How do You Deal with External Uncertainties?
Case Studies of a Cambodian Apparel Manufacturer and a U.S.
Apparel Import Intermediary

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ABSTRACT

This paper aimed to gain an in-depth understanding of two independent businesses' daily struggles and hardships within the global apparel supply chain and to explore how these businesses respond to external uncertainties. Two key cases, a Cambodian apparel manufacturer and a U.S. apparel import intermediary, were analyzed based on two kinds of data sources: semi-structured in-depth interviews and news articles. This case study identified different events involving external uncertainties—such as decreasing profits, rising labor costs, inconsistent government policies, and suppliers' social issues—faced by the study subjects. The results showed that in each case the companies took distinctly different paths to respond to external uncertainties and that their outlooks seemed to be dissimilar, in one case dire and in the other hopeful. Due to the exploratory nature of the research, this study had limitations. This study was designed with a case study approach that is time and context sensitive, so the results could not be generalized to the whole industry. However, given that apparel businesses operate in hyper-dynamic market environments, the findings on how businesses respond to external uncertainties may help other businesses that face similar levels of external uncertainties. This study reveals in-depth knowledge of firms' daily struggles and strategy-shaping discussions within the global apparel supply chain.

Keywords: External uncertainties, Response strategies, Strategic Choice Theory

Introduction

The global apparel industry has gone through structural changes over time (Kilduff, 2005). It is characterized as a hyper-dynamic industry, not only in its response to short product life, fickle consumer preferences, and demands of suppliers and manufacturers (Ha-Brookshire & Dyer, 2008), but also in how it is influenced by political events, economic changes, and environmental issues. Thus, the apparel industry faces considerable complexities as it increasingly relies on external contractors to manufacture and deliver products on time.

Offshore sourcing and foreign manufacturing increase the amount of external uncertainties, in turn directly and indirectly influencing global supply chain management. One of the most important tasks for global supply chain management, then, is to respond to and cope with uncertainties (Yang, Burns, & Backhouse, 2004).

Supply chain uncertainty is defined as a characteristic of supply chain decision-making situations that involve insufficient information about the supply chains (Simangunsong, Hendry, & Stevenson, 2012). Fundamentally, uncertainty arises when decision makers cannot estimate the outcome of an event or the probability of its occurrence (Sanchez-Rodrigues, Stantchev, Potter, Naim, & Whiteing, 2008). Previous studies have focused mainly on the specific sources of supply-chain uncertainty, ranging from internal manufacturing processes to demand-side issues (Bhatnagar & Sohal, 2005).

External uncertainties are defined as forces and events originating from any elements that exist outside the supply chain and that can affect all or part of a supply chain (Simangunsong et al., 2012). Likewise, forces outside a supply chain, such as government regulations, social movements, and environmental issues, can lead to structural changes and shifts in strategic supply chain management (Kilduff, 2005). Depending on the different sources of a supply chain's external uncertainties, businesses can initiate different types of strategies, such as reduction strategies or coping strategies, by considering how well their organizational resources match with the corresponding business environment (Trkman & McCormack, 2009).

According to their strategic choices, businesses could be viewed, in terms of Miles and Snow's (1978) strategic choice theory, as prospectors, defenders, analyzers, and reactors. From the different strategic choices they make on external uncertainties, a business's further outlook for a long-term goal can be predicted. These strategies can result in the implementation of key measures to improve a firm's supply chain

performance in relation to areas such as lead time, inventory, flexibility, and quality (Bhatnagar & Sohal, 2005).

Due to the extensive globalization of manufacturing processes and hyper-competition in both consumption and manufacturing sectors, the apparel industry is considered "a portent of things to come" because many other industries, such as auto-manufacturing, computer, household, furniture, and consumer products industries, tend to follow what had happened in the apparel industry (Ha-Brookshire & Dyer, 2009, p.176). An understanding of how these businesses interpret and respond to such uncertainties was therefore expected to help other businesses that face similar levels of external uncertainties.

Previous studies have provided a broader view of external uncertainties and of how businesses respond to external uncertainties at a macro level. However, there is a gap in our understanding as to how these firms struggle daily with and discuss response strategies to the external uncertainties at the firm level. Therefore, this study was designed to explore (a) the nature of external uncertainties that two apparel businesses face, and (b) the response strategies to such external uncertainties adopted by these firms. To achieve these objectives, we first discuss the hyper-dynamic nature of the global apparel industry since the unique market environments could offer specific contexts for this study. Secondly, we describe businesses' various response strategies, such as coping and reduction, which can lead to any business's success or failure. Lastly, strategic choice theory is discussed, as different businesses choose different strategies when dealing with external uncertainties. The research gaps and questions will follow after the literature review.

Literature Review

The hyper-dynamic nature of the global apparel industry

Due to the volatility of demand and a fiercely competitive environment, the global

apparel industry has become the most fragmented and globalized industry (Kilduff, 2005). The apparel supply chain is dispersed throughout the globe where developed countries produce knowledge-oriented and technology-intensive activities, while developing countries are involved in labor-intensive and manufacturing-oriented activities (Ha-Brookshire & Dyer, 2009). It has thus become more difficult to manage all the activities of the global apparel supply chain simultaneously. Hence, Ha-Brookshire and Dyer (2008) conceptualized the apparel industry as "hyper-dynamic," with an extremely difficult-to-predict environment, which in turn results in a higher level of external uncertainty. Consequently, this can jeopardize the performance of the global apparel supply chain, resulting in deficient processing capacities and ineffective control actions (Van der Vorst & Beulens, 2002). Thus, this unique situation of the global apparel industry offers a fertile ground for investigating the nature of external uncertainties and response strategies adopted by businesses.

Supply chain uncertainty

Supply chain uncertainty is defined as a supply chain decision-making situation that emerges from insufficient information about the supply chain and its volatile and complex environment, in which firms are unable to predict the impact of possible control actions (Van der Vorst & Beulens, 2002). Christopher and Holweg (2011) state that supply chains have become too turbulent to predict outcomes, and they will only increase in complexity in the future as they becomes more fragmented and globalized. Therefore, many organizations expect that their vulnerabilities will increase (Sanchez-Rodrigues et al., 2008). The inability to analyze supply chain uncertainties can result in serious repercussions to a firm's performance (Frynes, Burca, & Marshall, 2004). Due to the interdependence of the supply chain's activities with other business functions, the failure of one part of the supply chain can lead to destabilizing the workflow in other areas, thereby jeopardizing the overall effectiveness of the supply chain (Christopher & Holweg, 2011).

Hence, there is a growing scholarly attention to supply-chain-related decisions, in-depth knowledge of uncertainties, and the risks involved (Hendricks, Singhal, & Zhang, 2009). Turner (1993) emphasized that the events driving external uncertainty and changing trends could generate both opportunities and threats for individual organizations and supply chain management. Miller (1992) asserted that political, economic, environmental, and social uncertainties were intertwined in such a way that one or all external uncertainties could have an impact on the apparel supply chain. Similarly, Chi, Kilduff, and Dyer (2005) concluded that the competitiveness of a national industry is determined by a complex combination and interaction of economic, technological, social, and political factors.

External uncertainty

Extending previous research, Simangunsong et al. (2012) address three categories of supply chain uncertainty: uncertainties that come from the focal company, internal supply-chain uncertainty, and external uncertainty. Much research into the specific sources of supply chain uncertainty from internal manufacturing processes or demand-side issues has been conducted. The research has also shown that external uncertainty can disrupt all or part of a supply chain's operations because its operations are interdependent (Miller, 1992). Specifically viewing this interdependency from the external uncertainties perspective, Merschmann and Thonemann (2011) observed that manufacturing companies that matched supply chain flexibility and environmental uncertainties performed better than companies that did not. In the case of automotive suppliers, Sanchez and Perez (2005) reinforced that high-performing companies facing high external uncertainties respond with high supply chain flexibility. Li and Lin (2006) also found that the external uncertainties affected the positive role of supply chain integration.

External uncertainties in the global apparel industry

Political uncertainty refers to government policies and societal instabilities that adversely affect the general business environment (Van Wyk, Dahmer, & Custy, 2004). Howell and Chaddick (1994) define political uncertainty as "the possibility that political decisions, events, or conditions in a country will affect the business events such that investors will lose money or will have a reduced profit margin" (p.71). From 1974 to 1994, the multi-fiber agreement (MFA) led to unintentional outcomes for the U.S. apparel industry, such as the exponential growth of globalization and the emergence of Southeast Asia, Central America, and Eastern Europe as global production centers (Dickson, Loker, & Eckman, 2009). On the other hand, the United States experienced vast economic growth during the North American Free Trade Agreement (NAFTA) period by opening import and export trades with Canada and Mexico (Dickson et al., 2009). Past trade agreements resulted in the rapid growth of globalization, offshore sourcing, cost reduction for manufacturing, and the emergence of Brazil, Russia, India, and China in the global apparel industry (Dickson et al., 2009).

From the perspective of social uncertainty, it has been observed that the apparel industry is the most labor-intensive industry and has consequently been affected by social issues and problems including sweatshops, low wages, and unsanitary working conditions (Dickson et al., 2009). Social uncertainty is interrelated with demand uncertainty, which depends on the extent of the change and unpredictability of the customers' demands and tastes (Li & Lin, 2006). As consumers are becoming more knowledgeable about what they consume and how products are made, those problems in the apparel industry trigger social movements against companies that are involved in abusive and unfair labor practices (Doorey, 2011). Owing to these kinds of social pressure, the apparel industry has had to restructure its supply chain management strategies. Social uncertainty occurs in contexts characterized by social unrest, riots, demonstrations, or small-scale terrorist movements. Social uncertainty can develop into threats to the government or direct appeals to business for reformation (Miller, 1992). For instance, during the late 1990s, a private movement emerged requiring corporations to disclose the identities of their global supplier factories, and Nike® and Levi's® started to disclose their supplier lists (Doorey, 2011).

Environmental uncertainties are associated with unanticipated, harmful effects to the environment resulting from the production or consumption of a company's product (Miller, 1992). Textile dyeing and finishing processes, for example, are known to be the most chemical-intensive operations, releasing approximately seventeen percent (17%) to twenty percent (20%) of industrial water pollutants (Kant, 2012). As for consumers, their consumption leads to the disposal of 68 pounds per year of clothing and textiles for a total of of 4 million tons to U.S. landfills annually (Dickson et al., 2009). In response to these environmental pressures, Patagonia® has redesigned their production to be energy efficient and to use environmentally responsible materials (Dickson et al., 2009), while American Apparel tried to reduce its environmental impact by using products made from one hundred percent (100%) USDA Certified Organic and pesticide-free cotton.

Economic uncertainty refers to the general condition and structure of a country's macro-economy, interest and foreign exchange risks, and volatility of a currency in its exchange rate with major currencies (van Wyk et al., 2004). The recession had severe effects on the apparel industry, which faced numerous factory shutdowns and an increased unemployment rate (Saheed, 2011). The economic crisis of the 2008 recession in the United States—the most severe economic crisis since the Great Depression of the 1930s—spread out to other major industrialized and developing economies, which have reported 60,000 jobs lost and 44 textile plant closures (Saheed, 2011). In 2009, in addition to U.S. apparel

exports being cut by nearly thirteen percent (12.8%), the recession affected all aspects of supply chains worldwide, with closures of offshore suppliers numbering in the thousands, a significant rise in the unemployment rate, and a decline in foreign direct investment (Saheed, 2011). Figure 1 illustrates the conceptual model of the relationship between external uncertainties and firms' response outcomes.
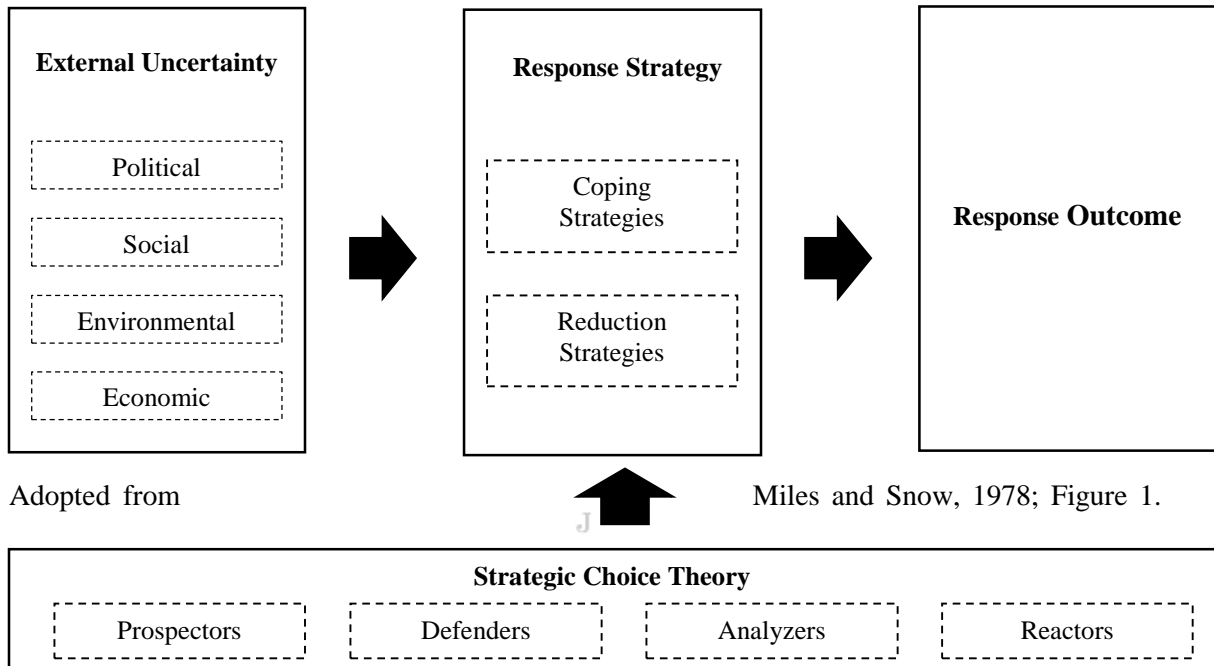

Figure 1. The Conceptual Model of the Relationship between External Uncertainties, Response Strategy, Response Outcome, and Strategic Choice Theory. Simangunsong et al., 2012,

Response Strategies

The literature suggests that businesses could adopt reduction or coping strategies to respond external uncertainties (Simangunsong et al., 2012). Coping strategies are considered appropriate as they provide flexibility, postponement, and information sharing systems (Simangunsong et al., 2012). Postponement strategies help by delaying decision-making until more information becomes available, when uncertainties could be reduced or even eliminated (Yang et al., 2004). Additionally, Van Wyk (2010) highlighted the importance of easing political uncertainty by sharing information with external stakeholders, such as political organizations, local businesses, consumer groups, and non-government organizations (Van Wyk et al., 2004).

Reduction strategies are also often used to reduce the degree of uncertainty (Simangunsong et al., 2012). Examples of reduction strategies are lean operations, collaboration, the use of information and communication technology (ICT system), and redesigning chain configuration and/or infrastructure (Simangunsong et al., 2012). Wong, Boon-Itt, and Wong (2011) argued that the internal sharing of information provides reliability of purpose and collaboration across functions, allowing workers to focus on cost reduction and quality improvement, and Van der Vorst and Beulens (2002) agreed that inaccurate and outdated information could lead to higher degrees of uncertainty. To reduce these uncertainties, businesses could share the risks through bilateral and multilateral agreements

throughout the supply chain (Van Wyk, 2010).

Strategic choice theory

Based on three interrelated problems—entrepreneurial, engineering, and administrative problems—Miles and Snow (1978) argued that businesses can make different strategic choices to align their activities with the surrounding environmental situations. The first of these choices—that of the prospector—adapts to a turbulent environment by using high levels of environmental scanning. Second, the defenders concentrate on efficiently producing and distributing a stable portfolio of goods/services in a stable and predictable environment. Third, the analyzers combine aspects of both defender and prospector. Fourth, the reactors lack a consistent context-structure-strategy alignment, as they often do not have clearly articulated strategies, with a low level of environmental scanning and structure.

The strategic choice theory has been empirically tested by Doty, Glick and Huber (1993). Doty et al. found that a business's strategic choice profile was the most powerful predictor of its organizational effectiveness. More recently, Shook, Adams and Ketchen (2009) found that, in some situations, organizations will respond to any one or two of the strategic choices based on organizations' contexts, structures, and strategies to achieve effective outcomes. The strategic choice theory can be easily adopted for apparel businesses. For example, by promoting an everyday-low-price strategy through efficient supply chains, Walmart is taking a "defender" position, while Forever 21, a U.S. fast fashion retailer, is taking a "prospector" position to reduce lead time and increase quick response to ever-changing consumer demands (Ha-Brookshire, 2015).

Outcomes of response strategies

The results of businesses' response strategies to various external uncertainties are manifested through certain outcomes. Some outcomes can be measured objectively, such as cost reduction, productivity growth, or less-then-expected sales loss (Gopal & Thakkar, 2012). However, others, such as a long-term relationship with buyers, increased reputation, and improved worker satisfaction, are considered subjective yet important outcomes (Gopal & Thakkar, 2012). Thus, various performance outcomes may result.

Research gap and objectives

Given that apparel businesses operate in hyper-dynamic market environments with high external uncertainties, an understanding of how these businesses interpret and respond to such uncertainties may help other businesses that face comparable external uncertainties. Previous studies have suggested a broader view of external uncertainties and of how businesses respond to external uncertainties at a macro level. Therefore, in-depth knowledge of these firms' daily struggles and strategy-shaping discussions at the firm level is limited. To help close this gap in our understanding, this study was designed to explore how firms respond to external uncertainties by investigating two distinctly different businesses within the global apparel supply chain using the supply chain uncertainty and strategic choice theory perspectives. More specifically, three research questions were formulated: (a) what is the nature of external uncertainties faced by apparel businesses in the past 10 years?; (b) how did these businesses respond to that external uncertainty from both opportunity and threat perspectives?; and (c) what are the characteristics of the outcomes of these businesses' response strategies to external uncertainties?

Case Study Method

The case study approach is an applicable method for the purpose of probing how and why certain conditions arise, particularly when factors external to the case may be significant and boundaries are blurred (Boyle, Humphreys, & McIvor, 2008). This approach also provides an analytical frame within which the case illuminates and explicates (Thomas, 2011). Furthermore, the case study approach helps produce an in-

depth understanding of a specific topic by "examining a contemporary phenomenon in its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (Li, 1981, p. 59).

Researchers can classify different types of cases as key cases, outlier cases, and local knowledge cases. A key case refers to a classic or exemplary case due to the inherent interest of the case or the circumstances surrounding it (Thomas, 2011), helping to explore a significant phenomenon under rare or extreme circumstances (Eisenhardt, 2007). Outlier cases reveal more information than the potentially representative case because researchers intend to find something interesting from other usual cases (Thomas, 2011). Local knowledge cases can be chosen to explore personal experiences and the related knowledge about which the researcher wants to learn more (Thomas, 2011). For the purpose of this study, key cases were chosen to highlight the particular phenomenon under the rare and extreme circumstances of the hyper-dynamic global apparel industry.

Given that most manufacturing of the apparel industry is done in developing counties such as Cambodia, Bangladesh and Vietnam, while apparel importers are in developed countries like the U.S., this study aims to show two unique key cases' ways of responding to external uncertainties. Each case represented one of the most fundamental parts of the global apparel supply chain—an apparel manufacturer in Cambodia, Cambodia Apparel Manufacturing (CAM, a pseudonym), and an apparel import intermediary (AII) in the United States, Midwest Apparel Importer (MAI, a pseudonym). They both operate in the global marketplace and are therefore likely to be impacted by similar external uncertainties. However, differences in their uncertainty management were expected to be great, as they are based in two different countries. Further, one is an apparel manufacturer who supplies products to buyers in developed economies, and the other is an intermediary between manufacturers in developing countries and retailers in developed countries. As this study takes the approach of strategic choice theory, the two key cases chosen here are considered to be theory evaluative as they will illuminate significant differences along with the dynamics that are significant in those differences (Thomas, 2011). Table 1 shows the two key cases and participants' information.

Table 1. Two Key Cases and Participants' Information

Company Info	Cambodia Apparel Manufacturer (CAM)[1]	Midwest Apparel Importer (MAI)[1]	
Main products	Knitted and woven women's wear	Active wear and baseball caps	
Type of business	Apparel exporter	Apparel and cap importer	
No. of employees	Approximately 600	Approximately 130	
Years of establishment	1999	1995	
Main buyers	USA and Europe	USA	
Annual gross sales	US $2 million	US $150 million	
Participants Info			
Interviewee[1]	Chul Soo Kim[1]	Charles Washington[1]	Nancy Huang[1]
Current position	Plant manager	President and owner	VP of global operation
Years in the company	10	19	19
Years in the industry	35	45	23

Note. [1] All names are pseudonyms.

Data collection

To ensure multiple perspectives on the uniqueness of phenomena in the case studies, we collected data in spring 2014: (a) semi-structured, in-depth interviews; and (b) news articles and relevant literature related to specific sectors in which each company operates within the industry. First, the semi-structured in-depth interview was chosen because interview questions can be prepared ahead of time under the guiding theoretical frameworks and because it also allows interviewees the freedom to express their personal views in their own terms (Gillian & Cassell, 1998). Audio recordings of the interview conversations were made and transcribed. An interview with Washington, the founder and owner of MAI, and Huang, a senior VP of global sourcing, was conducted face-to-face, lasting approximately 120 minutes. Due to the close relationship between the interviewees and the research team, the entire interview was very conversational, reciprocal, and in-depth. Demographic questions were asked for the purpose of clarifying the respondents' expertise in the global apparel industry. Additional interview questions included "What was the most difficult, toughest thing that you as a company had to face that you couldn't control in the past 10 years?"—in order to explore the nature of external uncertainties that they had faced—and "Would you say more about your company's way of responding when you faced the situation? Did you feel any other pressure from your customers or the retailers?" —in order to explore their response strategies to such uncertainties. An example of a probing question was "You mentioned that the government is trying to mess up industry and everybody is striking and getting involved in labor issues. Can you tell me more about that?" This probing question was useful to explore the nature of the external uncertainties that the participants were experiencing. The interview with Kim, the plant manager of CAM, took place through Skype, lasting approximately 90 minutes. Although the interview platform was online, the researchers and Kim conversed in Korean, making it possible for them to gain an intimate understanding of a Korean apparel manufacturer operating in Cambodia, while at the same time dealing with buyers from developed countries.

The secondary data from the news articles provided information about the market environments and the economic, political, and social contexts in which the companies operate at a macro level. These secondary data were collected both prior to and after the interviews. For example, at the time of data collection, the collapse of the Rana Plaza in Bangladesh was found to be a significant incident that forced businesses in developed countries to reconsider their practices related to working conditions and building safety (Kenneally, 2013). After the interviews had been conducted, news articles and relevant literature related to particular external uncertainties mentioned by participants were further researched for the purpose of obtaining additional in-depth information. Overall, 23 pages of transcribed data and 7 news articles with over 7 government/trade association articles were surveyed.

Data analysis

All of these data were considered simultaneously at the time of data analysis. Four cycles of interpretation were conducted repeatedly to narrow the data down to three key themes, one for each research question (Ha-Brookshire & Dyer, 2008). The four cycles consisted of an intratext cycle in which the interview was read entirely for a holistic view of the complete interview and its initial themes, an intertext cycle of analysis for detecting the emergence of similarities and differences across interviews, a cycle investigating the interactive movements between the intratextual and intertextual interpretations to reflect on the previously analyzed interview text with the newly emerged understandings of the themes, and a final holistic interpretation cycle to identify the final interpretive themes related to the research questions. To gain in-depth

understanding of each key case, the hyper-dynamic nature of the global apparel industry in Cambodia and the United States was analyzed first, then the nature of CMA's and MAI's external uncertainties were reviewed. Each case's response strategies to external uncertainties were interpreted within strategic choice theory, followed by analysis of the outcomes emerging from those response strategies.

Interpretation

The hyper-dynamic nature of the global apparel industry

Cambodia's apparel manufacturing industry. The Cambodian economy is greatly dependent upon the apparel industry, which represents eighty percent (80%) of the country's total exports and accounts for US$4.5 billion ("Better Factories Cambodia," 2014). The United States and the European Union [EU] are the two major trading partners for Cambodia, accounting for seventy percent (70%) and twenty five percent (25%) of its total exports respectively (Asuyama & Neou, 2012). Through incentives and a favorable investment climate to attract foreign investments since the 1990s, today ninety percent (90%) of apparel manufacturers are foreign-owned, based mostly in China, Singapore, South Korea, and the United States (Asuyama & Neou, 2012). Apparel manufacturers in Cambodia have relatively less power compared to buyers in developed countries due to the deadly competition among manufacturers in the global marketplace (Ha-Brookshire & Dyer, 2008). Unlike its competitors in Bangladesh and Vietnam, the apparel industry in Cambodia is not vertically integrated and is limited to low value-added activities with a lack of design and marketing skills (Bastle et al., 2013). Thus, apparel manufacturers in Cambodia face tremendous pressures to compete against other suppliers and to produce products at a lower price.

Although Cambodia's factories have made incremental improvements in the past decade, major challenges still remain that require greater effort in examining working conditions and addressing the causes of problems. In an attempt to improve the conditions of workers, the International Labor Organization (ILO) independently monitors and reports on working conditions, labor standards, and labor law (Asuyama & Neou, 2012). Furthermore, the Better Factories Cambodia program has proposed incentives to major the U.S. brands, including Levi's, Gap, Wal-Mart, and Disney, to purchase apparels "made in Cambodia" ("Better Factories Cambodia," 2014).

U.S. Apparel Import Intermediaries

The apparel industry is an important contributor to the U.S. and world economies. As the apparel industry has expanded steadily in trade volume, there has been a significant shift to offshore sourcing and manufacturing in low-cost locations. From 1979 to 2013, U.S. imports of apparel products have grown from US$2.4 billion to US$117.5 billion (Office of Textiles and Apparel, 2014). Almost fifty three percent (52.5%) of world apparel products were manufactured and exported by five leading suppliers: China, Bangladesh, Turkey, Vietnam, and India ("World Trade Organization," 2014). In the past, the U.S. apparel industry was dominated by apparel manufacturers, concentrating on manufacturing and export-oriented activities (Ha-Brookshire & Dyer, 2009). Today, the U.S. apparel industry is controlled by retailers who source apparel products directly or through intermediaries in the global marketplace (Kilduff, 2005). The U.S. apparel supply chain has thus become extremely influential in its dealings with numerous apparel components producers located in countries across the globe (Kumar & Arbi, 2008).

Over ninety five percent (95%) of apparel products are made outside of the United States and imported, with only a small portion of the apparel in the marketplace being made within U.S. borders (Ha-Brookshire & Dyer, 2009). In other words, a number of the leading apparel companies rarely produce products in-house, instead utilizing an import intermediary in order to survive in the hyper-dynamic environment of

the apparel industry. An import intermediary is defined as "a domestic apparel service firm that links domestic wholesalers/retailers and foreign distributors or manufactures to facilitate import transactions in the global apparel industry's transformation" (Ha-Brookshire & Dyer, 2009 p. 52). These intermediaries' activities include buying, importing, sourcing, and distribution, with special emphases on timely market research.

Overall interpretation

Figure 2 illustrates the conceptual model that emerged from the study data. First, this model describes the economic, social, and political uncertainties that the study cases highlighted. The two cases seemed to have had uniquely different paths to respond to such uncertainties, showing a coping and a transformational strategy. As a result, the two cases have shown dramatically different outcomes: one seems to see the future to be dire, while the other sees it to be hopeful.

The nature of external uncertainties

Previous literature addressed four categories of external uncertainties—political, social, economic, and environmental (Simangunsong et al., 2012). However, CAM and MAI referred to economic and social aspects of external uncertainties as the most influential external uncertainties, which later extended into social uncertainties. This was expected, as political, economic, environmental, and social uncertainties are intertwined in such a way that one or all external uncertainties could have an impact on the apparel supply chain.
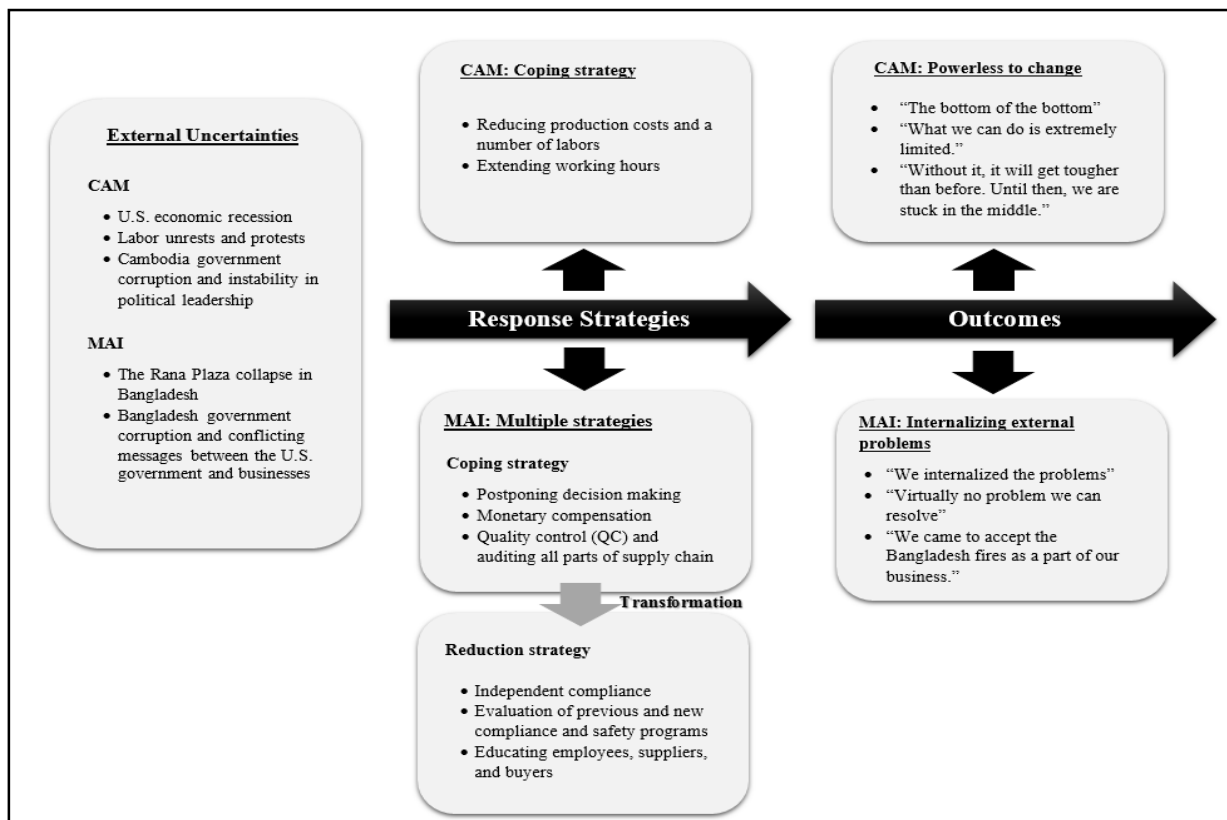

Figure 2. The Conceptual Model of Businesses' Response Strategies to Uncertainties, Based on Study Findings. Note. CAM = Cambodia apparel manufacturer; MAI = Midwest apparel import,

The perspective of CAM

Three major external uncertainties surfaced: (a) "double misery" as an economic uncertainty; (b) the "ever-increasing voice of labor" as a social uncertainty; and (c) an "untrustworthy Cambodian government" as a political uncertainty.

"Double misery" as an economic uncertainty describes CAM's suffering from both increasingly low-margin sales prices and a decline in total orders, which together severly impacted CAM's profits during the U.S. economic recession from 2007 to 2008. According to Kim, the U.S. economic recession reduced the company's overall profits by fifty percent (50%) because Kim "only received seventy percent (70%) of the usual number of orders at seventy percent (70%) of the previous year's price." This finding was consistent with a news report from the Report of the South Centre (2010), stating economic activities in developing countries in 2009 fell by amounts ranging from eight percent (8.3%) to two percent (1.7%). The Cambodian economy was also vulnerable to this economic recession, as its exports decreased by twenty one percent (20.6%), and the majority of that decline occurred in the apparel export sector, resulting in the shutdowns of 65 apparel manufacturing factories and 49,000 jobs lost in 2009 (Khin & Kato, 2010). CAM was not an exception to this economic pressure on a global scale. To Kim, maintaining production lines was a matter of "survival," so he had to beg for the orders even at "seventy percent (70%) of last year's cost":

> *Kim:* Production lines did not operate for periods. It was difficult to survive without savings from the previous year's profits. Therefore, when buyers contacted us for future orders, we had to beg them [for] cheaper prices.

The *"ever-increasing voice of labor"* as a social uncertainty describes the current situation in which Cambodian labor unions and factory workers create a social movement, demanding labor rights and high wages at the same level as that of the developed countries' standards (Kenneally, 2013). The whole country of Cambodia was under raging protests, demanding a "one hundred percent (100%) increase" over the most recent wage. According to Kim, "laborers' minimum wage recently went up from US$60 to US$80. However, laborers are asking for a one hundred percent (100%) wage increase, up to US$160. There are absolutely no countries in the world to do that." This is consistent with reports from a news article from Sourcing Journal Online (Kenneally, 2013), which observed that, since July 2013, over 300,000 apparel workers in Cambodia had participated in 131 strikes asking for higher raises. During this period, the Cambodian apparel industry reported estimated losses of more than US$250 million in sales and investment (Chen, 2014). From a financial perspective, Kim could not accept laborers' demand for the one hundred percent (100%) wage raise. However, at the same time, he needed these workers to keep the factory open and fulfill buyers' orders. Kim therefore had to "compromise on these problems because it was impossible to operate production lines without them [workers]."

An *"untrustworthy Cambodian government"* as a political uncertainty describes the Cambodian government's corruption and the instability of its political leadership. According to the Xinhua News Agency (2013), Sam Rainy, the president of the Cambodia National Rescue Party, led daily protests against Prime Minister Hun Sen's government since December 2013, promising to raise wages to US$160 per month. This type of political dispute raises uncertainty even higher for factory managers like Kim. If Rainy wins, Kim would have to pay US$160 per worker. If Rainy loses, Kim may still be able to keep the wage at US$80. According to Kim, because CAM as an individual factory "has no authority to change it but must follow what they [the government] command," who gets elected will be a critical factor for CAM's future business operations.

The perspective of MAI

Two major external uncertainties surfaced: (a) the "unexpected consequences of a very sad disaster" as a social uncertainty; and (b) "can we trust each other again?" as a political uncertainty.

The *"unexpected consequences of a very sad disaster."* The Rana Plaza collapse was considered the single biggest source of social uncertainties that both Washington and Huang had experienced in the past 10 years. According to Washington, this particular disaster was so severe that "it created a lot of focus on not only a factory but the entire industry." Washington pointed out that many apparel companies and brands in Europe and the United States were consequently highly criticized for their lack of responsibility. *The New York Times (2013)* reported approximately 27 apparel companies in Europe and the U.S., including Walmart, Benetton, Mango, and the Children's Place, were sourcing their products from factories in the Rana Plaza. Acccording to Huang, this triggered workers in other countries with similar apparel manufacturing sectors, such as Cambodia and Thailand, to protest for better working conditions and wage increases. A single factory's collapse thus set off a domino effect resulting in labor unrest in the region.

The Rana Plaza disaster unearthed the apparel industry's dirty wound created between poor laborers and working conditions in developing countries and the superpower global retail businesses that profit from them. Many businesses from the EU and the U.S. have tried to resolve this issue by requesting monetary support, such as a contribution of US$8 million by Children's Place, US$16 million by Walmart, and US$16 million by Benetton ("International labor rights forum," 2014). MAI was also asked by one of its major buyers to provide a monetary contribution of US$15 million, according to Huang. However, Washington raised a fundamental question regarding this very sad disaster:

> *Washington:* When the collapse of the Rana Plaza happened, it introduced an entire area that nobody had really paid attention to before. That is, building safety. Not just health and safety for chemicals and standard things. But, we had to ask, "How do you know the buildings are not going to fall down?"

The question *"Can we trust each other again?"* as a political uncertainty relates to the Bangladeshi government's corruption and to the conflicting messages between the U.S. government and U.S. businesses. According to *Forbes* (Ayres, 2014), the Bangladeshi government is deeply involved in the apparel industry, and its industry is often corrupted by factory owners' agendas, which results in a lack of trust among laborers. Washington shared that "government parliaments are in charge of the whole country and thirty percent (30%) of members are factory owners. The biggest organization, The Bangladeshi Government and Manufacturing Exports, is all subsidized by the governors." Therefore, "phony building or construction certificates" are easy to find and, according to him, the Rana Plaza building collapse was bound to happen.

At the surface level, the U.S. retailers and brands have appeared to be helpful for labor conditions in Bangladesh. *Forbes* (Ayres, 2014) reported that these retailers formed various organizations and programs such as trade preference programs for Bangladesh under the Generalized System of Preferences, the Bangladesh Sustainability Compact, and factory inspection and problem remediation programs. Despite these efforts, Huang was not sure whether these programs would truly help Bangladeshi labors because she is unsure as to which standards would be better and more helpful for them. She asked, "What is the standard? I cannot use the American standards there, right? In the U.S.A., we have four safety codes. However, I don't know how many codes are in Bangladesh." To make matters even worse, Huang stated that Bangladeshi laborers do not trust the U.S. government, as she was told by her close factory workers, "the American government is supporting the opposition party [the labor party] in Bangladesh. You

[the U.S. government] are actually causing trouble here. They don't know who to trust, and we don't know which standards and certificates to trust."

Response strategies

The perspective of CAM

Two major responsive strategies surfaced: (a) the "short term," quick solution; and (b) the "impossible outlook," a hopeless point of view.

"Short term" seemed to be a quick solution to survive the "double misery" of the U.S. economic crisis. Kim shared that "the easiest way to resolve problems was to cut off laborers in order to decrease labor costs." This approach was consistent with Simangunsong et al.'s (2012) uncertainty reduction strategy in that his goal was to survive while he could in a given situation rather than doing something that would eliminate uncertainties. Kim's reduction strategy was to stay within the boundaries of the labor standards by extending working hours from 8 hours to 10 hours with overtime pay. However, Kim was not to go over any boundary to operate the factories because his primary goal was to maintain CAM by producing orders in a timely manner. After all, he did not want to be "perceived to be abusing human rights." Based on how CAM responded to external uncertainties, CAM took a "reactor" position as a matter of survival.

> *Kim:* This is a normal situation for factories to encounter. Only less than ten percent (10%) of factories could satisfy such standards; therefore, many apparel manufacturing factories have been closed down. In reality, it was impossible to produce more quantity to export to those buyers' countries if we were to follow their own standards.

Kim's *"impossible outlook"* for his factory deemed the situation to be "hopeless." As apparel manufacturing factories in Cambodia become more competitive, Kim added, "buyers require low prices, but they also demand human rights on the other hand." Without compromises on either prices or human rights from buyers' countries, the only way to deal with this request at the factory level is to reduce production costs. Kim mentioned that strategic long-term planning and effective business strategies are impossible to actualize at the factory level because apparel manufacturing factories like CAM constantly deal with the "matter of whether you survive or perish." From Kim's perspective on the "hopeless" long-term outlook, CAM again seemed to take the "reactor" position.

> *Kim:* If the U.S. emphasizes human rights for underdeveloped countries, we have no other choice but to follow. On the other hand, if buyers put a great emphasis on human rights paying double for one garment, factories will have more profit to honor labor standards. But, it will never happen, and factories will never have enough money to do what they ask us to do. Therefore, factories have to accept hardships and problems whether they like it or not as long as they are in this business.

The perspective of MAI

Two major responsive strategies surfaced: (a) "reactive," to observe and analyze the situation; and (b) "proactive," to solve the 'now what?' question.

"Reactive" response strategy relates to MAI's initial reaction to cope with external uncertainty by observing and analyzing the situation. After the collapse of the Rana Plaza, The New York Times reported that some of the basic responsibilities, such as immediate factory audits nationwide, were demanded by U.S. and Europe's brands and retailers such as Walmart, H&M, Gap, Benetton, Children's Place, and Mango (Manik & Yardley, 2013). To protect businesses' interests and the flow of the inventories, MAI observed how U.S. brands responded to this disaster. The U.S. businesses set up a fee of US$15 million dollars to be paid by major retailers and

brands for the Bangladeshi building collapse and for further compensation for victims, according to Washington. During that period, MAI also analyzed their commitment and the future of their businesses to see if they ought to stay in Bangladesh or not. In this light, MAI's initial response seemed to have been to take the "analyzer" position.

> *Washington:* We didn't realistically feel that products that were there could be moved to other countries. So, we weren't going to cut and run… And if you are going to be there, then what is the risk? A single negative publicity could wipe you out of the market. So, we felt there was no choice but to do the right thing.

To implement this decision, MAI sent quality controls (QCs) to the factories in Bangladesh. MAI's QCs checked compliance issues ranging from labor issues to building safety issues. Through this process, Huang and Washington learned that "compliance is not just a job. It is going back to the most fundamental question for all of the people involved in the process. It encompasses multifaceted perspectives from the factory side, product safety, and so on." Washington added, "It isn't just your garment makers. It really goes out to other suppliers, such as buckle, snap, and zipper makers." This suggested that MAI seemed to have begun transitioning from an "analyzer" to a "prospector."

"Proactive" response strategy describes MAI's active and strategic responses, going beyond what was required in order to do business in Bangladesh. After the Rana Plaza collapse, *The Huffington Post* reported that retailers gathered to arrange two separate pacts, the Bangladesh Accord on Fire and Building Safety and the Alliance for Bangladesh Worker Safety (Bhasin, 2014). Beyond these acts, MAI first actively explored ways, such as labor and building compliances and audits, to prevent further problems. Reaching out to an independent compliance group, MAI signed for all factories that they worked with in Bangladesh to be screened for safety, focusing on fire, electrical, and construction hazards. Consequently, Huang was able to take steps to assure facility safety. If factories did not have government certificates, such as the Employee State Insurance Corporation certificate (ESIC) and the Fire certificate, MAI terminated contracts with them, increasing its difficulties in finding qualified factories.

Second, according to Washington, MAI sought a better way to improve factory compliance and safety by renewing the previous year's programs and evaluating new programs for the coming year. Third, MAI was heavily involved in educating their buyers about the limitations and coverage of factory audits, as well as the weaknesses and restrictions of existing structural building licenses and certificates. MAI also educated the suppliers about the importance of factory audits and of complying with various certificates and requirements. Huang commented, "We had to constantly explain to them [both U.S. retailers and Bangladeshi factories], talk through different people about different aspects of audits and compliances." According to Washington, "the best that we can do is to make ourselves knowledgeable about what is likely to happen, so that we can anticipate in our planning." These proactive strategies to respond to the Rana Plaza collapse seemed to have forced MAI to take the "prospector" strategy:

> *Washington:* We are evaluating what type of programs [audit programs] we have for this year. It is kind of 'having done it last year doesn't mean we are done.' We really feel the need to overview the whole production plan this year again. (…). When you are dealing with distance, you are going to have them. So, not to brace against them but accept, that is a part of our business, and learn from everyone.

Outcomes

CAM is powerless to change as it is stuck in the middle

Based on the external uncertainties in Kim's description, CAM's response seemed to be a strategy of reduction of labor and production costs to survive in marketplace, focusing on short-term benefits. Without power to control the situation, Kim seemed to be stuck in the middle amongst buyers' force, labor's demand, and unstable governments. After all, Kim confessed, "what buyers asked for was putting more pressures on factories. Our garment factory is the bottom of the bottom, so what we can do is extremely limited." Kim also shared that he feels he is trapped between the labor unions' strikes and Cambodia's labor laws because "in any case, if we do not offer minimum wage as the government has set, laborers will not cooperate. Hence, the factory itself will vanish. Also, it is breaking the labor law." In addition, the Cambodian government's inability to maturate free trade agreements with other developed countries made Kim feel that "the factories in Cambodia will definitely get better if the free trade agreement with the U.S. gets enacted. Without it, it will get tougher than before. Until then, we are stuck in the middle."

MAI's internalization of external problems as their own problems

Throughout MAI's response strategies, in which it started as an analyzer and became a prospector, Washington and Huang shared that MAI became stronger internally so that it could even extend its arms to others in the supply chain to cope with external uncertainties. MAI was constantly looking for ways to improve and to control the supply chain from suppliers to customers. Eventually, what was an external issue became an internal problem to solve, according to Washington:

> *Washington:* It is definitely better today than it was before. I would internalize the problems. I figured out that there was virtually no problem we

can resolve. So, we came to accept the fires as a part of our businesses.

Conclusions

From the supply chain uncertainty and strategic choice theory perspectives, this study was designed to provide an in-depth understanding of two distinctly different business cases. By collecting data from three sources—semi-structured interviews and relevant literature and news articles—this case study highlighted a few external uncertainties that put extreme pressures on two businesses. Decreasing manufacturing orders from developed countries, decreasing profits, rising labor costs, and inconsistent/untrustworthy government policies were the major external uncertainties that a Cambodian apparel manufacturing company is currently facing. In the case of a U.S. apparel import intermediary, the company seems to face uncertainties as to how much responsibility the company must bear to avoid any future problems such as the Rana Plaza disaster in 2013. The inconsistent government support for the Bangladeshi apparel manufacturing industry was also a significant external uncertainty. The Cambodian apparel manufacturer was coping with these uncertainties by taking the reactor role within the industry, while the U.S. apparel import intermediary seemed to have transformed these external uncertainties into their own internal problems by taking the prospector approach. Consequently, the future seems to be dire for the Cambodian apparel manufacturer, while it looks brighter and stronger for the U.S. apparel important intermediary.

The results of the study offer important contributions and implications. First, the study results are one of the few opportunities to observe business managers' and leaders' internal struggles and reflections on how to deal with external uncertainties that are beyond their control. This type of in-depth, personal, and close observation of business activities is not readily available through quantitative research. The study findings put a voice to today's businesses that go through various external pressures and try to navigate

the challenges without having much external help. Thus, the study's findings may help researchers better understand today's businesses through qualitative inquiries.

Second, by presenting the intimate statements of business managers and leaders, the results may help other similar businesses that undergo similar conflicts from external environments. Dealing with external uncertainties is an everyday business activity. One might take ownership as MAI did here, or blame outside forces and give up as CAM did. Perhaps apparel manufacturing businesses similar to CAM could strengthen their powers and positions in the global supply chain by forming associations and/or agreements to share resources with each other. U.S. apparel import intermediaries like MAI could strengthen internally through training or education so that they can better accept and help solve suppliers' problems as well as have more control over external uncertainties.

Third, the study's findings have made possible a partial understanding of businesses' pressures and responses in the turbulent environment of the global apparel industry. This leads to the understanding that current issues of external uncertainty significantly impact not only one part of the supply chain but the whole. By understanding businesses' responses to external uncertainties, the findings show how important global market environments are for the everyday work done by most businesses. The findings also help students picture what the everyday business environment is like so that they can prepare for future job requirements.

Fourth, the study's findings also showed that businesses do go through different strategic choice development. The weak player in the marketplace, CAM, decided not to make any changes in light of external uncertainties. CAM started as a reactor and still plays as a reactor. Meanwhile, the competent player, MAI, was able to transform itself from an analyzer into a prospector in order to effectively deal with external uncertainties. The example of MAI was consistent with Doty et al.'s (1993)

observation that businesses may change their strategies while their businesses progress in order to be the most optimal players in the marketplace.

Finally, the study findings on MAI have important implications for supply chain management theory. First, the results showed that a business can take a "transformation strategy" in responding to external uncertainties. The existing theory on supply chain uncertainty management suggests either coping or reduction strategies (Simangunsong et al., 2012). In this study, MAI showed that their response strategies are beyond coping with or reducing external uncertainties. They transformed the external uncertainties into internal matters in order to eliminate such external uncertainties in the future. The findings therefore suggest that uncertainty researchers may want to consider transformation as another key response strategy that businesses could potentially take. Second, the power that supply chain members can exercise over external supply chain partners can also be included when evaluating response strategies. Depending on where a business or firm is located within the global supply chain spectrum, the way it responds to external uncertainties may be different. A lack of power may force a firm, such as CAM, to be reactive, while greater power may help a firm, such as MAI, to be more proactive toward external uncertainties.

Due to the exploratory nature of the study, this study has limitations and, therefore, points to future research opportunities. First, this study was conducted taking the case study approach to two distinctly different key cases in the global apparel industry. Although the two key cases clearly revealed the different roles of strategies that businesses are adopting against external uncertainties, the findings are heavily grounded from the leaders' views on external uncertainties that the two cases are currently facing. Therefore, these results should not be generalized to the whole population of the industry. Thus, future research that could enhance generalizability could be done empirically. Further research analyzing the topic in different parts of the

global supply chain would also be fruitful for our understanding. Second, this study explored two key cases that are independently operating from each other within the apparel supply chain. Hence, future research is recommended to see how two companies in the same supply chain independently and jointly deal with uncertainties. Third, a power imbalance between an apparel import intermediary and a manufacturer may exist, which can put them in different positions to respond to external uncertainties. So, future research could pursue impacts of imbalanced power between two businesses on external uncertainties.

Finally, the study findings are time and context sensitive, so interpretation of the findings must be done with caution. The data collection was done in January and February of 2014, when the Bangladesh Rana Plaza collapse was just a three-month-old story. Since then, labor riots have occurred throughout the developing countries. Thus, the study's results were heavily focused on labor and compliance issues. Interestingly, the company in either case did not mention the push for environmental sustainability. As environmental issues become critically important these days, future research can specifically explore environmental uncertainties in the global supply chain. Further studies are recommended in different times and contexts to see how these businesses respond to different types of external uncertainties.

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