

BUSINESS PROCESS ANALYSIS AND IMPROVEMENT  
FOR INFORMATION SYSTEM DESIGN



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การวิเคราะห์และปรับปรุงกระบวนการทางธุรกิจสำหรับการออกแบบระบบสารสนเทศ

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งานวิจัยนี้มีวัตถุประสงค์เพื่อวิเคราะห์และปรับปรุงกระบวนการทางธุรกิจของบริษัทประเมินมูลค่าทรัพย์สินเพื่อออกแบบข้อกำหนดซึ่งใช้สำหรับการพัฒนาระบบสารสนเทศ ตามหลักการของวงจรชีวิตการพัฒนาระบบ (System Development Life Cycle) โดยใช้วิธีการวิเคราะห์และออกแบบระบบ (System Analysis and Design) ซึ่งมีขั้นตอนการวางแผนโครงการ การวิเคราะห์การทำงานของกระบวนการปัจจุบัน การค้นหาข้อบกพร่องของระบบงานปัจจุบัน และการออกแบบระบบงานใหม่ที่สามารถแก้ไขปัญหานั้นๆ ได้ ขอบข่ายของการวิจัยคือการปรับปรุงกระบวนการทางธุรกิจของระบบงานประเมินมูลค่าทรัพย์สินซึ่งเป็นกระบวนการหลักของบริษัท

ในขั้นตอนการวางแผนระบบได้ใช้วิธีการตรวจสอบข้อมูลเบื้องต้น การวิเคราะห์ SWOT และแผนภูมิการวิเคราะห์เหตุและผล (Cause and Effect diagram) เป็นเครื่องมือสำหรับระบุปัญหา ซึ่งทำให้พบว่า มีกระบวนการและข้อมูล ที่ไม่เหมาะสมอยู่ในกระบวนการ ซึ่งก่อให้เกิดปัญหาความซ้ำซ้อนของกระบวนการ และการทำงานที่ไม่จำเป็น กับความไม่สอดคล้องและความซ้ำซ้อนของข้อมูล ต่อมาในการวิเคราะห์ระบบเพื่อการค้นหาต้นตอของปัญหาโดยใช้ผัง UML และ IDEF0 เป็นเครื่องมือ ทำให้สามารถระบุจุดที่จำเป็นต้องได้รับการแก้ไข ในที่สุดได้มีการออกแบบเพื่อกำจัดกระบวนการที่ซ้ำซ้อนและเกินความจำเป็น กับข้อมูลที่ไม่สอดคล้องกันและซ้ำซ้อน และได้ทดสอบด้วยกรณีตัวอย่างต่างๆ ใน Test Case พบว่าระบบที่ออกแบบใหม่ตอบสนองความต้องการของผู้ใช้งานได้ดีกว่าโดยเปลี่ยนการทำงานโดยคน เป็นการใช้ระบบคอมพิวเตอร์ ผลงานวิจัยนี้จึงเป็นการออกแบบเบื้องต้นที่สามารถนำไปประยุกต์ใช้สำหรับ การออกแบบฐานข้อมูล การสร้างแบบจำลองของระบบ (Prototype) และพัฒนาระบบสารสนเทศฉบับเต็มรูปแบบ

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The purpose of this research is to analyse and improve the business processes of the valuation company in order to deliver a design specification for information system development by using System Development Life Cycle approach. The selected methodology of this research is System Analysis and Design. It is used to plan for project, analyse current processes, find out the weak points, and design new system to fix problems. The scope of this research covers only the business processes improvement of the Valuation System which is core processes of the company.

Primary investigation, SWOT Analysis, Cause and Effect diagram are adopted as problem identification tools in system planning. It is found that there are improper processes and data in current processes that cause duplicated and unnecessary processes, and inconsistent and redundant data. The system is then analysed to find sources of the problems with the aid of the UML and IDEFØ diagramming. From the analysis, points that need to be improved are identified. The improved processes are designed to eliminate duplicated and unnecessary processes, and inconsistent and redundant data. The newly designed system is then tested with test cases. The new design has better response to users' needs by transforming a lot of manual processes to the compute. The result of this research is a primary design specification that is fit to use for designing database, creating prototypes, and developing full-scale information system.

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# CONTENTS

	Page
<b>Abstract (Thai)</b> .....	<b>iv</b>
<b>Abstract (English)</b> .....	<b>v</b>
<b>Acknowledgement</b> .....	<b>vi</b>
<b>Contents</b> .....	<b>vii</b>
<b>List of Tables</b> .....	<b>ix</b>
<b>List of Figures</b> .....	<b>xiii</b>
<b>CHAPTER I INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the Research.....	1
1.2 Statement of the problem.....	4
1.3 Objective of the Research.....	5
1.4 Scope of the Research.....	5
1.5 Expected benefit .....	6
1.6 Methodology.....	7
1.7 Research schedule.....	8
<b>CHAPTER II THEORIES AND LITERATURE REVIEW</b> .....	<b>9</b>
2.1 Information management.....	9
2.1.1 <i>The role of information in organisations</i> .....	9
2.1.2 <i>The role of Information Technology</i> .....	10
2.1.3 <i>Managing Information with Information Systems</i> .....	11
2.1.4 <i>Information management in this era</i> .....	11
2.2 SDLC (Software/System Development Life Cycle) .....	12
2.2.1 <i>Systems planning</i> .....	13
2.2.2 <i>Systems analysis</i> .....	13
2.2.3 <i>Systems design</i> .....	14
2.2.4 <i>Systems implementation</i> .....	14
2.2.5 <i>Systems operation and support</i> .....	14
2.3 System Analysis and Design .....	15
2.3.1 <i>The need for System Analysis and Design</i> .....	15
2.3.2 <i>Systems Development Methodologies</i> .....	16
2.3.3 <i>Strategic Planning – A Framework for IT Systems Development</i> .....	21
2.4 UML (Unified Modelling Language).....	25
2.4.1 <i>Basic Flowchart</i> .....	27
2.4.2 <i>Use Case Diagram</i> .....	28
2.4.3 <i>State Chart Diagrams</i> .....	29
2.4.4 <i>Sequence Diagram</i> .....	31
2.4.5 <i>Activity Diagram</i> .....	32
2.5 IDEF (Integration DEFinition) .....	33
2.6 BPI (Business Process Improvement) .....	34
2.7 Workflow Analysis and Management .....	35
<b>CHAPTER III SYSTEM PLANNING AND ANALYSIS</b> .....	<b>37</b>
3.1 System Planning .....	37
3.1.1 <i>Company current position</i> .....	37

3.1.2 <i>IT needs</i> .....	38
3.1.3 <i>Preliminary Investigation</i> .....	42
3.2 System Analysis .....	58
3.2.1 <i>Current system modelling</i> .....	58
3.2.2 <i>Preparation for new system</i> .....	81
<b>CHAPTER IV SYSTEM DESIGN FOR VALUATION PROCESS .....</b>	<b>85</b>
4.1 Improved system modelling .....	85
4.1.1 <i>Basic Flowchart</i> .....	86
4.1.2 <i>Use Case Diagram and Description</i> .....	88
4.1.3 <i>State Chart Diagram</i> .....	92
4.1.4 <i>Sequence Diagram</i> .....	94
4.1.5 <i>Activity Diagram</i> .....	95
4.2 Enterprise modelling.....	97
4.2.1 <i>IDEFØ</i> .....	98
4.2.2 <i>DFD and Element Process Description</i> .....	109
4.3 Sketched user interfaces .....	115
4.3.1 <i>Authorisation screen</i> .....	116
4.3.2 <i>To-do-list screen</i> .....	116
4.3.3 <i>Status tracking screen</i> .....	117
4.3.4 <i>Job Search screen</i> .....	117
<b>CHAPTER V EVALUATION OF SYSTEM DESIGN.....</b>	<b>118</b>
5.1 Implementation of Primary System Design Specification .....	118
5.1.1 <i>Technology Selection</i> .....	118
5.1.2 <i>Sample Database Design</i> .....	124
5.1.3 <i>Sample Prototype</i> .....	125
5.2 Feedbacks from Programmers' about the design .....	126
5.2.1 <i>Completeness of design specification and analysed information</i> .....	126
5.2.2 <i>Usability of diagrams in design and development phase</i> .....	126
5.3 Sample test cases .....	127
5.3.1 <i>Normal case</i> .....	128
5.3.2 <i>Unexpected case</i> .....	129
<b>CHAPTER VI CONCLUSION AND RECOMMENDATION .....</b>	<b>130</b>
6.1 Conclusion .....	130
6.2 Recommendation .....	132
6.2.1 <i>Completion of design phase</i> .....	132
6.2.2 <i>System development and implementation guideline</i> .....	132
6.2.3 <i>Next phase</i> .....	133
<b>REFERENCES.....</b>	<b>135</b>
<b>APPENDICES.....</b>	<b>138</b>
Appendix A: Project schedule.....	139
Appendix B: VAT minimum rate for appraising services.....	140
Appendix C: Sample Data and Definition.....	142
Appendix D: Sample of Draft Report.....	145
<b>BIOGRAPHY.....</b>	<b>147</b>



## LIST OF TABLES

	Page
Table 1.1: Unfinished jobs and arrears.....	2
Table 1.2: Specific planning that each department able to do from shared information .....	7
Table 1.3: Research schedule.....	8
Table 2.1: Criteria for Selecting a Methodology.....	20
Table 2.2: Reasons for Systems Projects.....	22
Table 2.3: Internal Factors.....	22
Table 2.4: External Factors.....	22
Table 2.5: Sample questions for Operational Feasibility.....	23
Table 2.6: Sample questions for Technical Feasibility.....	24
Table 2.7: Sample questions for Schedule Feasibility.....	24
Table 2.8: Basic Flowchart Symbols.....	27
Table 2.9: Use Case description.....	29
Table 2.10: Components of State Model.....	30
Table 2.11: Components of Sequence Diagram.....	31
Table 2.12: Components of Activity Diagram.....	32
Table 3.1: SWOT Analysis of the Valuation Company.....	38
Table 3.2: Statement of Problems from chapter 1 – Introduction.....	42
Table 3.3: Role and Weaknesses of Marketing Department.....	45
Table 3.4: Role and Weaknesses of Accounting Department.....	45
Table 3.5: Role and Weaknesses of Valuation Department.....	45
Table 3.6: Role and Weaknesses of Support Department.....	45
Table 3.7: Role and Weaknesses of Human Resources Department.....	46
Table 3.8: Role and Weaknesses of Management.....	46
Table 3.9: Cross-department communication.....	46
Table 3.10: List of internal documents.....	47
Table 3.11: Job list document [reverse axis].....	51
Table 3.12: Valuation tools borrowing document.....	52
Table 3.13: Weighted Quality Score Table (WQS).....	52
Table 3.14: Job summary document [reverse axis].....	53
Table 3.15: Operational Feasibility of the Valuation Company.....	55

	Page
Table 3.16: Technical Feasibility of the Valuation Company.....	56
Table 3.17: Schedule Feasibility of the Valuation Company.....	57
Table 3.18: Estimate project time and cost.....	57
Table 3.19: List of diagrams.....	58
Table 3.20: Who / What / Where /When / How and Why Analysis.....	61
Table 3.21: State description [current system] .....	66
Table 3.22: Components of IDEFØ .....	70
Table 3.23: ICOM table of context diagram.....	71
Table 3.24: ICOM table of A1 Node; Receive Job.....	72
Table 3.25: ICOM table of A11 Node – Create Quotation.....	73
Table 3.26: Summary ICOM table of A11 diagram: A111-A115.....	73
Table 3.27: ICOM table of A12 Node – Initiate Job.....	74
Table 3.28: Summary ICOM table of A12 diagram: A121-A124.....	74
Table 3.29: ICOM table of A13 Node – Assign Job to Valuer.....	75
Table 3.30: Summary ICOM table of A13 diagram: A131-A133.....	76
Table 3.31: ICOM table of A2 Node; Prepare / Survey.....	76
Table 3.32: ICOM table of A21 Node – Query reference value.....	77
Table 3.33: ICOM table of A22 Node – Borrow copied reference report .....	77
Table 3.34: ICOM table of A23 Node – Access the Internet.....	77
Table 3.35: ICOM table of A24 Node – Prepare budget / survey tools .....	77
Table 3.36: ICOM table of A25 Node– On-site survey .....	78
Table 3.37: ICOM table of A3 Node; Create Report.....	78
Table 3.38: ICOM table of A31 Node – Create draft report.....	78
Table 3.39: ICOM table of A32 Node – Create full report.....	79
Table 3.40: ICOM table of A4 Node; Submit report.....	79
Table 3.41: ICOM table of A41 Node – Approve I.....	79
Table 3.42: ICOM table of A42 Node – Approve II.....	80
Table 3.43: ICOM table of A43 Node – Prepare Job Submission.....	80
Table 3.44 Summary ICOM table of A43 diagram: A431-A433.....	80
Table 3.45: ICOM table of A44 Diagram – Close Job.....	81
Table 3.46: Summary ICOM table of A44 diagram: A441-A442.....	81
Table 3.47: Requirement gathering from marketing department.....	82
Table 3.48: Requirement gathering from accounting department.....	82

	Page
Table 3.49: Requirement gathering from valuation department.....	82
Table 3.50: Requirement gathering from support department.....	82
Table 3.51: Requirement gathering from human resources department.....	83
Table 3.52: Requirement gathering from management level.....	83
Table 4.1: Use Case description [improved system].....	89
Table 4.2: State description [improved system].....	92
Table 4.3: ICOM table of A1 Node.....	99
Table 4.4: ICOM table of A11 Node.....	99
Table 4.5: Summary ICOM table of A11 diagram: A111-A115.....	100
Table 4.6: ICOM table of A12 Node.....	101
Table 4.7: Summary ICOM table of A12 diagram: A121-A124.....	101
Table 4.8: ICOM table of A13 Node.....	102
Table 4.9: Summary ICOM table of A13 diagram: A131-A133.....	102
Table 4.10: ICOM table of A2 Node.....	103
Table 4.11: ICOM table of A21 Node.....	104
Table 4.12: ICOM table of A22 Node.....	104
Table 4.13: ICOM table of A23 Node.....	104
Table 4.14: ICOM table of A24 Node.....	104
Table 4.15: ICOM table of A25 Node.....	105
Table 4.16: ICOM table of A3 Node.....	105
Table 4.17: ICOM table of A31 Node.....	105
Table 4.18: ICOM table of A32 Node.....	106
Table 4.19: ICOM table of A4 Node.....	106
Table 4.20: ICOM table of A41 Node.....	106
Table 4.21: ICOM table of A42 Node.....	107
Table 4.22: ICOM table of A43 Node.....	107
Table 4.23: Summary ICOM table of A43 diagram: A431-A433.....	107
Table 4.24: ICOM table of A44 Diagram.....	108
Table 4.25: Summary ICOM table of A44 diagram: A441-A442.....	108
Table 4.26: Element Process Description – Create Quotation.....	110
Table 4.27: Element Process Description – Initiate Job.....	111
Table 4.28: Element Process Description – Assign Job to Valuer.....	111
Table 4.29: Element Process Description – Prepare to survey.....	112

	Page
Table 4.30: Element Process Description – Draft Report.....	113
Table 4.31: Element Process Description – Full Report.....	114
Table 4.32: Element Process Description – Approval.....	114
Table 4.33: Element Process Description – Report Submission.....	115
Table 5.1: Features of each database system.....	119
Table 5.2: Features of each application platform.....	120
Table 5.3: Scoring table of technology selection [Database Management System] .....	121
Table 5.4: Scoring table of technology selection [application platform].....	121
Table 5.5: Benefits of standard diagrams in design and development phase.....	127
Table 5.6: Test Script Detail.....	127
Table 5.7: The customised test script.....	128
Table 5.8: Test case of status tracking.....	128
Table 5.9: Test case of key-in data.....	129
Table 5.10: Test case of incorrect client data.....	129
Table 5.11: Test case of new properties after job opened.....	129

## LIST OF FIGURES

	Page
Figure 1.1: Number of jobs.....	1
Figure 1.2: Draft of current processes of the company.....	2
Figure 1.3: Problems in current processes of the company.....	4
Figure 2.1: Roles of information.....	9
Figure 2.2: Components of Information System.....	11
Figure 2.3: The waterfall model SDLC.....	15
Figure 2.4: The waterfall development methodologies.....	16
Figure 2.5: The parallel development methodology.....	17
Figure 2.6: The phased development methodology.....	18
Figure 2.7: The prototyping methodology.....	18
Figure 2.8: The throwaway prototyping methodology.....	19
Figure 2.9: The extreme programming methodology.....	20
Figure 2.10: SWOT Analysis.....	21
Figure 2.11: Components of use case.....	28
Figure 2.12: Sample Use Case Diagram.....	29
Figure 2.13: Sample State Chart Diagram.....	30
Figure 2.14: Sample Sequence Diagram.....	31
Figure 2.15: Sample Activity Diagram.....	32
Figure 2.16: IDEFØ.....	33
Figure 2.17: The workflow sphere.....	34
Figure 2.18: Workflow, IS Plan.....	35
Figure 2.19: Components of a workflow management system – the reference model of the Workflow Management Coalition.....	35
Figure 2.20: Workflow Improvement of Assembly Processes using WFS.....	36
Figure 3.1: Fishbone diagram of current processes of the Valuation Company.....	42
Figure 3.2: Valuation Management Structure.....	44
Figure 3.3: Valuation Position Structure of staff.....	44
Figure 3.4: Work process of the Valuation Company.....	47
Figure 3.5: Quotation document.....	48
Figure 3.6: Invoice document.....	49
Figure 3.7: Job order document.....	50

	Page
Figure 3.8: Advanced budget request form.....	51
Figure 3.9: Job submission document.....	54
Figure 3.10: Basic Flowchart of normal job [current system] .....	62
Figure 3.11: Basic Flowchart of review job [current system].....	63
Figure 3.12: Sub-system of create quotation [current system] .....	64
Figure 3.13: Sub-system of prepare to survey and report delivery [current system]....	65
Figure 3.14: Use case Diagram [current system].....	65
Figure 3.15: State Chart Diagram [current system].....	66
Figure 3.16: Sequence Diagram [current system].....	67
Figure 3.17: Activity Diagram of normal job [current system].....	68
Figure 3.18: Activity Diagram of review job [current system].....	69
Figure 3.19: Sub-system of create quotation [current system].....	69
Figure 3.20: Sub-system of prepare to survey and create job submission [current system].....	70
Figure 3.21: IDEFØ level 0 – Context Diagram.....	71
Figure 3.22: IDEFØ level 1 – A0 Diagram.....	72
Figure 3.23: IDEFØ level 2 – A1 Diagram; Receive Job.....	72
Figure 3.24: IDEFØ level 3 – A11 Diagram; Create Quotation.....	73
Figure 3.25: IDEFØ level 3 – A12 Diagram; Initiate Job.....	74
Figure 3.26: IDEFØ level 3 – A13 Diagram; Assign Job to Valuer.....	75
Figure 3.27: IDEFØ level 2 – A2 Diagram; Prepare / Survey.....	76
Figure 3.28: IDEFØ level 2 – A3 Diagram; Create Report.....	78
Figure 3.29: IDEFØ level 2 – A4 Diagram; Submit Report.....	79
Figure 3.30: IDEFØ level 2 – A43 Diagram; Prepare Job Submission.....	80
Figure 3.31: IDEFØ level 2 – A44 Diagram; Close Job.....	81
Figure 3.32: Data Access.....	84
Figure 4.1: Basic Flowchart of normal job [improved system].....	86
Figure 4.2: Basic Flowchart of review job [improved system].....	87
Figure 4.3: Sub-system of create quotation [improved system].....	87
Figure 4.4: Sub-system of prepare to survey and report delivery [improved system] .....	88
Figure 4.5: Use case Diagram [improved system].....	89
Figure 4.6: State Chart Diagram [improved system].....	93

	Page
Figure 4.7: Sequence Diagram [improved system].....	94
Figure 4.8: Activity Diagram of normal job [improved system].....	95
Figure 4.9: Activity Diagram of review job [improved system].....	96
Figure 4.10: Sub-system of create quotation [improved system].....	96
Figure 4.11: Prepare to survey and create job submission [improved system].....	97
Figure 4.12: Business Process Integration.....	97
Figure 4.13: IDEFØ level 0 – Context Diagram.....	98
Figure 4.14: IDEFØ level 1 – A0 Diagram.....	98
Figure 4.15: IDEFØ level 2 – A1 Diagram; Receive Job.....	99
Figure 4.16: IDEFØ level 3 – A11 Diagram; Create Quotation.....	100
Figure 4.17: IDEFØ level 3 – A12 Diagram; Initiate Job.....	101
Figure 4.18: IDEFØ level 3 – A13 Diagram; Assign Job to Valuer.....	102
Figure 4.19: IDEFØ level 2 – A2 Diagram; Prepare / Survey.....	103
Figure 4.20: IDEFØ level 2 – A3 Diagram; Create Report.....	105
Figure 4.21: IDEFØ level 2 – A4 Diagram; Submit Report.....	106
Figure 4.22: IDEFØ level 2 – A43 Diagram; Prepare Job Submission.....	107
Figure 4.23: IDEFØ level 2 – A44 Diagram; Close Job.....	108
Figure 4.24: DFD level 0 – Context Diagram.....	109
Figure 4.25: DFD level 1.....	109
Figure 4.26: DFD level 2 – Create Quotation.....	110
Figure 4.27: DFD level 2 – Initiate Job.....	110
Figure 4.28: DFD level 2 – Assign job to valuer.....	111
Figure 4.29: DFD level 2 – Prepare to survey.....	112
Figure 4.30: DFD level 2 – Draft Report.....	113
Figure 4.31: DFD level 2 – Full Report.....	113
Figure 4.32: DFD level 2 – Approval.....	114
Figure 4.33: DFD level 2 – Report Submission.....	115
Figure 4.34: Authorisation screen.....	116
Figure 4.35: To do list screen.....	116
Figure 4.36: Status tracking screen.....	117
Figure 4.37: Job Search screen.....	117
Figure 5.1: Sample Database Design based on primary design specification.....	124
Figure 5.2: Login screen.....	125

	<b>Page</b>
Figure 5.3: To do list screen.....	125
Figure 5.4: Status tracking screen.....	125
Figure 5.5: Job Search screen.....	125
Figure 6.1: Problems in current processes of the company.....	130