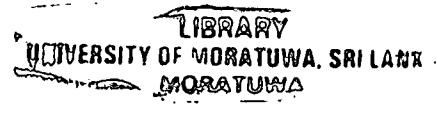


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APPLICATION OF MTO CONCEPT FOR EXISTING ERP SYSTEM



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Dissertation submitted in partial fulfillment of the requirements for the degree
Master of Science in operational research

Department of Mathematics

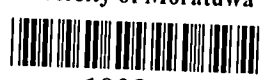
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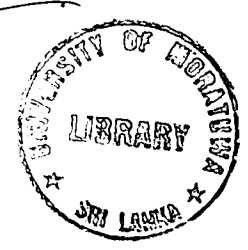
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Acknowledgement

I am heartily thankful to my supervisor, Mr. T.M.J.A Cooray – senior Lecturer of the Department of Mathematics – University of Moratuwa, guiding me throughout this project. I had some difficulties in doing this task, but he taught me patiently until I knew what to do. He tried and tried to teach me until I understand what I supposed to do with the project work.

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Chinthaka Wanasinghe

Abstract

Companies, organizations and government agencies are all seeking to improve their customer value, efficiency and effectiveness, while there are many approaches to improving performance. It is the combination of management perspective, appropriate improvement methodology and visibility on production orders & order status in production and the ability to analyze relevant measures of performance that will yield best results.

In today's economy, having a good marketing strategy is not enough to meet organizational goals. So organizations are struggling to implement operational strategies, streamline operations, and deliver more value to their customers.

MTO (make to order) strategy in ERP (Enterprises Resources Planning) was a decision of Textured Jersey board (reference Textured Jersey Board minutes September 2009) considering continues improvement. This research is discussed the existing approaches and MTO applications that are implemented in SAP ERP system. Also we were considered systems where some products are make-to-stock while another product line is make-to-order. We are also presented the rich and effective strategies for which a variety of cost and performance measures can be evaluated efficiently by analytical methods.

This is also examined an approach to improving operational performance by calculating the "post order costing, improve order tractability & forecasting while addressing the relevant configurations in the SAP (ERP Software name) system on MTO strategy and aims to provide the MTO solution map based on the existing production processes at Textured Jersey.

Further, the project is addressed the existing business 'pain points' (Annexure A) based on the complete Make-to-Order (MTO) process and evaluate how the SAP - MTO help organizations to measure, monitor, and manage business performance while addressing Key performance indicators (KPIs) such as sales order projection profitability, on time delivery of the sales orders, total sales and profitability per sales order etc.



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Abbreviations

MTO	Make to Order/ Made to order
MTS	Make to stock
ERP	Enterprise Resource Planning
SAP	ERP Software name (Systems, Applications and Products in the area of data processing)
OTD	On time delivery
MRP	Materials Requirement Planning
BOM	Bill of material
TJL	Textured Jersey (Pvt) Ltd.
WIP	Work in progress
MPS	Master Production schedule
PP	Production Planning
FG	Finished Goods
FR	FastReact Software
PO	Production Order/ Purchase Order
SO	Sales Order
MOQ	Minimum order quantity
GRN	Goods received note
LI	Line Item
RFT	Right first time
POC	Post order costing
KPI	Key Performance Indicators
SD	Sales & Distribution
MM	Material Master
TCODE	Standard Transaction Code in SAP
RM	Raw Material
SOP	Sales and operations planning
CODP	Customer order decoupling point
OPP	Order penetration point
RDV	Relative demand volatility
CMTS	Cost for Make to Stock
CMTO	Cost for Make to Order

