

The Adaptive Design Innovations that Catalyzed the Adaptive Apparel Market

Kerri McBee-Black, University of Missouri

The apparel global supply chain (AGSC) is fragmented and globalized, making it challenging to satisfy consumers' wants and needs. Global supply chain management is becoming critical to a brand's success in the marketplace (Ha-Brookshire & Hawley, 2013). Supply chain management (SCM) aims to achieve consumer satisfaction, create value, increase profits, and create a competitive advantage (Mentzer, 2004). Through SCM, consumer satisfaction may be gained by offering exclusive product lines (Gereffi & Frederick, 2010). Despite the focus on customer satisfaction, one consumer population, people with disabilities (PWD), has had their wants and needs ignored for decades (Kabel et al., 2016), making it difficult for them to find apparel satisfaction (Freeman et al., 1985). Nevertheless, PWD are a significant portion of the U.S. population, with approximately one in five people (Yin et al., 2018) living with a disability in the U.S. Moreover, this population's spending capacity is significant as the U.S. adaptive apparel market is predicted to grow to \$54.8 billion by 2023 (Coresight Research, 2019).

However, recently, fashion-forward apparel brands and retailers, like Target® and Zappos®, have recognized the lack of apparel availability and begun serving PWD. This increased interest seems to align with the launch of the first-of-its-kind adaptive apparel line for children formed from a partnership with Mindy Scheier, the CEO and Founder of Runway of Dreams (RoD), and Tommy Hilfiger®. However, how such a partnership helped launch the first-of-its-kind mainstream fashion-forward adaptive apparel line for children is unknown. Therefore, this study's research questions were: (a) how was supply chain integration possible during the launch of the first-of-its-kind apparel line was possible in 2016? (b) how such a launch catalyzed the subsequent adaptive apparel movement? and (c) what role did Scheier, the advocate, play in helping Tommy Hilfiger®, the innovator, manage, coordinate, and integrated its supply chain functions to accommodate PWD's needs and wants by offering adaptive apparel?

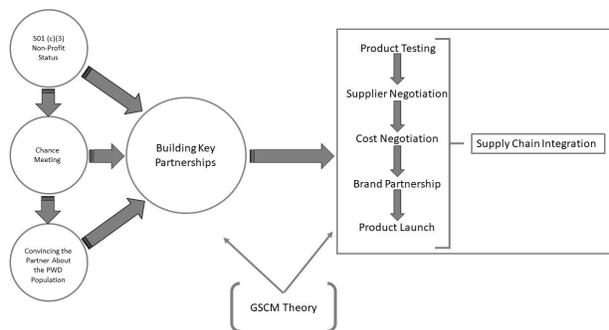
The purpose of this study was to gain an in-depth, holistic, and contextualized understanding of how Mindy Scheier, the advocate, collaborated with Tommy Hilfiger®, the innovator, to catalyze this adaptive apparel movement in the marketplace and how the AGSC was managed and negotiated to accommodate the design and production of adaptive apparel. To achieve this goal, the study used the global supply chain management (GSCM) theory to conduct a case study investigating how the AGSC was or was not impacted by introducing Scheier's adaptive design innovations into the apparel supply chain. Data sources used included semi-structured interviews, direct observation, and archival records. Overall, 191 pages of documents, 88 images, 65 pages of field notes, and 149 pages of published articles were reviewed, coded, and analyzed. Coding was conducted in three phases, with constant comparison to the research questions and theoretical frameworks guiding the study.

The data results revealed two themes (a) building key partnerships; and (b) supply chain integration. Within the building key partnership's theme, three sub-themes emerged to demonstrate the process taken to achieve the key partnerships. They include (a) 501(c)(3) non-profit status, (b) chance meeting, and (c) educating the partner about the PWD population. Within the supply chain integration theme, five process stages emerged (a) product testing, (b) supplier negotiation, (c) cost negotiation, (d) brand partnership, and (e) product launch. A theoretical interpretation of the data was possible using the GSCM theory, ultimately leading to a conceptual model. Figure 1 shows the two themes and how a key

partnership between Scheier and Global Brands Group (GBG), a supplier of Tommy Hilfiger®, provided the opportunity to test the supply chain for adaptive apparel integration.

Figure 1

Building Key Partnerships and Supply Chain Integration Conceptual Model



Building key partnerships – this theme addressed Scheier’s journey through failed attempts to connect apparel brands to adaptive apparel. After acquiring non-profit status and thus, gaining media attention that led to a chance meeting with a key partner in the apparel industry, Scheier was able to partner with a high-level sourcing agency, Global Brands Group (GBG). Scheier’s partnership with GBG required additional education as they were skeptical that Scheier’s adaptive design innovations could benefit the broader PWD market or that they could efficiently be implemented into the existing apparel manufacturing process.

Supply chain integration –The supply chain integration, as shared by Scheier, happened in five stages (see Figure 1 for the five stages). These five stages run parallel to the apparel supply functions discussed in the GSCM model in that they replicate the consumer and market research, creative design and product development, product testing and sample making, production and sourcing operations needed to bring adaptive apparel to the marketplace (Ha-Brookshire & Hawley, 2013). Scheier states that she took eight months to work with GBG to incorporate her adaptive design innovations and to coordinate the testing of magnets into the GBG manufacturing process. Once the manufacturing process was perfected GBG was able to introduce Scheier to Tommy Hilfiger® (TH) and it appears that TH recognized adaptive apparel as a core competency of the firm and helped the firm gain a competitive advantage.

The findings from this study suggest that an obstacle in introducing adaptive apparel into mainstream fashion was ensuring that the existing supply chain network could incorporate her adaptive design innovations without the need to restructure the supply chain functions. Specifically, Scheier had to create the prototypes and understand the needs for modification to solve the specific targeted consumer market's needs. Despite the contributions of this study, there are limitations that provide future research opportunities. First, the study's findings would have benefited from a multiple case perspective, including the apparel sourcing firm, GBG, and the adaptive apparel innovator, Tommy Hilfiger®, to understand better how the theories underpinning the study would have impacted their understanding and perspective of adaptive apparel and PWD.

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