

# **FUZZY CORPORATE STRATEGY FORMULATION APPLICATION SYSTEM**

A project submitted to the Graduate School in partial fulfillment  
of the requirements for the degree  
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By:  
Nooraini Binti Yusoff

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(Name of Supervisor) : Prof. Madya Fadzilah Siraj

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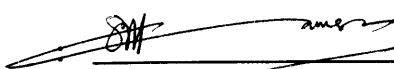
:   
FADZILAH SIRAJ  
Professor Madya  
Sekolah Teknologi Maklumat  
Universiti Utara Malaysia

Tarikh(Date): 15/06/2003

Nama Penyelia Kedua

(Name of Supervisor) : Prof. Datin Dr. Hajah Siti Maimon Haji Kamso

Tandatangan  
(Signature)

:   
PROF. DATIN DR. HAJAH SITI MAIMON HAJI KAMSO  
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## ABSTRACT (MALA Y)

*Analisis strategik melibatkan proses membuat keputusan yang menganalisis faktor-faktor dalaman dan luaran kritikal sesebuah organisasi dan merancang strategi-strategi yang sesuai berdasarkan analisis faktor-faktor tersebut. Pembuatan keputusan merupakan satu proses yang dinamik dan kompleks. Pembuat keputusan atau perancang strategi berhadapan dengan masalah mencari maklumat, keputusan yang tertangguh dan memakan masa, ketidakpastian, kekaburan, dan dalam beberapa kes seringkali berlaku konflik semasa membuat keputusan. Keadaan-keadaan ini turut mempengaruhi keputusan yang bakal dibuat. Kajian ini melibatkan pembangunan sebuah Sistem Aplikasi Formulasi Strategi Korporat Kabur. Sistem ini merupakan sistem automasi formulasi strategik yang menggunakan teknik Kepintaran Buatan: Teknologi Logik Kabur untuk tujuan memperbaiki sistem automasi formulasi strategik yang sedia ada. Logik Kabur membolehkan komputer untuk manipulasi ketidakpastian yang melibatkan pengetahuan pakar dan material rujukan yang lain. Tujuan utama projek ini adalah untuk menghasilkan satu alat analisis perniagaan yang membantu perancang strategik merancang strategi. Output yang dihasilkan oleh sistem telah disahkan oleh pakar dalam pengurusan strategik. Sistem berupaya untuk menganalisa situasi semasa sesebuah organisasi dan meramal strategi yang sesuai, yang mana ianya mempunyai potensi untuk membantu dalam proses membuat keputusan strategik.*

## **ABSTRACT (ENGLISH)**

*Strategic analysis involves the decision-making process that analyzes business internal and external critical factors and plan the appropriate strategies based on the analysis of the factors. Decision-making is a dynamic process. It is complex and at times ambiguous. Decision-makers encounter information search problems and detours, delayed feedback of results, uncertainty, ambiguity, and in some cases conflict during decision-making. In many situations, strategists seem to engage in an informal causal analysis in an attempt to favourably influence decision outcomes. In this study a Fuzzy Corporate Strategy Formulation Application System was developed. The system is an automated strategic formulation that embeds Artificial Intelligence technique: Fuzzy Logic for the purpose of improving the current practices of the automated strategic -formulation system. Fuzzy Logic allows computers to manipulate common sense in an uncertain world that involves knowledge of experts and other related references. The aim is to provide a business analysis tool that can assist the strategy decision-maker in a company to formulate strategies. The outcomes of the system have been validated with an expert in strategic management. The results reveal that the developed prototype is able to map the present situation of a company and to predict the possible future organization strategies, thus it has potential to assist in strategic decision-making.*

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## CONTENTS

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<b>PERMISSION TO USE</b>	-----	<b>i</b>
<b>ABSTRACT (MALAY)</b>	-----	<b>ii</b>
<b>ABSTRACT (ENGLISH)</b>	-----	<b>iii</b>
<b>ACKNOWLEDGMENT</b>	-----	<b>iv</b>
<b>LIST OF TABLES</b>	-----	<b>vii</b>
<b>LIST OF FIGURES</b>	-----	<b>viii</b>
<b>1.0 INTRODUCTION</b>	-----	<b>1</b>
<b>1.1 Background</b>	-----	<b>1</b>
<b>1.2 Objectives</b>	-----	<b>7</b>
<b>1.3 Scope, Limitations and Assumptions</b>	-----	<b>7</b>
<b>1.4 Methodology</b>	-----	<b>9</b>
<b>1.5 Organization of Study</b>	-----	<b>10</b>
<b>2.0 LITERATURE REVIEW</b>	-----	<b>11</b>
<b>2.1 Strategic Management - Strategic Analysis</b>	-----	<b>11</b>
<b>2.2 Artificial Intelligence (AI)</b>	-----	<b>18</b>
<b>2.3 Fuzzy Logic</b>	-----	<b>23</b>
<b>2.4 Integrating the Strategic and Technical Approach to         Strategic Management</b>	-----	<b>35</b>
<b>2.5 Conclusion</b>	-----	<b>37</b>
<b>3.0 METHODOLOGY</b>	-----	<b>38</b>
<b>3.1 System Analysis</b>	-----	<b>39</b>
<b>3.1.1 Literature review</b>	-----	<b>39</b>
<b>3.1.2 Problem definition</b>	-----	<b>40</b>
<b>3.1.3 Information search and Knowledge acquisition</b>	-----	<b>41</b>
<b>3.1.4 Model formulation</b>	-----	<b>42</b>

<b>3.2</b>	<b>Software Design And Development</b>	<b>43</b>
3.2.1	Database	43
3.2.2	Input / Output	48
3.2.3	User Interface	49
3.2.4	Process Design And Development	50
3.2.4.1	Internal and External Factor Analysis	52
3.2.4.2	IE Matrix	55
3.2.4.3	Fuzzification	56
3.2.4.4	Knowledge Retrieval	63
3.2.4.5	TOWS Matrix	64
3.2.4.6	QSPM	65
3.2.4.7	Strategy Mapping	66
<b>3.3</b>	<b>System Implementation And Testing</b>	<b>66</b>
3.3.1	System Implementation	67
3.3.2	System Testing	67
<b>4.0</b>	<b>RESULTS AND DISCUSSION</b>	<b>70</b>
4.1	Automated strategy formulation versus manual strategy formulation	70
4.2	Fuzzification Results	71
4.3	Knowledge Retrieval Results	73
<b>5.0</b>	<b>CONCLUSION AND RECOMMENDATION</b>	<b>75</b>
<b>REFERENCES</b>		<b>78</b>
<b>APPENDIX A:</b>	<b>USER MANUAL</b>	<b>81</b>



## LIST OF TABLES

<b>Table</b>	<b>Caption</b>	<b>Page</b>
Table 3.1	Database physical design – Data description of entity Factor	45
Table 3.2	Database physical design – Data description of entity Strategy	45
Table 3.3	Sample of data - <b>Factor</b>	46
Table 3.4	Sample of data - <b>Strategy</b>	46
Table 3.5	Translated rules into table	47
Table 3.6	Input/Output blueprint	48
Table 3.7	Internal factor analysis of Microsoft Corporation (1996)	52
Table 3.8	External factor analysis of Microsoft Corporation (1996)	53
Table 4.1	Manual vs. automated	70
Table 4.2	Findings of Fuzzification	72
Table 4.3	Findings of Knowledge retrieval	73

## LIST OF FIGURES

<b>Figure</b>	<b>Caption</b>	<b>Page</b>
Figure 1.1	Strategic management process	2
Figure 2.1	Strategy-Formulation Analytical Framework	15
Figure 2.2	Intelligent System and Planning	22
Figure 2.5	Conventional and Fuzzy Design	27
Figure 2.6	Overshoot versus response time	30
Figure 2.7	Rules And Membership Function Approximating A Non-Linear Function	31
Figure 2.8	Modified Temperature Controller	33
Figure 2.9	Lookup table versus rules and membership functions	34
Figure 3.1	System Analysis and Design	38
Figure 3.2	System model	42
Figure 3.3	Entity Relationship Diagram	44
Figure 3.4	Rules	47
Figure 3.5	Visual Basic 6.0 design tool	49
Figure 3.6	System Context Diagram	50
Figure 3.7	System Data Flow Diagram	51
Figure 3.8	Computation of the internal/external factor total weighted	55
Figure 3.9	Internal-External Matrix	55
Figure 3.10	Fuzzification	57
Figure 3.11	Membership function of IFA Score	58
Figure 3.12	Membership function graph of IFA Score	58
Figure 3.13	Membership function of EFA Score	59
Figure 3.14	Membership function graph of EFA Score	60
Figure 3.15	Fuzzy rule base	61
Figure 3.16	Membership function of Profit	62
Figure 3.17	Membership function graph of Profit	62
Figure 3.18	Knowledge retrieval process	63
Figure 3.19	Establishing TOWS Matrix	64
Figure 3.20	QSPM process module	66
Figure 3.21	Types of Testing	67

# CHAPTER 1

## INTRODUCTION

This section briefly presents the background, intentions, goals/objectives and justifications of developing the Fuzzy Corporate Strategy Formulation Application System. The main idea of the study is to such a system that able is to automate the strategic formulation process. The system is also capable to express the uncertainty and provide advices on the strategy to be implemented based on the knowledge embedded into the system using certain Fuzzy Logic technology. The automated strategic formulation analysis is embedded Fuzzy for the purpose of improving the current practices of the available automated strategic formulation system. The aim is to provide a business analysis tool that can assist the strategy decision-maker of a company in strategic decision-making. This section will be organized as follows:

### 1.1 Background

Strategic management is a set of managerial decisions and actions that determines the long-run performance of a corporation. It includes (1) **environmental scanning**, (2) **strategic formulation** (strategic or long-range planning), (3) **strategy implementation**, and (4) **evaluation and control**. Figure 1.1 shows how these four elements interact. The study of strategic management emphasizes monitoring and

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