



New Framework Proposal for Sustainable Textile and Apparel Education

Md. Rafiqul Islam Rana and Jung E. Ha-Brookshire, University of Missouri, USA

Keywords: sustainability, skills, curricula, higher education, undergraduate

According to the United Nations (UN) Bruntland commission: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987, p.8). The United States Environmental Protection Agency (EPA) (2017) stated that, to increase growth and global competitiveness, many companies are considering "sustainability" as a crucial objective in their strategy and, in many cases, these efforts are having compelling results. A report by Carbon Disclosure Project (CDP) stated that S&P 500 companies that build sustainability into their core strategies are economically outperforming than those that fail to show leadership in sustainability (Confino, 2014). According to Haigh (2005), “academics have the best chance to date for making the deep and radical changes that will be necessary if the world’s higher education institutions are to enact their responsibilities for creating a better and self-sustainable world.” Through their primary functions of education, research and outreach, universities can create new knowledge, contribute to developing skills and raise awareness towards sustainability issues.

To help achieve sustainability goals within the textile and apparel (T&A) industry, we propose that the three key business stages of ideation, negotiation, and implementation (Brentani, 2001) must be considered when developing textile and apparel curricula, and therefore, textile and apparel students will gain appropriate skills necessary to promote sustainability throughout these stages. According to Jonson (2005) “Ideation is the creative process of generating, developing, and communicating new ideas, where an idea is understood as a basic element of thought that can be either visual, concrete, or abstract.” Negotiation is a process by which compromise, or agreement is reached (Ha-Brookshire, 2015). Rouse (2015) defined implementation as the process that must follow any primary thinking, including ideation and negotiations, in order for something to actually happen. We believe that successful performance during all of these stages is critical for sustainability because no matter how good an idea toward sustainability might be, without successful negotiation and implementation, the new idea might not become fruitful, and vice versa. Figure 1 illustrates the conceptual framework for the skillsets required for sustainable textile and apparel business ideation, negotiation, and implementation.

During the ideation stage, creativity, critical thinking and reasoning, communication and collaboration skills (P21, 2017) could be incorporated when solving sustainability-related problems within T&A curricula. Stella McCartney's innovative waterless T-shirt is dyed using pressurized CO₂, rather than conventional water-based dyeing techniques. This solution was featured by the Council of Federations for the Designers of America as a sustainable innovation solution (Mower, 2016), which is a prime example of creativity and critical thinking in ideation. During the negotiation stage, problem analysis and preparedness, active listening, communication and interpersonal skill, emotional control, collaboration and teamwork, problem

solving, decision making, and reliability (Carrell & Heavrin, 2008; Thompson, 2000; Saner, 2000) could be emphasized when solving sustainability-related problems within T&A curricula. Recently, IndustriAll Global Union and UNI Global Union successfully negotiated a U.S.\$2.3 million settlement with a multinational clothing brand to remedy hazardous workplace conditions in Bangladesh; this is a good example where good negotiation helped achieve social sustainability in business from both workers' and companies' perspectives (Scarano, 2018). During the implementation stage, managing people, managing resources, setting organizational structure, establishing communication system and creating and valuing culture (Northhouse, 2015; Olsen 2017) could be considered when solving sustainability-related problems within T&A curricula. For example, Adidas, the largest sportswear manufacturer in Europe, goes substantially above industry norms by providing its suppliers a wage assessment tools. The assessment provided suppliers with measurements of the strengths and weaknesses of the wage-setting system and highlighted the important linkages between pay and skills, pay and company performance and the need for effective social dialogue in the workplace (Adidas, 2018). Again, such skills must be encouraged and infused throughout the curricula.

Table 1: Skillsets required for sustainable T&A businesses

Ideation	Negotiation	Implementation
Creativity Critical thinking & Reasoning Communication Collaboration	Problem Analysis & Preparedness Active Listening, Communication, & Interpersonal Skills Emotional Control, Collaboration, & Teamwork Problem Solving, Decision Making, Ethics, & Reliability	Managing People Managing Resources Setting Organizational Structure Establishing Communication Systems Creating & Valuing Culture

This paper offers a conceptual framework to address the importance of incorporating ideation, negotiation, and implementation into T&A sustainability curricula in a holistic matter in an effort to accomplish true sustainability. As long as we think business decisions are separated from sustainability decisions, sustainability goals will be more likely to be considered secondary goals. Therefore, in this model, we emphasize that future sustainable T&A business leaders must possess skill sets to navigate intertwined or sometimes often competing interests of economic, social, and environmental goals. An understanding of different required skillsets would help graduates entering the workforce be more adept in design choices, negotiations, and implementation issues while considering financial, social, and environmental bottom lines and goals. Knowledge of sustainability would also help business people incorporate sustainable aspects in each step of a business plan, i.e. ideation, negotiation and implementation, by utilizing appropriate skill sets that this paper proposed. Therefore, we urgently call for T&A educators to consider these critical skills in ideation, negotiation, and implementation while teaching sustainability within the curricula.

References

- Adidas (2018). Workers in our suppliers' factories play a central role in our sustainability programme. Retrieved from <https://www.adidas-group.com/en/sustainability/people/factory-workers/#/our-approach-to-fair-wages/>
- Brentani, U. (2001). Innovative versus incremental new business services: different keys for achieving success. *Journal of Product Innovation Management*, 18(3), 169-87.
- Carrell, M.R. & Heavrin, C. (2008). *Negotiating essentials: theory, skills, and practices*. Prentice Hall, Upper Saddle River, NJ.
- Confino, J. (2014, September 23). Sustainable corporations perform better financially, report finds. Retrieved from <https://www.theguardian.com/sustainable-business/2014/sep/23/business-companies-profit-cdp-report-climate-change-sustainability>
- Ha-Brookshire, J. (2015). Global sourcing: new research and education agendas for apparel design and merchandising. *Fashion and Textiles*, 2(1), 15.
- Haigh, M. (2005). Greening the university curriculum: appraising an international movement. *Journal of Geography in Higher Education*, 29(1), 31-48
- Jonson, B. (2005). Design Ideation: the conceptual sketch in the digital age. *Design Studies*, 26(6), 613–624.
- Mower, S. (2016, November 15). No Oatmeal-y Shirts! Stella McCartney Talks Sustainability. Retrieved from <http://www.vogue.com/article/stella-mccartney-kering-lecture-sustainability>
- Northouse, P.G. (2017). *Introduction to leadership: Concepts and practice*. Sage Publications, Thousand Oaks, CA.
- Olsen, E. (2017). Strategic Implementation. Retrieved from <https://onstrategyhq.com/resources/strategic-implementation>
- P21, (2018). Framework for 21st Century Learning. Retrieved from <http://www.p21.org/our-work/p21-framework>
- Rouse, M. (2015), Implementation. Retrieved from <http://searchcrm.techtarget.com/definition/implementation>
- Saner, R. (2012), *The Expert Negotiator*. The Hague: Kluwer Law Publisher.
- Scarano, J. (2018, January 22). Apparel Brand to Pay \$2.3M to Remedy Factory Hazards in Bangladesh. Retrieved from <https://sourcingjournalonline.com/bangladesh-factory-safety/>
- United Nations (1987), Our common future: Report of the World Commission on environment and development. Retrieved from <http://www.undocuments.net/ocf-02.htm>
- United States Environmental Protection Agency (2017), Learn About Sustainability. Retrieved from <https://www.epa.gov/sustainability/learn-about-sustainability#what>