

**AN EXPLORATORY ANALYSIS ON IDENTIFYING THE
INFLUENTIAL FACTORS OF USING DIGITALIZATION
TECHNIQUES TO ACHIEVE A HIGHER SUPPLY CHAIN
EFFICIENCY BY SRI LANKAN APPAREL INDUSTRY**

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Research thesis submitted in partial fulfilment of the requirements for the degree of
Master of Business Administration in Supply Chain Management



Department of Transport and Logistics Management

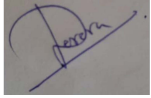
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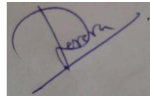
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ABSTRACT

The use of digitalization techniques has revolutionized the way of operating for many businesses today. It has become quite crucial for modern-day apparel manufacturers to use these techniques to cater to the highly customized needs of their customers with a minimum lead time to survive in the increased competition in the global market. Therefore, the apparel manufacturing firms constantly seek ways and means to improve their supply chain efficiency in terms of quality, cost, delivery, safety, and morale.

As most of the apparel businesses in Sri Lanka operate as a B2B business model with contract manufacturing agreements with renowned brands in the global market, many compliance requirements are being set by those giant companies just to improve their overall supply chain efficiency. Thus, the manufacturing firms are compelled to adopt various digitalization tools to cater to their customer's expectations. However, the implementation of aforesaid tools carries numerous benefits for all the supply chain partners.

The fashion and apparel (F & A) industry are one of the sectors which have largely implemented many of the digital applications into their operations during recent times. Whilst relishing numerous benefits, contemporary businesses also had experienced various negative implications after employing the aforesaid tools. The purpose of this thesis is to explore the various types of digital technologies which could be used by the F & A businesses, the potential benefits of those applications, and the possible challenges/risks to which they are exposed. In addition, this study would evaluate how those digital technologies could assist the B2B apparel manufacturing firms in improving their supply chain efficiency and enable them in data-driven decision-making.

Key Words: Digitalization, Fashion and Apparel Industry, Business-to-Business (B2B), Supply Chain Efficiency, Data Driven Decision-Making

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Last but not the least, many thanks would go to my wife and parents for the assistance provided me throughout this research project.

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LIST OF ACRONYMS

- AI – Artificial Intelligence
- AVR – Augmented Virtual Reality
- AM – Additive Manufacturing
- BDA – Big Data Analytics
- B2B – Business-To-Business
- CC – Cloud Computing
- RFID – Radio Frequency Identification
- RPA – Robotic Process Automation
- SQCDM – Safety, Quality, Cost, Delivery, Morale