

## A ROADMAP FOR INDUSTRY 4.0 ADOPTION FOR THE SRILANKAN APPAREL INDUSTRY

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Industry 4.0 is a collection of advanced technologies that are connected and interact with each other for improved performance. The apparel industry should rapidly respond to the volatilities of the fashion industry to remain competitive. However, Industry 4.0 technologies have not reached full penetration in the Sri Lankan apparel industry. This study has explored Industry 4.0 implementations in the Sri Lankan apparel sector and developed a roadmap encapsulating the critical steps in the adoption process. A series of structured interviews were conducted with ten information technology and innovation experts from apparel firms that have adopted Industry 4.0 technologies. Content analysis was performed to identify the technological, organisational, and environmental factors to be considered when adopting Industry 4.0. A roadmap for Industry 4.0 adoption has been proposed by analysing the interview data. Workforce development, standardisation of information systems, integration with supply chain partners, developing regulations for data security and governance, developing management competencies, and developing external stakeholder support have emerged as the stages of the roadmap respectively. Findings also revealed the strategic importance of adopting Industry 4.0 technologies and the benefits that are lagging due to the lower adoption of Industry 4.0. The roadmap may serve the apparel firms as a guide for successful digital transformation towards Industry 4.0 to streamline the technological, organisational, and environmental factors that may act as a driver or barrier in the transformation process. However, the roadmap is a stepping-stone in the digitalisation process where each apparel firm must fabricate the process of transformation based on the company's competencies, strategy, capabilities, and financial constraints.

**Keywords:** Apparel industry, digital transformation, Industry 4.0