



**EXPLORING IMPLEMENTATION OF LEAN  
PRACTICES IN CUSTOMIZED PRODUCT  
MANUFACTURING ENVIRONMENT:  
A CASE STUDY ON AVERY DENNISON**

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## Abstract

In today's competitive business world, companies require shorter lead times, low costs and high customer service levels and faster cash flows, to survive. Because of this, companies have become more customer focused. The result is that companies have been putting in significant effort to reduce their inventory levels. The purpose of this master thesis is to analyse the adaptation of lean inventory in customised product manufacturing environment where high variable and low volume products are produced. The methodology is based on an action based case study at Avery Dennison Lanka (Pvt) Ltd, which is a label manufacturer. All processes from receiving an order to delivery of the order were mapped in a Value Stream Map and ideal state is also mapped applying standard lean applications. The variability of products and dynamics of orders were analysed and they were compared with the capacity mix. The after state was implemented with reduced inventory levels and the company experienced several problems due to reduced inventory levels. Some problems were manageable through standard lean applications. Due to high variable nature of the products, some of the elements in the future state could not be managed as planned. This thesis critically reviews the difficulties and their relevance with high variable nature of the product.

This thesis develops some recommendations to help reduce non-value adding time and improve lead time with the help of lean production principles mainly by reducing the inventories. It also recommends some extended application in order to get the maximum benefits of lean inventory in a customised product manufacturing environment.