

## **Women and work in the Fourth Industrial Revolution: An exploratory study of women's experience in IT Jobs**

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Information and Communication Technology (ICT) is leading the discontinuous change in every sphere of our lives, from the Internet of everything to the Internet of all, and from Artificial Intelligence and Robotics to Human Augmentation. As nations experience shifting sources of competitiveness and a “hollowing out” effect, existing competencies get destroyed and the need for new competencies arises. On one hand, there is an increasing requirement for a workforce with high technical skills and on the other hand there is a shortage of human capital that can meet this need (Choi 2017).

Information Technology (IT) is one of the key sectors experiencing this phenomenon. The high gender gap - a constant 72 percent which is estimated to continue in the future – further compounds the problem. IT is seen as a male dominated occupation, as indicated, for example, by the 78 percent:22 percent male-to-female ratio of Artificial Intelligence professionals globally (World Economic Forum 2018). Even amongst the women who do work in the IT profession, studies report a “leaky pipeline” with women moving away from their IT jobs during their career (Vitores & Gil-Juárez 2016).

There is an urgent need for understanding the phenomenon of gender representation in the era of the Fourth Industrial Revolution. To this end, the present study explores the experiences of women working in IT departments and organizations in Dubai, their motivations, challenges, coping strategies and organizational support systems. These women have been chosen for the study to compare the experiences of IT versus non-IT women professionals working in the IT field.

Neo-classical and human capital theories highlight women’s lower levels of education and workplace experience due to childcare responsibilities. Feminist theories argue that the underlying reason lies in the patriarchal attitudes and structures that perpetuate male domination in society, which extend to the workplace. Gender studies predominantly report challenges and negative experiences that include prejudice, hostility, inequality, stereotyping etc., all of which originate from social conditioning.

A gender-neutral axiological stance has been adopted for this study which broadens the understanding of women’s experiences - both positive and negative - the sources of the challenges as well as the support from the opposite gender as well as same-gender peers, superiors and subordinates; and the elements of social conditioning that aided and those that exacerbated their experiences.

The study was undertaken from a yin-and-yang positionality rather than using a gender hierarchy and hence treats both genders as complementing each other. The objective is to help address the service management imperatives of developing an enabling work culture, harnessing the potential of employees and developing a sustainable pipeline of competent professionals, which essentially involves addressing the challenges faced by women and mitigating barriers to their empowered contribution.

The approach adopted was a relativist ontological approach that aimed to understand the reality as perceived by women working in IT departments/companies based on their social interactions and experiences. To address the challenges, effective service management strategies must be based on an understanding of women’s subjective reality, a qualitative study marked the first phase of the study.

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