



# Creating Inclusive Cultures for Women in Automation and Information Technology Careers and Occupations


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## ABSTRACT

Automation will be central to the next phase of business technology transformation, driving new levels of customer value such as faster delivery of products, higher quality and dependability, deeper personalization, and greater convenience. This business transformation phase will require workers with new skills at all levels. There are significant shortages of women in leadership job roles in information technology and automation. There are also significant disparities with pay and opportunities for women in those fields. As a result, it is critical to understand the organizational cultural change strategies that information technology (IT) and automation companies can make to employ more females in information technology and automation positions and address gender pay issues and gender exclusivity issues currently existing in today's workplace. This article intends to influence the world of practice through the execution of a literature review content analysis.

## KEYWORDS

Diversity and Inclusion, Gender Equity, Women in Automation, Women in Leadership, Women in Technology

## INTRODUCTION

Research has shown that companies in the top 25% for gender diversity are more likely to outperform than those that are not (DeLeon, 2014). Gender diversity has consistently been proven as a critical element in helping businesses gain a competitive advantage (Burrell, 2019). However, as Mariah DeLeon (2014) explains in her article "How to Recruit More Female Executives," "Women make up 61% of the U.S. workforce, earn almost 60% of all undergraduate degrees and 37% of all MBAs, yet companies continue to lag in placing females in executive positions." Though the advantages of employing and promoting females into all layers of an organization are likely to contribute to the

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growth and financial success, businesses continue to struggle in making gender diversity a reality (Burrell, 2019). Companies often fail to promote or hire women in executive-level positions, primarily in the automation and technology industries where women are grossly underrepresented. According to Ahuja (2002), it is more important than ever to determine the factors that prevent women from entering automation and technology fields and progressing to executive-level positions.

Kuschel (2019) posited that one of the major contributing factors of the gender gap is the timing conflict between careers and motherhood. When technology companies look to employ women and satisfy their gender and diversity quotas, it may be wise to examine some of the strategies women implement in tech start-ups (Kuschel, 2019). Women-owned businesses may foster, nurture and develop their female employees by providing flex time and a healthy work-life balance that, in turn, positively affect the family unit and, therefore, employees of both genders (Kuschel, 2019). In some European countries, women receive more maternity leave than in the United States. In fall 2021, Finland's total paid parental allowance will increase to 14 months, including 164 days per parent, and Sweden has the most generous leave, which equates to 240 days per parent. Finland currently offers fathers the same parental consent as mothers, and in Sweden, nearly all fathers take paternal leave (Mussino, Tervola, & Duvander, 2019). In the United States, some companies offer paternity leave, yet a gross majority of new fathers decline to take it, leaving the burden of early infant childcare on the mother (Mussino, Tervola, & Duvander, 2019). The practice of providing extended paternity leave is rarely implemented in the United States, making it harder for the woman who may bear the brunt of childcare while also trying to enter, re-enter or progress in their career.

Women often feel they need to hide their desires to become mothers when hired and often significantly delay maternity to focus on their information technology (IT) and automation careers (Kuschel, 2019). Technology and business automation are still two of the most under-represented industries in female leadership, making the culture decidedly patriarchal (Burrell, 2019). Work-life balance benefits both genders, especially when it comes to the responsibilities of raising a family. Failure to produce flexible work options has dire consequences for all families (Ashcraft, McLain & Eger, 2016). Female workers in the technology sector face several challenges. Many of them work more than 100 hours per week, need to be available 24/7, work or manage colleagues in multiple time zones, and feel overwhelming pressure to put in more face to face time (Hewlett et al., 2008). Such occupational stresses put a burden on the family unit and affect both partners in a relationship. Managing competing life responsibilities, such as family care, can be a challenge in business automation and technology. Women in these organizational cultures may feel penalized for having a family by being given less responsibility or less visible roles within an organization (Ashcraft, McLain & Eger, 2016). Simard et al. (2008) found that only 7.3% of mid-level technology industry workers agreed that successful personnel in IT are family-oriented, and over 60% of these same men and women self-identify with being family-oriented. This disparity can have real implications for losing top talent, as the industry as a whole is not known for implementing work-life balance practices.

Latin American women in technology and automation have more education and are part of the upper-middle socioeconomic status (Kuschel and Labra 2018) but are also a part of a group of women that has lower fertility rates (Adsera and Menendez 2011). Furthermore, Latin American women in the tech sector may be less influenced by macho culture (Susaeta et al. 2013). Women of color are especially underrepresented in technology and automation careers (Burrell, 2019). According to Ashcraft, McLain, and Eger (2016), the percentage of computing occupations held by women in 2015 include the following staggering statistics: White American women occupy 16% of all careers in computing, Asian American women occupy 5%, African American women occupy 3% and Latin American women occupy only 1%. What is even more alarming is that these numbers have been moving on a downward trend since 1991 (Ashcraft, McLain, & Eger, 2016). The point in which women tend to quit is at midpoint or mid-career, which is defined as having between 10-20 years of experience (Ashcraft, McLain, & Eger; 2016). "One large-scale study found that after about 12 years, approximately 50 percent of women had left their jobs in technology, engineering,

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