RURAL OUT-MIGRATION AND REMITTANCES - A CASE STUDY OF FOUR DISTRICTS IN PENINSULAR MALAYSIA

BY :

TAN CHUIE HONG
(EGE99023)

SUBMITTED TO THE FACULTY OF ECONOMICS AND ADMINISTRATION, UNIVERSITY OF MALAYA IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF APPLIED STATISTICS

MAY 2001

Perpustakaan Universiti Malaya

A511374579

ACKNOWLEDGEMENT

My greatest appreciation and gratitude to my supervisor, Associate Professor Tey Nai Peng, for providing valuable guidance, comments and suggestions towards the completion of this research paper. I would like to thank my friend, Ho Sin Ban for his forbearance and encouragement. Last but not least, I must acknowledge the support of my parents and my sister, Tan Chuei Luan throughout the course.

ABSTRACT

This research report examines the socio-economic differentials of remittances in Kerian, Hilir Perak, Sabak Bernam and Rembau, using data from a based on a survey on "Consequences of Rural Depopulation on the Agricultural Communities" conducted in 1997 by a group of researchers from the University of Malaya. The survey provided a host of socio-demographic information for the detailed analyses of remittances in terms of:

- the proportion of households in the study areas that had received remittances from their migrant children and the amount received, and
- the proportion of migrant children who had sent remittances and the amount remitted.

Bivariate analyses were carried out to examine the socio-demographic differentials in receiving and sending of remittances. Appropriate non-parametric statistics were used to test the significant differences across subgroups of the study population. Significant differentials in remittances can be observed across the four districts as well as socio-demographic groups.

Various multivariate techniques including logistic regression, analysis of variance, multiple classification analysis and multiple regression were used to identify the determinants of remittances, both in terms of receiving and sending. Education level and

activity status are two important variables affecting remittances. In addition, current place of residence is also an important determinant in the propensity to remit.

The social and economic implications of the findings are discussed in relation to social development. Some suggestions for future study on this topic are also put forward.

CONTENTS

		Page
ACKNOWLEDGEMENT		i
ABSTRACT		ii
CONTENTS		iv
LIST OF TABLES		vi
LIST OF FIGURES		x
CHAPTER 1 - BACKGROUND TO THE STUDY		1
1.1	Introduction	1
1.2	Objectives of the study	6
1.3	Significance of the study	7
1.4	Organization of the study	10
CHAPTER 2 - LITERATURE REVIEW		11
2.1	Introduction	11
2.2	Socio-demographic differentials on the propensity to remit	12
2.3	Socio-demographic characteristics of rural house-holds receiving remittances	15
2.4	Reasons for remitting	17
2.5	Consumption of remittances received by households	19
CHAPTER 3 - DATA SOURCES AND METHODOLOGY		21
3.1	Data sources	21
3.2	Analytical framework	23
3.3	Statistical methods	25
CHAPTER 4 -	SOCIO-ECONOMIC DIFFERENTIALS OF REMITTANCES IN THE STUDY AREA	28
4.1	Out-migration from the selected districts	28
4.2	Remittances received by household heads in the four selected districts	30
4.2.1	Proportion of household heads who had received remittances by socio-demographic variables	33
4.2.2	Amount of remittances received according to socio-demographic characteristics of heads of household	37
4.2.3	Remittances and household income	41

4.3 Annual remittances sent by individual migrants to households in the four districts 45
4.3.1 Proportion of migrant children who sent remittances according to socio-demographic variables 45
4.3.2 Amount of remittances sent by migrant children according to their socio-demographic characteristics 49
4.4 Summary 54

CHAPTER 5 - MULTIVARIATE ANALYSES OF FACTORS AFFECTING REMITTANCES 56

5.1 Introduction 56
5.2 Multivariate analyses of the proportion of heads of households who had received remittances 57
5.3 Analysis of variance on the remittances received by heads of household 63
5.4 Multiple classification analysis (MCA) of the amount of remittances received by heads of household 67
5.5 Multiple regression of remittances received by heads of household 71
5.6 Multivariate analyses of the proportion of migrant children who had sent remittances 74
5.7 Analysis of variance on remittances sent by migrant children 78
5.8 Multiple classification analysis (MCA) of the amount of remittances sent by migrant children 82
5.9 Multiple regression of remittances sent by migrant children 85
5.10 Summary 87

CHAPTER 6 – CONCLUSION AND DISCUSSIONS 89

APPENDICES 94

APPENDIX I 95
APPENDIX II 98
APPENDIX III 99
APPENDIX IV 101
APPENDIX V 102
APPENDIX VI 104

BIBLIOGRAPHY 105

LIST OF TABLES

1.1	Sex-ratio of inter-state migrants and total population by age group, Malaysia 1975-1980 and 1986-1991	4
2.1	Distribution of migrants who have sent remittances according to period since last remittance was sent by duration of urban residence (sample size in parentheses)	13
2.2	Remittances as percentage of household income according to income group	15
2.3	Percentage of migrants who have ever remitted according to percentage of household members (at place of origin) who were working	16
2.4	Percentage of migrants who sent remittances, by years since out-migration and type of migrant household	17
3.1	Sample selection in the four districts under study	22
4.1	Frequency and percentage distributions of households by number of migrant children and district	29
4.2	Frequency and percentage distributions of households by number of migrant children and age of heads of household	29
4.3	Frequency and percentage distributions of households by number of migrant children and total number of children	30
4.4	Summary statistics of remittances received by heads of households in the four districts (among those who had received remittances)	32
4.5	Percentage of heads of household who had received remittances by selected variables and district	36
4.6	Median amount of remittances received per year by heads of household according to selected variables by district	38
4.7	Mean and median amount of remittances received from the first child to fifth child by district	40
4.8	Percentage of heads of household who had received remittances by monthly household income	41

4.9	Mean and percentage of different sources of household income by households receiving remittances according to district	43
4.10	Proportionate contribution of remittances to total household income by level of income	44
4.11	Percentage of migrant children who had sent remittances by selected variables and district	47
4.12	Percentage of migrant children who had sent remittances by marital status and age according to gender	48
4.13	Summary statistics of the annual remittances sent by migrant children from the four districts	50
4.14	Median remittances sent by migrant children by selected variables according to district	52
5.1	Dummy variables to be used in logistic regression on the likelihood of households receiving remittances and the corresponding reference categories	57
5.2	Model 1 : Classification table on the actual and predicted number of households that had received remittances during the 12 months preceding the survey	58
5.3	Model 1 : Goodness of fit test for logistic regression on the probability of receiving remittances	59
5.4	Model 1 : Logistic regression analysis on the likelihood of heads of household receiving remittances from their children with seven selected variables	60
5.5	Model 2 : Classification table on the actual and predicted number of households that had received remittances during the 12 months preceding the survey	61
5.6	Model 2 : Goodness of fit test for logistic regression on the probability of receiving remittances	61
5.7	Model 2 : Logistic regression analysis on the likelihood of heads of household receiving remittances on characteristics of the heads of household	62
5.8	Analysis of variance of natural logarithm of the amount of remittances received by heads of household	64

5.9 Analysis of variance of natural logarithm of the amount of remittances received by heads of household with five selected variables 65

5.10 Analysis of variance of natural logarithm of the amount of remittances received by heads of household by four selected variables 66

5.11 Multiple Classification Analysis (MCA) of natural logarithm of the amount of remittances received by heads of household by selected variables 68

5.12 Multiple Classification Analysis (MCA) of amount of remittances received by heads of household (converted from natural log) by selected variables 69

5.13 Dummy variables to be used in regression analysis on the amount of remittances received and the corresponding reference categories 71

5.14 Ordinary Least Squares Regression of natural logarithm of the amount of remittances received by heads of household on selected independent variables 73

5.15 Dummy variables to be used in logistic regression on the likelihood of migrant children sending remittances and the corresponding reference categories 74

5.16 Classification table for the probability of migrant children sending remittances 75

5.17 Goodness of fit test for logistic regression on the probability of sending remittances 75

5.18 Logistic regression analysis on the likelihood of migrant children sending remittances 77

5.19 Analysis of variance of natural logarithm of the amount of remittances sent on characteristics of migrant children 79

5.20 Analysis of variance of natural logarithm of the amount of remittances sent on characteristics of migrant children 80

5.21 Analysis of variance of natural logarithm of the amount of remittances sent on characteristics of migrant children by four selected variables 81

5.22 Multiple Classification Analysis (MCA) of natural logarithm of the amount of remittances sent on characteristics of migrant children 82

5.23 Multiple Classification Analysis (MCA) of natural logarithm of the amount of remittances sent on characteristics of migrant children (with conversion of natural logarithm of ringgit to ringgit) 83

5.24 Dummy variables to be used in regression analysis on the amount of remittances sent and the corresponding reference categories 85

5.25 Ordinary Least Square Regression of the natural logarithm of the amount of remittances sent by migrant children on selected independent variables 87

LIST OF FIGURES

1.1	Percentage distribution of Malaysian population by urban/rural location, 1991, 1995 and 2000	2
1.2	Inter-state migration rates by age group, Malaysia, 1975-1980 and 1986-1991	3
4.1	Percentage of households in the four districts receiving remittances from migrant children	31
4.2	Percentage distribution of heads of household by educational level by age	34