



Bridging the Gender Gap:
An Examination of Women's Perceptions and Use of Technology in the Apparel Industry

Nancy Hodges, Kittichai Watchravesringkan, Ann Ramsey, Miranda Williams, and Lakshmi Iyer
The University of North Carolina, Greensboro; Greensboro, NC USA

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Motivating women to use workplace technology is an ongoing challenge for employers and educators alike (Yau & Cheng, 2012). Research suggests that girls typically lose interest in technology due to gender stereotyping. Specifically, by the age of 11, young girls have been primed by society to view technology use as a male-dominated activity (Dakers, Dow, & McNamee, 2009). Over the years, attempts to increase women's involvement have combated some of these stereotypes, but it has not been enough. As a result of what has been called the STEM "gender gap," they are often discouraged from enrolling in technology-related courses or applying for positions that are considered "masculine" (Dakers, et al., 2009). In the apparel industry, computer applications and software are frequently used for product development and then filtered through the supply chain by way of data management systems. Given that most industry jobs require technology use, and that the majority of product development-related positions within the US apparel industry are held by women (Bureau of Labor Statistics, 2010), it is important for women to not only be exposed to industry-relevant technologies but to develop strong competencies in the use of them.

Firms expect that their employees will have some degree of industry-relevant technology knowledge and skills, and value experience with such technology when making hiring and promotion decisions (Easters, 2012). Thus, to be competitive, it is critical that women have access to programs designed to increase proficiency in technology use. When a new hire does not know how to use a particular technology, or when a firm introduces a new technology within its organization, training, either external or internal, is generally provided (Boothby, Dufour, & Tang, 2010). Existing studies on women and technology use suggest that facilitating learning in this manner helps them contend with feelings of inadequacy (Yau & Cheng, 2012) and increases self-efficacy as well as acceptance of new systems and processes (Boothby et al., 2010). What is not known is whether women take advantage of such opportunities in technology use to advance their careers. Thus, the purpose of this study was to understand the factors that influence perceptions of technology among female apparel industry employees and how these perceptions subsequently shape their use of technology within the workplace.

A qualitative approach to data collection was employed. Upon IRB approval from the researchers' university, participants were recruited via purposive sampling. Interviews were conducted with fifteen female apparel industry professionals, including product developers and designers, project managers and HR specialists over a period of twenty-one months. Each interview lasted from thirty minutes to one hour and was audio-recorded with permission of the participant. Questions asked during the interview depended on the role of the participant. Interviews were transcribed verbatim and then analyzed via an iterative process to identify

commonalities and differences across the data (Silverman, 2006). Three emergent themes were then used to structure the interpretation: *exposure*, *acceptance*, and *adoption*. Themes were examined within a framework of task-technology fit, which considers positive user evaluations and performance impacts relative to technology use (Goodhue & Thompson, 1995).

Exposure was a crucial first step identified by all participants, specifically, they talked about the need for opportunities to learn a technology in order to become proficient in its use. Manuals, as well as training sessions, were offered most often in the attempt to build confidence levels in using a technology, and, in turn, encourage employee acceptance of it. However, participants who were employed in product development and design positions in particular did not think that their employers provided enough learning opportunities when introducing a technology. Direct access and strong communication between departments as well resources to assist with technology-related problems were critical to building participants' confidence along with reducing perceptions of threat relative to performance. *Acceptance* was reflected in how participants viewed their company's attempts to facilitate the use of technology. Participants indicated that along with incentivizing proficiency in a technology, the technology should help them to achieve specific job-related outcomes, or "fit" with their job performance goals. For the majority of participants, expected outcomes included more efficient practices, streamlined processes, and opportunities for advancement. *Adoption* pointed to the extent to which participants were motivated to use the technology to move beyond simple task completion to achieve a level of competence and expertise that facilitated career advancement.

Findings highlight the factors that contribute to women's perceptions of technology, as well as the impact these perceptions have on their use of technology in the apparel industry workplace. When participants understood the value of technology competence and their employers provided the resources to help them achieve it, feelings of confidence seemed to increase as perceptions of threats decreased. In turn, they felt more empowered to use technology to advance their careers. Research on the implications of such findings for apparel firms is needed, as it would shed light on the extent to which employees who are confident and willing to use technology to improve their own performance can, in turn, help to improve that of the firm.

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