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**UPPER SECONDARY SCHOOL DROPOUT:
LESSONS FROM CENTRAL JAVA
PROVINCE, INDONESIA**

A dissertation presented in partial fulfilment
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Andryan Setyadharma
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ABSTRACT

One of the biggest challenges in educational reform is dealing with the problem of school dropout. It is not merely due to poor grades or bad behaviour or human capital considerations; often it is a more complex problem. Dropout must be considered as a process of events rather than only a single event, which interacts with social contexts and environmental situations. It undeniably requires a comprehensive understanding of the factors and processes surrounding the dropout decision.

Indonesia still faces a high dropout rate, especially at upper secondary school level. Compared with other school levels, dropout rates are higher than in primary school and in lower secondary school. Therefore, the main aim of this study is to examine the effects of potential determinants on the likelihood of an individual to complete or drop out of upper secondary school in Central Java Province. This study mostly uses economic theories to explain the dropout phenomenon and human capital theory is used as the main theory to explain the importance of investment in upper secondary education for a better life in the future.

In this study, the most suitable research approaches in the Indonesian context are explored and employed. Primary data have been collected, enabling more in-depth and systematic analysis of the issue. There are two types of research methods used in this study, i.e., quantitative and qualitative analyses. The quantitative analysis is the centre of this study. 439 former upper secondary school students and 878 parents/guardians participated in the quantitative study. Logit is the preferred regression technique used in the quantitative analysis because of its advantages compared to other methods. This study also conducts probit and Ordinary Least Square regressions as part of the robustness analysis. There are 39 explanatory variables and four interaction terms. To the best of my knowledge, the interaction between *female* variables and three variables (*sibling rank*, *home location*, and *non-working mother*) used in this study have never been used in previous studies and this is one of the original contributions of this study to the body of knowledge. In addition, the empirical model is estimated separately for female students and for male students. This is because little previous research has been carried out that investigates whether the factors affecting students to drop out vary by gender.

Some important results from the quantitative analysis show that *being a female*, *older age at first entry*, *having a home location in a rural area*, *having low secondary school national examination grades*, *changing schools*, *larger family size*, *having siblings who dropped out* and *studying in urban schools* are associated with

higher odds of dropping out. This study indicates that the *lowest socioeconomic status* variable, as a proxy of poverty, also contributes to students dropping out. It is also shown that *government assistance for poor students* significantly reduces the odds of dropping out in all models. The main findings from interaction effects indicate that female students with higher sibling rank are less likely to drop out in comparison to male students with higher sibling rank. This study also suggests that female students who stay in rural areas are less likely to drop out than male students who stay in rural areas.

The gender-only regression results reveal significant differences in the odds of dropping out compared to the main sample regressions. Some explanatory variables only have strong impacts on females' decisions to drop out, such as *repeating a grade*, *low academic achievement at previous level of schooling*, *deviant behaviours* and *bullied by peers and/or teachers*. They all increase the odds of females dropping out. There are also some strong and statistically significant explanatory variables that influence males' decisions to drop out. Male students' good perception of education reduces their odds of dropping out. It is also shown that mothers who are not working and are physically present in the house reduce the odds of their sons dropping out.

Qualitative analysis is used to supplement the quantitative analysis. The purpose of the qualitative analysis is to understand why students drop out of school in Central Java Province. The qualitative findings are used to provide context and explanations for the quantitative findings. In-depth interviews were conducted by using open-ended questions. There were 16 dropouts, three males and 13 females that participated in the interviews. Parents of dropouts were also interviewed.

There are some important findings from the qualitative analysis. It was shown that the final decision to drop out was made by the students, not their parents. This study also shows that parents have a good perception of education and always support their children to get a higher education regardless of their financial conditions. However, parents' support is not enough since the main problem is that parents cannot force their child to stay in school or go back to school. Based on the evidence from the qualitative analysis, it is concluded that dropout prevention programs, not curative programs, are likely to be the best strategy to reduce dropout.

Based on our findings, existing policies are discussed and new policies are proposed to reduce the number of dropouts. In general, there are two main strategies: (1) Dropout Prevention Programs; and (2) Return to School Programs. An early warning system derived from the findings is suggested as the ideal practice to identify potential dropouts.

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LIST OF ABBREVIATIONS, ACRONYMS AND INDONESIAN TERMS

ACDP	Education Sector Analytical and Capacity Development Partnership
AIC	Akaike's Info Criterion
ASEAN	Association of Southeast Asian Nations
BLSM	<i>Bantuan Langsung Sementara Masyarakat</i> (Temporary Direct Cash Assistance)
BOS	<i>Bantuan Operasional Sekolah</i> (School Operational Assistance)
BPS	<i>Badan Pusat Statistik</i> (Indonesian Central Statistics Agency)
BSM	<i>Bantuan Siswa Miskin</i> (Poor Students Assistance)
CCT	Conditional Cash Transfer
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
ECE	Early Childhood Education
EE	Equivalency Education
EFA	Education for All
EWS	Early Warning System
GDI	Gender Development Index
GDP	Gross Domestic Product
GED	General Education Development
GER	Gross Enrolment Ratio
GOF	Goodness of Fit
GOI	Government of Indonesia
GPA	Grade Point Average
GRDP	Gross Regional Domestic Product
HDI	Human Development Index
HL	Hosmer-Lemeshow (Goodness-of-fit)
IADB	Inter-America Development Bank
ILO	International Labour Organization
Inpres	<i>Instruksi Presiden</i> (Presidential Instruction)
KIP	<i>Kartu Indonesia Pintar</i> (Indonesia Smart Card)

KTSP	<i>Kurikulum Tingkat Satuan Pendidikan</i> (Education Unit Level Curriculum)
LR	Likelihood Ratio
MA	<i>Madrasah Aliyah</i> (Islamic Upper Secondary School)
MAK	<i>Madrasah Aliyah Kejuruan</i> (Islamic Vocational Upper Secondary School)
MI	<i>Madrasah Ibtidaiyah</i> (Islamic Primary School)
MT	<i>Madrasah Tsanawiyah</i> (Islamic Lower Secondary School)
MOEC	Ministry of Education and Culture
MORA	Ministry of Religious Affairs
MP3EI	<i>Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia</i> (Master Plan for the Acceleration and Expansion of Economic Development in Indonesia)
MUHEC	Massey University Human Ethics Committee
NCES	National Center of Education Statistics
NCWGE	National Coalition for Women and Girls in Education
NER	Net Enrolment Ratio
NZAE	New Zealand Association of Economists
NZ\$	New Zealand Dollar
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
PISA	Program for International Student Assessment
PKH	<i>Program Keluarga Harapan</i> (Family Hope Program)
PMU	<i>Pendidikan Menengah Universal</i> (Universal Secondary Education)
PPP	Purchasing power parity
PRAF	<i>The Programa de Asignacion Familiar</i>
PTA	Parent-teacher association
Rp.	Indonesian Rupiah
RT	<i>Rukun Tetangga</i> (neighbours association)
ROC Curve	Receiver Operating Characteristic Curve
SDPP	the School Dropout Prevention Pilot Program
SES	Socioeconomic Status
SMA	<i>Sekolah Menengah Atas</i> (General Upper Secondary School)
SMK	<i>Sekolah Menengah Kejuruan</i> (Vocational Upper Secondary School)

SMP	<i>Sekolah Menengah Pertama</i> (Lower Secondary School)
SUSENAS	<i>Survei Sosial Ekonomi Nasional</i> (National Socioeconomic Survey)
TNP2K	<i>Tim Nasional Percepatan Penanggulangan Kemiskinan</i> (The Indonesia National Team for the Acceleration of Poverty Reduction)
TVE	Technical and Vocational Education
UK	United Kingdom
UNDP	United Nations Development Programme
UNPFA	United Nations Population Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO-IBE	United Nations Educational, Scientific and Cultural Organization - International Bureau of Education
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development
US\$	United States Dollar
USS	Upper Secondary School
VIF	Variance Inflation Factor