ABSTRACT

Improving productivity and efficiency using Applied Information Technology is a method to achieve competitive advantage and better market share. Unfortunately, most companies feel that the Cost of an Information Technology (IT) investment is quite expensive, especially for traditional insurance service provider such as insurance broker industry. The benefit from IT implementation usually is intangible and indirect, but it has certain impact for the future of the company.

Information Economics (IE) approaches by Parker, M., Benson, R., Trainor, H., (1988) tries to overcome that problem by using IE, which is more advanced rather than the traditional Cost-Benefit analysis. IE approaches involve some supporting factors such as Value Linking, Value Acceleration, Value Restructuring, Innovation Valuation, which gains through the Return on Investment (ROI) value. Furthermore, in addition the distribution of questionnaires to the related are as an input to evaluate the IT investment more accurate and can calculate the intangible and indirect benefits for the company.

By using IE approaches the evaluation results of IT investment is better, in order to realize that importance of IT within companies and justification of the IT investment, especially at PT. Duta Sewu Raya Insurance Brokers. Improvement in Business performance and gaining of competitive advantage through IT Investment in Insurance Broker Industry can be justified and evaluated further using Information Economics approaches.

Keywords: Information Economics, Return on Investment, Value Linking, Value Acceleration, Value Restructuring, Innovation Valuation.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Cover</td>
<td>i</td>
</tr>
<tr>
<td>Cover</td>
<td>ii</td>
</tr>
<tr>
<td>Approval</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>iv</td>
</tr>
<tr>
<td>Abstract</td>
<td>vi</td>
</tr>
<tr>
<td>Table of Content</td>
<td>vii</td>
</tr>
<tr>
<td>List of Figure</td>
<td>x</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER 1 INTRODUCTION

1.1 Background ......................... 1
1.2 Problem Definition ................. 2
1.3 Objectives ......................... 2
1.4 Scope of Analysis ................. 3
1.5 Organization of Thesis .......... 3

## CHAPTER 2 THEORETICAL FOUNDATION

2.1 Information Economics ............. 5
2.2 Cost-Benefit Analysis and Value definition .......... 6
2.3 Model and Variable ................. 7
2.4 Value Linking and Value Acceleration .......... 10
2.5 Value Restructuring ............... 11
CHAPTER 3 METHODOLOGY

3.1 Company Profile of PT. Duta Sewu Raya Insurance Brokers

3.1.1 Organization Structure

3.1.2 Business Model

3.1.3 Information Technology

3.2 Marketing and Finance & Accounting Departments

3.3 Object Research

3.4 Data Collecting Method

3.5 Measurement of IE scorecard

CHAPTER 4 ANALYSIS AND FINDINGS

4.1 ROI calculations result

4.1.1 Cost-Benefit

4.1.2 Value Linking and Value Acceleration

4.1.3 Value Restructuring

4.1.4 Innovation Valuation

4.2 Result of Business Domain
4.2.1 Questionnaire Recapitulation ........................................... 39

4.3 Result of Technology Domain ............................................. 40

4.3.1 Questionnaire Recapitulation ........................................... 44

4.4 Corporate Value .............................................................. 45

4.5 Result of Analysis ............................................................ 48

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion ................................................................. 50

5.2 Recommendation ........................................................ 51

BIBLIOGRAPHY

REFERENCES

APPENDIX A  Business Domain Factor and Technology Domain Factor Questionnaires
LIST OF TABLES

Table 4.1  The Productivity of Employees .......................... 34
Table 4.2  The Productivity of Employees, Value Restructuring .... 34
Table 4.3  Business Domain Questioner Recapitulation ............. 40
Table 4.4  Technology Domain Questioner Recapitulation .......... 45
Table 4.5  IT Investment Classifications ........................... 49
LIST OF FIGURES

Figure 2.1 Information Economics two-domain model ..................................................... 7
Figure 2.2 Information Economics techniques for developing simple ROI calculations ... 8
Figure 2.3 Factors for computing the project score .......................................................... 8
Figure 2.4 Development cost worksheet ............................................................................ 9
Figure 2.5 Ongoing expenses worksheet ............................................................................ 9
Figure 2.6 Economic impact worksheet ............................................................................ 10
Figure 2.7 Establishing corporate (Line of business) value ................................................ 14
Figure 2.8 Investment quadrant corporate value ............................................................... 15
Figure 2.9 Strategic quadrant corporate value .................................................................. 15
Figure 2.10 Infrastructure quadrant corporate value .......................................................... 16
Figure 2.11 Breakthrough or management quadrant corporate value ................................. 16
Figure 2.12 Information Economics Scorecards ................................................................. 17
Figure 3.1 Organizational Structure of PT. Duta Sewu Raya ............................................... 20
Figure 3.2 Business Model of PT. Duta Sewu Raya ............................................................ 21
Figure 4.1 Development Cost Worksheet Marketing, Finance & Acct. Department ............ 27
Figure 4.1a Development Cost Worksheet Marketing, Finance & Acct. Department .......... 28
Figure 4.2 Ongoing Expense Worksheet Marketing, Finance & Acct. Department .............. 29
Figure 4.3 Economic Impact Worksheet, Cost benefit ....................................................... 30
Figure 4.4 Economic Impact Worksheet, Value linking and Value acceleration ................. 32
Figure 4.5 Economic Impact Worksheet, Value restructuring ............................................ 33
Figure 4.6 Strategic Match Worksheet .............................................................................. 36
Figure 4.7 Competitive Advantages Worksheet ................................................................. 36
Figure 4.8 Management Information Worksheet ............................................................... 37
Figure 4.9 Competitive Response Worksheet .................................................................... 38
Figure 4.10 Project or Organizational Risk Worksheet .................................................. 39
Figure 4.11 Strategic IS Architecture Worksheet .......................................................... 41
Figure 4.12 Definitional Uncertainty Worksheet ............................................................ 41
Figure 4.13 Technical Uncertainty Worksheet ............................................................... 43
Figure 4.14 IS Infrastructure Risk Worksheet .............................................................. 44
Figure 4.15 Corporate Value Result .............................................................................. 45
Figure 4.16 Evaluation Criteria and Weighted Value ...................................................... 46
Figure 4.17 Information Economic Scorecards ............................................................. 47