# CONTENTS

<table>
<thead>
<tr>
<th>บทดี้เรียก</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>(5)</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>(7)</td>
</tr>
<tr>
<td>Contents</td>
<td>(8)</td>
</tr>
<tr>
<td>List of Tables</td>
<td>(10)</td>
</tr>
<tr>
<td>List of Illustrations</td>
<td>(11)</td>
</tr>
</tbody>
</table>

## 1 INTRODUCTION
- Introduction | 2 |
- Determinants of Educational Attainment | 3 |
- Rationale | 6 |
- Research Questions | 7 |

## 2 METHODOLOGY
- Study Design | 8 |
- Population and Sample | 8 |
- Variables | 10 |
- Data Collection and Data Management | 12 |
- Statistical Methods | 12 |
- Graphical Method | 15 |

## 3 PRELIMINARY DATA ANALYSIS
- Distributions of Variables | 16 |
- Associations between the Outcome and Each Determinant | 21 |

## 4 MULTIPLE REGRESSION ANALYSIS
- Regression analysis | 29 |
<table>
<thead>
<tr>
<th>5. CONCLUSIONS AND DISCUSSION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions</td>
<td>41</td>
</tr>
<tr>
<td>Discussion</td>
<td>42</td>
</tr>
<tr>
<td>Limitations</td>
<td>44</td>
</tr>
<tr>
<td>Application</td>
<td>44</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY</strong></td>
<td>45</td>
</tr>
<tr>
<td><strong>APPENDIX</strong></td>
<td>47</td>
</tr>
<tr>
<td><strong>VITAL</strong></td>
<td>67</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table
1. Subjects excluded 9
2. Subject selected 9
3. Categories of each variable 11
4. Distribution of students by determinant variables 20
5. Number of subjects classified by age group 21
6. P-values for the univariate associations 22
7. The Coefficients of gender and age group 37
8. Mean achievement score for males of the Faculty of Science and Technology 38
9. Mean achievement score for females of the Faculty of Science and Technology 38
10. Univariate analysis of determinants for achievement 41
LIST OF ILLUSTRATIONS

Figure

1. Histograms and numerical summaries means of data used 18
2. Histograms of outcome variable before and after log transformation 18
3. Box plots of achievement by gender, and age group 23
4. Box plots of achievement by residence, and family status 24
5. Box plots of achievement by university enrollment 25
6. Box plots of achievement by educational background 26
7. Achievement versus school GPA by age group & gender 27 (male=1, female =2)
8. Achievement versus school GPA by method of entrance & type of school (formal=0, nonformal=1) 28
9. Full model of multiple regression analysis 30
10. Multiple regression analysis of 627 Pattani undergraduates in academic year 1993 31
11. Model for achievement with family status recoded 32
12. Model with gender omitted 33
13. Model with main effect and interaction 34
14. Model with all combinations of gender and age group 35
15. Histograms and numerical summaries of predicted data 39
16. The predictive data adjusted by age group and gender 39
17. The predictive data adjusted by faculty and gender 40
18. Plot of actual score against predicted score 40
19. Means of achievement by age group and gender 43

(11)