifford tried out a series of different, sometimes inconsistent, responses to the roiling debate that ensued. At first, she denied any wrongdoing by stating that she had not known where the clothing line was being produced - a statement that, in her case, was most likely true, as production responsibilities lay firmly with Wal-Mart (Strom 1996). She also shot back at Charles Kernaghan, head of the NLC, questioning why he had waited several months to come forward with his knowledge of child labor in Honduran factories: "you tell me you care about children. Why didn't you call me personally immediately?" (Chicago Tribune 1996), thus attempting to re-frame the issue in the public eye and shift blame away from herself (public framing struggles).

When critics argued that Gifford should have known that $10 blouses could not have been produced under good working conditions, she denied personal responsibility by responding: "My first endorsement was for Kraft when I was 17, and I didn't think I had to go check out the cows. [...] Later I worked as a spokesperson for Coca-Cola. Was I supposed to insist on knowing the secret formula? Nobody does it that way, and if they tell you they do, I think they're fudging" (Strom 1996). Here, she is defending against criticism by dismissing the opposing camp's demands as irrational and unreasonable and portraying the situation, if not as natural, then at least as the common standard. In an attempt at de-dramatizing and re-framing the issues at hand, she explained: "Nobody expected the huge demand there was for my line. [...] Sales tripled Wal-Mart's expectations, and suddenly it was like 'Uh-oh, I need to get 50,000 more blouses and fast.' I think that's part of how this came about. Maybe I just grew too fast" (Strom 1996).

While she briefly tried to put a positive spin on the situation in the press, portraying it as "a unique opportunity to make a difference by using what happened to me to stop the horrible practices of some of these manufacturers" (Strom 1996), her and her husband's actions did not match that rhetoric. When news broke that a factory in New York City,

also manufacturing for the Kathie Lee Gifford label, had not been paying its workers, Gifford's husband went to the factory and handed out $100 bills to the workers, in a clear attempt to prevent another scandal through a small symbolic action (Rosenblum 2000).

Other celebrities who lent their names to apparel manufacturing, but had not been implicated in any specific labor scandals, were quick to distance themselves from these issues. Michael Jordan highlighted the uncertainty involved and denied any personal responsibility for Nike's "Air Jordan" line of products: "I don't know the complete situation. [...] Why should I? I'm trying to do my job. Hopefully, Nike will do the right thing" (Strom 1996). Actress Jaclyn Smith simply denied the possibility that her line of clothing, sold at Kmart, could be produced in sweatshops (Strom 1996).

Taking advantage of the sweatshop issue's current dominance in US news cycles as a result of the Kathie Lee Gifford scandal, a broad coalition of NGOs formed the Working Group on Nike, intended to influence media coverage on Nike in favor of the anti-sweatshop agenda. The Working Group included, among others, Global Exchange, Amnesty International, the National Organization of Women as well as the Interfaith Center on Corporate Responsibility (Waller and Conaway 2010). Together, they achieved a significant increase in media coverage of Nike's sweatshop issues beginning in 1996 (see Figure 23) and including front page news coverage in the New York Times and Washington Post (Greenberg and Knight 2004). Activists created a series of internet platforms to organize and report on their activities, including www.nikeworkers.com,[26] www.nikewages.com, and www.nikesweatshop.com (Waller and Conaway 2010). Offline, protesters repeatedly demonstrated at Nike stores and the company's headquarters throughout the remaining decade (Bartley and Child 2012). Finally, a US tour of female workers from Vietnam and Indonesia was organized, who publicly levelled accusations of sexual and physical abuse against Nike's suppliers (Waller and Conaway 2010). All of these activities increased sweatshop-related media coverage of Nike enormously (Bennett and Lagos 2016; Harrison and Scorse 2010; Greenberg and Knight 2004) and thereby increased pressure both on Nike and on the government to respond.

While the Gifford scandal had framed the issue as 'Sweetheart turns Sweatshop Queen', in the case of Nike, reports "juxtaposed the billionaire status of Nike CEO Knight and multimillion dollar compensation for sports stars such as Michael Jordan and Tiger Woods on one hand with the below-subsistence pay to thousands of workers in Nike's Asian contract factories" on the other hand (Waller and Conaway 2010, p. 95). Struggling to reclaim control over its public image, Nike created the website www.nikebiz.com in

26 The websites created in the 1990s by both NGOs and Nike with regard to the Nike sweatshop controversy are no longer available today. Descriptions of their existence and content are based on Waller and Conaway (2010).

response. Waller and Conaway (2010, p. 98) analyzed the frames employed on the website and found one such text entitled “Giving voice to workers”, which focused on how much the company values input from all of its global workers and therefore established a confidential grievance mechanism to support its other monitoring activities. Furthermore, the company sought to highlight the size and complexity of its supply chain and thus “implicitly criticize[...] those who sensationalize isolated incidents” (Waller and Conaway 2010, p. 97). Nike also emphasized the large budgets dedicated to compliance and “’realistic,’ enforceable standards” (Waller and Conaway 2010, p. 97). This again portrayed activists’ demands of higher minimum standards as unreasonable or unrealistic, while at the same time providing reassurances that the company was taking care of any problems and no further actions, either on behalf of civil society or the government, would be necessary.

Nevertheless, policymakers became involved in 1996 with President Clinton’s creation of the Apparel Industry Partnership (AIP) as a response to the series of scandals that had rocked the sector in recent years. The multi-stakeholder partnership included companies, NGOs and unions, who intended to work out a code of conduct for the entire clothing sector that could be independently verified by third parties (Bair and Palpacuer 2012). While initial meetings were promising, the Partnership reached a stalemate in 1998 that led to a split in the alliance, with some of the companies and a few NGOs creating the industry-led Fair Labor Association (FLA) on the one hand, and other NGOs along with trade unions founding the Worker Rights Consortium (WRC) on the other in 1998. The AIP is an example typical for phase 3, where policymakers face credibility pressures associated with the issue at hand and therefore begin addressing the problem using existing beliefs and incremental, rather than radical, policy changes.

Also common for this phase are the attempts by more activist policymakers to attempt - but fail - to reach more radical changes. The archives of the US Congress indicate that certain lawmakers repeatedly introduced anti-sweatshop legislation but failed to have it passed in Congress. Examples include the “Sweatshops Prevention Act”, introduced by Rep. Charles Schumer in 1989, 1991 and 1993; the “Child Labor Free Consumer Information Act” introduced by Sen. Tom Harkin in 1996, 1997 and 1999; the “Stop Sweatshops Act” introduced by Sen. Edward Kennedy in 1996 and 1997; as well as the “Garment Consumer’s Right-to-Know Act”, introduced by Rep. Nydia Velazquez in 2002 and 2005.

With regard to NGOs, one group was particularly instrumental in the creation of the WRC: the student organization United Students Against Sweatshops (USAS), which began lobbying university administrations across the country in the mid-1990s to boycott brands

associated with sweatshop manufacturing in the production of college apparel and instead choose fairer alternatives (Bair and Palpacuer 2012). As general public attention to SSIs in the garment sector rose, USAS quickly spread across American college campuses and thereby created the first larger-scale niche market for radical alternatives in the American garment sector. The organization had several unique characteristics that likely aided in its success at lobbying the administrations of major American universities: First, there are thousands of college campuses in the United States, making it easy to create a large network across the country, even if only a fraction of the student body participates. Second, the level of pride and identification with individual universities is unusually high among students in the United States and is the basis of a large market of university logo apparel. Finally, university finances rely heavily on contributions from alumni, giving both students (i.e. future alumni) and alumni associations significant leverage on university decision-making. These factors together helped make USAS one of the most important actors in the US anti-sweatshop movement of the 1990s and beyond.

By 1998, pressure both from USAS and other anti-sweatshop activists had risen so much that it began to spill over towards more mainstream opinion leaders, particularly with regard to Nike. The company continued to be pressured from all sides: *Doonesbury* comics portraying deplorable working conditions at Nike factories were published in newspapers all over the country (Plawiuk 1998), columnist Bob Herbert wrote critical Op-Ed pieces in the New York Times (Greenberg and Knight 2004), and the USAS movement lobbied universities against the brand quite successfully. Amidst this backdrop, it became clear that Nike's attempts to overcome its sweatshop reputation simply by reframing the issues would be insufficient and so CEO Phil Knight delivered a speech in May of 1998 at the National Press Club announcing a shift in corporate policies. While he did not go so far as to acknowledge wrongdoing or apologize, he stated openly that "[t]he Nike product has become synonymous with slave wages, forced overtime and arbitrary abuse" and it was time to make some changes (Cushman 1998). He then made six commitments that included implementing US Occupational Safety and Health Administration level standards on indoor air quality in Nike's supplier factories, raising the minimum age for factory workers (to 18 for footwear and 16 for apparel factories) and involving NGOs in factory monitoring (Connor 2001). In the same year, Nike also backed the creation of the Fair Labor Association and Global Alliance, two voluntary, industry-led, private governance organizations (Waller and Conaway 2010).

At the end of the 1990s, then, Nike was clearly beginning to make some concessions to the anti-sweatshop movement and showed some willingness to form alliances with civil society actors and invest in more radical alternatives than earlier in the decade. Moreover, by the end of the decade, most brands in the garment sector had codes of conduct in place for their suppliers (Bartley et al. 2015). While NGOs today are quick to point out

that this is not sufficient, historically, it was a clear sign of increased awareness in the industry and an implicit acknowledgment that SSIs in the supply chain could no longer simply be ignored.

Statistical event analyses conducted to examine the impact of the anti-sweatshop movement of the 1990s on the stock value of targeted companies also show that there was more at stake than just the companies' image:

> "We find that campaigns suppressed the sales of specialized firms with recognizable products, and major events diminished the stock prices of implicated firms – consistent with claims that social movements can inflict material damage on their targets. Anti-sweatshop campaigns also powerfully informed specialized ratings, and intense campaigns diminished previously positive corporate reputations – consistent with accounts of movement influence on evaluation in organizational fields." (Bartley and Child 2012, p. 444)

Furthermore, in addition to negative publicity, a number of brands also became targets of lawsuits with regard to SSIs in their GPNs starting at the end of the 1990s. In 1998, Marc Kasky sued Nike in California's state court, alleging that Nike's claims about the working conditions of its suppliers abroad "contained false information and material omissions of fact" and therefore violated California's Unfair Competition and False Advertising Law (BHRRC 2014a). While the first two instances sided with Nike, as did the Bush administration, the California Supreme Court reversed their decision in 2002 and instead ruled in favor of Kasky, stating that even given the right to free speech, "when a business enterprise makes factual representations about its own products or its own operations, it must speak truthfully" (Campbell 2003). Nike tried to appeal to the US Supreme Court, which declined to hear the case and in 2003 the parties finally agreed to a settlement of $1.5 million to be given to the Fair Labor Association (BHRRC 2014a; Campbell 2003).

The second set of lawsuits was much larger. In 1999, 30,000 garment workers employed on the US commonwealth island of Saipan filed lawsuits against 27 retailers and 23 garment factories, alleging involuntary servitude, criminal peonage, forced labor and the deprivation of fundamental human rights, as well as breaches of local minimum wage and other labor laws (BHRRC 2014b). Among the retail brands being sued were Ralph Lauren, Donna Karan, The Gap, Tommy Hilfiger, Wal-Mart, Target, JC Penney and Levi-Strauss & Co. (Williams 1999; Strasburg 2002). While a settlement was proposed as early as 1999, the retailers denied the charges for years, arguing that their monitoring activities were sufficient to prevent the alleged charges in factories (Strasburg 2002). In 2003, however, 49 of the 50 defendants - all except Levi Strauss & Co. - agreed to a settlement of $20 million, as well as "a code of conduct, independent monitoring, and monetary compensation" (BHRRC 2014b).

Such legal challenges can take place in phase 3 and lead to further discussions or incremental change, but rarely to radical change, as was the case here. The Nike lawsuit certainly caught the industry's attention, given that Kasky proved with his actions that even a sportswear giant can be forced into settlement on SSIs. On the other hand, the settlement sum was donated to the FLA, which is not only industry-led, but has especially close ties specifically with Nike, a company that helped to found the organization and continues to be represented on its board of directors. Many NGOs, including Global Exchange, also felt that the settlement should have been much larger than $1.5 million and expressed great disappointment at the outcome (Campbell 2003).

Civil society's response to the Saipan lawsuits was more favorable, as the settlement of $20 million set a new record for international human rights awards and the cases had led to a significant increase in public awareness of sweatshop issues (Bas et al. 2004). In addition to the monetary compensation of workers, the settlement also included the creation of an independent monitoring program (BHRRC 2014b). While the parties to the settlement had initially all agreed to the International Labor Organization (ILO) as the actual monitor of factory conditions, President Bush's administration refused this request and instead insisted that a private monitor be chosen. This led to delays in negotiations and finally to the decision to have each side choose their own monitoring agency, since no private monitoring agency could be found that both sides would agree to (Bas et al. 2004).

7.5.1.4 Phase 2b (2000 - 2004)

As the lawsuits described above settled down in the early 2000s, so did the amount of public attention dedicated to the anti-sweatshop issue in the United States. Although SMOs such as the National Labor Committee[27] continued to investigate labor rights violations and issued many reports on sweatshop conditions taking place in specific countries, such as those party to the Central America Free Trade Agreement, Jordan, and China, or associated with specific companies, particularly Wal-Mart, Nike and JC Penney (Institute for Global Labour and Human Rights 2017), none of these revelations sparked the same level of outrage among the public as the prominent scandals of the 1990s.

While I cannot say with certainty what led to this decrease in public concern, two possible explanations seem likely. When examining intra-media agenda setting, researchers have found examples both of issue fatigue and issue competition. Attention to issues in the news tends to be cyclical to a certain degree and issues with previously high levels of attention can suddenly drop off in importance, only to re-emerge again at a later point in

27 Later renamed Institute for Global Labour and Human Rights.

time. Issue fatigue takes place when “prolonged exposure to similar messages eventually results in an exhaustion of interest” (Djerf-Pierre 2012, p. 501) and is often associated with topics that are perceived to be both negative and complex (Kuhlmann et al. 2014). Over time, as one sweatshop after another was discovered in GPNs and publicized in the news, both the message and the responses from industry became redundant. Moreover, as brands increasingly implemented codes of conduct and agreed to third-party audits, the question of whom to blame and how to improve the situation became increasingly complex. While activists continued to promote SSIs in the garment industry, it is likely that a certain degree of issue fatigue set in among the general public during this time.

Issue competition, in turn, results from the fact that the inclusion of particular topics in the news media is zero-sum, meaning that for every topic that is included, another one is not. Djerf-Pierre found that coverage of the economy, wars and situations of armed conflict tend to crowd out coverage of environmental issues (2012). It is quite possible that a similar effect exists for social sustainability issues, particularly non-domestic ones, and that these were crowded out in the early 2000s by news regarding the September 11, 2001 terrorist attacks as well as the wars in Iraq and Afghanistan that followed in the years thereafter.

7.5.1.5 Phase 3b (2005 - 2007)

After a Pulitzer Prize winning reporting series on Wal-Mart by the Los Angeles Times in 2003 (Goldman et al. 2003), pressure on the retail giant increased significantly in 2005 regarding labor issues both in the US and abroad. The company’s labor practices were the subject of a 2005 documentary called “Wal-Mart: The High Cost of Low Price”, which Wal-Mart described as a “propaganda video [...] with a careless disregard for the facts” (Wal-Mart 2005). Amidst lawsuits alleging domestic labor violations, Wal-Mart was also sued by the International Labor Rights Fund for failing to enforce its corporate code of conduct at its supplier factories in China, Bangladesh, Indonesia, Swaziland and Nicaragua (Selvin 2005).

The company’s response to these and further attacks on its image was first and foremost in the public relations arena. In October 2005, CEO H. Lee Scott Jr. promised that “Wal-Mart Stores Inc. will start holding its suppliers more accountable for environmental and social standards at foreign factories as public expectations in the United States rise” (Associated Press 2005b). Just a few days later, the company abandoned its previous strategy of handling press responses in-house and instead set up a “war room” staffed with highly experienced public relations professionals, including former presidential advisers (Barbaro 2005). Beginning in 2005, it actively countered public attacks and tried

to improve its image, in part due to stock market losses and concern over slowing growth rates that were associated with its negative image in the press (Barbaro 2005).

As Wal-Mart sought to fight its critics in the public relations arena, the Gap and Nike took a more progressive step and published lists of their global suppliers, along with the results of inspections carried out in their supplier factories. Both companies openly admitted to severe problems in their supply chains, but also voiced concerns that they would not be able to address these adequately on their own: “I do not believe Nike has the power to single-handedly solve the issues at stake” (Teather 2005; Nike, Inc. 4/13/2005).

The Gap, in turn, publicly admitted that its purchasing practices, including last-minute changes in production, had contributed to poor working conditions at factories abroad. It also pre-emptively informed its shareholders in advance that things may get worse before they get better in its supply chains, meaning that the increased scrutiny of its supply chain would likely uncover further abuses (Associated Press 2005a). Not long thereafter, in late 2007, an investigation by UK and German journalists uncovered child labor at an Indian factory producing for the Gap (McDougall 2007). In stark contrast to earlier corporate reactions to such revelations, the company immediately published a press release on the subject:

> “Earlier this week, the company was informed about an allegation of child labor at a facility in India that was working on one product for GapKids. An investigation was immediately launched. The company noted that a very small portion of a particular order placed with one of its vendors was apparently subcontracted to an unauthorized subcontractor without the company’s knowledge or approval. This is in direct violation of the company’s agreement with the vendor under its Code of Vendor Conduct.
>
> Marka Hansen, president of Gap North America, made the following statement today: [...] ‘As soon as we were alerted to this situation, we stopped the work order and prevented the product from being sold in stores’” (Gap Inc. 10/28/2007).

The dynamic thus emerging among major US clothing brands and retailers, where some engage in increasingly intense framing struggles with civil society (i.e. Wal-Mart’s war room), while others, like Nike and Gap, stop denying their responsibility and instead make their supply chains more transparent, indicates that the closed industry front previously present in the clothing sector began to crumble starting in 2005, which speaks for a return to phase 3. However, the process is not straight-forward. While on the one hand some brands disclosed factory lists and vowed to improve working conditions in supply chains, the pro-business lobbying organization US Chamber of Commerce at the same time fought against pro-union legislation in China, which could have significantly improved working conditions, but also raised labor costs. Nike was a member of the US Chamber of Commerce at the time (Barboza 2006).

In the US policy arena, a further attempt was made both in 2006 and 2007 to pass a law called “Decent Working Conditions and Fair Competition Act”, which would have “prohibit[ed] the import, export, and sale of goods made with sweatshop labor” (Senate of the United States, 110th Congress 1/23/2007). Around the same time, also typical for phase 3, a niche for ethically produced, fair trade clothing began to emerge, including companies like Edun and Fair Indigo (Tedeschi 2006).

7.5.1.6 Phase 2c (2008 - 2011)

Beginning in 2008, media coverage and public interest in SSIs in the garment industry once again ebbed in the United States. Similar explanations arise as for phase 2b. Apart from issue fatigue, the United States began slipping into the Great Recession beginning in 2007/2008 and it is likely that concerns about labor rights in factories abroad quickly became less prominent as people instead worried about the security of their own finances (issue competition). This effect was already verified in the case of declining concern for climate change as a result of the Great Recession (Scruggs and Benegal 2012).

There are, nonetheless, two events during this period that merit discussion. The first was the passage of China’s new Labor Contract Law in 2008, which improved protections for Chinese laborers (Gallagher et al. 2015) and did draw some public attention. In keeping with the heightened concern about the US economy, coverage focused about equally on the improvements for workers and the extra costs that would arise for American firms as a result of the new Chinese law (e.g. Barboza 2008; Cha 2008).

The second event was the passage of the California Transparency in Supply Chains Act (CTSCA) in 2010. This law mandates that companies as of a certain size with operations in California make public due diligence disclosures regarding their efforts to eliminate instances of slavery and human trafficking in their supply chains. While the law only went into effect as of January 2012, studies have shown that garment brands experienced negative financial impacts from the passage of the law in California’s legislature: “We find a negative market reaction, on average, to the enactment of the legislation. We further show that the market response was significantly more negative for apparel and footwear retailers, a finding we attribute to the higher supply chain exposures of these firms relative to other retailers” (Birkey et al. 2016, p. 10).

As a law that affects only California, the CTSCA is an example of an attempt at incremental change at the level of subsystem policy, technically classified as phase 3. However, the law is not specific to the textile industry and although it was passed in 2010, it only went into effect in 2012. Due to these two factors and the fact that the issue of SSIs in global garment supply chains received comparatively little attention during this time, I have nevertheless included it in phase 2c.

7.5.1.7 Phase 3c (2012)

After several years of relative calm in the sector, a series of incidents starting in 2012 began to cast doubt on the industry's heavy reliance on codes of conduct and social auditing as a means to solve labor issues in GPNs. As inflation rose in Bangladesh, garment workers started to demonstrate for higher wages in ever increasing numbers. In the summer of 2012, as workers started clashing with Bangladeshi police and security forces, both the US government and major brands and retailers put pressure on the Bangladeshi government to improve wages and labor rights (Yardley 2012).

In the eight months that followed, three major industrial accidents took place in the garment sector. In September 2012, Ali Enterprises in Pakistan burned down, killing 260 of its workers. Three weeks earlier, the factory had been inspected by Social Accountability International and received the SA8000 certificate, which includes health and safety criteria (Walsh and Greenhouse 2012a). Two months later, in November 2012, the Tazreen Fashions factory in Dhaka (Bangladesh) burned down, leaving 112 workers dead (Ali Manik and Yardley 2012a). According to the Clean Clothes Campaign, this event brought the fire-related death toll in Bangladesh's garment factories to over 500 persons between 2006 and 2012 (Bajaj 2012). Shortly thereafter, accusations surfaced that Wal-Mart was instrumental in blocking earlier efforts by a consortium of actors, including other major retail brands, to improve fire safety at Bangladeshi factories. It had turned down the proposals due to the increase in costs (Greenhouse 2012).

Wal-Mart, however, denied any responsibility, arguing that it had terminated its relationship with Tazreen Fashions months earlier. Immediately after the fire, Wal-Mart had issued a short statement: "The Tazreen factory was no longer authorized to produce merchandise for Wal-Mart. A supplier subcontracted work to this factory without authorization and in direct violation of our policies. Today, we have terminated the relationship with that supplier" (Walmart 11/26/2012). However, photos of garments inside the factory taken after the fire showed that at least three separate suppliers were producing garments for Wal-Mart at Tazreen Fashions (Greenhouse 2012). This may have been oversight or, as was suggested by the director of the WRC, may have been purposeful withholding of information, commonly associated with phase 3. Likewise in 2012, media coverage and public attention began once again to focus on working conditions in garment factories, particularly those issues related to workers' health and safety. The quick succession of the two factory fires and the high death tolls associated with each led to quickly mounting pressure on all actors involved to make changes to prevent further factory accidents.

7.5.1.8 Phase 4 (2013 - Present)

In April 2013, the biggest industrial accident in both Bangladesh's and the garment sector's history took place. Over 1130 people died and a far greater number were injured when the eight-story Rana Plaza building on the outskirts of Dhaka collapsed on April 24, 2013. A multitude of factors likely contributed to the building's collapse, including the illegal addition of three stories that reduced the structure's stability and the use of substandard building materials (BBC News 2013a). Moreover, the day before the collapse, cracks began to appear in the building and it was initially declared unsafe by a government engineer. A second inspection on the morning of the accident, ordered by the building's management, concluded that the building was safe, even though no action had been taken to address the cracks (Burke 2014). But due to tight production schedules and for fear of deductions in payment from Western buyers, factory managers put pressure on their workers to return to work inside the building, threatening to cut payments for overtime hours already worked for those who refused. Since the workers rely on overtime payments to survive, they saw little choice but to return to work (Burke 2014). Shortly thereafter, the building collapsed, likely as a result of vibrations from generators and sewing machines (BBC News 2013a).

While the two factory fires in 2012 had already brought SSIs in garment factories back into the focus of public attention, the dramatic images and rapidly rising death toll of the Rana Plaza tragedy are commonly seen as a turning point in the industry (Der Spiegel 2013) and resulted in manifold responses. Locally, 38 individuals were charged with murder, including the owner of the building (Reuters in Dhaka 2016) and are currently awaiting trial. Victims and families affected by the disaster organized large and repeated protests to demand back pay and adequate compensation (Burke and Hammadi 2013). Other garment factories in Bangladesh were shut down as a precaution, pending inspection of their structural integrity (BBC News 2013b). These inspections resulted in shocking insights: 60% of the country's garment factories were deemed structurally unsound in a survey conducted by Bangladeshi engineers in the 6 weeks after the Rana Plaza collapse (Burke 2013).

Two months after the Rana Plaza collapse, the US government became involved at the highest level (phase 4): President Obama announced that Bangladeshi trade privileges would be suspended due to the country's failure to enforce labor rights and safety standards (Greenhouse 2013b). Having seen little improvement regarding unionization privileges in export processing zones (EPZs), the administration further prolonged the suspension of privileges in June 2014 (Burckhardt 2015a), thus acting not only symbolically,

but substantially (phase 4). This quickly led to an amendment of labor laws in Bangladesh, which expanded the freedom of association granted outside EPZs a year earlier to also include factories inside EPZs (Burckhardt 2015a).

US brands and retailers reacted less decisively in response to the Rana Plaza collapse. While their European counterparts created a legally binding initiative to address health and safety issues in Bangladesh,[28] most major US brands and retailers refused to sign on, with some like the Gap and Wal-Mart explicitly objecting to its legally binding nature (Fairchild 2013; Greenhouse 2013a). Under ongoing pressure to join, a group of 17 US companies, including Wal-Mart and Gap, instead created their own agreement on Bangladesh, called the Alliance for Bangladesh Worker Safety (hereafter “the Alliance”). It was announced two months after the European initiative and marketed as a parallel and essentially equivalent agreement, though in fact there are significant differences between the two approaches (Donaghey and Reinecke 2017).

The Alliance is a largely voluntary, business-driven organization with a focus on the business case of brands and employers, which consists primarily of preventing future industrial accidents that lead to reputational loss. It differs from the Accord in a number of ways, both in its membership and through its approaches. First, while both agreements cover a five-year period (2013-2018), signatories of the Alliance only commit to a mandatory membership of two years (Donaghey and Reinecke 2017). Originally, the Alliance was made up exclusively of brands and factory management and did not include any union or worker representatives. However, after extensive international pressure, the Board Labor Committee was instituted, but only in an advisory capacity (Donaghey and Reinecke 2017). In alignment with both its primary goals and its constitutional membership, the Alliance focuses on quick and pragmatic solutions to problems that arise. For workers, this has the advantage that issues are addressed in a timely manner, so that for example compensation for factory closures are often paid within days. On the downside, this approach favors short-term over long-term solutions, where Alliance - rather than local union - representatives are tasked with resolving problems and workers will be left no better off than before once the Alliance's support ends in 2018 (Donaghey and Reinecke 2017).

The Alliance also differs from the Accord in its financial conception. While brand membership fees cover a part of some costs, especially worker compensation, factory improvements are largely financed through loans made available to suppliers by buyer brands. The Alliance thus proposes a model of “shared accountability” (Greenhouse and

28 The European agreement is the 'Accord for Fire and Building Safety in Bangladesh,' hereafter 'the Accord'. See Chapter 7.5.2.3 for more details.

Clifford 2013), where supplier factories work closely with the Bangladeshi government, as well as national and international aid agencies. In the end, however, the responsibility to improve lies firmly with local factories:

> "'In terms of legal liability, if a worker reports a factory is not measuring up, we have the measures to respond, to investigate,' said Jay Jorgensen, global chief compliance officer for Wal-Mart. 'If a factory is not meeting the standards,' he said, 'under our agreement they're going to be terminated. That's the ultimate pressure point on a factory to treat its workers well — the continuation of business'" (Greenhouse and Clifford 2013)

Finally, unlike the Accord, Alliance members are not obligated to maintain their purchasing volumes in Bangladesh for any specified period of time, nor does the Alliance provide for a "binding arbitration process in [the] legal system of [a brand's] home country" (Donaghey and Reinecke 2017, p. 23). Thus, while on the surface the two agreements may look similar, all the elements that make the Accord particularly progressive - being legally binding, including labor representation at the highest level of decision-making, as well as forcing member companies to maintain purchasing volumes in Bangladesh and to submit to legal liability in their home countries - are missing from the Alliance. These are the 'teeth' of the Accord agreement, making it novel in its high level of commitment and enforceability.

This is typical behavior for phase 4: the closed industry front finally breaks wide open and while some firms - in this case major European brands - begin to engage in substantive action, others - most US brands - seek to hinder the implementation of policies they oppose. There is widespread agreement among experts on the garment industry that any industry- or even country-wide improvements in working conditions require extensive cooperation among major brands and cannot be carried out by local factories alone (see Chapter 7.6). Simultaneously refusing to join a legally binding agreement and returning the onus to improve conditions to Bangladeshi factory owners significantly reduces the chances of success in improving working conditions and can therefore be seen as hampering its implementation.

The Alliance was criticized extensively by civil society, especially for being voluntary in nature and not including labor representation (Donaghey and Reinecke 2017). In response to the first point, spokespersons for the initiating brands argued that the two plans are quite similar and the separation between commitments had more to do with differences in the legal environment of the US and Europe than with US brands' desire to shirk responsibility (Greenhouse and Clifford 2013). In fact, Donaghey and Reinecke argue that the Alliance ultimately implemented higher standards and commitments for their members than the companies had originally intended, due to a "levelling up" effect that resulted from the strong public comparison between the Alliance and the Accord: "The

labour-driven Accord established a high bar in terms of brand commitments, inspection quality and transparency against which any follower initiative would be measured. This placed the Alliance under greater scrutiny to perform and deliver on its promise" (2017, pp. 37–38). Ultimately, this also led to both initiatives adopting common standards for audits and agreeing to mutually accept each other's inspection results for shared factories (Donaghey and Reinecke 2017). This harmonized approach makes both initiatives more efficient, speeding up the process of improving safety standards in Bangladeshi factories.

By the end of 2016, the Alliance had 29 member companies, all but one of which came from the US market and cover about 90% of American Ready Made Garment (RMG) imports from Bangladesh (Donaghey and Reinecke 2017). Of 770 factories covered under the Alliance, 662 had been inspected with the result that every single factory was found to be unsafe to some degree. However, only 26 factories were reviewed for immediate closure, of which eight factories were ultimately closed due to immediate and grave safety threats (Donaghey and Reinecke 2017). According to the Alliance's own statistics, by March 2017, 72.5% of non-compliances had been remedied and 26.4% were in progress, although only 78 factories of over 650 had completed their Corrective Action Plans (CAPs). In turn, 146 factories were suspended, which means that "adequate progress is not made within the specified timeframe, [and the factory is] removed from the Alliance compliant factory list" (Alliance for Bangladesh Worker Safety 2018). The Alliance Helpline, where workers are able to report safety issues and other concerns, had received over 17,000 calls from Bangladeshi factory employees related to specific issues by March 2018.

The Alliance and Accord are designed to focus on safety improvements in Bangladeshi factories. Another aspect of the Rana Plaza disaster is the need for compensation, both for injured workers and the families of those killed in the collapse. In late 2013, the Bangladeshi government, together with a few global brands (both from Europe and the US) created the Rana Plaza Donors Trust Fund. While it was originally slated to collect $40 million in aid money for Bangladeshi garment workers (Greenhouse 2013c), by early 2018, the fund had only reached roughly $20 million in contributions (Rana Plaza Arrangement 2015; ILRF 2018). While 31 brands were shown to have been connected to Rana Plaza at the time of its collapse, only 19 made contributions and of those, only 9 of the contributions totaled at least $1 million (ILRF 2018). Similarly, a Trust Fund was also started for the Tazreen Fashion company fire, to which 14 international brands could be connected. Six years after the accident, the Fund had raised $2.5 million, of which $1 million each came from C&A and Li & Fung. Wal-Mart, which at the time of the fire was the majority buyer at Tazreen, contributed only $250,000 to the Fund (ILRF 2018).

It is important to bear in mind that the Alliance, Accord, and both Trust Funds have a very narrow focus, namely building and fire safety in Bangladesh. None of the other myriad SSIs, including wages, child and forced labor, overtime, and abusive management practices, are being addressed by these activities, nor are other countries benefiting from them. While most of the public and media attention since 2013 has been on Bangladesh, the issues continue to be much larger. In an effort to draw increased attention to the ongoing SSIs in garment GPNs beyond Bangladesh, the Asia Floor Wage Alliance, made up of trade unions and other civil society actors, published a series of reports in 2016, once again critically examining working conditions in the supply chains of Wal-Mart, Gap and H&M in Bangladesh, Cambodia, India and Indonesia. The reports' recommendations were specifically addressed at the ILO's International Labor Conference in 2016, which focused on creating better working conditions in GPNs, and called for legally binding regulation of GPNs and human rights due diligence (Asia Floor Wage Alliance 2016a, 2016b, 2016c).

In 2016, a group of labor and civil society organizations also started a coalition on transparency in the garment sector. Between 2005 and 2015, a series of clothing brands had increasingly begun disclosing the names of their suppliers. To encourage and guide this trend further along, the above mentioned coalition created the Transparency Pledge, which sets minimum standards for what information brands should disclose and how it should be made public. Brands that were fully or almost fully compliant with the pledge by the end of 2016 included Adidas, C&A, Esprit, H&M, Levi's, Nike, and the Gap. Many other brands had begun publishing some of the required information or promised to do so in the near future (see Human Rights Watch 2016).

7.5.2 Europe

Having examined the transition to date in the US, I will now turn my attention to the European anti-sweatshop movement. As there is no clear indication that Europe experienced phase 1 in its own right, I will start directly with phase 2. It is likely, though, that European activists involved in phase 2 profited from the issue articulation taking place in the US during the 1980s, as described above.

7.5.2.1 Phase 2 (1989 - 2004)

While phase 2 started a few years earlier in Europe than in the US, it also lasted significantly longer. In 1989, Dutch and British activist consumers launched a campaign against C&A after it became known that garment workers in a supplier factory in the Philippines had been unjustly let go for demanding the payment of legal minimum wages (Bair and Palpacuer 2012). They burned clothes in front of C&A stores to garner attention

and thereafter organized a publicity tour through the Netherlands and United Kingdom (UK) together with the workers who had been dismissed to raise public awareness. This approach became quite popular in the European anti-sweatshop movement, as it possesses certain strengths:

> "By mobilizing around concrete situations involving specific people, consumer campaigns made visible and accessible a number of complex issues, including the intricacies of global supply chains, their implications for workers at the manufacturing links to the chain, and the 'regulation gap' created by a system in which economic power [...] was located far from the production base, in the hands of Northern corporations" (Bair and Palpacuer 2012, p. 529).

The following year, the Dutch activists took advantage of the publicity they had already garnered through their campaign to found the Clean Clothes Campaign (CCC) in Amsterdam, a network of various different types of NGOs and trade unions, working toward the common goal of improving the working conditions in the garment industry (Bair and Palpacuer 2012; Clean Clothes Campaign 2012). Over the following decade, the CCC expanded across Europe. By the year 2000, there were CCC affiliates in nine countries: the Netherlands, France, Germany, Belgium, United Kingdom, Spain, Sweden, Switzerland and Austria (Bair and Palpacuer 2012).

While the US garment industry was racked by scandals in the 1990s, the European anti-sweatshop movement was mostly focused on creating more structured organizations. The multistakeholder initiative Social Accountability International (SAI), which audits and certifies factories with the SA8000 standard, was created in 1996 (Fransen 2011). At the same time, the Ethical Trading Initiative (ETI) was founded in the UK, likewise with participation of trade unions, brands and NGOs.[29] In 1998, the CCC released its first "Code of Labour Practices" and supported the creation of the Fair Wear Foundation (FWF) in 1999, originally to implement this code of conduct. The FWF is now a multistakeholder initiative that works with brands, factories, trade unions and NGOs to improve working conditions in the garment industry (Fair Wear Foundation 2017). Throughout the 1990s and beyond, then, the European anti-sweatshop movement was emerging and mobilizing resources, as is to be expected in phase 2. By 2007, Micheletti and Stolle found over 100 organizations globally that were connected to the anti-sweatshop movement in the garment industry (Micheletti and Stolle 2007, p. 164).

Similarly part of phase 2 are public protest activities. In contrast to the movement in the US, the European anti-sweatshop movement, particularly via the CCC, has preferred a

29 For a detailed discussion of similarities and differences between private governance organizations in the garment industry, including the FWF, ETI, Fair Labor Association (FLA), Workers Rights Consortium (WRC), Social Accountability International (SAI), and Business Social Compliance Initiative (BSCI), among others, see e.g. Fransen 2011; Bartley et al. 2015; and Bair and Palpacuer 2012.

strategy of “oppose and propose” rather than “name and shame”. This strategy favors a collaborative approach between civil society and industry working towards an improvement of conditions, as is practiced by the FWF, which both monitors and supports its member companies in their progress towards fairer supply chains (Bartley et al. 2015; Bair and Palpacuer 2012). Opposition in the form of negative publicity through deliberate naming and shaming campaigns is seen as a last resort. Nevertheless, the CCC conducted 184 such campaigns in response to labor rights violations between 2000 and 2005, almost 80% of which occurred in Asia (Bair and Palpacuer 2012).

Many of these campaigns took place before and during large sporting events, including the Olympics and European and World Cups in soccer (Micheletti and Stolle 2007), mirroring the focus of the US anti-sweatshop movement on the sportswear industry. Prior to the 2002 World Cup, for example, the German CCC organized the campaign “Fit for fair”, primarily targeting Adidas, which supplied the German soccer teams with uniforms and shoes. As part of the campaign, the CCC organized a conference with podium discussions and was able to convince Adidas to send a representative, who at the time was responsible for social issues in Asia. Asked by an audience member why the company would not shift 0,5% of the cost of advertising for each product to factory wages, the representative responded: “Those are two worlds. Advertising takes place here, the work is done in the third world” (Keller 2002).[30] This response is quite fitting for phase 2: on the one hand, firms can no longer ignore activists completely, on the other hand, pressure is not high enough that any admissions or concessions are necessary. Instead, as this representative does here, issues can simply be denied as such by portraying the situation as perfectly natural and, in the same statement, implicitly dismissing critics as uninformed.

However, the pressure from civil society was not without consequences in the industry. In 2003, the German foreign trade association[31] created the Business Social Compliance Initiative (BSCI), an industry-only complement to the FWF and ETI (amfori 2018). In phase 2, industry responses usually include arguments that further regulatory action regarding an issue is unnecessary, since the issue is already being addressed. An organization such as the BSCI serves two purposes at this stage: first, it creates a more closed industry front regarding a difficult issue; second, it allows firms to argue that they are already working jointly on a solution to the problem. However, the BSCI is generally con-

30 Quote translated by the author. German original: "Das sind zwei Welten. Die Werbung passiert hier, die Arbeit in der Dritten Welt."

31 The Foreign Trade Association recently changed its name to amfori: Trade with Purpose.

sidered to have less stringent standards and less rigorous enforcement than multi-stakeholder or civil society organizations and is thus often criticized by the latter (Fransen 2011).

On the other end of the industry spectrum, the German brand HessNatur - already a niche actor due to its strong focus on ecological sustainability - was approached by the German CCC regarding problems in its supply chain in 2003 (Schnura n.d.). Rather than ignoring or denying these issues, the brand instead agreed to start a pilot project with the CCC with the purpose of creating a system of social standard implementation that would cover all of the CCC's criteria and still be manageable for small and medium enterprises such as HessNatur. In total, the brand spent 50,000€ over two years to have its eleven suppliers in three countries inspected by the CCC and correct any problems that were found, until all eleven supplier factories received top marks from the CCC (Reinhold 2005). This is an example of an early exploration of more radical alternatives in phase 2 that can be used to prove that civil society's demands are feasible in principle, at least at a small scale.

By the end of phase 2, policymakers also began taking symbolic action. For example, the German Ministry for Economic Cooperation and Development (BMZ) initiated the Round Table on Codes of Conduct in 2001, a multi-stakeholder forum initially intended to collectively agree on standards for codes of conduct. While the forum evolved to also discuss other issues such as the ISO 26000 standard and initiated a small number of local campaigns, overall it had little impact and several of its civil society stakeholders either left (the German CCC) or contemplated leaving it (trade unions) (Stahl and Wötzel 2013). Although the Round Table did not focus exclusively on the garment sector, a large number of the brands involved came from the clothing industry, including Puma, Adidas, Tchibo and Otto Group (Rust and Läer 2010).

7.5.2.2 Phase 3 (2005 - 2011)

Beginning in 2005, there are signs that Europe begins to move towards phase 3, although the distinction is not as clear here as it was for the United States. One factor in moving the issue lifecycle along is the large number of industrial accidents taking place in Bangladesh. The Bangladeshi fire department, for example, estimates that 213 factory fires took place in the garment industry between 2006 and 2009 (Clean Clothes Campaign 6/27/2013). There were also other industrial accidents, such as the collapse of the Spectrum Sweater factory in Dhaka in 2005, in which 64 people were killed and the CCC later pulled labels from the rubble indicating that the supplier was producing for KarstadtQuelle (Klawitter 2005) as well as Inditex. This, however, led to much less media coverage and public concern in Europe than similar accusations had in the 1990s in the

United States. While at first denying any connection to the factory and thus purposely withholding relevant information, as is common for phase 3, KarstadtQuelle eventually admitted that it had placed “a handful of trial orders” and would send representatives to Bangladesh to investigate in June 2005 - two months after the factory collapse (Howe 2005).

A few months later, the CCC organized a series of public events in Germany with a Bangladeshi seamstress and a union representative from a supplier factory for Tchibo, who related the poor working conditions they experienced there (Bopp 2006). While there was very little media coverage at the time, the campaign still had a noticeable effect on the company, which even years later pointed to the CCC’s actions as an important factor in their corporate decision to engage more with SSIs in their supply chain (Lohrie 7/1/2008). In 2006, Tchibo became a member of SAI and by 2008, the company admitted that it had made a mistake by assuming that social audits, which were carried out as of 2003, would be enough to force the implementation of acceptable social standards in its value chain (Lohrie 7/1/2008). Having a few early movers in the sector who openly admit mistakes and begin to invest more seriously in alternatives - perhaps hoping to garner an early mover advantage - is an important factor in phase 3 that moves the transition along and provides best practice examples to other companies, who may be more hesitant to engage.

While accusations of poor working conditions brought little media coverage to Tchibo, the situation played out quite differently for other brands, especially Primark, which became the target of significant public scrutiny and critical attention from the media starting in 2006, when the British NGO “War on Want” published a report singling out Primark along with two other brands for poor factory conditions in Bangladesh (Hickman 2009). The following year, the Guardian followed up with multiple investigations in garment-producing countries. In Indian garment factories producing for Primark, Gap, and H&M, journalists uncovered a series of harrowing tragedies including the death of a newborn and the suicide of one employee in a factory toilet (McVeigh 2007b). In a special report on Primark's Bangladeshi suppliers, they reported on physical abuse, health problems and factories intentionally set on fire by desperate workers (McVeigh 2007a). The next year, the BBC aired an episode of BBC Panorama called “Primark: On the Rack”, which featured filmed footage of under-aged children producing Primark clothing.[32]

32 Primark disputed the authenticity of this footage and later received an official apology from the BBC for its airing (Primark 2011). NGOs involved in the situation continued to disagree with the findings of the BBC Trust and believe the original footage to be accurate (War on Want 2011).

In response to the negative press received by the company, Primark set up the Primark Better Lives' Foundation, which focused on eliminating child labor in India (Hand in Hand International 2015) as well as the website www.ethicalprimark.com,[33] where it posted responses to its critics and updates on its engagement. These included lessons learned, where the company openly admitted to past mistakes and laid out its plans for the future. It acknowledged

- that it needed help in addressing its social supply chain issues and had begun cooperating with NGOs;
- that its auditing methodologies required improvements and that audits should not be relied on too heavily;
- that it lacked sufficient familiarity with its own supply chain and had started a large-scale supply chain mapping project; and, perhaps most importantly,
- that "some of the problems in the supply chain can be caused by our own [...] internal processes and systems within Primark" (Primark 2008).

Like Tchibo's response described above, this kind of public admission and acknowledgment that something needs to change is a key part of phase 3 to move the industry forward.

However, not all companies were quite so willing to take this step. In 2010, advertising by German discounter Lidl stated that the brand's non-food items, including clothing, were produced only by suppliers who were in compliance with ILO and BSCI social standards. Research by the European Centre for Constitutional and Human Rights (ECCHR) and CCC showed this not to be the case for its Bangladeshi garment suppliers, which led the Hamburg Consumer Protection Agency to sue Lidl on the grounds of false advertising (BHRRC 2010), another indicator of phase 3. Lidl lost the lawsuit and was forced to remove any claims of fair labor from its advertising (Spiegel Online 2010a). No public statements from the company regarding the lawsuit could be found.

A final important component of phase 3 is the emergence of a niche market for alternative products. While it is difficult to find comprehensive statistics on global sustainable fashion sales, country-specific data show that beginning in the mid-2000s, the market for ethical and sustainable fashion has been growing steadily (see e.g. Figure 7, as well as Fairtrade Deutschland 2017; Ethical Fashion Forum 2011; Internationaler Verband der Naturtextilwirtschaft e.V. 1/21/2015).

33 This URL now redirects to Primark's homepage, but archived material of the original site is available under https://web.archive.org/web/20081207210855/http://www.ethicalprimark.com:80/news.html.

7.5.2.3 Phase 4 (2012 - Present)

While the start of phase 3 in Europe is somewhat difficult to pinpoint, it is quite clear for phase 4. The three major industrial accidents already described in Chapters 7.5.1.7 and 7.5.1.8, namely the fires at Ali Enterprises in Pakistan and Tazreen Fashions in Bangladesh in late 2012, as well as the collapse of the Rana Plaza building in Bangladesh in early 2013, had a significant impact on the garment sector in Europe and clearly moved the industry into phase 4.

Public attention increased massively: in 2012, almost 1500 media articles were published on the two fires, followed by another 3000 over the following four years. In 2013, over 8000 press reports were published on the Rana Plaza tragedy, as well as another 9000 articles over the following three years. In total, well over 20,000 media articles were published on these three industrial accidents over a 5-year period (Source: LexisNexis).

The German discount brand KiK was the only brand known to have been directly connected to all three accidents. In the case of Ali Enterprises in Pakistan, it was furthermore the biggest single client of the factory (Terwindt 2016). Due to public pressure, the firm quickly agreed to make short-term relief payments to victims and dependents in the amount of $1 million (ECCHR; Kampagne für Saubere Kleidung; medico international 9/10/2014; ECCHR n.d.). KiK was not, however, willing to accept joint responsibility for the fire, nor to commit to long-term compensation for affected families who face long-term income losses due to injury or death. As a result, the company was sued in 2015 by survivors and victims' families of the Ali Enterprises fire in a German court of law. Claimants argue that KiK bears joint responsibility for the lacking safety standards and that these led to the fire; KiK, in turn, insists that the fire was arson and that it is not responsible (BHRRC 2018). As of this writing, the lawsuit is still ongoing.

This lawsuit bears relevance for the industry in general, because in addition to dealing with the case at hand, it also involves the question of how the so-called "Rome II" legislation of the EU is applied to transnational tort claims in supply chain cases (ECCHR n.d.). More specifically, it addresses who can be held liable for damages in fragmented and highly globalized production networks. This is the first case in which a German court has accepted jurisdiction in a suit brought by employees of a foreign supplier against a German producer (Koch 2016). Depending on the final outcome, some legal experts believe this could be the "game changer" that could trigger much larger systemic change in the industry (Terwindt 2016), which would rightfully make it an indicator of phase 4.

Even without a final decision, however, the lawsuit has already led KiK to exert greater pressure on auditing organizations, demanding that they guarantee the validity of their

audit results for a specific period of time, such as 8-12 weeks after the audit was performed (Dohmen 2016). The fact that auditors have so far refused this demand by claiming that such a guarantee is not possible without daily in-factory supervision comes close to an admission that social audits are almost meaningless when it comes to assessing compliance with social standards in factories.

The event with the biggest impact on the garment industry was without a doubt the collapse of Rana Plaza. The rise in public attention was already discussed earlier, as was the fact that (mostly) European brands joined together to create the Accord on Fire and Building Safety in Bangladesh ("the Accord") (see Chapter 7.5.1.8). The Accord was based on an earlier agreement between PVH Corp. (owner of brands Tommy Hilfiger and Calvin Klein), Tchibo, a number of NGOs including CCC and WRC, as well as union representatives, which had been agreed to following a series of earlier Bangladeshi industrial accidents, but that had not found widespread traction in the industry (Clean Clothes Campaign 2013). After the collapse of Rana Plaza, this earlier agreement was taken as the basis of the Accord and quickly updated to match current events. After initial hesitation by apparel brands, H&M - at the time the single largest buyer of garments from Bangladesh and target of an online petition with more than 900,000 signatures urging it to take action - announced on May 13, 2013 that it would sign the Accord, although it had not had any suppliers in Rana Plaza (Greenhouse 2013a). Within hours, C&A, Primark and Tesco announced their intention to join as well and only days later, the Accord had 40 brands on board (Greenhouse 2013a; Clean Clothes Campaign 2013). In the end, over 200 international apparel brands signed the Accord, with 80% coming from Europe, 11% from North America, 6% from Australia and 3% from Asia (ILRF 2018). As will be evident from the description below, the Accord is an example of firms engaging in substantive action, including making binding commitments and providing financing for implementation, and therefore qualifies as a phase 4 industry response.

In contrast to the Alliance, the Accord is legally-binding and its members must commit to a full 5-year participation. In addition, "members agree to maintain their purchasing volumes from Bangladesh for two years; and [that] disputes go to binding arbitration which can be enforced through the legal system in the home country of signatory brands" (Donaghey and Reinecke 2017, p. 24, sic). Membership fees vary based on size, but can be up to $500,000 per company. The Accord's steering committee is made up of an equal number of brand and union representatives and is chaired by the ILO, while Bangladeshi industry representatives only have an advisory position (Donaghey and Reinecke 2017).

In its governance structures, the Accord is much more strongly oriented towards including labor representation and paving the way for a long-term strengthening of labor unions

in Bangladesh than the Alliance. Where conflicts arise, for example regarding worker compensation upon factory closures due to safety concerns, union representatives must negotiate with factory owners themselves - with support from international union representatives -, rather than this task being outsourced to Accord officials. This often implies that negotiations take longer, which can be difficult for workers who are dependent upon a source of income, but at the same time, it is a first step towards creating institutions of worker representation that can function well beyond the existence of the Accord (Donaghey and Reinecke 2017). In a country where trade union representatives have often been met with hostility and at times even violence, providing opportunities for capacity building and peaceful, respectful interaction between factory management and union representatives is key for the long-term development of better conditions in the garment industry.

Based on the Accord's October 2016 Quarterly Aggregate Report, the Accord had inspected 1551 factories and closed 147, of which 30 moved to and reopened at new premises. A total of 20,717 structural, 40,782 fire-related, and 56,995 electrical safety issues had been identified in the factories by this date and included in the corresponding CAPs. Just over 50% had been corrected by October 2016, with the remaining issue corrections either in progress or pending verification. In addition, over 1000 detailed engineering assessments, which are much more in-depth structural inspections than normal factory inspections include, had been conducted and more than 1600 factories had submitted additional design drawings for new fire protection systems. Nevertheless, only 7 factories had completely resolved all identified issues and had these verified by Accord engineers. 23 factories had completed their original, but not follow-up CAP, while 26 more factories were on track with the originally planned implementation timeline. Almost 1400 factories were behind schedule with CAP implementation by this point in time, while 41 factories refused to implement CAPs and Accord members therefore terminated their business relationships with these factories (Accord on Fire and Building Safety in Bangladesh 2016). While the delays evident from these numbers are certainly problematic, it is nevertheless clear from this report that policy action has shifted to the implementation phase, as is to be expected in phase 4.

The collapse of Rana Plaza and its aftermath have changed the garment industry. On the one hand, it is important to remember that the Alliance, the Accord and the two Trust Funds have a very specific focus, both regionally (Bangladesh) and in terms of content (building and fire safety). Other issues, such as overtime, wages, abusive management, child and forced labor, as well as all other production countries, are not being addressed by any of these initiatives. On the other hand, Rana Plaza has widely been seen as a wake-up call for the garment industry, governments, and the public that something needs

to change in the sector. While progress has been slower than many would like, it is beginning to take place. And while the Accord and Alliance were the largest and most global initiatives that resulted from the Rana Plaza disaster, they were not the only ones.

Rana Plaza also inspired other multi-stakeholder initiatives, such as the German Partnership for Sustainable Textiles (GPST), founded in 2014. The initiative had a difficult start, with two major industry associations who had previously indicated their intention to join pulling out shortly before its inception, arguing that the GPST's proposed goals of achieving "uninterrupted monitoring of all steps of production [...] is unrealistic" (ZEIT Online 2014, translated by author). In April 2015, one of these industry associations sent a newsletter to its members, announcing that it had managed to have all "problematic points" removed from the agreement during negotiations: "It is now no longer binding and all problematic goals will be mutually understood to be negotiable and adaptable. Moreover, we succeeded in enshrining the principle of unanimity for all resolutions, so that nothing can be decided against industry interests" (quoted in CI Romero June 2015). The industry association was thereby clearly attempting to hinder the implementation of radical policies (phase 4), while at the same time informing its members that joining the GPST after these negotiations would confer brands the advantage of being able to advertise their membership and enjoying a certain level of protection from the national government. This approach succeeded in so far as the GPST grew rapidly thereafter. By early 2018, it included approximately 50% of Germany's apparel market, with roughly 150 members covering a broad constituency, ranging from brands and retailers, to unions, NGOs, standard-setting organizations, government officials, and industry associations, including the two who originally refused (German Partnership for Sustainable Textiles).

Although this approach by the industry drew significant criticism from civil society, the members of the GPST were eventually able to agree on an approach that all of its members could agree to. The GPST follows what they call the principle of procedural liability, where all members undergo a pre-defined review process, which includes questions regarding supply chain management, risk analysis, reduction of noxious chemicals and the payment of fair wages, among others. Based on the results of this baseline assessment, each member (including NGOs and the government) must set yearly goals for themselves in roadmaps, whose publication is mandatory as of 2018, and continuously report on their progress. The expectation is that the members' goals become more and more ambitious with time. In addition, beginning in 2018, there are GPST-wide goals that are mandatory for all members, differentiated by type of member. For brands and retailers in 2018, these include having established a process to handle child and or/forced labor when it occurs in their supply chain, including providing redress, and systematically identifying all of their business partners and suppliers. As of 2019, brands and retailers must

- "have established a system to continuously monitor the implementation of their standards throughout the supply chain,
- take identified social risks and potential negative effects in their supply chain into consideration in the selection of suppliers and placement of orders,
- have made a contribution to ease employee access to a grievance mechanism,
- contribute to a measure whose aim is to pay living wages to employees in production countries" (German Partnership for Sustainable Textiles 2017, p. 2).[34]

Similar goals are set for producers, the German government, NGOs, standard-setting initiatives, trade unions and industry associations.

On the one hand, it is commendable that certain minimum standards are being set for all members of the GPST. On the other hand, the bar is not set particularly high, especially given the roundabout formulation of some of the goals, like "contribute to a measure whose aim is....". This is likely the result of extensive negotiations between different actor groups in the GPST, struggling about the details of implementation, as is typical for phase 4.

In 2016, the Netherlands followed with a similar initiative, the Dutch Agreement on Sustainable Garments and Textiles (AGT), which is initially in force for a five-year period. 55 brands were among the original signatories to the agreement in July 2016 and another 23 have joined by early 2018, covering approximately 30% of the Dutch garment market. The AGT also includes 'participating parties', made up of six NGOs, the Dutch government, three industry associations and two trade unions, who are tasked with supporting the achievement of the Agreement goals. Finally, there are 13 'supporters', including the FWF, BSCI, and FLA (SER 2016a).

Business members of the AGT must submit a list of their production sites, which are made public in an aggregated list. The AGT has set forth a 'Project Secretariat,' which manages the in-depth supplier lists by company and can be contacted by NGOs in case of discovered abuses at suppliers, so that this information can be passed on to brands who use this supplier. In addition, companies must make use of an Assessment System developed by the AGT, which aids in the process of due diligence based on the OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector. Similar to the GPST, AGT members must create plans for improvement in their supply chain with specific aims, that must be implemented as of mid-2017, and which will be evaluated on an annual basis. Unlike in the GPST, the AGT does not provide for the publication of these plans or the results of the annual assessments (SER 2016b).

34 Author's own translation from German.

While not specific to the garment sector, 12 countries adopted national action plans on business and human rights with a focus on implementing the UN Guiding Principles on Business and Human Rights between 2013 and 2016. Among them were the UK, Netherlands, Denmark, the US and Germany (UN OHCHR 2018). This is an example of macro-level policymakers becoming involved in addressing an issue, as is to be expected in phase 4.

7.6 Behavioral Analysis: Results from Expert Interviews

Both the quantitative and qualitative analysis have shown that a transition toward greater social sustainability is underway in the garment sector and has, to some degree, been ongoing since the late 1990s. From the perspective of the MLP, the Rana Plaza collapse can be seen as a window of opportunity for more radical changes to take place in the industry. Attempts to initiate radical change have already begun; how successful they will ultimately be in transitioning the clothing sector fully towards social sustainability is a question that cannot yet be answered, as many processes are currently still ongoing.

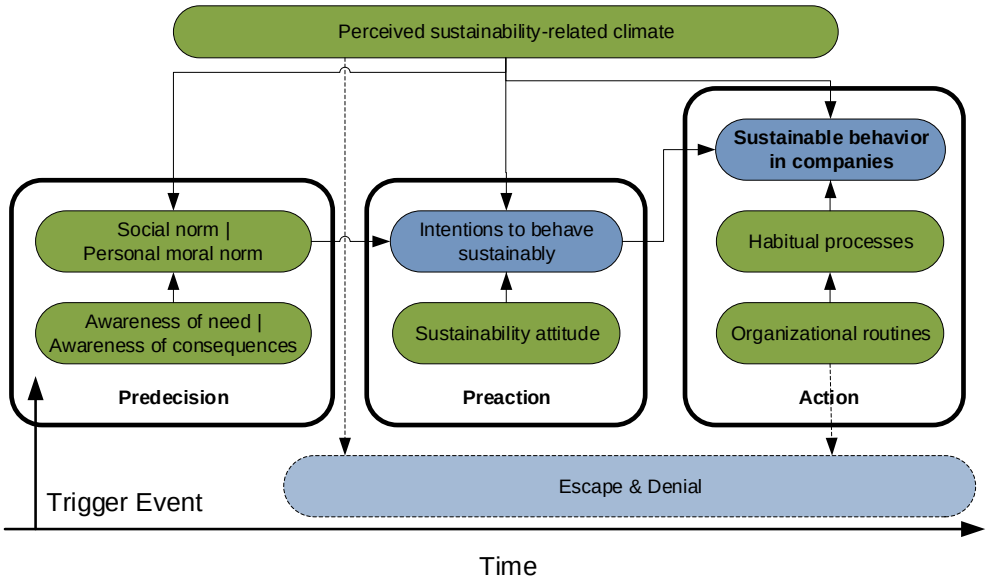

Figure 29: C-CADM model (adapted from Lülfs and Hahn 2014)

In the following chapter, I will describe the results of my expert interviews, which I conducted against the backdrop of this analysis. In the interviews, I focused more explicitly on the current status of corporate and consumer behavior through the lenses of the C-CADM (corporate behavior, Figure 29) and SSBC model (consumer behavior, Figure 30). Since the experts I spoke to were all from Europe and mostly from Germany, my scope in the behavioral analysis is limited to the European garment sector with a strong emphasis on Germany.

My goal was to answer the overarching question: “What are current drivers and obstacles that impact brands’ and consumers’ willingness and ability to address SSIs in the garment sector?” I broke this query down further into a series of guiding questions aimed at identifying ‘sticking points’ in the SSBC/C-CADM models:

1. In your opinion, are brand-name manufacturers already aware of SSIs in the garment industry?
2. Do you think brand-name manufacturers are already addressing some of these issues?
3. In your opinion, are customers already aware of these SSIs?
4. Do you think that customers are taking their awareness of these issues into account when making apparel purchasing decisions?
5. How would you assess the market prospects of smaller (niche) firms in the short-, medium-, and long-term? Why?
6. In your opinion, which drivers currently exist to further advance issues of social sustainability in the garment sector?
7. In your opinion, what obstacles are currently preventing greater social sustainability in the garment sector?

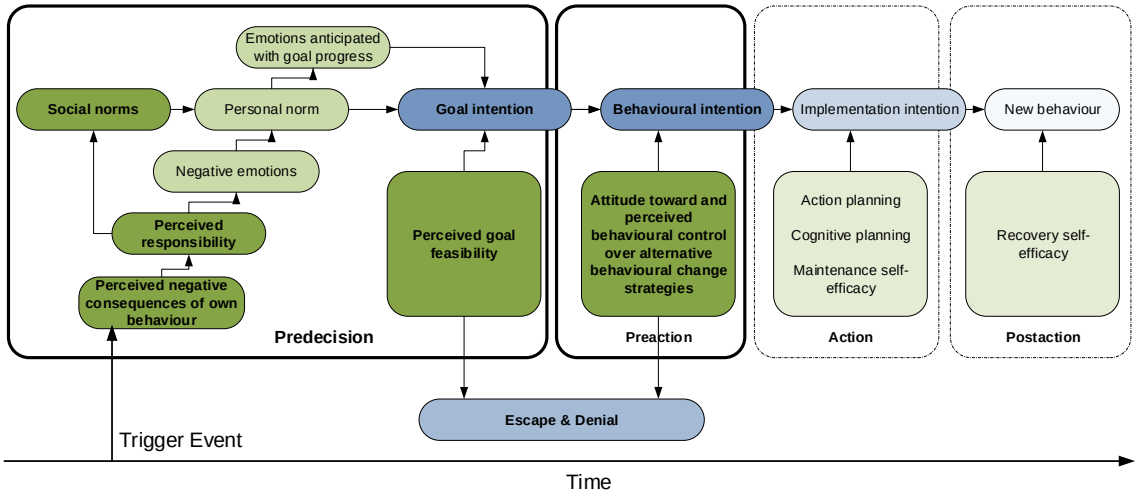

Figure 30: Adapted SSBC model (adapted from Bamberg 2013)

The results of the expert interviews will be presented and analyzed below. I will first focus on corporations and then discuss consumers. For each group, I divide my analysis into a section on awareness, which includes trigger events, the predecision stage and the perceived sustainability-related climate (corporations only), and a section on behavior, where I discuss the preaction and action phases as well as escape & denial.

7.6.1 Corporations

Corporate Awareness

All experts agreed that there is a high degree of sensitization and awareness of SSIs in GPNs both among brand-name manufacturers and garment retailers. While the scandals of the 1990s led to some awareness, corporate issue awareness has increased significantly since the Rana Plaza collapse and has been driven primarily by stakeholder and/or media interest in this topic. An intrinsic motivation to address social sustainability in the GPN without any external pressure is considered to be rather rare.

When looking at issue awareness in more detail, we need to differentiate between an understanding of the problems that occur in general in garment GPNs and those that occur in specific supply chains. In terms of general problems, the experts felt that knowledge of the issues in question is quite high regarding wages, health & safety, factory management and child labor. Generally, all areas that are typically part of a basic code of conduct are fairly well understood at this point in time. Areas where knowledge and understanding is less prevalent are in particular questions related to unionization and collective bargaining. These are seen as something of a 'black box' by many firms, since they are strongly impacted by local historical, socio-cultural and legal factors. For example, in some countries unions have historically been corrupt, so that workers' willingness to trust them is quite low. In other countries, only government-approved unions are allowed to exist, which do not necessarily represent employee wishes as accurately as is the expectation of European or US-based unions. As a result of these complexities, firms often do not know how best to address questions regarding unionization and collective bargaining in their supply chain, especially since best practices tend to vary from one country to the next. At the same time, unionization and collective bargaining also have the potential to lead to significantly higher long-term costs for buyers than, for example, building safety standards. Some experts contend that this, rather than the level of complexity, is responsible for the fact that these issues (wages and unions) have been addressed the least so far.

With regard to specific supply chains, the analysis is more complicated. Many smaller brands or retailers purchase their goods through importing agents, who act as middlemen and are therefore often reluctant to reveal which factories they work with for fear of being cut out of the supply chain. In this model, it is quite difficult for the brand to know where their products are being produced specifically. But even larger brands, who interact directly with supplier factories, often struggle to know exactly which factories are involved in the long production process from raw material to the final item of clothing. The

practice of subcontracting is very common in the garment industry and is not always communicated openly to the buyer, adding a further layer of complexity.

These structures explain to some degree why, when an accident takes place at a supplier factory, brands often claim not to have known that their products were being manufactured there. However, some large brands such as Nike and Primark have started to publish lists of their suppliers, showing that it is possible to put these together.

With regard to the **predecision stage** of the C-CADM (see Figure 29), it can therefore be said that there is an **awareness of need and consequences** among clothing brands and retailers regarding SSIs in the GPNs of the garment sector. Only in a handful of individual cases do **personal moral norms**, particularly of the CEO or board of directors, play a major role in motivating a company to address social sustainability.

Social norms, however, seem to play a somewhat larger role. Both studies (e.g. Bartley and Child 2012) and the experts agree that SSI scandals and industrial accidents, even of the scale of Rana Plaza, have at most very minor and short-term negative financial consequences for brands involved. This is certainly not enough to motivate significant action on the part of firms. However, brands are generally more willing to address those social issues that are likely to hurt their reputation, particularly child labor and large-scale industrial accidents. Thus, the question of structural integrity of factory buildings in Bangladesh was addressed quite quickly after the Rana Plaza collapse, because brands wanted to avoid at all cost the media circulation of further heart-wrenching photos of garment workers buried under piles of rubble.

The other relevant factor (both here and in later stages) is the **perceived sustainability-related climate**. If financial ramifications are unlikely, what motivates corporate engagement to address SSIs in the garment sector? Long-standing NGO campaigns and media attention have certainly been a factor, but two other drivers were identified that have changed in recent years and are considered key by some of the experts: First, many distributors and retailers have begun to require proof of engagement in the area of social sustainability in the GPN before they are willing to do business with brands and importing agents. SSIs have thus increased in priority in business-to-business interactions in the garment sector.

The second major driver is that political pressure to address SSIs in supply chains has risen noticeably in the last eight years. While many initiatives like membership in the GPST or compliance with the OECD Due Diligence Guidance are still voluntary, there has also been an increase in compulsory legislation, such as the UK Modern Slavery Act and the California Transparency in Supply Chains Act. This is an indicator for many in the industry that engagement with SSIs in the GPN is not only a question of ethics, but

also needs to be considered from a strategic business point of view, as the topic is likely to continue gaining importance in the political arena.

Corporate Behavior

In this section, I will discuss the **preaction** and **action stages** as well as **escape & denial**. For the preaction stage, I will break down my analysis of brands' and retailers' **sustainability attitude** into the components perceived responsibility and perceived goal feasibility. The action stage will be divided into **organizational routines, habitual processes** and **sustainable behavior in companies**.

In addition to acting as a driver for action, the increasing political pressure discussed above has conveyed to brands that they bear a certain amount of **responsibility** or are at least expected to readily provide answers to certain SSI-related questions. Most experts emphasized that the degree to which a brand or retailer perceives itself to bear responsibility for SSIs in its GPN beyond this depends heavily on the degree to which its leadership (CEO or board of directors) prioritizes this issue. If management recognizes its importance, innovative solutions can usually be found and necessary fundamental changes are made; if not, most actions will be limited to responsive one-off measures that have little impact beyond the immediate situation they are designed to address.

With regard to **perceived goal feasibility**, all experts, regardless of their provenance from industry, academia, journalism or civil society, agreed that improving working conditions and addressing SSIs in GPNs of the garment industry is an enormously complex undertaking. Some of the problems are structural in nature and cannot be addressed by single actors or even single actor groups. Other problems can plausibly be resolved through increased cooperation between individual brands/buying agents and factory management, though this cooperation is likewise subject to many external forces that often complicate matters significantly.

Among those brands and retailers that have begun to address SSIs in their GPNs more seriously, there is fairly widespread agreement that no firm can solve these issues on their own. This is in large part due to the highly fragmented structure of the production network: brands have a large number of suppliers producing their goods, and suppliers, in turn, have a large number of buyers who purchase their products. This means that in most cases, neither side can single-handedly change conditions on a large scale. Instead, both sides have a small amount of leeway to negotiate and maneuver, but this is rarely large enough to dictate major changes. Moreover, the current business model of importing largely through agents and a large number of varying suppliers encourages brands to have very short-term relationships to their suppliers, which means that neither side of the equation has any incentive to invest heavily into fulfilling the wishes of their

counterpart because there is little investment and planning security. Some experts suggested, however, that brands are beginning to recognize that this business model may also no longer be economically sustainable, as it is high risk with regard to losses resulting from poor quality as well as interruptions or delays in production. However, many are afraid to move away from this model since it is currently the dominant approach on the market.

There are two plausible approaches to remedying these structural issues: first, if all or a majority of brands agree to work together to improve working conditions in supplier factories, suppliers will have a larger incentive to comply with higher social standards. Second, if brands build up longer-term relationships to a smaller number of suppliers, the latter will likewise be encouraged and enabled to fulfill the wishes of their long-term buyers while the former will have an incentive to invest more time and money into long-term suppliers to support an improvement in working conditions. This approach could also resolve another problem: Small brands are often overwhelmed by the manifold legal requirements of large and fragmented supply chains across many different countries and therefore resort to working with importing agents, thereby sacrificing much of their influence over the supply chain of their products. Having a smaller number of long-term suppliers would also make it easier for smaller brands to retain more control over their GPN.

This is also the context in which niche sustainability brands play the most important role. While niche suppliers are generally not seen to put much economic pressure on regime actors, they do serve two important functions. First, they provide a proof of concept for alternative approaches and thereby discredit the argument that alternatives are not feasible. Second, they also serve a role model function by demonstrating best practices and showing willing regime actors how more sustainable business models can work, both with regard to complex supply chains and SSIs.

Another structural problem is that retail prices on the consumer apparel market do not in any way reflect working conditions: luxury and discount brands often produce their garments in the exact same factories and under the same conditions. This not only leads to false assumptions on the part of consumers, but also makes it difficult for brands willing to act as sustainability role models to justify this decision financially.

Other issues are less strongly embedded in the system as a whole and could therefore more easily be addressed by individual actors. Brands that have analyzed their own production processes more carefully have found that poor production planning on their part, including for example last-minute changes to design, quantity or quality of a product, can often lead to excessive overtime and/or unauthorized subcontracting. A key question for

brands to ask themselves therefore needs to be whether their own practices and expectations *enable* their suppliers to comply with the code of conduct that is in place. Fair procurement should ideally involve long-term supplier relationships at eye-level with well-planned and reasonable purchasing behavior, meaning manageable deadlines, realistic prices and as few last-minute changes as possible.

Achieving this level of 'fair procurement' described above requires incorporating social sustainability matters strategically in many if not all corporate decision-making processes and **organizational routines**. One expert estimated that 80% of garment brands still have the same organizational structure with regard to CSR as they did 25 years ago: CSR is seen as either risk management or as a communication strategy, but not as part of everyday corporate processes. To change this, a conscious decision to include SSIs in strategic management decisions is necessary, but likely not enough. Rather, social sustainability concerns should be formulated in familiar terms and incorporated into existing workflows and **habitual processes**, rather than being treated as an add-on after the fact.

It is also necessary to acknowledge that an intention to behave more sustainably does not imply that brands immediately know how to do so. Many brands are still not aware enough of what their options are for more **sustainable behavior** and how they can maximize their own leverage within the GPN. This is one area where cooperative approaches like the GPST, AGT and Bangladesh Accord can be helpful by encouraging the exchange of best practices, allowing brands to network and/or cooperate with each other, and providing a space to meet other actors with greater expertise regarding SSIs, such as NGO or trade union representatives.

In general, an increase in multi-stakeholder cooperation within the garment sector is seen as one of the most important drivers towards more sustainable corporate behavior, along with the noticeable increase in political pressure that has taken place in recent years and has likely paved the way for more cooperation.

Roughly half of the German market and a third of the Dutch market (by revenue generated) are members or signatories in the GPST or AGT respectively. In comparison to many other retail sectors, this is a significant rate of participation for social sustainability initiatives. On the other hand, it also means that 50-70% of each market are not members, of whom many[35] do not actively address SSIs in their supply chains in any other forum either. In this section, I will first examine the barriers and obstacles that prevent

35 Some smaller niche sustainability brands have left the GPST not because the social standards are too high, but rather because they cannot handle the increased administrative workload.

engagement and thereafter the arguments commonly used to justify this **escape & denial**.

The garment sector is generally perceived to be highly cost-competitive, which makes investments into greater social sustainability difficult so long as there is no level playing field for the industry. With the exception of niche sustainability markets, external costs for people and the environment are currently not factored into market prices.

The complexity and lack of transparency of the GPN is also seen as a significant obstacle, as many brands do not know how to reach suppliers beyond the first or second tier of the supply chain. Particularly small and medium enterprises in the garment sector argue that they do not have the human and/or financial resources to address sustainability issues in the supply chain. Some, however, argue that smaller brands should also have a smaller number of suppliers and that this is more of an excuse than a legitimate obstacle.

Many brands also continue to see any engagement with regard to SSIs as a form of risk management, rather than as an opportunity or as part of the definition of a modern company. From this perspective, engagement is often limited to having basic instruments in place, such as a code of conduct and periodic social audits, to limit the firm's liability in case of scandal. This approach resulted largely from the wave of scandals that enveloped the sportswear industry in the 1990s, after which most clothing companies demanded that their suppliers sign a code of conduct and monitored its compliance using social audits.

While this is certainly better than not addressing SSIs at all, it is important to understand what audits can and cannot do. An audit is a means of taking stock of a situation and is therefore a useful first step in understanding what problems need to be addressed. However, the engagement cannot stop there, since an audit by itself cannot actually resolve any problems. Instead, it usually results in a CAP that determines which steps need to be taken to improve specific issues, who will take these and when. Social audits are therefore only useful in addressing SSIs if they lead to concrete follow-up actions to correct the identified problems.

The other difficulty is that there are many issues that social audits usually cannot or do not uncover. Among these are serious human rights violations such as the employment of forced laborers or indentured servants, but also contextual factors that need to be understood in order to effectively address problems. For example, problems like excessive overtime or safety issues can also result from poor management in factories. Factories therefore need to ensure that managers have the necessary training and knowledge to do their jobs, including realistic in-house production and cost planning.

Buyers and suppliers should also scrutinize the incentives for workers to comply with prescribed safety standards: For example, if workers are paid at a piecework rate and safety gear such as gloves slows them down, they are in effect punished for working safely. Likewise, high ambient temperatures on the factory floor reduce the likelihood that workers will wear ear protection.

A final barrier that should not be underestimated is inertia: there is a strong tendency in the industry to maintain business as usual rather than changing behavior for as long as possible. With regard to SSIs, this is certainly in part due to the fact that there is little demand from consumers (see Chapter 7.6.2). Moreover, solutions to SSIs can usually not be achieved with a single action or project, nor are they self-sustaining: instead, they require ongoing, long-term commitment.

This, in turn, is also a problem when brands do begin to address SSIs: brands are often afraid to admit to their engagement regarding SSIs, because as soon as a brand publicly announces what it is doing, the media and NGO focus quickly shifts to all the things that are not yet being addressed by that brand. In turn, brands that never address these issues at all generally receive little media coverage for their non-participation unless they can be connected to a supply chain scandal. As an example, according to experts, FWF member brands have received much more negative press for problems that they found in their supply chain and reported on transparently than non-FWF member brands, whose supply chains include the exact same issues. This behavior by NGOs and journalists can make brands gun-shy with regard to public and/or transparency activities such as membership in the GPST or FWF and is sometimes used as a justification for not participating.

The garment sector has a long history of employing various justifications to avoid or delay mandatory regulation as much as possible. At first, codes of conduct were instituted. When these were not enough, brands began to commission social audits of their supplier factories. As a next step, some brands published lists of their suppliers, thereby allowing civil society to conduct their own investigations. Now, a significant number of brands have joined one of the many SSI initiatives (GPST, AGT, BSCI, FWF, SAI, FLA, etc.) to show that they are willing to engage, just so long as minimum standards are not made mandatory.

7.6.2 Consumers

Consumer Awareness

There is strong disagreement among the group of experts as to the degree of consumer awareness regarding SSIs in supply chains. While two experts felt that only a negligible

minority of consumers have any real awareness of these issues, three felt that the overwhelming majority of society has such awareness, and two judged that there is a continuously growing awareness, which I deem to be somewhere between the other two extremes. Six of the eight experts consider Rana Plaza to have been a very relevant trigger event that acted as a (media) catalyst to bring SSIs in GPNs more into the public focus. One expert argued that the problem is not that people are not aware of the issues or even forget about them, but that this awareness simply does not impact consumption practices unless the topic is actively in public discourse, which has a brief and superficial effect immediately after trigger events, but wears off quickly. Another expert felt that while a few consumers might have heard about Rana Plaza at the time, for most of them it was lost amidst a general information overload and was not retained long-term.

In general, the experts tended to divide consumers into three groups. The first group, which I will again refer to as 'moral consumers', are those that are critical and well-informed and willing to invest time and energy into researching their consumption decisions; they usually already purchase clothing from niche sustainability brands, but generally make up only a small percentage of the population. The second group is on the other end of the spectrum: those consumers who simply do not care about SSIs and likely will not be convinced otherwise. They are likewise a small group. In between these two is the largest group made up of average consumers with an average level of awareness of SSIs: They have a general understanding that there are social problems associated with the production of clothing, but have not researched the topic extensively.[36] This group includes those consumers who sometimes buy explicitly sustainable products to satisfy their conscience, but at other times purchase something based on other criteria, such as price or design, without taking fairness into account. This is also the group that is most relevant in terms of increasing sustainable consumption practices, as they are both open to moral questions regarding their consumption behavior, but at the same time not yet addressing them on a large scale (like moral consumers).

As to where consumers' awareness comes from, most experts agree that media coverage and NGO campaigns are the primary sources. Because the media tends to report on SSIs in the garment industry with regard to specific incidents, rather than as an overall problem, consumers are often not aware that these incidents are not one-time accidents but instead result from complex structural problems. Consequently, it is difficult for them to understand that these catastrophes may be **negative consequences of their own behavior**. Moreover, media coverage tends to focus more on the beginning and end of

36 It is likely possible to divide up this group further, for example with regard to their price sensitivity.

the supply chain (particularly cotton production and sewing of garments), so that consumers tend to be less aware of the steps in between, such as textile manufacturing, which includes spinning, dyeing and finishing fabric prior to garment production.

While corporations struggle with complexity with regard to their own supply chains and how to effectively address issues within them, consumers likewise struggle with the level of complexity with regard to their own consumption behavior, which significantly impacts their **perceived goal feasibility**. The complexity is in part due to the fact that a socially sustainable piece of clothing does not inherently display any characteristics that identify it as such. For example, many consumers assume that clothing with a higher price tag or better material quality was produced under more fair working conditions, but this is often not the case.

But even those consumers who look to a brand's own communication regarding CSR often fail to find clear answers to their questions. There are no standards as to which metrics or topics related to CSR are publicized by a brand in their communication with consumers, for example on their homepage. As a result, it is very difficult for consumers to compare the efforts of different firms with regard to social sustainability. Moreover, some statements on corporate websites may in fact be misleading: as an example, the claim that a brand's suppliers comply with the local legal minimum wage does not guarantee that workers in production countries can actually live from their base salary (without overtime), as the minimum wage is below the poverty line in many developing countries. But being aware of such discrepancies between legal standards and acceptable working conditions requires a degree of expertise that cannot reasonably be expected of average consumers.

One attempt to address the enormous level of complexity has been the use of labels or certification schemes, but only with a very limited degree of success. There are a large number of different labels available, but consumers usually know neither what the different labels mean, nor how to compare them effectively, since there are again no standards as to what is certified and based on which measures. Ultimately, the wealth of certifications is more likely to leave consumers confused and overwhelmed than to significantly aid in the transition towards greater social sustainability.

The degree to which consumers **perceive responsibility** with regard to the impact of their consumption practices varies depending on the consumer groups outlined above. The group of consumers who do not care about SSIs clearly does not perceive any particular responsibility in this area. There are many issues in the public sphere that vie for consumer attention and not everyone chooses sustainability or fairness as one of their priorities or primary motivators. One common justification for not prioritizing SSIs is the

geographic distance between consumers and producers, where consumers question why they should feel responsible for problems that are so far away. Consumers in this category also often point to more local (i.e. national) problems that have not yet been resolved and should, in their opinion, be addressed first.

Moral consumers, on the other hand, clearly do perceive themselves to bear some responsibility; their **personal norms** are thus activated by their **perception of the negative consequences of their own behavior**, ultimately leading them to form **an intention to change their behavior** and actually carry out this behavioral change.

For the largest group, the average consumers, the perception of responsibility varies, both within the group and at times even within a single individual. For example, it is not uncommon for a person to purchase one or two explicitly fair items of clothing to clear their conscience, only to then return to buying conventional clothing, because it is particularly cheap or in style. **Social norms** and the social desirability bias lead many of these consumers to proclaim the importance of ethical and sustainable supply chains in surveys and interviews. However, studies show that there is a clear intention-behavior gap when it comes to the purchase of ethical clothing (see e.g. Hassan et al. 2016). Another relevant factor in how much responsibility is perceived is whether individuals, when making purchasing decisions, see themselves more in the role of a (passive) consumer or a (political) citizen.

Consumer Behavior

The primary component of the preaction stage in the SSBC model is consumers' **perceived behavioral control**. Based on the expert interviews, I was able to identify three primary factors that impact consumers' PBC with regard to socially sustainable garments: uncertainty as to whom to trust, extra time or effort required to make consumption decisions, and the ready availability of ethically produced clothing. The uncertainty results from the complexity issues already described above. Consumers are often overwhelmed by the shear wealth of labels and brands making various sustainability claims, especially against the background of publicized scandals and greenwashing accusations. It is difficult for consumers to verify any of these claims, which in turn reduces their perceived control over alternative behavioral strategies.

This uncertainty is closely connected to the other two factors, the extra time or effort required to make sustainable consumption choices and the availability of fair clothing. In most cities, it is hard to just "go shopping" and at the same time satisfy the requirement of buying only socially sustainable clothing, because it is still a niche market and most of the mainstream retailers have few to no sustainable options available. The same can be said for online shopping, where none of the biggest vendors specialize in fair garments.

This means that consumers need to invest quite a bit of time and energy into researching what to buy and where to purchase it, which leads to a high entry barrier to sustainable consumption. An important component of increasing the demand for sustainable products is therefore making consumers more aware of what alternatives are readily available.

Average consumers are unlikely to invest a significant amount of time and effort into researching this information, so that at the moment, most average consumers end in **escape & denial** rather than changing their behavior. An even more important factor leading to escape & denial are price and style, which are still the top priorities for most consumers (see e.g. nuggets - market research & consulting GmbH 2015; Wahnbaeck et al. 2015; Yildiz et al. 2015). Finally, because working conditions during the production of clothing do not affect consumers directly, for example regarding their personal health, they are less likely to care about such attributes.

7.7 Summary of Case Study 2

This case study has traced the development of the garment industry with regard to its handling of social sustainability issues from 1990 to 2016. Using both a quantitative media analysis and a qualitative historical analysis, I have shown that the dynamic in Europe and the United States unfolded quite differently. In Europe, the issue lifecycle and corresponding transition have been more "slow and steady", whereas the United States has exhibited a more cyclical pattern, which alternates between phases of high intensity and phases of issue fatigue or issue competition.

In the early years, much of the conflict between the anti-sweatshop movement and industry representatives took place in the media, with both sides struggling to influence the framing of the issue. Over time, an increasing number of cases were moved to the legal arena through lawsuits and activist politicians made early attempts to regulate minimum social standards or industry due diligence requirements. While some of the lawsuits were decided in favor of the anti-sweatshop movement, such as the Saipan lawsuits in 1999 and the false advertising suit against Lidl in 2010, none of these activities triggered major changes in the industry beyond the individual case at hand.

Based on the expert interviews, it became clear that the event with the biggest impact on the garment industry was without a doubt the collapse of Rana Plaza in early 2013, which followed closely on the heels of two other major industrial disasters in late 2012, at Ali Enterprises and Tazreen Fashions. This series of dramatic accidents was seen by many as a wake-up call for the entire garment industry that opened up a window of op-

portunity for change and has more than any other scandal inspired a wide range of stakeholders to look for ways to cooperate in an effort to make the industry safer and more in line with the respect of basic human rights. Examples of such efforts include the Bangladesh Accord and Alliance, the German Partnership for Sustainable Textiles and the Dutch Agreement on Sustainable Garments and Textile. Most experts agree that such multi-stakeholder initiatives aimed at amending industry practices are more far more likely to succeed in moving the garment sector closer to social sustainability than relying on a change in consumer behavior, as the complexity of the issues overwhelms most consumers.

8 Case Study Comparison[37]

In the following chapters, I will compare the case studies from the perspective of each of the components of the BTS model. First, I will examine how the dialectic issue lifecycles have developed historically in each of the case studies and whether or not they have exhibited cyclicality thus far. I will pay particular attention to similarities and differences in those factors that moved each sector forward and/or backward between the different C-DILC phases. Because the US and European garment sectors developed quite differently, for the comparison of issue lifecycles, I will treat these two cases separately and therefore refer to three case studies, rather than two.

Next, I will sum up and compare insights regarding consumer and corporate behavior in the case studies. With a view to consumers, I will place a particular focus on the question of why consumer demand is generally unlikely to play a significant role in moving the transition towards greater social sustainability in GPNs forward, although the degree to which this is true differs between the smartphone and garment sectors. With regard to corporate behavior, I will highlight the key similarities and differences between the two industry sectors, both with regard to the level of progress of the transition in each sector and the difficulties that still remain.

Finally, I will take on a more macro-level perspective of the behavioral transitions in the case studies by analyzing interactions between each of the three MLP-levels and assessing which type of transition pathway each industry is most likely to follow if the transition is successful in the long-term.

8.1 The Development of Cyclical Dialectic Issue Lifecycles

I begin my comparison by examining the development of the dialectic issue lifecycles in the three case studies. Figure 31-33 below show an overview of the course of the transitions processes from 1990 to 2016 in the garment and smartphone sectors. The bottom half of each figure shows a visual representation of the five C-DILC phases described in Chapter 3.2.1 as they progress over time for each industry.[38] The top half of each figure provides an overview of key events during each time period that characterize that particular phase in the transition of the industry.

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[37] A manuscript based on parts of this chapter has been submitted to the peer-reviewed journal *GAIA - Ecological Perspectives for Science and Society* for publication.

[38] In comparison to Figure 11, the C-DILC phases have moved from the x-axis to the y-axis in Figures 30-32. Note that this y-axis is on an ordinal, not metric, scale. The values - especially changes in slope - are meant as a visual interpretation of observed events.

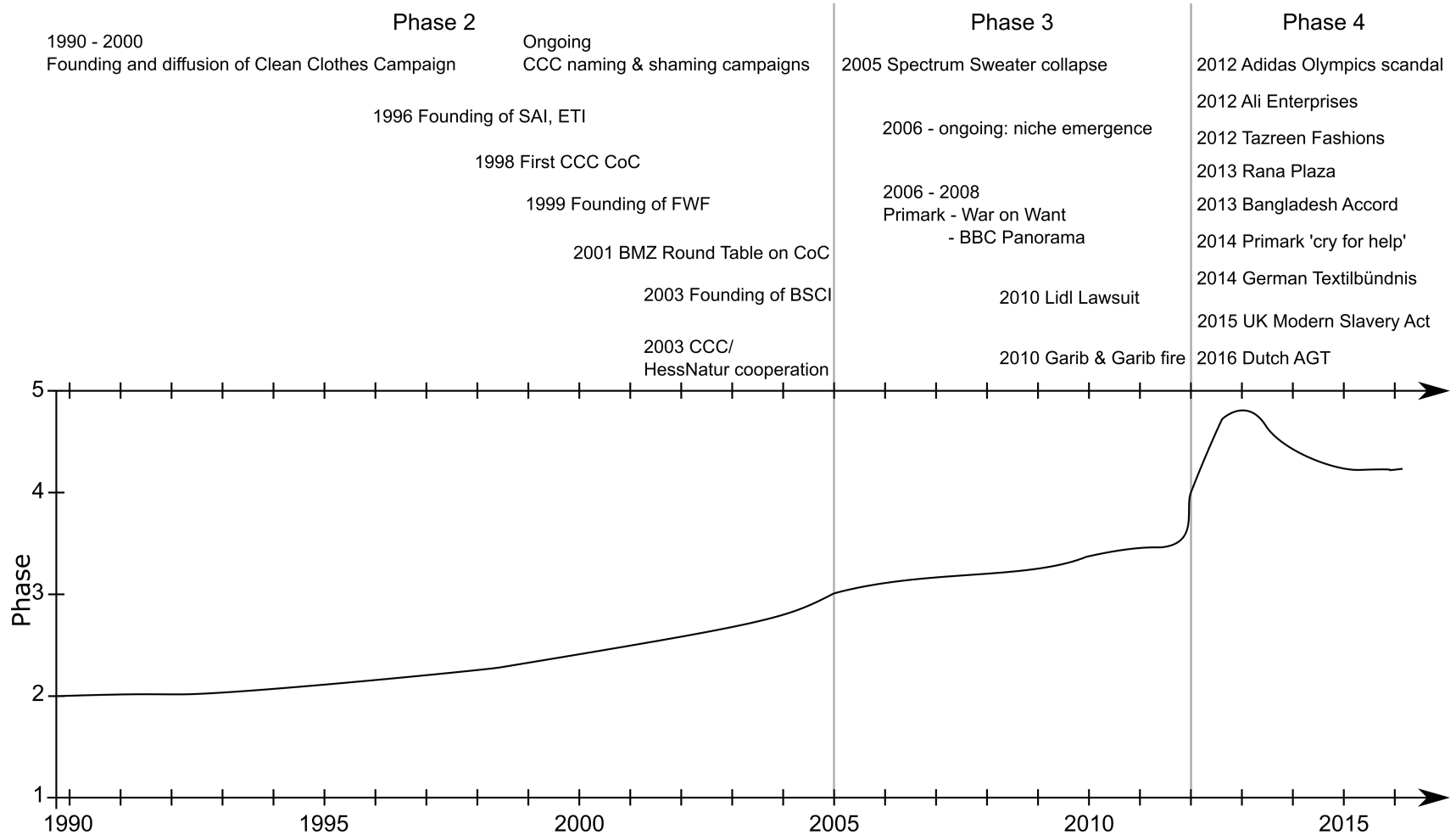

Figure 31: Summary of the transition to date in the European garment sector (own research)

Figure 31 summarizes the transition in the European garment sector, Figure 32 is focused on the US garment sector and Figure 33 displays the transition in the global smartphone sector. While the first two figures both stem from the garment sector, the social movements and industry responses progressed quite differently in Europe and the US. In the following sections, I will first focus on regional differences within the garment sector before moving on to a comparison between the garment and smartphone case studies.

8.1.1 Regional Variations in the Garment Sector

The visualized case study summaries show that dialectic issue lifecycles can take on many different shapes, ranging from slow and steadily linear to repeated ups and downs creating a cyclical lifecycle. Moreover, the results show that issue lifecycles can vary not only between sectors, but even within the same sector when this is viewed through a regional lens: While the European garment sector experienced a long and mostly steady linear development from 1990 to 2011, the US garment sector clearly demonstrates a cyclical up-and-down development during the same time period.

This observation is quite interesting, since brands active in both regional markets sell more or less the same products, are to a large degree part of the same GPNs and are subject to the same types of SSIs. Moreover, about half of the brands I examined are active both in the US and (at least part of) the European market. There is thus a strong overlap between the European and US garment sectors, which leads me to assume that differences in the development of the issue lifecycles must lie elsewhere.

A number of factors can be identified that likely contributed to this difference in progression. Bair and Palpacuer (2012) have previously classified the different civil society approaches in the US and Europe as "name and shame" and "oppose and propose", respectively. The latter favors a collaborative approach between civil society and industry and is thus less predisposed to creating significant amounts of media coverage and, by extension, public outrage. This explains why phase 2 in Europe stretched over more than a decade with a primary focus on social movement emergence and resource mobilization. While the European strategy of "oppose and propose" did not lead to major changes throughout the 1990s and early 2000s, it did serve to raise the general level of public awareness to the "sweatshop issue" and thus prepared the way for change in the future.

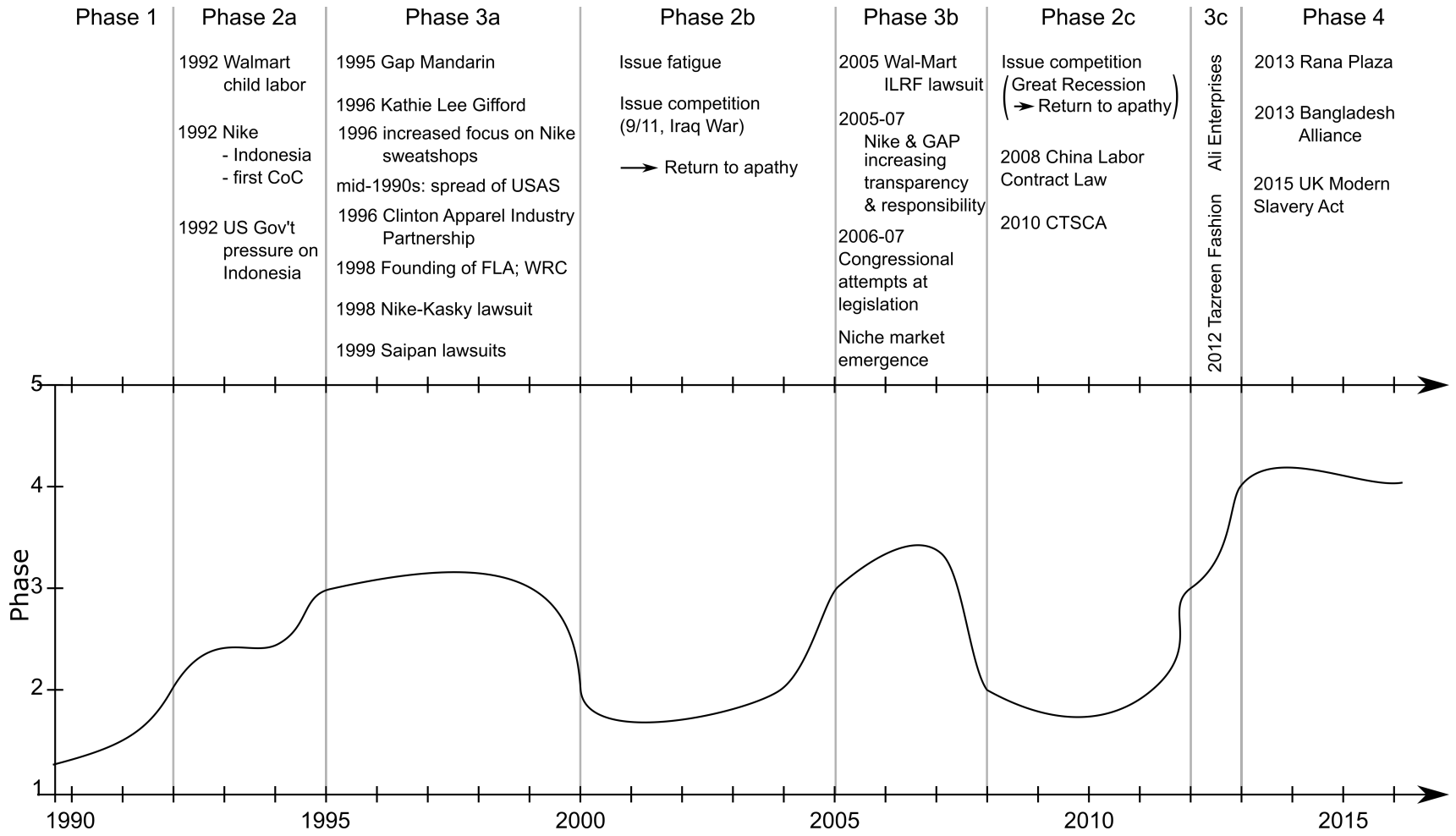

Figure 32: Summary of the transition to date in US garment sector (own research)

The "name and shame" strategy, on the other hand, explicitly involves the public exposition of scandals, which helps to explain why public attention rose more dramatically in the United States than it did in Europe. Another factor that likely facilitated more extreme peaks in the US was the fact that early American scandals were often connected closely to specific individuals with celebrity status, such as morning show host Kathie Lee Gifford, sports stars Michael Jordan and Tiger Woods, and billionaire Nike CEO Phil Knight, or those who unwittingly became the face of a scandal through poor performances in the public relations arena (e. g. Wal-Mart CEO David Glass). Such personal connections can highlight the juxtapositioning between the well-off beneficiaries of brand success on the one hand and the poor conditions of workers in production on the other hand much more clearly than the connection to an abstract and largely anonymous company name. None of the scandals in Europe, most of which also took place later than those in the US, were closely tied to individual persons.

While the above factors help to explain the more significant increases in public concern in the US - i.e. the transitions from phases 2 to 3 - the next question that arises is why public attention also dropped off more strongly in the US, i.e. the transitions from phases 3 back to 2. I believe that issue competition plays the largest role in explaining this phenomenon. Over the course of more than two decades, both the US and Europe experienced many significant political and economic events, but few had such wide-ranging domestic and international consequences as the 9/11 terrorist attacks in 2001 and the financial crisis of 2007/2008 that set off the Great Recession in the United States. Faced with each of these issues, US media and public attention became strongly focused on stories related to these events and thereby crowded out other topics, particularly those that had little direct impact on domestic matters or US citizens, as is the case for SSIs in the international production of garments.

Following these different paths of development in the US and European garment sectors through 2011, the series of dramatic industrial accidents in 2012 and 2013, including the collapse of Rana Plaza, pushed the entire garment industry into phase 4 in 2013. In particular the collapse of Rana Plaza and its aftermath have acted as a wake-up call for the garment industry, governments, and the public that something needs to change in the sector.

While the Bangladesh Accord in Europe and the Bangladesh Alliance in the US were the most directly connected, largest and most global initiatives that resulted from the Rana Plaza disaster, they were not the only reactions. Interestingly, while the European anti-sweatshop movement led to much less outrage and public concern throughout its first two decades than its US equivalent, the Rana Plaza collapse acted as a much stronger

catalyst for broad change in Europe than it did in the United States. Beyond the Bangladesh Accord, European brands, civil society and governments have joined together to initiate other large-scale activities that are much broader in scope both regionally and regarding issue focus, such as the German Partnership for Sustainable Textiles and the Dutch Agreement on Sustainable Garments and Textiles.

One plausible explanation for the variance in recent developments in Europe and the US can be found in their different social and political environments. In analyzing the differences between the Bangladesh Accord (primarily European) and the Bangladesh Alliance (primarily American), Donaghey and Reinecke (2017) portray the two agreements as outcomes of two separate forms of transnational labor governance. They situate the Accord in the tradition of industrial democracy, which includes a pluralist conception of the firm, participative representation that includes workers and a focus on binding agreements and corporate accountability (Donaghey and Reinecke 2017). This fits in well with Western European countries' overall tendency to favor tripartite negotiations (including government, labor and industry) and a more collaborative rule-making approach (Flohr et al. 2010) and further matches the willingness of corporate, governmental and civil society representatives to work together in the multi-stakeholder initiatives listed above. The Alliance, on the other hand, is seen as a classic example of CSR with a unitarist conception of the firm, primarily corporate control with limited involvement of societal stakeholders and a focus on voluntary participation to enhance corporate reputation and image (Donaghey and Reinecke 2017, p. 18). This, in turn, fits the much more neoliberal, competitive and confrontational system of government-business relations with little involvement of labor representation that can be found in the United States (Flohr et al. 2010). This type of system provides little room or opportunity for collaborative multi-stakeholder initiatives, instead favoring the more antagonistic approach already evident in the "naming and shaming" strategies of the past three decades.

8.1.2 Comparison of Issue Lifecycles in the Garment and Smartphone Sectors

The garment industry as a whole, as well as its anti-sweatshop movement, are significantly older than the smartphone industry and the movement towards fairer electronics/smartphones. Just as the clothing sector has historically provided an easy entry point into manufacturing and industrialization, it was also one of the first industries faced with the confrontation between SSIs and GPNs, which resulted from the rise and spread of economic liberalization and globalization that characterized the late 20th century.[39]

39 This and other 'landscape developments' from the MLP-perspective will be discussed in greater detail in Chapter 8.3.1.

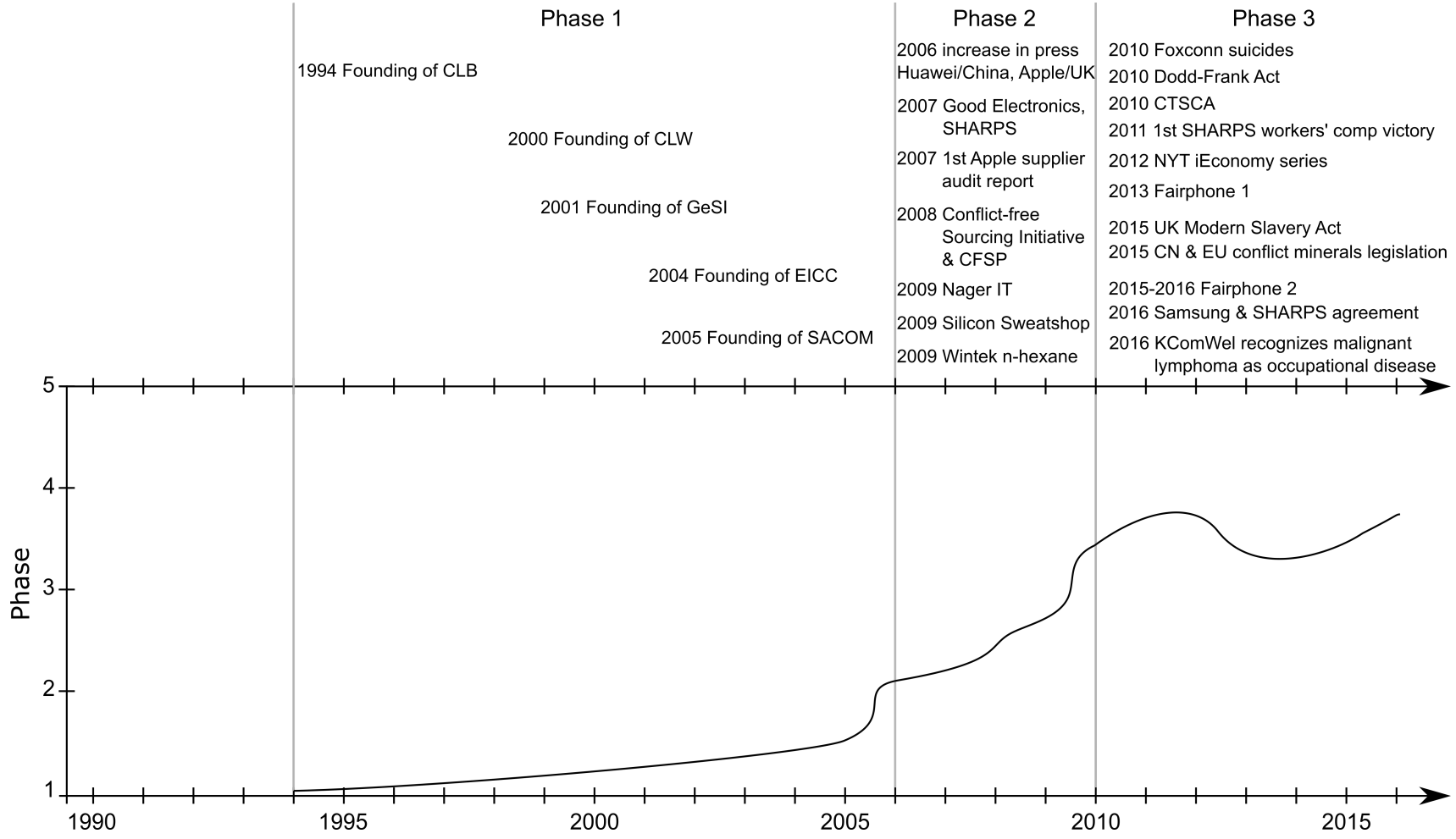

Figure 33: Summary of the transition to date in the global smartphone sector (own research)

This is the context in which the anti-sweatshop movement of the garment sector arose. As will become clear from the following analysis, this historical context and the fact that the anti-sweatshop movement was one of, if not the first social movement that arose out of the confrontation between global labor rights and globalized production networks made the development of its issue lifecycles unique. To some degree, it is therefore difficult to compare the historical developments of social sustainability issue lifecycles in the garment and smartphone industries, as the smartphone sector started on this journey much later and - perhaps as a result - has not advanced as far. Nevertheless, I am able to identify some key differences and similarities that have emerged in the respective developments of the two sectors thus far. I will briefly compare the first two phases in the two sectors before analyzing the move to and progression of phase 3 in greater detail, since this is inherently the most progressive of the DILC-phases that both sectors share and thus leads to the most interesting insights for the transition process.

The issue lifecycle in the European garment sector began slowly, although much of the social movement formation (issue identification, founding of organizations, resource mobilization) of the European anti-sweatshop movement took place while its actors were simultaneously already present in the public sphere through campaigns and publicity tours and thus already in phase 2. While the smartphone industry likewise saw a slow beginning to the issue lifecycle, the process was more drawn out and consecutive, with early activists remaining in the issue identification stage of phase 1 for over a decade before moving to phase 2 as a result of several larger pieces of media coverage. In contrast to both of these examples, in the US garment sector, many of the most significant civil society organizations were in fact only established in phase 3, because large public scandals took place early on, before the social movement had fully established itself.

While at different speeds, all three cases eventually reached phase 3 and the two garment cases even advanced to phase 4, though the drivers that propelled this development differed from case to case. In the US garment case, 'naming and shaming' activities by civil society were the main driver in moving the dialectic issue lifecycle to phase 3. Such activities were present to some degree in the European garment and smartphone cases, but played a much smaller role. Instead, other factors were important in driving the transition, including the role of sub-issues, such as the rise of the conflict minerals issue or building safety in Bangladesh, and political developments, such as the passage

of several mandatory due diligence laws.[40] Each of these factors, naming and shaming, the role of sub-issues, and political developments, deserves a closer look from a comparative perspective between the three cases.

8.1.2.1 Naming and Shaming

Companies in all three case studies became targets of public naming and shaming, yet in the US garment sector, this strategy was extremely successful in creating a series of high-publicity scandals in the industry and a central driver in moving the issue lifecycle along, whereas in the other two cases, while there were some scandals, they remained comparatively small (smartphone case) or remained very local (UK-only scandals in the European garment sector) and were ultimately only one factor among many in moving to phase 3. This begs the question of what differentiates these three situations.

With regard to the two garment case studies, I have already discussed the different civil society strategies ('name and shame' vs. 'oppose and propose') in Chapter 8.1.1, which serve to explain why naming and shaming was not a significant driver in the European garment sector. In turn, the greater effectiveness of this strategy in the US garment sector than in the smartphone industry can be explained by historical context. The US garment industry's sweatshop scandals were among the first, historically, in the era of massively globalized production networks. As Bartley and Child point out, the anti-sweatshop movement was also the first to make "the TNC [transnational corporation] into the central locus of struggle over labor rights and globalization", as opposed to earlier campaigns which focused largely on state trade policies (2014, p. 657). As a result of this new strategy, the expectation gap described in the C-DILC-theory, which is created when events reported in the media do not match the implicit expectations of the public, was likely larger the first time such scandals were explicitly connected to brand behavior and thus caused greater outrage. The US anti-sweatshop movement also dove-tailed well with the anti-globalization movement, which was likewise on the rise in the mid- to late-1990s (Ayres 2004). By the time poor working conditions in the smartphone sector came into focus more than a decade later, it was newsworthy that another industry was also affected by SSIs, but much less so that global supply chains in general are often marred by less than ideal social standards.

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40 In the case of the smartphone sector, the sudden appearance of a radical niche alternative (Fairphone) was also an important factor in pushing the industry to phase 3. Since Chapter 8.3.1 focuses specifically on the interactions between different MLP levels, including the niche and regime, this development will not be discussed in this chapter.

Although the application and success of the naming and shaming tactic differed, other aspects of the strategy were quite similar in all three cases. The brands that were targeted most strongly by civil society organizations (e.g. Apple and Samsung in the smartphone sector; Nike, Wal-Mart and The Gap in the garment sector) were large, enjoyed positive reputations in the business communities and invested significantly in branding and advertising activities. One exception is Primark from the European garment case, which embodies the first two, but not the last condition, but was still targeted heavily in the later years of the anti-sweatshop movement. Moreover, once a brand became a target, it was likely to be targeted again and again by NGOs. These qualitative observations from my case studies also match prior statistical analyses on these issues (Bartley and Child 2014; King 2008).

8.1.2.2 Handling Complexity: Focusing on Sub-Issues

The conglomerate of SSIs in GPNs is made up of many individual sub-issues. It is unrealistic to expect all of these issues to be resolved or even actively addressed simultaneously, especially across all nodes, countries and individual actors of a GPN. A more likely scenario is that specific sub-issues will move to the foreground at various points in time to be tackled individually. Depending on the nature of the issue and how it is framed in the public discourse, a focus on one sub-issue may also enable other sub-issues to gain some increased attention, thus adding to the overall progression of the transition.

In each of my three case studies, there was one sub-issue that gained particularly significant prominence and pushed the issue lifecycle to its next phase: conflict minerals in the Great Lakes Region in the smartphone sector (phase 3), and building safety in Bangladesh in the garment sector (phase 4). In many cases, though, media articles that primarily addressed one of these two celebrity issues also included some coverage of other sub-issues, thereby lending a voice to other SSIs. For example, articles that are ostensibly about conflict minerals, whose original definition was based on the financing of armed conflict in the Democratic Republic of the Congo,[41] often include mentions of other SSIs, such as the use of child labor in African resource mines (Poulsen 2012), the use of modern slavery in global supply chains (Browning 2015) or poor safety standards and no minimum wages (Obert 2011). On the one hand, this gives relevant SSIs that might otherwise not be mentioned in media coverage a platform for publicity. On the other hand, this intermingling of topics adds to laypersons' confusion regarding the issue of conflict minerals and often leads them to think that "conflict-free" means "fair", i. e. produced under decent working conditions, which is not (necessarily) true. Consumers may

41 Over time, the definition has been widened to include both other minerals as well as other types of conflict or high-risk areas, see e.g. OECD 2016, p. 4.

therefore purchase a 'conflict-free' product with the expectation that it was produced 'fairly' and be disappointed or lose faith in labels or certifications when they find out that this is not the case.

In the garment sector, the collapse of the Rana Plaza building initially led to a strong focus on the topic of building safety in Bangladesh, as is evidenced by the creation of the Bangladesh Accord (Europe) and Alliance (US), both of which focus exclusively on this sub-issue. Particularly in Europe, though, the focus quickly broadened to issues other than building safety in countries beyond Bangladesh. Hoping to avoid future scandals, brands began to cooperate more to resolve other known issues in the garment sector.

Whereas in the smartphone sector, the conflict minerals issue led to some additional attention - but no significant increase in activities - for other sub-issues, in the (European) garment sector, the Rana Plaza disaster acted as a substantial catalyst for change. This difference is not surprising given, first, that the garment sector was already further along in its transition than the smartphone industry at the time of the building collapse, and second, that the collapse of the Rana Plaza building was a much less abstract event than the conflict minerals discussion, with concrete outcomes that were clearly visible in hundreds of photos in online articles. The resource-based funding of militias in a complex civil war and its specific connection to consumer electronics is much harder to grasp than the deaths of 1100 people in a factory collapse.

Reviewing these examples, it is therefore possible to identify at least two different ways in which sub-issues can interact in the context of highly complex issues. One - as seen in the smartphone case study - is that a single sub-issue brings attention to the larger issue as a whole 'by association' and thereby raises general public awareness. Further research is necessary to determine whether this interaction between sub-issues is particularly common in earlier stages of an issue lifecycle, where public awareness is still relatively low and a focus on one sub-issue is therefore a convenient vehicle to point out that there are other problems as well. Another form of interaction is that which was seen in the garment sector, where a particularly dramatic industrial accident acted as a catalyst for more significant change[42] in the industry as a whole. I believe - though further research is again needed - that this is a likely form of interaction for later stages of the issue lifecycle, where an issue already enjoys greater public awareness and concern, which in turn puts pressure on those actors with responsibility to make more far-reaching efforts as a sign of good-will.

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42 I. e. opened a window of opportunity, which will be discussed further in Chapter 8.3.

8.1.2.3 Political Developments in the Landscape

Beginning in 2010, a series of national and international political and regulatory developments increased the pressure on both industries to begin addressing SSIs in their GPNs more seriously and proactively. Not all laws that were passed directly impact all three case studies to the same degree, either due to regional or product limitations. For clarification, I have included the case study and regional/company applicability of each law in footnotes. However, even when individual laws do not impact one of the case studies directly, the fact that so many new laws were passed within a relatively short period of time is a sign that the global landscape within which all economic actors exist is changing and that pressure on product manufacturers and brand name companies with regard to SSIs is increasing across industries. This means that even laws that do not directly impact a sector or region still indirectly contribute to the landscape pressure on the regime.

In 2010, the United States passed the Conflict Minerals Rule as part of the Dodd-Frank Act[43] and the California Transparency in Supply Chains Act (CTSCA).[44] While the impact 'on the ground' of both laws has been limited to date, both acts played an important role in terms of setting a precedent. The Conflict Minerals Rule addressed the conflict minerals issue directly and essentially set out in law that all actors in a supply chain, including the non-manufacturing brand-name corporations, bear responsibility for the materials contained in their products. While the Rule has very limited scope in terms of resources and geographical origin, it still sent a clear message to participants in the US market that supply chain due diligence was beginning to become a *legally* relevant issue.

This idea was further reinforced by the CTSCA. While this Act only applies to certain companies that file taxes in California, it is a further indicator of "the growing consensus on the type of disclosures that will be expected from companies with global supply chains" in the future (Dueck et al. 2017, p. 14). An attempt to pass a similar bill for all of the United States and all industries took place in 2016, but failed and is considered unlikely to pass under the current US administration (Dueck et al. 2017).

Starting in 2014, the EU and individual European countries also began passing due diligence legislation. In the EU, this includes the European Union Directive 2014/95/EU,

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43 Direct impact: smartphone case study; all companies that are listed on the New York Stock Exchange (US Securities Exchange Commission 2013).

44 Direct impact: smartphone and US garment case study; companies that file taxes in California as retail sellers or manufacturers and have annual global receipts in excess of $100 million (California State Senate 9/30/2010).

which requires firms with more than 500 employees to annually disclose their due diligence efforts with regard to social and environmental issues.[45] The first reports are due in 2018, so that compliance and impact cannot yet be assessed. Furthermore, the EU passed its own conflict mineral legislation in 2017 with a broader definition of what constitutes high-risk or conflict areas, which will enter into force in 2021.[46]

Some individual European countries have likewise passed due diligence measures, including the UK Modern Slavery Act of 2015,[47] which is similar to the CTSCA and the French bill “Devoir de vigilance des sociétés mères et des entreprises donneuses d’ordre” (Due diligence requirements for parent and contracting companies bill),[48] which requires companies registered in France with at least 5000 employees in France or more than 10,000 employees worldwide to perform due diligence "for their own operations, their subsidiaries, and their sub-contractors or suppliers" (Dueck et al. 2017, p. 12).

Finally, while less mandatory, 12 countries adopted national action plans on business and human rights with a focus on implementing the UN Guiding Principles on Business and Human Rights between 2013 and 2016. Among them were the UK, Netherlands, Denmark, the US and Germany (UN OHCHR 2018).[49]

In discussing historical developments in the electronics, apparel and footwear industries, among others, since the early 1990s, Bartley et al. state that some "lead firms in global value chains began to accept 'soft' forms of responsibility by adopting codes of conduct and pledging to monitor and improve conditions in their supply chains. Those same companies, however, fiercely resisted attempts to make them *legally* liable [...] For the most part, this remains the situation" (2015, p. 11). While I agree with the authors' assessment of corporate intentions, the developments listed above show that governments in the United States and Europe are beginning to explore legal liability scenarios for GPNs and brand-name companies are certainly aware that supply chain due diligence will likely have to play an increasingly large role in their future operations.

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45 Direct impact: smartphone and EU garment case study; companies with more than 500 employees that are listed on EU markets (Dueck et al. 2017).

46 Direct impact: smartphone case study; companies that import tin, tantalum, tungsten and gold into the EU above a minimum threshold amount (Thomas and Economides 2017).

47 Direct impact: smartphone and European garment case study; companies that are active in the UK and have a global annual turnover of at least £36 million (Bayer 2016).

48 Direct impact: smartphone and European garment case study; companies registered in France with at least 5000 employees in France or more than 10,000 employees worldwide (Dueck et al. 2017)

49 Direct impact: all case studies; all companies.

With regard to my three case studies, these political and legislative developments certainly impact both sectors. However, with a view to the development of the issue lifecycle, the impact was stronger on the smartphone industry, which had only reached phase 2 in 2010, than in the garment sector, which by this point had already reached phase 3 (presently or in the past). Moreover, there were also a series of mandatory due diligence laws that directly impacted the smartphone sector via the conflict minerals issue, a development that has not taken place in a similar manner in the garment sector to date.

8.2 Behavioral Observations in the Present

Having examined the primarily historical development of cyclical dialectic issue lifecycles in each of my case studies, I now turn to comparing the results of the expert interviews. These were conducted with the purpose of gaining more insights into the drivers and obstacles that impact SSI-related consumer and corporate behavior in the present.

8.2.1 Consumer Behavior

The position and role of consumers was assessed very similarly by the experts in both case studies. In both sectors, there is a small group of well-informed 'moral consumers' who are very interested in the topic of SSIs and who ascribe higher priority to sustainability aspects in their purchasing decisions than to other criteria such as price or brand popularity. There is likewise a small group of customers for whom sustainability is of no importance whatsoever and who are explicitly not interested in the topic. The 'average consumers' make up the largest percentage and are located between these two extremes in their preferences. The extent of knowledge about SSIs in GPNs within this group is difficult to quantify without a representative study. However, it is clear that many average customers feel overwhelmed both by the complexity of the subject matter and the large number of available labels and certifications. As a result, many are unsure which certifications or brands they can trust to genuinely produce under good working conditions, rather than simply 'fairwashing' their products.

With regard to the two industry sectors, I find some differences in consumer behavior that are most likely explained by characteristics of the products themselves. While both smartphones and clothing are consumer goods that are often used as status symbols to convey a particular lifestyle or identity, they differ in that smartphones are high-tech products with comparatively few alternatives on the market, short product innovation cycles, and whose purchase represents a significant investment of financial resources that usually only takes place once every few years. Clothing, on the other hand, is a low-tech product whose form may vary from year to year, but whose functions have remained the

same for decades;[50] moreover, there are hundreds of brands to choose from who all offer very similar products, which are, for the most part, not very expensive and therefore purchased much more frequently.

As a result of these differences, consumers may be more 'willing' to be outraged at garment sector scandals, where the boycott of one or more brands can easily be compensated due to the wealth of alternatives. This is much harder to do with regard to smartphones, where boycotting mainstream brands generally implies foregoing certain features. Consumers who are not willing to make certain technical or economic sacrifices in their smartphone purchasing decision and at the same time become outraged at the poor working conditions in smartphone GPNs would be likely to experience cognitive dissonance. This is a phenomenon in which psychological discomfort arises when a person's values or attitudes and corresponding actions do not match, such as when someone demands better working conditions from a company and at the same time purchases one of its products. This in turn leads to dissonance reduction strategies (Jarcho et al. 2011; Elliot and Devine 1994). In situations where an action has already taken place and cannot easily be changed or reversed, people tend to adjust their attitudes retrospectively, so as to reduce cognitive dissonance (Jarcho et al. 2011). This means that consumers who have purchased a smartphone from a particular brand and find out afterwards that it was produced under poor working conditions are more likely to change their attitude towards this issue, for example by arguing that better working conditions are too expensive or too difficult to achieve throughout the GPN, than to admit that they find these conditions to be problematic and plan to research such information more carefully prior to their next purchase. This is especially true when it is clear that purchasing an alternative product would require foregoing certain desirable features, which is more likely in the smartphone than in the garment sector.

Since consumers make a much larger number of purchasing decisions in the garment sector, where products are significantly cheaper and needed in larger quantities, there are customers who occasionally buy an eco-fair item of clothing 'for a good conscience,' whereas in other similar purchasing situations they disregard sustainability criteria in favor of other characteristics. Varying purchasing decisions in this way may be another strategy to reduce cognitive dissonance over time. This behavior generally cannot be found in the smartphone sector due to the high price, technical specifications and the fact that most customers only own one or at most two smartphones, so that far fewer purchasing decisions are made.

50 With some exceptions, such as certain types of outdoor and athletic clothing, i.e. functional wear.

In general, however, experts from both case studies agree to a very large degree that the impulse to change GPN practices towards greater social sustainability is unlikely to come from consumers. To illustrate why this is the case, Figure 34 shows a simplified version of the path that consumers must take while making a purchasing decision to ultimately change their behavior.[51] As can be seen in the upper half of the figure, there are at least four different prerequisites that must be fulfilled (awareness of negative consequences, perception of personal responsibility, goal feasibility and satisfactory evaluation of alternatives) before a consumer changes his default behavior in favor of a more sustainable purchasing decision (lower half of the figure).

The awareness of negative consequences is strongly dependent upon the presence of awareness raising activities by civil society, the media or the government. Whether consumers perceive personal responsibility for these negative consequences in the context of GPNs or not depends in part on how well complex global interdependencies have been explained during awareness raising campaigns. Moreover, at this stage, personal and social norms may also impact a consumer's attitude towards these negative consequences. Meeting the third prerequisite requires that there are sustainable alternatives available to consumers and that they perceive these to be conducive towards reaching the goal of reducing negative consequences of their own actions. Finally, consumers must evaluate the sustainable alternatives available to them and decide if these meet their needs.[52] Only if the alternatives are deemed satisfactory does behavioral change, i.e. purchasing a sustainable alternative, ultimately take place. In turn, the non-fulfillment of any one of these prerequisites provides adequate justification for non-action, i.e. continuing to perform the default behavior, in which key purchasing criteria do not include sustainability factors.

51 The illustration in Figure 5 is loosely based on Bamberg's stage model of self-regulated behavioral change (2013), but with significant adjustments.

52 I assume here that all products on the market - whether sustainable or not - fulfill the basic functions of their product group, e.g. that a smartphone can be used to make phone calls and access the internet, etc. Differences in functionality or technical specifications are therefore a question of degree, not of the product being functional at all.

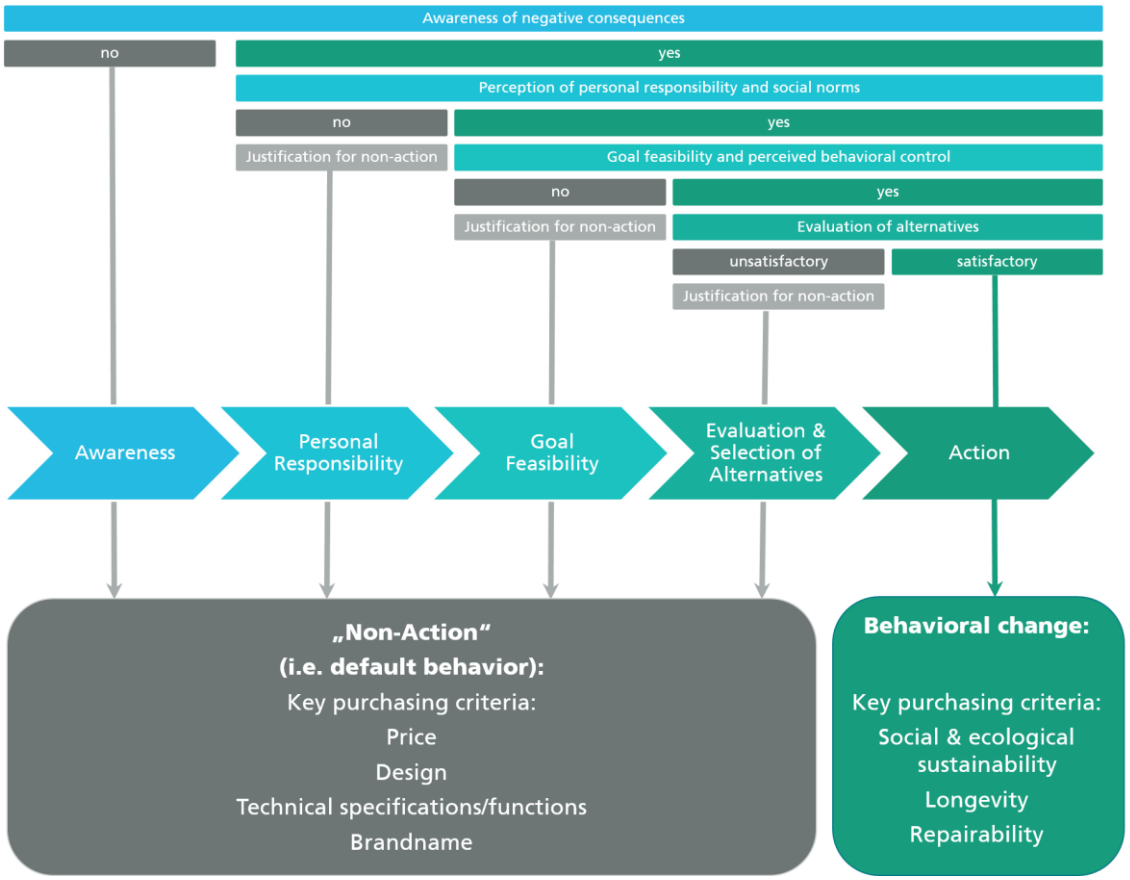

Figure 34: Path to behavioral change in consumer purchasing decisions (own representation based on prior work in Bamberg (2013))

To some degree, these prerequisites have a threshold character - once they are met, they usually remain so. This is most obviously true for the first two steps (awareness of negative consequences and perception of personal responsibility/social norms). The last two steps (perceived behavioral control and evaluation of alternatives) are more closely connected to each individual purchasing decision and must therefore be repeated over and over again. However, for similar goods, the latter steps often become easier over time as consumers can build upon prior experiences, for example through an increasing familiarity with sustainability-oriented brands. Nevertheless, as was described above, some consumers vary their purchasing behavior, sometimes intentionally buying a sustainable alternative while in other situations choosing the non-sustainable default, which shows that at least the last step in the decision-making process does not have a clear threshold character.

The steps described here show how difficult it is for consumers to change their purchasing behavior, especially on a large scale. There are many opportunities for 'escape and denial' and a corresponding return to apathy (see Figure 11) that make it unlikely that

consumer demand alone will be enough to force an industry to change its behavior. This is true not only in the clothing and smartphone sectors, but can also be applied to many other industries, including the food industry (alternatives: organic food, vegetarian or vegan diets), the mobility sector (alternatives: public transportation, carsharing, e-bikes, electric vehicles), and the energy sector (alternatives: renewable energies).

8.2.2 Corporate Behavior

Rather than relying on consumer demand, most experts agree that a transition in the two industries examined can only be successful if changes are initiated on the supply side. With regard to the progress of the transitions in each sector, the experts from both industries agreed that the clothing industry is presently more advanced than the smartphone sector. Based on my expert interviews, it appears that the awareness of SSIs in the smartphone sector is more general, with an understanding that there are problems throughout the supply chain and a somewhat more detailed awareness of issues among direct suppliers. In the garment sector, brands seem to have already engaged more critically with SSIs, with experts often being able to point out very specific reasons or factors that make it difficult to address a certain issue or elucidating what strategies have failed in the past and how these have now been improved.

Overall, the impression arises that the smartphone sector is still gathering information, evaluating to what degree to address which issues and searching for possible solutions, whereas parts of the garment sector have now entered an implementation stage. One indicator of this is that in the smartphone sector, experts mention codes of conduct as 'something the industry is doing to address SSIs'. The garment industry has moved beyond this point, where a code of conduct is so much standard operating procedure that it is no longer worth mentioning and certainly no longer seen as 'something that is being done'. Especially in the European garment sector post-Rana Plaza, it is no longer a question of whether something needs to change in the industry, but rather of negotiating which measures are necessary and sensible, who is responsible for them, who finances them and at what pace they are implemented.

Experts from both industries emphasized that a fundamental change in any sector will only take place if companies see social sustainability as an integral part of their company strategy, rather than as a downstream add-on or marketing instrument. In the garment sector, it was repeatedly emphasized that this is most likely if the CEO or board of directors of a company advocates more sustainable practices, thus highlighting the importance of personal moral norms of certain individuals in the context of corporate behavior. This observation could not be found in the interviews from the smartphone sector, which may be the result of the fact that the garment sector has a much larger number of

small or medium-sized enterprises or even family businesses, where the personal convictions of the company leadership are likely to play a larger role in decision-making processes than is the case in the often extraordinarily large electronics companies that dominate the smartphone sector.

But in the garment sector, it is not only personal norms, but also social norms that have begun to play a role in encouraging change in the industry. In the aftermath of the collapse of Rana Plaza, a number of dramatic and heart-wrenching photos were published by the media, some of which became quite famous (e.g. Akhter 2013) and can endanger companies' public reputations if they are associated with these images. SSIs that are likely to lead to public scandals - including dramatic industrial accidents and child labor - are generally addressed much more quickly than other issues that play less to the emotions of the public, such as unionization or collective bargaining. This indicates that perceived social norms have an impact on corporate behavior in this context.

The relevance of social norms is less clear in the smartphone sector. There have likewise been emotionally-charged events, such as the Foxconn suicides or the cancer clusters at Samsung's factories, and while they have certainly received media coverage and increased public awareness of SSIs in this industry, there are fewer indications that they have had an impact on corporate behavior beyond the issuing of PR statements. As was already discussed in the prior section, this may be a result of the fact that consumers have fewer brands to choose from and factors such as technical specifications play a larger role in the purchasing decision for a smartphone than for a piece of clothing. As a result, a (temporary) loss of reputation based on SSIs may be seen as less dramatic by smartphone brands.

Another relevant factor that is somewhat related to social norms is the perceived sustainability-related climate. In the garment sector, experts reported that contracts governing business-to-business interactions in the supply chain (i.e. between importing agents, distributors, brands and retailers) now often require proof of engagement in the area of social sustainability. While the required engagement is not as extensive yet as would be necessary to sufficiently address SSIs in GPNs, the fact that such clauses are included at all in many contracts makes engagement with these issues an important aspect of staying in business. In this sense, while a lack of engagement currently has little long-term impact on consumer demand, it has begun to effect brands' competitiveness on the market.

No evidence of such changes in business-to-business interactions could be found in the smartphone industry beyond the requirement that a code of conduct be in place. This, too, may be a result of the differing industry structures, where not only consumers, but

also other members of the GPN, like suppliers and distributors, have fewer brand business partners to choose from and thus face greater market risks if they choose to exclude some of these from their own supply chain though contractual demands pertaining to SSIs.

In terms of companies' sustainability attitude and intention to behave sustainably, the garment sector is clearly more advanced in its willingness to acknowledge a degree of responsibility for SSIs in its GPNs. Recently, clothing brands have even gone so far as to publicly demand binding standards and due diligence regulation in the hopes of creating a level playing field in the industry (e.g. ZDF 4/24/2018). No such public demand has been made in the smartphone sector, but in my interviews, experts from both industries, including many of the brand representatives, advocated the passage of legally binding due diligence regulation, ideally at an international level. In both sectors, while some individual brands would clearly welcome such regulation, larger industry associations continue to fight the creation of any legal liability with regard to SSIs.

The creation of a level playing field would also encourage more cooperation among brands in the area of social sustainability. Since the collapse of Rana Plaza, this has increased significantly in the garment sector and almost all experts emphasized that addressing SSIs across the many suppliers and countries included in garment GPNs is impossible for a single brand or actor. Cooperation brings significant gains in efficiency and leverage, as the overwhelming number of brands has multiple suppliers, which they in turn share with many other brands. While the complexity of supply chains is likewise cited as one of the primary obstacles to social improvements in the smartphone sector, brands have so far been less willing to cooperate with each other in this area.

Regardless of whether brands try to address SSIs together or alone, their actions in this area must always be embedded in existing organizational routines and lead to certain habitual processes within the company. One of these is the strong reliance on social audits as the primary means of addressing SSIs, which can be found in both industries. While audits are an important first step in assessing the status quo, they do not bring any improvements on the ground unless they lead to corrective actions. Too often in both sectors, this is not the case. In the garment industry, this problem is further exacerbated by the fact that many brand-supplier-relationships are very short-term and characterized by frequent changes. In this case, even if corrective action plans are created, neither brand nor supplier have enough incentives to address difficult issues if it is unclear how long they will continue to work together. This issue is far less prevalent in the smartphone sector, as supplier relationships tend to be far more long-term, in part because smartphone suppliers are often highly specialized and far fewer in number than in the

low-tech garment industry. Nevertheless, while longer-term relationships are an important prerequisite for SSI improvements, they are not sufficient, as is evidenced by the ongoing difficulties in smartphone GPNs.

In sum, just as a behavioral transition to sustainability in these industries is unlikely to be initiated primarily on the basis of consumer demand, it is also unlikely that most corporations will make the necessary changes in their behavior on a sufficiently large scale without external incentives. However, unlike with consumer demand, such an incentive can be politically created using legally binding regulation that requires companies to perform due diligence in the area of working conditions and human rights in their GPNs. While this solution is not a silver bullet for all problems and will certainly require further follow-up measures - like social audits, due diligence is only a first step that must be followed by corrective actions - it is a vital first step to encourage and enable corporations to initiate changes in their behavior.

8.3 The Multi-Level Perspective

Having compared individual aspects of the case studies in the form of their issue lifecycle developments and the role of consumer and corporate behavior in each industry, it is now time to return to the larger research question at hand, namely whether and to what degree a behavioral transition towards greater social sustainability is currently taking place in each of the sectors. To help answer this question, I will first look at the MLP-component of the BTS model, namely the interactions between regime and landscape and regime and niche, as well as the presence of a window of opportunity for a transition to take place in each industry (see Figure 11). Thereafter, I will analyze which transition pathway most closely matches the developments in each industry to date.

8.3.1 Interactions between MLP Levels

Landscape and Regime

Geels and Schot define the landscape of the MLP as "a broad exogenous environment that as such is beyond the direct influence of regime and niche actors" (2010, p. 23). Changes in the landscape are often referred to as megatrends, taking place above and beyond the level of individual regimes and niches, but impacting these nonetheless. Because landscape factors take place on a macro level, they tend to impact multiple regimes at the same time, as is the case here, where both case studies were subject to similar landscape developments. Note that landscape factors are independent of the transitions process, which means that there is no rule about whether they serve to stabi-

lize or destabilize the existing regime; both are possible, as will be evident in the developments described below. Landscape factors can be further broken down into three different categories: "1) factors that do not change or change only slowly [...]; 2) long-term changes [...]; and 3) rapid external shocks" (Geels and Schot 2010, p. 24). Most of the landscape factors relevant to my case studies are long-term changes, though towards the end of my studied time range, rapid external shocks also begin to play a role.

With a view to long-term changes, the world trade order became increasingly liberalized and globalized after the second world war and particularly as of the 1980s, which led to the formation of large and increasingly powerful multinational corporations, whose activities spanned the entire globe (Chan et al. 2013; Bartley and Child 2014). At the same time, the power of individual nation-states declined, as markets became progressively more deregulated (Bartley and Child 2014; King 2008). With the rise of shareholder value creation as one of the central goals of the firm, outsourcing to locations with cheaper labor and lower regulatory standards became a widespread and dominant trend (Gereffi et al. 2005; Bartley and Child 2014) that dove-tailed with the continuous rise of mass and conspicuous consumption (Patsiaouras and Fitchett 2012).

These landscape factors all served to institutionalize and stabilize the current regime both in the garment and smartphone industry, but also created negative externalities in the form of SSIs. Parallel to - and perhaps as a result of - the developments described above, civil society actors began increasingly to frame the act of consumption as an inherently political activity, thus "[creating] a niche for social movements to act as arbiters of 'bad' and 'good' corporate activity" (Bartley and Child 2014, p. 657). The simultaneous availability and growth of the internet, likewise a long-term landscape factor, supported and enabled this development further by providing affected workers a means to communicate their situation globally and NGOs all over the world with a tool for tracking corporate activity (King 2008), networking transnationally, mobilizing resources, spreading information and raising public awareness on a previously impossible global scale.

The formation of a social movement that thus took place is an example of one of the ways in which landscape factors can put pressure on regimes and lead to the opening of a window of opportunity:

> "Continued expansion of regimes may lead to increasing negative externalities. When they affect other societal actors, this may lead to pressure on the regime. Regime actors tend to downplay such problems. For this reason, externalities are often picked up and problematized by outsiders, e.g. societal pressure groups [...](Van de Poel, 2000). To get negative externalities on the technical agenda of regime actors, there may be a need for consumer pressures and regulatory measures" (Geels and Schot 2010, p. 26).

While public attention to SSIs in GPNs has risen across both case studies over time, consumer pressure has remained limited, as was discussed above (see Chapter 8.2.1). But as was detailed in Chapter 8.1.2.3, regulatory measures regarding SSIs in GPNs have indeed been introduced since 2010 and have increased the pressure on the smartphone and garment industry regimes to change their practices with regard to social sustainability. This by itself, however, has not been enough to open up a window of opportunity. In the garment sector, however, these long-term landscape pressures received a further push through several rapid external shocks, namely the series of dramatic industrial accidents in late 2012/early 2013, which culminated in the collapse of the Rana Plaza building. Together with the increasing number of voluntary and mandatory regulations regarding corporate due diligence now in place, I believe these events to have opened up a window of opportunity in the garment sector, one which is currently more pronounced in the European case study, but ultimately impacts the entire industry. I will discuss this further in the next chapter.

While these regulations and guidelines likewise apply to the smartphone industry, without a sector-specific trigger event to significantly increase pressure on the regime, no window of opportunity has opened up so far in this sector. On the current trajectory, the political pressure through the above-mentioned regulations is likely only to lead to continued incremental changes, rather than the kind of radical changes necessary for a real sustainability transition. However, just like in the garment industry, general public, media and political awareness of SSIs in the smartphone industry have been 'primed' through smaller scandals and reporting throughout the last decade, so that in theory, a single major event like the collapse of the Rana Plaza building could be enough to open up a window of opportunity for the smartphone sector and lead to more radical changes.

Niche and Regime

Unlike much of the interactions between landscape and regime, the two industries differ quite strongly with regard to the development and influence of the niche in each sector. Beginning around the mid-2000s, a niche market for moral consumers began to emerge in the garment sector. This market mostly consists of small brands that use sustainability as a unique selling point and specifically target moral consumers. To date, the ethical fashion market is fairly heterogeneous in the garment industry, with niche brands focusing their sustainability efforts on various different parts of the supply chain and verifying these efforts through different labels or certificates, including the Fairtrade Textile Standard, Global Organic Textile Standard, IVN Best, World Fair Trade Organization, FWF, and Better Cotton Initiative. Some niche brands, such as Armedangels, have managed to place their products in mainstream department stores and thereby manage to reach a larger audience, not all of whom purchase their products as a result of - or even knowing

- their sustainability standards. While it is difficult to get reliable statistics on the size of the market share of ethical clothing, those studies available suggest that its market share is still rather small (Ethical Consumer 2017). Because there are so many different brands in the garment sector as a whole, and since none of the niche sustainability brands are very large as compared with more mainstream brands, niche brands are not perceived as serious competition for the regime.

The smartphone case study presents a different picture. To begin with, there are very few niche alternatives in the smartphone sector since the market entry barriers are very high as a result of the complexity of production of high-tech products. Likely for this same reason, there are also few regime players, but these are all the more powerful, as only a handful of electronics companies serve the entire global smartphone market. The only niche brands that focus on social sustainability in this industry are ShiftPhone and Fairphone, although the former lacks the necessary transparency to verify its claims regarding SSIs. While the company Fairphone is likewise not seen as a serious competitor by established industry actors, due to their small sales volume, its development and proclaimed mission of one day producing a truly fair smartphone have generated quite a bit of media coverage and discussion. In this respect, Fairphone was able to profit from two important factors. First, the company was founded in 2013 and put a lot of effort into sourcing conflict-free minerals just as this issue was widely in the press, which generated a lot of positive publicity in this context. Even more importantly, in late 2015, the brand brought the first modular smartphone (Fairphone 2) to market just a few months before Google officially announced the end of its own modular smartphone plans (Project Ara) (Amadeo 2016). In no small part due to this technical innovation, Fairphone was covered in over 6000 articles in 2016, since the aspect of modularity made the company's product interesting to a much broader audience than its (social) sustainability goals would have on their own (van Abel 2016). These likewise profited from the extensive press, however, since most articles on Fairphone - even if the primary focus is on modularity - also mention the brand's goal to create an ethical smartphone.

While it has not accomplished this goal in full, Fairphone has proven that it is possible to create a more socially sustainable smartphone and has thereby created a proof of concept that raises expectations for other smartphone brands as well. Moreover, the niche brand produced its first two phone models (Fairphone 1 and Fairphone 2) with very limited financial and human resources and was less able to profit from economies of scale due to its small size. This suggests that larger companies with greater resources at their disposal would likely be able to accomplish at least the same, if not greater progress towards a more socially sustainable GPN. Although it is not a major factor, this implication has in recent years added to pressure on mainstream smartphone brands to justify why they have not made more headway towards social sustainability.

8.3.2 Transition Pathways

Having examined the interactions between the three MLP levels, I now turn to the question of transition pathways, which clarify the process of transition once a window of opportunity opens up. Unfortunately, the literature on the MLP does not provide a clear set of criteria for recognizing or defining the opening up of a window of opportunity. I therefore turn to the related literature on the Multiple Streams Approach,[53] where a window of opportunity opens when "... a problem is recognized, a solution is available, the political climate makes the time right for change, and the constraints do not prohibit actions" (Kingdon 1995, p. 165).

In the smartphone sector, based on these criteria, no window of opportunity has opened up so far. The problems are not yet recognized widely enough, so that the willingness to work together towards a common solution does not yet exist. This makes the current political climate and further constraints irrelevant for the moment. Because a window of opportunity has not yet presented itself in the smartphone industry to date, I will primarily focus on the garment sector in this analysis. At the end of the chapter, I will briefly hypothesize what type of transition pathway would be most likely for the smartphone sector if a window of opportunity were to open up right now.

With a view to the garment sector, I find the four points from Kingdon's definition to arguably be fulfilled: 1) Since at least the collapse of the Rana Plaza building, poor and dangerous working conditions in the garment GPN have widely been recognized as a problem within the industry, among policymakers and in society at large. 2) Due to the complexity of the issues and the large number of different actors and stakeholders involved, I believe that there can and will never be a single solution available; instead, what is needed is an ongoing commitment by all actors to continuously improve conditions, ideally in broad cooperation with one another. In the aftermath of Rana Plaza, a number of alliances have been founded that aim to do just that, so that I would argue that a solution is available insofar as this is possible with regard to such complex issues. 3) I have already discussed the recent increase in regulatory involvement across various different countries in Chapter 8.1.2.3. These developments show that the political climate is such that change is currently possible. 4) While there are certainly constraints that will make a transition challenging - including price and competition, the international nature of the problem and the complexity of the GPNs in question - I do not find any of them to be prohibitive per se.

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53 For a review of prior applications of the Multiple Streams Approach in transitions research, see Kern and Rogge 2018.

Once a window of opportunity has opened up, Geels and Schot have defined four different transition pathways that can take place: transformation, de-alignment and re-alignment, technological substitution and reconfiguration. They also identified two key variables that determine which transition pathway is expected to apply in a given scenario: (1) the degree of maturity of a niche innovation and (2) the nature of interactions between the three MLP-levels (see Table 5).

Table 5: Overview of transition pathways (own representation based on Geels and Schot 2007)

		Nature of interaction	
		Symbiotic	Competitive
Status of niche innovation	Immature	Transformation pathway	De-alignment and re-alignment pathway
	Mature	Reconfiguration pathway	Technological substitution pathway

With regard to the timing, the level of maturity reached by a niche innovation at the time that the window of opportunity opens up plays a key role in determining the course of the remaining transition. If the innovation is ready to be rolled out to a larger and more competitive market, it can take advantage of the window of opportunity and diffuse more widely. On the other hand, if the innovation is still in the early stages of development and still dependent on the protective nature of the niche, the window of opportunity may close prior to successful diffusion. In the case of ethical fashion, the niche must still be classified as immature according to criteria established by Geels and Schot (2007), since it is still quite heterogeneous and no dominant approach has emerged. Moreover, the learning curve in sustainable fashion has not flattened out and the market share of the niche is likely still under 5%.

The second important factor in determining the transition pathway is the nature of the interaction between niche innovations and the current regime: “Niche-innovations have a *competitive* relationship with the existing regime, when they aim to replace it. Niche-innovations have *symbiotic* relationships if they can be adopted as competence-enhancing add-on in the existing regime to solve problems and improve performance” (Geels and Schot 2007, p. 406, sic, emphasis in the original).

Table 6: Description of transition pathways (based on Geels and Schot 2007)

Transition pathway	Main actors	Type of (inter)actions
Transformation	Regime actors and outside groups (social movements)	Outsiders voice criticism. Incumbent actors adjust regime rules (goals, guiding principles, search heuristics)
Technological substitution	Incumbent firms versus new firms	Newcomers develop novelties, which compete with regime technologies
Reconfiguration	Regime actors and suppliers	Regime actors adopt component-innovations, developed by new suppliers. Competition between old and new suppliers
De-alignment and re-alignment	New niche actors	Changes in deep structures create strong pressure on regime. Incumbents lose faith and legitimacy. Followed by emergence of multiple novelties. New entrants compete for resources, attention and legitimacy. Eventually one novelty wins, leading to restabilisation of regime

In this case, more socially sustainable GPNs in the garment sector must be seen as symbiotic, rather than competitive, since they only require certain - admittedly radical - changes in the current business model, rather than calling for a completely different approach to the production, sale and use of clothing.

Given the immature status of the niche, as well as the symbiotic relationship between niche innovation and regime, the transition is predicted to follow the transformation pathway. Based on the description of main actors and type of (inter)actions listed in Table 6, this assessment fits well: the transition is driven mainly by social movement actors, less so by niche actors or new firms. It is also primarily the result of strong public criticism, which forces regime actors to adjust their behavior. All other pathways are much more focused on a transition taking place as a result of novelties entering the market, whereas the transformation pathway is the only one that accounts for a transition taking place as a result of dissatisfaction with the behavior of the current regime.

As was mentioned earlier, a detailed assessment of the smartphone industry with regard to its transition pathway is not yet possible, since a window of opportunity has not yet opened up. Nevertheless, if this were to happen today, the smartphone sector would likely also follow the transformation pathway. While the niche, particularly in the form of the company Fairphone, plays a somewhat larger role in the smartphone than in the garment industry, it is likewise still quite immature according to the criteria mentioned above. As a result, the technological substitution pathway, which is more strongly driven by niche innovations, is not realistic for a transition at this time. Like in the garment sector, moreover, the interaction between regime and niche would likely be symbiotic, rather than competitive, for the same reasons already described above. Thus, if a window of opportunity were to open up today, the smartphone sector would likewise follow the transformation pathway.

Even in the garment sector, where a window of opportunity appears to have opened up since 2013, it is still too early to predict final outcomes. The presence of a window of opportunity does not guarantee that a transition will ultimately be successful or that it will take the path predicted or desired ahead of time. What can be said with regard to the garment industry is that the collapse of the Rana Plaza building along with the increasing number of supply chain regulations have opened up a window of opportunity and that this is, to date, the most likely time for more radical change within the sector to take place. The opening up of this window is likely only possible because the anti-sweatshop movement has been increasing pressure on the big brand names of the garment sector for nearly three decades already, thereby increasing both public and corporate awareness of SSIs and preparing the way for more significant behavioral change. The smartphone industry is still in this stage, with civil society and the media putting pressure on brands to change their practices and public concern slowly rising. This alone will likely not be enough to initiate a transition; instead, a trigger event of some sort will be needed in this industry as well, which may open up a window of opportunity for more radical change in the future.

PART IV: DISCUSSION AND CONCLUSION

9 Closing Remarks

In concluding this dissertation, I will briefly summarize my empirical findings in Chapter 9.1 before presenting the recommendations I was able to derive from my results in Chapter 9.2. Since this work also involved theoretical and methodological advances, Chapter 9.3 will finish with reflections on theory and methodology.

9.1 Summary and Conclusions

Is a behavioral transition toward greater social sustainability taking place in the garment and smartphone sectors? To answer this question, I formulated and applied the Model of Behavioral Transitions to Sustainability to two case studies. This heterodox and heuristic approach advances previous scholarly work by expanding both the applicability and the operationalizability of the MLP approach. In contrast to the traditional analysis of socio-technical transitions, it focuses on behavioral transitions to sustainability, which are normatively driven changes in a conglomerate of structures, culture, norms and practices that are a key element of long-term transitions towards greater sustainability. This shift in perspective away from technology-driven solutions also allows the MLP approach to be applied more effectively to social aspects of a transition, making the analysis of social sustainability issues more feasible. By combining the MLP with the DILC model, specific empirical indicators can be derived as proxies for the development of the transition. The expansion of the DILC model to the C-DILC model, in turn, allows for a long-term analysis of ongoing transitions with a cyclical nature. Finally, the incorporation of the SSBC and C-CADM models gives new insight into the processes that take place during a behavioral transition to sustainability and, of particular importance, the points where it is likely to fail or succeed.

With regard to the question of whether a behavioral transition toward greater social sustainability is currently taking place in the garment and smartphone sectors, I find that there is no simple yes or no answer. In summarizing their studies on conscientious consumerism in various industries, Bartley et al. come to the conclusion that there are myriad "complex [...] intermediate scenarios" on the way towards greater sustainability, where corporate claims are simultaneously more than greenwashing or fairwashing, but less than "'real sustainability/fairness' on the ground" (2015, p. 21). This is precisely the same conclusion that I must draw with regard to behavioral transitions to sustainability in each of my case studies.

There is movement towards more social sustainability afoot in both industries, but rather than being steady and continuous, it comes (and goes) in fits and spurts. Social sustainability issues, as the name already implies, are made up of many sub-topics, or sub-

issues, and not all of them are or can be addressed simultaneously. Poor working conditions can imply many different problems, from health and safety hazards to child, forced or bonded labor, to excessive overtime and insufficient wages. One theme that is noticeably recurrent throughout the two case studies and can be found both in the historical analyses and the behavioral observations is the enormous complexity involved with the topic of social sustainability in global production networks and its perception as a major obstacle in addressing these issues.

This complexity arises in large part from the sheer multitude of variables involved. Achieving complete social sustainability in the entire GPN means that each sub-issue of social sustainability must be addressed for every supplier in every country at each step of the value chain to a high degree of fairness in order for a brand's products to be "100% fair". This requires finding and implementing enforceable solutions to fit dozens of different legal, cultural and political environments, all while remaining economically viable as a firm. In truth, reaching and maintaining this goal in the long-term is highly unrealistic, if not impossible, for any brand, no matter its size or influence on the market.

Nevertheless, I find that there has been progress in both industry sectors. It is well known in the research community that sustainability transitions are lengthy processes that can take decades to complete and do not necessarily take place at a steady pace. I believe a transition to be taking place if and so long as recognition and public acknowledgment of problems are present *and* there are efforts to continuously improve in a stepwise fashion. Progress in the transition can be recognized by an increase in the number of actors who fulfill these conditions and their cumulative share of the market. This means that early in the transition, a single actor instituting the first code of conduct in an industry can be a first sign of a transition. As it moves forward, though, single actions addressing single issues are no longer enough to sustain the transitional momentum.

In looking at the empirical data of my case studies, it is clear that according to this definition, both case studies exhibit signs that a transition is underway. Since the early 1990s, issue awareness of SSIs in GPNs has increased significantly both among the public and lead firm brands. Whereas the topic was ignored or at best dismissed when it first arose in early scandals, brands have adjusted their responses over time: from defensive press releases and war rooms to the institutionalization of codes of conduct across entire industries to the use of social audits to inspect the situation on the ground. The lack of sufficient improvement over time has shown that none of these steps are enough and so it is necessary to go further. In the smartphone industry, the US Conflict Minerals Rule of the Dodd-Frank Act mandates supply chain due diligence with regard

to conflict minerals and as such has acted as a catalyst not only to improve one component of social sustainability in GPNs, but also to further the public discussion of SSIs more generally in the production of electronic goods.

And for all the tragedy of the collapse of the Rana Plaza building, it has served as a wake-up call to the garment industry that something needs to change in its production practices. Since this accident took place in 2013, several important industry-sponsored and multi-stakeholder initiatives have been created to address both specific health and safety concerns in Bangladesh and SSIs more broadly in garment GPNs. While the process of negotiation and decision-making can often seem excessively slow and drawn-out in such forums, it is key for a long-term transition that different stakeholders, including lead firm brands, supplier factories, NGOs, trade unions and policymakers agree to work together toward a common goal, since none of these actors can resolve the myriad of SSIs on their own.

To this end, I have derived a series of recommendations to strengthen social sustainability in global production networks based on the findings from my case studies.

9.2 Recommendations and Future Research[54]

Since the problems in GPNs are too extensive to be addressed by individual actors on their own, my recommendations are aimed at four relevant groups of actors: brand name firms, policymakers, civil society organizations, as well as academics.

The following recommendations for action have been drawn up for brand name firms:

- Due to the complexity and high degree of structural interlinkages in GPNs, many SSIs cannot be addressed effectively by individual actors. For this reason, common goals for social sustainability should be defined within an industry and pursued cooperatively by all market participants. This requires openness and a willingness to take part in a certain degree of exchange, networking and collaboration, even among market competitors. Examples of such industry initiatives from the case studies include the German Partnership for Sustainable Textiles and the Indonesia Tin Working Group.
- The societal relevance of SSIs and the risk of scandals that damage corporate reputations in this area have increased significantly over the last 15 years. Even companies that do not primarily define themselves through high sustainability standards should nevertheless incorporate certain minimum standards of social

54 A similar version of these recommendations has previously been published in the journal *Ökologisches Wirtschaften* (Bodenheimer 2018b).

sustainability into their business model and actively take these into account in strategic decision-making processes. In particular, these criteria must be integrated into the selection process and contractual negotiations with suppliers, as well as in production planning, where an eye needs to be kept on pricing and time pressures.

- Brand manufacturers should strive for in-depth transparency in their own supply chain. This entails, among other things, mapping the entire supply chain from raw materials to end product transparently and precisely, permitting independent monitoring and inspections and, if possible, eliminating or at least disclosing any existing conflicts of interest.
- Social audits have been widely adopted as an approach for inspecting working conditions in supplier factories. It should be noted here that although social audits represent an important first step in information gathering, they cannot by themselves contribute to actually resolving issues. Instead, audits must be followed up with corrective action plans, in which those steps that are necessary to resolve problems identified in an audit are specified in detail and concrete responsibilities and deadlines for their implementation are clearly defined. In this context, it must also be clarified to what extent small suppliers, in particular, require external financial support or extra manpower to implement improvements. To increase efficiency in this process, it should be evaluated whether the implementation of social audits and subsequent corrective action plans can partly be handled through collaborative industry associations. Most suppliers work for a large number of brand manufacturers and handling audits and corrective action plans in a more centralized fashion could help to reduce redundancies.
- It is necessary to remember that some problems in GPNs are difficult to uncover in the course of social audits. This applies, for example, to the issues of forced labor and the independence of trade unions. Both the identification and resolution of such issues often require individualized solutions that are adapted to each specific situation and take place over a longer period of time.
- Short-term relationships with suppliers and frequent changes in the supply chain make it difficult to improve working conditions, as this requires a certain degree of reliability in long-term planning, especially when solutions to problems require major financial investments. Brands should therefore strive for long-term relationships with their suppliers, which can also greatly increase the mutual willingness to remedy grievances together.

In order to improve the political framework conditions for increasing social sustainability in global production networks, the following policy recommendations have been developed:

- Due to the large number of different, not easily distinguishable labels on the market and the fact that many customers feel overwhelmed by the complexity of social problems in GPNs, only a limited steering effect can be expected from certifications. Beyond that, it is likely that a systematic transition towards more socially sustainable behavior will only take place if it is primarily driven by the supply side, rather than the demand side, since behavioral change among consumers requires a series of prerequisites to be fulfilled for every single purchasing decision and non-fulfillment of any one of these is enough to prevent behavioral change from taking place, as was explained in-depth in Chapter 8.2.1. At present, however, corporate early movers in social sustainability face competitive disadvantages on the market, because it is difficult to pass their additional investments on to customers. This problem could be resolved through binding transparency and due diligence regulations that would create a level playing field for all competitors. To be effective, such regulation should include stringent sanctioning mechanisms for non-compliance. Such demands for binding standards and regulations are increasingly being voiced by brand companies themselves, recently for example by the German clothing brand Kik (ZDF 24.4.2018). Precedents for such due diligence regulations in the supply chain include the UK Modern Slavery Act, the California Transparency in Supply Chains Act and the Conflict Minerals Rule of the US Dodd-Frank Act.
- Due to their transnational nature, SSIs in GPNs cannot be regulated on a national basis, since the laws of any given state or organization always touch on only a small portion of the entire network. Member countries of the EU should work towards EU-wide regulations at a supranational level in order to exert greater influence on the market. Future regulations, projects and approaches should, as far as possible, be supported by several countries, the entire EU, or even larger international organizations, in order to increase their leverage.
- Beyond that, states can also exert greater influence on the market by leveraging public procurement to increase demand for more socially sustainable products. Due to the institutionalized nature of public procurement and the fact that single purchasing decisions in this arena lead to far greater purchasing volumes than among private consumers, this is one area where demand-side behavioral changes are more likely to take place and can be used to move the transition forward and support early supply-side changes. In the electronics sector, such efforts are already supported by the Electronics Watch project.
- The sustainability discourse in international politics has recently been more strongly shaped by discussions surrounding the Sustainable Development Goals (SDGs). The potential benefits of furthering a transition in global production net-

works - especially, but not only with regard to the social dimension of sustainability - should be incorporated into this discourse between governments, especially with regard to producing countries. This would also aid the efforts of corporate early movers, who often express the need for greater support from both their own and foreign governments in addressing SSIs on the ground.

With regard to civil society organizations, I recommend the following:

- If the transition is to continue, public pressure to improve unsustainable business practices must continue to increase. Well-researched reports by NGOs disseminated via the media can play an important role in maintaining the attention of the public on SSIs in GPNs.
- There is a certain tendency among civil society organizations to quickly criticize companies that make public commitments to taking first steps towards social sustainability, because their efforts are seen as not going far enough. At the same time, other companies that simply do not comment on SSIs in their GPNs and refrain from participating in any industry initiatives relating to this topic are often not held publicly accountable. This imbalance can lead some companies to shy away from embarking on the usually long road towards greater social sustainability. This should be avoided by, on the one hand, recognizing first steps as such and, on the other hand, by holding companies accountable for non-participation, for example in the German Partnership for Sustainable Textiles.
- Civil society actors should strengthen their cooperation further. Specifically, more topic-specific alliances should be created between actors with similar objectives, such as between Western NGOs and trade unions, as well as more international partnerships between representatives of NGOs and trade unions from importing and exporting countries, to promote international exchange, mutual learning and the implementation of joint projects.

Finally, my research has also yielded several future research questions pertaining to the case studies that should be addressed in the context of future academic research:[55]

- Since the establishment of the SDGs and the reporting system linked to the UN Agenda 2030, it has become increasingly important for political and corporate actors to be able to talk about the contribution of their initiatives and strategies to the SDGs. The analytical perspective of behavioral transitions to sustainability provides good prerequisites for making a contribution to this discourse through

55 The future research questions here pertain only to the case studies. Future research regarding the theoretical and methodological basis of the case studies will be discussed separately in Chapter 9.3.

its international and systemic approach. This application of the BTS perspective should be further conceptually elaborated and operationalised.

- In order to ensure that the transparency and due diligence regulations recommended above are as effective as possible, a systematic examination of the effects of different structural options (voluntary vs. binding, national vs. international, product-specific vs. industry-wide) should be carried out in advance. This analysis should focus both on improving social sustainability and on other economic and social effects.
- Several multi-stakeholder initiatives are currently underway in the garment sector, including the German Partnership for Sustainable Textiles, Dutch Agreement on Sustainable Garments and Textiles, Bangladesh Accord and Bangladesh Alliance. Their prospects of success and potentials for transfer to other industries should be systematically evaluated with a view to both best practices and lessons learned to date.
- The focus of future policy efforts should be primarily on the supply, not on the demand side. Nevertheless, possibilities should be explored to support supply-side changes on the demand side during the transition. Approaches from behavioral economics, such as nudging, could be suitable for this. In order to design these in a meaningful way for individual sectors, representative studies for individual sectors should be carried out in advance to determine the level of knowledge, issue awareness and perceived responsibility of customers with regard to SSIs in each respective sector.

9.3 Reflections on Theory and Methodology

The recommendations in the previous chapter focus on the sector-specific insights resulting from the two case studies. In this final chapter, I will briefly reflect on the methodological and theoretical approach used in this dissertation - the Model of Behavioral Transitions to Sustainability as a whole as well as its individual components - and will highlight opportunities for future research from this perspective.

The BTS model, as illustrated in Figure 11, is quite complex due to its reliance on three separate theoretical underpinnings: the MLP, the C-DILC model and the SSBC/C-CADM models. The first prerequisite for combining several separate theories into a single model is that their internal logics are sufficiently consistent with each other to allow for such a combination without leading to any contradictions or discrepancies, either within or between theories; with regard to the BTS model and its theories, this issue was discussed in-depth in Chapter 3.2. Beyond consistency, however, a justification for this level of

complexity also requires that each individual component of the model must contribute a clear added value to the whole. I believe this to have been the case in these case studies.

As the theoretical approach with the most macro-level perspective, the MLP provided a fundamental framework for conceptualizing the change processes in question as long-term sustainability transitions and allowed for an initial structuration of very complex systems by dividing them into landscape, regime and niche. The idea that every transition includes a window of opportunity and that transitions can follow multiple different pathways depending on individual characteristics also proved to be quite helpful for evaluating the status of the transition as a whole. This birds-eye view on each transition would have been difficult to take on through either the C-DILC model or the SSBC/C-CADM models, since they are very much focused on more detailed and specific meso- and micro-level processes.

With regard to the structuration aspect of the MLP, I did find, however, that the differentiation between the three levels was in practice not as clear as it is in theory. For example, for an NGO like the Clean Clothes Campaign, arguments can be made to include it both in the landscape and the niche. As a research and advocacy group whose primary objective is to put pressure on the regime and which does not furnish its own innovative and alternative niche solutions, it would likely be classified as a landscape actor. At the same time, the CCC was instrumental in founding the Fair Wear Foundation, which in turn *does* implement an alternative solution and as such very much qualifies as a niche actor. Thus, in its role as a founder of the FWF, the CCC might also be seen as a niche actor. Similarly, it is sometimes unclear whether policymakers inhabit a space in the landscape or the regime - this depends very much on whether they advocate policies that essentially stabilize the regime or ones that force it to undergo radical changes. Due to this fuzziness, I ultimately relied less strongly on the classification into landscape, regime and niche than was originally intended.

The purpose of the C-DILC and SSBC/C-CADM models was to make the MLP more easily operationalizable for behavioral transitions. This worked quite well, though the individual roles of the C-DILC model on the one hand, and the two behavioral models on the other hand, only became clear in the process of conducting the case studies: The C-DILC model allowed me to fill in the meso-level activities of the transitions as they have unfolded historically to date. Essentially, both the quantitative and qualitative components of the C-DILC analysis combined to reveal the real-life details of what took place behind the many small arrows in the transitions process of the MLP (Figures 1 and 11) for each case study. Once this picture had become clear, the SSBC and C-CADM models allowed me to structure my expert interviews in such a way as to examine the present status of each transition, with a particular focus on factors that are pushing the transition

forward (drivers) or hampering its progress (obstacles). This strong mapping of the historical versus present aspects of the transition to the two model sets only became clear toward the end of the analysis.

Looking at the implementation of the C-DILC model in more detail, I find that like with the levels of the MLP, the assignment of specific events to one of the five phases was less unequivocal in practice than in theory. For example, the formation of social movement organizations varied between the three case study examples, taking place anywhere between phases 1 and 3. This shows that depending on the timing of real-world events relevant to the issue in question, actors' behavior and responses may vary from the strict phase descriptions provided by the theory. Likewise, it is sometimes difficult to match actual events or responses into the more abstract individual phase descriptions with certainty: for example, when is a firm downplaying demands (phase 1), de-dramatizing events (phase 2) or hedging (phase 3)? In practice, my categorization of specific events into one of these phases was sometimes based strongly on other events taking place at the same time. If the majority of events in a particular time period matched phase 3, then I was likely to categorize an industry response as hedging, which might otherwise have been seen as de-dramatizing, if all other events at the time more closely matched phase 2. As a result of these uncertainties, the phase descriptions of the C-DILC must be seen only as guidance, not as absolute rules, which also means that the classification of events into phases cannot be completely objective and may be subject to researchers' biases. This fact must be taken into consideration when interpreting the results of the analysis, ideally by discussing the results critically with other researchers who are familiar enough with the case studies to understand the object of study, but who were not themselves involved in categorizing events into phases.[56]

With regard to my adjustments to the original DILC model, the results of the C-DILC analysis of the US garment sector show that the cyclical nature in issue lifecycles that was postulated in Chapter 3.2.2 can exist not only in theory, but also in practice. To date, there have been three lifecycles in the US garment sector, where the last one may still be ongoing. As was predicted, each cycle builds upon the public awareness and concern that was built up previously and starts at a higher level than the cycle before it. This is in part due to the role of the media, which frequently refers back to previous scandals and

56 In the context of this dissertation, such critical discussions took place on several occasions: during regular meetings with Dr. Katrin Ostertag, who gave detailed feedback on each of the case studies; through the presentation and discussion of results at several academic conferences; and in the context of expert workshops for each case study, which were not in and of themselves part of this dissertation, but were part of the associated research project funded by the German Federal Ministry of Research and Education.

issues in its reporting on current events, a practice that is particularly powerful in online reporting, where prior articles on a subject can be directly hyperlinked into the text.

On the other hand, none of my examples followed the 'intensified concern cycle' that takes place when an issue fails to be resolved and this failure leads to intensified concern. Instead, the US garment sector lifecycle involved partial issue resolutions, such as the introduction of corporate codes of conduct in the late 1990s or the increase in supply chain transparency in the late 2000s, before a public return to apathy due to issue competition. In future research, the question should be addressed whether a return to apathy in dialectic issue lifecycles is always preceded by some type of partial resolution, or whether there are also instances where public interest in an issue simply wanes without any type of proposed resolution.

With regard to the interaction between the qualitative and quantitative components of the C-DILC model, I recognize that there exists some risk of confirmation bias. The quantitative media coverage data shows certain trends that may influence how events are then classified into phases during the qualitative analysis. To reduce this risk in this dissertation, the final analysis of the quantitative data only took place after the qualitative work was done and the final determination of which phases took place during which time periods was made very late in the process and based on both inputs (quantitative and qualitative).

With respect to the searches conducted in the LexisNexis database, I chose not to calculate recall and precision statistics, as the labor cost for doing so would have far outweighed its benefits, as was already discussed in Chapter 5.1.1. As a result, however, it is possible that some relevant articles were not captured while others that were irrelevant were in fact counted. Since the focus of my analysis was on identifying long-term trends rather than examining absolute numbers and under the assumption that the level of imperfection of my searches did not change significantly from one year to the next, it is unlikely that overall trends were significantly skewed in this process.

Finally, I turn to the two behavioral models. The SSBC model, which I used to analyze the behavior of consumers at an individual level, worked quite well in this analysis. In the course of my research, I adjusted the original model somewhat to show a step-wise path to behavioral change in consumer purchasing decisions (Figure 34), which proved to be quite helpful in structuring the analysis of obstacles preventing such behavioral change in consumers and explaining the lack of consumer demand as a major driver for the transition.

The application of the C-CADM model to my case studies with regard to corporate behavior proved less fruitful. Many factors that were deemed to be key in determining corporate behavior, both based on expert interviews and on the historical case studies, could not be found within this model. Among these are the importance of costs and final product price, the relevance of market competition in the industry as a restraining factor as well as the amount of leverage of any individual company with regard to changing the issue at hand. The decision in favor of the C-CADM model was originally based on the fact that the C-CADM and SSBC models can be rearranged to have parallel structures, as was done in Chapter 3.2.3, which increases comparability between the two behavioral models. However, in retrospect, having such parallel structures proved less important than was originally expected, since a direct comparison of the individual steps of consumer and corporate behavior with each other would have yielded far fewer insights than focusing on each set of actors separately. Instead, it would have been far more important to have a model that includes the key factors mentioned above.

A viable alternative for the C-CADM in the BTS model may be the organizational actors' model proposed by Bauer (2004), which seeks to explain factors impacting pro-environmental organizational behavior. Like the SSBC and C-CADM, the model has its origins in the theory of planned behavior, though it does not rely on the norm activation model. In addition to such variables as the perception of responsibility and behavioral control, Bauer's model also includes the following variables, which, after completion of these initial two case studies, I deem to be particularly relevant for the BTS model: anticipated reactions by policymakers, expectation of competence in the relevant issue area, and perceived restrictions or obstacles. Other variables found in the C-CADM model, such as social norms, the awareness of negative consequences, sustainability attitude and the perceived sustainability-related climate can likewise be found within the organizational actors' model, although the delineation of variables differs somewhat from the C-CADM model. As discussed above, this would somewhat reduce comparability between the two behavioral models, so that future research is needed to examine if replacing the C-CADM model with the organizational actors' model within the BTS model would both improve the ability to gain insights into drivers and obstacles of changing corporate behavior in the context of BTS while at the same time nevertheless upholding the overall logic of the model.

While bringing all of the different perspectives in line with each other in the BTS model can be a challenge at times, in the end, combining these approaches together into a single model allowed me to garner much deeper and more complete insights into the historical development, present status and future potential of each transitions process than I could have gotten from any one of the approaches by itself. Since this dissertation was limited to only two case studies, in future research the BTS model should be tested

again and verified by applying it to further case studies. Among these should also be historical case studies in which the behavioral transition to sustainability being examined has already been completed.

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Appendix 1

The searches in the *LexisNexis* database were conducted for the time period from 1999 - 2016 (smartphone case study) and 1994 - 2016 (garment case study). The search strings employed were as follows:

Smartphones

Media Coverage Analysis

- "[company name] and (((electronics or elektronik) or smartphone I/s (arbeitsbedingung or (plural (working conditions)) or (plural (labor conditions)) or kinderarbeit or (child labor) or zwangsarbeit or (forced labor) or (modern slavery))) not ((tender notice) or (52.222-19)))";
    - Company names included: Apple, Samsung, Sony, Microsoft, Nokia, Motorola, Blackberry RIM, LG, Huawei, HTC.
- "Fairphone not ("Human to Human" or "FairPhone - fair Future")"
- "Puzzlephone"
- "shiftphone or shift5 or shift7 not (renesas or (gulf and weekly) or AIDS)"
- "NagerIT or "Nager-IT" or ("fairste Maus") or ("Projekt zur Herstellung Fairer Elektronik") or ((Susanne and Jordan) and Bichl) not (motherhood or Allahabad or LaunchRock or trick)"
- ""conflict minerals" or "conflict resources" or konfliktrohstoffe or konfliktmineralien"

Industry Attention

Industry attention searches in the smartphone case study were conducted in LexisNexis for English-language trade journals and directly in the online archive of heise.de for the German-language search using the following search terms:

- Communications Daily, Consumer Electronics Daily: "(working conditions) and smartphone"
- Heise: "Arbeitsbedingungen und smartphone"

Garments

Media Coverage Analysis

- "[brand name] and ((kleidung or textil) or (clothing or textile or garment)) W/s (arbeitsbedingungen or plural (working conditions) or kinderarbeit or (child labor) or zwangsarbeit or (forced labor) or (morn slavery) or sweatshop or (living wage)))"

- "ARMEDANGELS or (Social Fashion Company GmbH)"
- "hessnatur or (Hess Natur) or (Hess-Natur) or (Hess Natur-Textilien GmbH)"
- "((Triaz Group) or Waschbaer or Vivanda or GruenHeld or minibaer or enna or Pranahaus) W/15 (Kleidung or Kleider or Mode or textil) NICHT (Tier or Zoo or Tierpark or Tierwelt or Wildpark or minibaret)"
- "(blutsgeschwister and (kleid* or *kleid or mode*)) NICHT (roman or krimi* or Thriller or *lesung)"
- "Greenality"
- "HempAge"

Industry Attention

Industry attention searches in the garment case study were conducted directly in the online archives of the two industry journals using the following search terms:

- TextilWirtschaft: "Arbeitsbedingungen"
- Women's Wear Daily: "working conditions"

Appendix 2

Characteristics of DILC phases

	Problem-related pressures	Industry response
Phase 1	Early problem articulation by researchers, activists and/or disadvantaged persons	Regime firms ignore demands
		Regime firms downplay demands
Phase 2	Emergence of social movement organizations (SMOs)	Regime firms defend against criticism
	SMOs mobilize resources	Regime firms deny problems or engage in de-
	SMOs engage in public framing struggles of the issues	Regime firms engage in public framing struggles of the issues by, inter alia, - framing the current situation as natural, acceptable or inevitable - highlighting uncertainties concerning the problem or the importance of other priorities - dismissing the opposing camp (e.g. SMOs) as uninformed or irrational - declaring regulation to be unnecessary and assure that they are already working on a solution
	SMOs organize public protest activities (demonstrations, protests, petitions, etc.)	
	Occurrence of a trigger event	
	Policymakers may engage in early symbolic action	
		Regime firms form a closed industry front
		Regime firms engage in symbolic action
		Regime firms may allocate some R&D to incremental innovation
		Regime outsiders begin exploring radical alternatives
Phase 3	Public attention increases due to SMO activities and media reports	Regime firms hedge
	Problem framing in public debates centers around the need for change vs protecting vested interests	Regime firms continue to engage in framing struggles by arguing, inter alia, - that alternatives are too costly - that alternatives are technologically infeasible or logistically too complex
	Policymakers face credibility pressures, may respond by - organizing investigative committees - holding hearings - setting up debates	Regime firms purposely withhold relevant information
		Regime firms begin making small concessions or admissions
	Activist policymakers attempt radical change, but fail	Regime firms begin to invest in radical alternatives
	Sub-system policymakers address problem using existing beliefs to seek incremental policy changes	Regime firms form alliances with issue specialists, new market entrants, and/or regime outsiders
	Legal challenges lead to discussion, but either to no change or only incremental changes	Tension arises among regime firms between those holding onto the closed industry front and those seeking an early mover advantage
	Niche actors become active, small markets for radical alternatives appear with demand from 'moral consumers'	Some regime firms begin making small changes (somewhere between symbolic and substantive)
		Niche actors introduce radical alternatives and contest high cost or infeasibility claims

	Problem-related pressures	Industry response
Phase 4	Public attention increases rapidly, issue reaches 'celebrity status'	Some regime firms engage in substantive action
	Legal challenges lead to radical change	Regime firms seek to prevent the passage of radical policies and/or hinder their implementation
	Macro-level policymakers become involved	Regime firms increase their R&D investments in radical alternatives due to competition from regime outsiders or due to new market opportunities and a change in
	High-level policymakers introduce radical policies to address issue	Closed industry front cracks
	SMOs engage in high-visibility struggles to shape policy	
	Policy action shifts to implementation, often at the level of sub-systems where details are worked out	
Phase 5	Option 1: Alternatives that resolve the issue become commonplace, accepted, expected	
	Option 2: Alternatives that resolve the issue become mandated by law	
	Consumer preferences reflect issue resolution	
	The regime is transformed and firms reorient themselves towards the new regime, which gains increasing stability over time	

Appendix 3

List of Codes	#	Set
All codes	1877	
process	34	GPN
GPN	51	GPN
due diligence regulation	48	Political Solution
Audits	25	GPN
structural problem	77	GPN
Management producer	18	GPN
Management brand name	35	GPN
transparency	34	GPN
obstacle	132	Obstacles
driver	162	Drivers
MLP	0	
landscape	3	
regime	15	Corporate Behavior
co-evolutionary stability of regime	28	Corporate Behavior
pressure on regime	47	Corporate Behavior
window of opportunity	7	Corporate Behavior
niche	37	Corporate Behavior
C-CADM	0	
industry/regime awareness	50	Corporate Behavior
perceived responsibility	31	Corporate Behavior
awareness of need	12	Corporate Behavior
perceived negative consequences of behavior	20	Corporate Behavior
perceived goal feasibility	27	Corporate Behavior
social norm	11	Corporate Behavior
perceived sustainability-related climate	24	Corporate Behavior
perceived behavioral control	27	Corporate Behavior
change in perceived sustainability-related climate/attitude	19	Corporate Behavior
escape and denial	21	Corporate Behavior
SSBC	1	
consumer awareness of problem	59	Consumer Behavior
complexity	30	Consumer Behavior
perceived negative consequences of behavior	15	Consumer Behavior
perceived responsibility	24	Consumer Behavior
social norms	9	Consumer Behavior
perceived goal feasibility	8	Consumer Behavior
goal intention	4	Consumer Behavior
perceived behavioral control	20	Consumer Behavior

List of Codes	#	Set
judgment: is alternative better?	18	Consumer Behavior
availability of satisfactory alternatives	20	Consumer Behavior
change in social norms	2	Consumer Behavior
price	26	Consumer Behavior
escape and denial	22	Consumer Behavior
DILC	0	
issue identification & articulation	27	Consumer Behavior
trigger event	30	
level of public awareness/concern	37	Consumer Behavior
expectational gap	5	Consumer Behavior
problem-related pressure	53	Corporate Behavior
industry response	73	Corporate Behavior
early mover	11	Corporate Behavior
symbolic action	15	Corporate Behavior
return to apathy	9	Corporate Behavior
drivers for phase progression	27	Drivers
symbolic action	6	Drivers
Actors	0	
Textilbündnis	47	Political Solution
Consumers	34	Consumer Behavior
Niche actors	1	
Fairphone	14	
Shiftphone	1	
Media	27	
Government	18	
Producing countries	27	GPN
EU	5	Political Solution
Germany	20	Political Solution
US	1	Political Solution
China	4	Political Solution
NGOs	10	
Social sustainability	13	
discrimination	1	
formal employment	2	
e-waste recycling	1	
conflict minerals	8	
ILO core principles	2	
union/collective bargaining	13	
suicide	2	

List of Codes	#	Set
health and safety	17	
explosions	1	
toxic chemicals	2	
military management	1	
living wage	21	
wages	9	
overtime	6	
child labor	13	
forced labor	8	
working conditions	2	

Global production networks (GPNs) in developing countries are often characterized by precarious working conditions, including issues of health and occupational safety, low wages, extensive overtime and the use of child and forced labor. Using case studies from the smartphone and garment sectors, this dissertation explores whether and to what degree a behavioral transition towards greater social sustainability has been taking place in these industries among both consumers and producers since 1990. To this end, the heterodox and heuristic Model of Behavioral Transitions to Sustainability is developed and implemented using a mixed-method approach of a quantitative media coverage analysis, a qualitative systematic process analysis of relevant historical events and expert interviews based upon behavioral models for both consumers and producers. The results include key drivers and obstacles for the transition in each industry as well as insights on causal relationships and interactions between various stakeholders that have characterized the developments in each sector through the year 2016.

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