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THE INTENTION OF UNIVERSITI UTARA MALAYSIA (UUM) UNDERGRADUATES TO FURTHER STUDIES: THE INFLUENCE OF FAMILY, ACADEMIC AND INDIVIDUAL-RELATED FACTORS

By

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Universiti Utara Malaysia

Thesis Submitted to
School of Economics, Finance and Banking
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in Partial Fulfillment of the Requirement for the Master of Economics

Kolej Perniagaan
(College of Business)
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ABSTRACT

Education is one of the key elements for a country's growth. The Malaysian government has consistently allocated a huge budget to the education sector every year. As a result of this effort, the number of undergraduates and Master's degree graduates of Malaysia's institutes of higher learning has increased over the years. However, the Malaysian Tracer Study statistics show that the percentages of undergraduates who intend to pursue a Master's Degree has dropped from 78.9 per cent (2007) to 73.3 per cent (2015). The number of Master's Degree graduates of Malaysian universities has shown a drastic fall from 26 per cent (2010) to only 7 per cent (2015). This study aims to determine the factors that influence the intention of undergraduates to pursue a Master's Degree. Three main factors are identified in this study, namely family, academic, and individual-related factors. The study sample is Universiti Utara Malaysia (UUM) graduands (bachelor's degree level) of 2016. Data were collected via a survey using the convenience sampling technique. The questionnaires were distributed to UUM graduands. A total of 447 graduands were included in the study. The methods of analysis include descriptive analysis, preliminary analyses (including missing value analysis, outlier analysis and VIF analysis), and logistic regression. The results of the analyses show that CGPA, scholarship and business-related programs during undergraduate studies are significant in influencing the undergraduates' intention to pursue a Master's Degree. This study suggests that policy makers pay more attention to providing financial aid for postgraduate studies, and university authorities provide more incentives to encourage high performing undergraduates to pursue a Master's Degree.

Keywords: undergraduates, intention, postgraduate enrollment, parental influence, academic factor

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ABSTRAK

Pendidikan merupakan salah satu elemen yang penting untuk pertumbuhan sesebuah negara. Kerajaan Malaysia telah secara konsisten memperuntukkan bajet yang tinggi kepada sektor pendidikan setiap tahun. Dengan usaha ini, bilangan mahasiswa dan mahasiswi dan pascasiswazah di institut pengajian tinggi di Malaysia telah meningkat. Walau bagaimana pun, statistik daripada *Malaysia Tracer Study* menunjukkan bahawa peratusan mahasiswa dan mahasiswi yang berminat untuk melanjutkan pelajaran ke peringkat Ijazah Sarjana talah menurun daripada 78.9 peratus (2007) kepada 73.3 peratus (2015). Bilangan graduan pascasiswazah daripada universiti tempatan juga telah mengalami penurunan yang tinggi daripada 26 peratus (2010) kepada hanya 7 peratus (2015). Kajian ini bertujuan untuk menentukan faktor-faktor yang mempengaruhi niat mahasiswa dan mahasiswi untuk melanjutkan pelajaran ke peringkat Ijazah Sarjana. Faktor-faktor yang terlibat dalam kajian ini ialah faktor keluarga, faktor akademik dan faktor individu. Sampel dalam kajian ini adalah graduan Universiti Utara Malaysia (UUM) (peringkat Ijazah Sarjana Muda) pada tahun 2016. Data kajian dikutip melalui soalselidik menggunakan teknik persampelan mudah. Borang soal selidik diedarkan kepada graduan UUM. Kajian ini melibatkan seramai 447 orang graduan. Kaedah analisis yang dijalankan ialah analisis deskriptif, analisis awal (termasuk *missing value analysis, outlier analysis dan VIF analysis)* dan regresi logistik. Keputusan analisis menunjukkan bahawa CGPA, biasiswa dan program yang berkaitan dengan perniagaan di peringkat pengajian sarjana muda adalah signifikan dalam mempengaruhi niat mahasiswa dan mahasiswi untuk melanjutkan pelajaran ke peringkat Ijazah Sarjana. Kajian ini mencadangkan supaya pembuat dasar memberi lebih perhatian kepada penyediaan bantuan kewangan untuk pengajian sarjana dan pihak universiti menyediakan insentif untuk menggalakkan mahasiswa dan mahasiswi yang cemerlang melanjutkan pengajian ke peringkat Ijazah Sarjana.

Kata kunci: mahasiswa/mahasiswi, minat, pendaftaran kemasukan siswazah, pengaruh keluarga, faktor akademik

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LIST OF ABBREVIATIONS

AGR	Association of Graduate Recruiters
BR1M	Bantuan Rakyat 1 Malaysia
CAS	College of Arts and Science
CGPA	Cumulative Grade Point Averages
COB	College of Business
COLGIS	College of Government and International Studies
GPA	Grade Point Average
HE	Higher Education
HECSU	Higher Education Careers Service Unit
HEI	Higher Education Institution
IEB	International Employer Barometer
MARA	Majlis Amanah Rakyat
MAR	Missing at Random
MCAR	Missing Completely at Random
MOE	Ministry of Education
MOHE	Ministry of Higher Education
MQA	Malaysian Qualifications Agency
NASLS	National Student Loan Survey
NHEAP	National Higher Education Action Plan
NHESP	National Higher Education Strategic Plan
OLS	Ordinary Least Square
PHEI	Public Higher Education Institution
PTPTN	National Higher Education Fund Corporation
PVHEI	Private Higher Education Institution

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SLID	Survey of Labor and Income Dynamics
US	United States
UUM	Universiti Utara Malaysia
VIF	Variance Inflation Factor

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Becoming a fully developed country by the year 2020 is one of the vision of Malaysia. More intelligent human capital is needed to become a fully developed country. In 2017, the Malaysian government allocated a huge budget of RM7.4 billion for 20 public universities to ensure that higher education is to be at par with the global standards. A total of RM2.2 billion was allocated by the Malaysian government for scholarships (Ministry of Finance, 2017). With the availability of financial support, Malaysian undergraduates should be encouraged to further their studies. Statistics in the Malaysia Tracer Reports show that the Malaysian undergraduates nowadays have a low intention to further their studies in a Master's Degree. The undergraduate decision making has received less research attention. This study focuses on the influence of academic, family, and individual-related factors.

Education is one of the main components in Malaysia's economy nowadays. The reason is the economy in Malaysia has developed from a production-based to knowledge-based to maintain the competitiveness in the international market. In the process of developing the K-economy, labor and capital must be replaced by knowledge. Malaysia is facing the challenge to develop knowledge workers so that they can have a contribution in the growth of this nation (Mahathir, 1991). The Malaysian government has formed a higher education system as an action to face the nine challenges of Vision 2020. As pointed by the Malaysian Prime Minister, Tun Dr. Mahathir bin Mohamad, we should have the vision to transform Malaysia to become

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APPENDIX A

List of Selected Questions

Demographic Background

1. Gender:
   ☐ Male ☐ Female

2. Date of birth: _____

3. Ethnicity:
   ☐ Malay ☐ Chinese ☐ Indian
   ☐ Others (please specify): _____

Dependent Variable

1. Do you have any plans for further studies in near future?
   ☐ Yes ☐ No

Individual-related factors

1. What is your current employment status?
   ☐ Full-time
   ☐ Part-time
   ☐ Self-employed
   ☐ Unemployed
   ☐ Economically inactive (eg. housewife, not seeking jobs in near future)

Family-related Factors

1. What is your parents' current job? Please tick where appropriate.

Father	Mother	
☐	☐	Civil servant
☐	☐	Private sector employee
☐	☐	Self-employed
☐	☐	Government retiree
☐	☐	Private sector retiree
☐	☐	Housewife
☐	☐	Unemployed
☐	☐	Others (please specify): Father _____ Mother _____

2. Please indicates the highest level of formal education achieved by your parents.

Father	Mother	Level of formal education
☐	☐	No formal education
☐	☐	Less than secondary school
☐	☐	Some secondary school
☐	☐	Complete secondary school
☐	☐	LCE/SRP/PMR
☐	☐	HSC/STPM/ A-Level/Diploma
☐	☐	Bachelor degree

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☐	☐	Masters' degree
☐	☐	PhD degree
☐	☐	Others (please specify): Father _____ Mother_____

3. What is your parents' monthly income?

☐ Father: RM _____ ☐ Mother: RM _____

4. What is your parents' current job? Please tick where appropriate.

Father	Mother	
☐	☐	Civil servant
☐	☐	Private sector employee
☐	☐	Self-employed
☐	☐	Government retiree
☐	☐	Private sector retiree
☐	☐	Housewife
☐	☐	Unemployed
☐	☐	Others (please specify): Father _____ Mother _____

5. Please indicates the highest level of formal education achieved by your parents.

Father	Mother	Level of formal education
☐	☐	No formal education
☐	☐	Less than secondary school
☐	☐	Some secondary school
☐	☐	Complete secondary school
☐	☐	LCE/SRP/PMR
☐	☐	HSC/STPM/ A-Level/Diploma
☐	☐	Bachelor degree
☐	☐	Masters' degree
☐	☐	PhD degree
☐	☐	Others (please specify): Father _____ Mother _____

3. What is your parents' monthly income?

☐ Father: RM _____ ☐ Mother: RM _____

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Academic-related Factors

1. Name of Bachelor degree programme: _____

2. Overall CGPA: _____ (eg. 3.25 out of 4.00)

3. Your higher education financing method (total cost including fees, living expenditure etc):

   ☐ 100% Loan

   ☐ 100% Scholarship

   ☐ 100% Self-funded

   ☐ Mixed

4. Please provide the information of the study loan that you obtained for your higher education.

a) Which sector offered you your study loan?

☐ Government sector ☐ Private sector

b) What is the total amount of your study loan?

RM_____

c) Did your study loan convertible to scholarship?

☐ Yes ☐ No

d) Please state the convertible condition. _____

e) Please provide the information for the repayment of your study loan.

i) Interest rate: _____

ii) Installment: _____

iii) Duration: _____

5. Please provide the information of the scholarship that you obtained for your higher education.

a) Which sector offered you your scholarship?
☐ Government sector ☐ Private sector

b) What is the total amount of your scholarship?

RM_____

c) Is there any employment contract for your scholarship?
☐ Yes ☐ No

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APPENDIX B

Schedule of UUM Robe Collection Week

Date	Program
7/11/2016	Decision Science Business Mathematics Industrial Statistics Public Management Development Management
8/11/2016	International Business Management International Affairs Management Law Social Work Management Counselling Communication Multimedia Technology Media Information Technology
9/11/2016	Tourism Management Hospitality Management Accounting Accounting Information System
10/11/2016	Muamalat Administration Islamic Finance and Banking Business Administration Human Resource Management Marketing Entrepreneurship
11/11/2016	Economics Agribusiness Management Finance Banking Risk Management and Insurance Technology Management Operation Management Business Administration (Logistics & Transportation)

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APPENDIX C

Model Specification (1)

```
Logistic regression                               Number of obs   =        447
                                                  LR chi2(4)      =       9.70
                                                  Prob > chi2     =     0.0458
Log likelihood = -304.95967                       Pseudo R2       =     0.0157
------------------------------------------------------------------------------
           Y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        PEDU |   .4845487    .253314     1.91   0.056    -.0119376    .9810351
          PI |   -.000114   .0000457    -2.50   0.013    -.0002035   -.0000245
         FEM |   .1926752   .2138411     0.90   0.368    -.2264456     .611796
         AGE |  -.0138326   .0575313    -0.24   0.810    -.1265919    .0989268
       _cons |   .4401955   1.521668     0.29   0.772     -2.54222    3.422611
------------------------------------------------------------------------------

Logistic model for Y, goodness-of-fit test

       number of observations =       447
 number of covariate patterns =       201
            Pearson chi2(196) =       207.96
                  Prob > chi2 =         0.2657

Marginal effects after logit
------------------------------------------------------------------------------
variable |      dy/dx    Std. Err.     z    P>|z|  [    95% C.I.   ]      X
---------+--------------------------------------------------------------------
    PEDU*|   .1200992      .06162    1.95   0.051  -.000679  .240878   .196868
      PI |  -.0000285      .00001   -2.50   0.013  -.000051 -6.1e-06   2938.76
     FEM*|   .0480803      .05321    0.90   0.366  -.056204  .152364   .715884
     AGE |  -.0034577      .01438   -0.24   0.810  -.031644  .024728   26.1969
------------------------------------------------------------------------------
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

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Model Specification (2)

```
Logistic regression                               Number of obs   =        447
                                                  LR chi2(6)      =      23.38
                                                  Prob > chi2     =     0.0007
Log likelihood = -298.11782                       Pseudo R2       =     0.0377
------------------------------------------------------------------------------
           Y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        CGPA |  -.8885256   .3455861    -2.57   0.010    -1.565862   -.2111894
          SL |   .2585922   .3136257     0.82   0.410    -.3561029    .8732873
         SCH |   1.206086   .4655669     2.59   0.010     .2935914     2.11858
         BRP |  -.5980722   .2303135    -2.60   0.009    -1.049478    -.146666
         FEM |   .2796836   .2176612     1.28   0.199    -.1469244    .7062917
         AGE |  -.0167733   .0596684    -0.28   0.779    -.1337212    .1001746
       _cons |    3.39069   2.121448     1.60   0.110    -.7672711    7.548651
------------------------------------------------------------------------------

Logistic model for Y, goodness-of-fit test

       number of observations =       447
 number of covariate patterns =       327
            Pearson chi2(320) =       332.41
                  Prob > chi2 =         0.3048

Marginal effects after logit
------------------------------------------------------------------------------
variable |      dy/dx    Std. Err.      z    P>|z|  [    95% C.I.   ]      X
---------+--------------------------------------------------------------------
    CGPA |  -.2221062      .08638   -2.57   0.010  -.391418 -.052795   3.40796
      SL*|   .0643987      .07758    0.83   0.406   -.08766  .216457   .803132
     SCH*|   .2775133      .09015    3.08   0.002   .100815  .454212   .080537
     BRP*|  -.1478094      .05555   -2.66   0.008  -.256676 -.038943   .751678
     FEM*|   .0696914      .05393    1.29   0.196  -.036001  .175384   .715884
     AGE |  -.0041929      .01492   -0.28   0.779  -.033427  .025041   26.1969
```

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```
------------------------------------------------------------------------------
---
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

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Model Specification (3)

```
Logistic regression                               Number of obs   =        447
                                                  LR chi2(2)      =       4.41
                                                  Prob > chi2     =     0.1104
Log likelihood = -307.44408                       Pseudo R2       =     0.0071
------------------------------------------------------------------------------
         EMP |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         AGE |    .153287   .0902141     1.70   0.089    -.0235293    .3301033
         FEM |   .0903781    .210449     0.43   0.668    -.3220944    .5028506
       _cons |   -4.01521   2.359943    -1.70   0.089    -8.640614    .6101943
------------------------------------------------------------------------------
```

```
Logistic model for EMP, goodness-of-fit test
       number of observations =       447
 number of covariate patterns =        16
            Pearson chi2(13) =         9.16
                  Prob > chi2 =       0.7607
```

```
Marginal effects after logit
------------------------------------------------------------------------------
variable |      dy/dx    Std. Err.      z    P>|z|  [    95% C.I.   ]      X
---------+--------------------------------------------------------------------
     AGE |   .0382811      .02252    1.70   0.089  -.005856  .082419   26.1969
     FEM*|   .0225789      .05258    0.43   0.668  -.080479  .125637   .715884
------------------------------------------------------------------------------
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

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Model Specification (4)

```
Logistic regression                               Number of obs   =        447
                                                  LR chi2(9)      =      26.46
                                                  Prob > chi2     =     0.0017
Log likelihood = -296.57984                       Pseudo R2       =     0.0427
------------------------------------------------------------------------------
           Y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        PEDU |   .3349336   .2630948     1.27   0.203    -.1807227    .8505899
          PI |  -.0000647   .0000484    -1.34   0.181    -.0001595    .0000301
        CGPA |   -.748516   .3545921    -2.11   0.035    -1.443504   -.0535283
          SL |   .1834132   .3258405     0.56   0.574    -.4552225     .822049
         SCH |   1.051893   .4759082     2.21   0.027     .1191299    1.984656
         BRP |  -.5471962    .234866    -2.33   0.020    -1.007525   -.0868673
         EMP |   .1365631    .198138     0.69   0.491    -.2517803    .5249066
         FEM |   .2331501   .2203263     1.06   0.290    -.1986815    .6649818
         AGE |  -.0216964   .0599745    -0.36   0.718    -.1392442    .0958513
       _cons |    3.16334   2.138254     1.48   0.139     -1.02756    7.354241
------------------------------------------------------------------------------
```

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```
Logistic model for Y, goodness-of-fit test

       number of observations =       447
 number of covariate patterns =       438
            Pearson chi2(428) =       437.32
                  Prob > chi2 =         0.3673
```

Marginal effects after logit

y = Pr(Y) (predict)

= .49443906

variable	dy/dx	Std. Err.	z	P>|z|	[95% C.I.	]	X
PEDU*|	.083408	.06495	1.28	0.199	-.043896	.210712	.196868
PI |	-.0000162	.00001	-1.34	0.181	-.00004	7.5e-06	2938.76
CGPA |	-.1871059	.08864	-2.11	0.035	-.360828	-.013383	3.40796
SL*|	.045752	.08099	0.56	0.572	-.112987	.204491	.803132
SCH*|	.2468096	.09779	2.52	0.012	.055143	.438476	.080537
BRP*|	-.1355082	.05699	-2.38	0.017	-.247206	-.02381	.751678
EMP*|	.0341225	.04947	0.69	0.490	-.062833	.131078	.514541
FEM*|	.0581453	.05472	1.06	0.288	-.049107	.165397	.715884
AGE |	-.0054234	.01499	-0.36	0.718	-.034807	.02396	26.1969

(*) dy/dx is for discrete change of dummy variable from 0 to 1

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