

**Decision-SupportSystem for DayaseriApparel
Manufacturing Companyin Sri Lanka**

Registration No:10/8572R

Index No:MSC/IT/09/080



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May 2013

“This project is submitted in partial fulfillment of the requirement of the Degree of Msc in Information Technology of the University of Moratuwa”

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Abstract

This project report focuses on introducing an enhanced computerized solution for DGI apparel manufacturing company, so as to store company data in a single repository and to efficiently retrieve data for management decision making. This will ultimately assist the key decision makers of the company to make more effective, logical and reliable decisions based on the quality details stored in the data warehouse.

The existing computerized systems that are in use have failed to provide sufficient information to make necessary and vital decisions in the company. This has resulted in poor management decision making in DGI (Pvt.) Ltd. In order to minimize the current decision making issues in the company, this project report proposes to develop a data warehouse and a Business Intelligence tool. The BI tool will facilitate in generating comprehensive reports and charts such as; static reports, dynamic reports, graphs and pivot charts based on management requirements. In order to transfer data from operational databases to data warehouse, DTS was used as the ETL tool which comes inbuilt in MS SQL Server.

A thorough initial investigation has been carried out in order to identify the current business problems of the selected organization and the employee attitudes towards them. Apart from that the industrial experts have been interviewed in order to identify the best effective solution for the existing problems of the organization. Data warehouse implementation has been identified as the best applicable solution for the current business problems in the company. A thorough investigation has been carried out to identify the data warehouse implementation techniques and methods.

When consider the benefits related to the cost, company could highly benefit in terms of cost reduction. Apart from the direct financial benefits, DGI would also be able to gain non-financial indirect benefits which would reflect in the decision making process of the company. The time wastage would be minimal thus effective and accurate decisions will be made which are vital for company daily operations as well as the strategic operations.

The proposed system has successfully implemented and evaluated. Therefore the company would be able to successfully gain benefits from the system through the use of proper implementation and maintenance strategies.

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List of Abbreviations

DGI	Dayaseiri Garment Industries
DSS	Decision Support System
BI	Business Intelligence
AQL	Acceptable Quality Level
OLAP	Online Analytical Processing
OLTP	Online Transaction Processing
QA	Quality Assurance
DBMS	Database Management System
UML	Unified Modeling Language
MIRT	Management Information Retrieval Tool
DTS	Data Transformation Service
ETL	Extract, Transform and Load
MDX	Multidimensional Expression



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