Productivity Measuring System for Sri Lankan Plant of Noratel Group

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Declaration

I declare that this dissertation does not incorporate, without acknowledgement, any material previously submitted for a Degree or a Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organization.

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Signature of Supervisor

Date :

Dedication

To my loving parents,
whose lifelong ambition is to educate their children
to reach the pinnacle of education ….

Acknowledgement

It is my greatest pleasure to pay my sincere gratitude towards all those who supported me in numerous ways to complete this project successfully.

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Abstract

Productivity is one of the major concerns in businesses that has to be measured and monitored, in order to meet manufacturing challenges and achieve a high standard of quality with superior results.

Noratel - Sri Lanka, under the Scandinavian based Noratel Holdings is an ISO certified company, which manufactures Toroidal transformers and chokes for a wide range of applications. Company is now facing fierce competition in the market and is becoming less competitive day by day. There are many factors around this result/outcome and organizational labour productivity is one of the key components. Non- availability of an effective labour productivity measuring system has been one of the key issues of the organization.

Labour component of the cost of production has been identified as the most sensitive portion to be evaluated in order to decrease the cost of production and to face the fierce competition successfully. Hence productivity based monthly incentive scheme was introduced. Shift wise daily production outputs including the timing for each and every operations of the production process were recorded and the recorded heavy data volume was input to the software application which was developed for measuring and monitoring the productivity.

Structured System Analysis and Design Methodology was used with the Rapid Application Development process model for developing the application. All the features that were required for entering data easily, fastly and accurately were implemented in the system. Further, data validation rules were implemented in all the areas where applicable in order to ensure the accuracy of the entered data and the system outputs. All the expected outputs were generated successfully through the software application and users were very much happy about the user friendliness of the system. Providing online information in multi user environment was one of another important achievement.

Employees were rewarded based on their productivity and based on the predefined productivity benchmark values. After implementing the system, it was monitored that the productivity of production lines were gradually improving and monthly sales turnover also was gradually increasing while decreasing the cost of production. Graphically analyzing tool was a very much useful tool for monitoring trends of changes of productivity and making decisions.

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Abbreviations

BOM	– Bill of Materials
BSO	– Business Solution Options
CD	- Compact Disk
Dept	– Department
DFD	– Data Flow Diagrams
DLL	– Dynamic Link Library
E & CR	– Engineering & Customer Relation
ERP	– Enterprise Resource Planning
HR	– Human Resources
LAN	– Local Area Network
LDS	– Logical Data Structure
MC	– Machine
MIS	– Management Information Systems
PO	– Purchase Order
PPD	– Production Process Development
Prod	– Production
RAD	– Rapid Application Development
SDLC	– System Development Life Cycle
SSADM	– Structured System Analysis and Designing Methodologies