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Industry 4.0 in the Apparel-Manufacturing Sector: Opportunities for Sri Lanka

H. Jayatilake¹ & A. Widanaraachchi²

Deaprtment of Industrial Management, Faculty of Science, University of Kelaniya. hasitha.nc@gmail.com¹

The world is now in the era of the fourth industrial revolution which can be identified as the latest mechanism of automation and data exchange in manufacturing. The concept of fourth industrial revolution has originated from the countries like Germany as "Industry 4.0" as a government initiative and the USA as "Industrial Internet Consortium" which has emerged from leading multinational organizations. When considering the concept of the industry 4.0, as a country, the major question that would arise could be, whether Sri Lanka has the capability to adopt the concept. Even though this concept originated from the high-end technological industrial world, Sri Lanka should consider of adopting this as the world is heading to a technological standardization process with the smart factory concept, which is the backbone of the fourth industrial revolution. Currently, the Sri Lankan apparel industry is in a milestone of adopting the best manufacturing practices, lean and sustainability concepts. In order to attain the research objective of identifying the opportunities in the Sri Lankan apparel sector to implement Industry 4.0, a qualitative approach has been adopted in this study. Industry experts representing Information and Communication Technology sector and the apparel sector, scholars in the field of industrial engineering and IT, were interviewed using structured and unstructured questionnaires. The outcome of this study indicates that by introducing Industry 4.0, Sri Lankan apparel sector would gain a number of advantages. Such technological advancement in this sector will enhance the vertical integration of all the layers in the apparel-manufacturing sector and also will enhance the horizontal integration of all the partners in its value chain.

Keywords: Industry 4.0; Smart Factory; Sri Lankan Apparel Industry; Sustainable Manufacturing