DEVELOPING STRATEGIC REPORTS FOR NATIONAL CO-OPERATIVE OF MALAYSIA (ANGKASA) USING DATA WAREHOUSE AND DECISION TREE MODEL

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A project submitted to Dean of Awang Had Salleh Graduate School in Partial Fulfillment of the requirement for the degree Master of Science (Information Technology) Universiti Utara Malaysia

BY

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ABSTRACT

Managing an organization requires access to information in order to monitor activities and assess performance. Business Intelligence (BI) solutions provide organizations with timley, itegrated information that is crucial to the understanding of their business. Data Warehouse (DW) technology is one of the important strategic management approaches for decision making in an organizations. The BI combines architectures, tools, databases, analytical tools, and methodologies to enable the implementation of interactive information in generating analytical reports. Strategic reports, which influence the enduring way of the whole company, are typically used by top managers. These kinds of decisions are repeatedly complex and the outcomes unsure, because existing information is habitually incomplete. Managers at this point must normally depend on history experiences and their instincts when making strategic decisions. DW is a technology allows integrating and transforming enterprise data for strategic decision making. Furthermore, Decision Tree (DT) is a decision support tool that uses a tree-like graphof decisions and their possible consequences, including chance event outcomes, resource costs, and utility. The organization, which is, responsible to manage people activities need strategic decisions making. This paper will be focused how to design and develop Strategic Reports using DW and DT Model for National Co-operative Organization of Malaysia (ANGKASA) called DSRNCO, as a case study. This system has been evaluated through the system user feedback by using Computer System Usability Questionnaire (CSUQ), which measures system usability and user satisfaction.

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LIST OF ABBREVIATIONS

ANGKASA	National Co-operative Organisation of Malaysia
BI	Business Intelligence
CEDI	Cooperative and Entrepreneurship Development Institute
CoDMODS	Conceptual Design Model Using Operational Data Store
CSUQ	Computer System Usability Questionnaire
DM	Dimensional Modeling
DSS	Decision Support Systems
DW	Data Warehouse
DT	Decision Tree
DMM	Data Mining Model
ERD	Entity Relationship Diagram
ETL	Extract, Transfer And Loading
DSRNCO	Developing Strategic Reports for National Co-operative of Malaysia
GMDR	General Methodology for Design Research
KPI	Key Performance Indicator
MAKMUM	Majlis Keusahawanan Mahasiswa Universiti Malaysia
OLAP	On-Line Analytical Processing
OLTP	On-Line Transaction Processing
ReCODS	Requirement Centric Operational Data Store
SBU	Strategic Business Unit

SQL	Structured Query Language
SSAS	SQL Server Analysis Services
SSIS	SQL Server Integration Services
SSRS	SQL Server Reporting Services
RAD	Rapid Apliction Developing
UML	Unified Modeling Language
UUM	Universiti Utara Malaysia

CHAPTER ONE
INTRODUCTION

1.1 Introduction

A businessman is a person who is employed by an organization or company in a business at a managerial level, especially an executive or proprietor. The business man monitors and controls his business activities as a manager. In National Co-operative Organisation of Malaysia or Angkatan Koperasi Kebangsaan Malaysia Berhad (ANGKASA), the supporting of the businessman (ANGKASA members involved in business) has become to enhance an agenda in national policy for many countries. ANGKASA is an organization that promotes the cooperative philosophy, provides member education and advisory services and publishes co-operative literatures as well as represents the co-operative movement in national and international matters. ANGKASA is an APEX cooperative, recognized by the government as the National Co-operative Movement of Malaysia. It provides training programs to members of the cooperative in addition to providing payroll deduction services to statutory bodies, government staffs, clubs, cooperatives, unions and the Global Local Company (GLC). Senior Management and executives in ANGKASA deal with reporting figures at an overview level in contrast to an analyst in a department who deals with data at finer level of detail. Reports of this type may also require operability with charts, tabular metrics and graphs. Strategic reports may involve complex analysis, which can be resolved by a Business Intelligence (BI) system.

BI refers to applications that are able to transform data into information and then into knowledge (Golfarelliet al., 2004). The main function of BI is the ability to generate analytical reports,

The contents of the thesis is for internal user only

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