



HOKKAIDO UNIVERSITY

Title	Empirical Analyses on Consumption, Health, and Education in Laos [an abstract of dissertation and a summary of dissertation review]
Author(s)	OUANPHILALAY, SOMSAY
Degree Grantor	北海道大学
Degree Name	博士(経済学)
Dissertation Number	甲第12527号
Issue Date	2017-03-23
Doc URL	https://hdl.handle.net/2115/66273
Rights(URL)	https://creativecommons.org/licenses/by-nc-sa/2.1/jp/
Type	doctoral thesis
File Information	Somsay_OUANPHILALAY_abstract.pdf, 論文内容の要旨



学位論文内容の要旨

博士の専攻分野の名称：博士（経済学） 氏名： SOMSAY OUANPHILALAY

学位論文題名

EMPIRICAL ANALYSIS ON CONSUMPTION, HEALTH, AND EDUCATION IN LAOS

(ラオスにおける消費、健康、教育に関する実証分析)

This dissertation seeks to provide a better understanding of the progress of socioeconomic development and wellbeing in the Lao PDR. As a least developed country with relatively high level of child mortality rates and poverty headcounts, identifying the factors to improve the living standard of the people remains extremely challenging tasks for policymakers. The objective of this dissertation is to explore the problems and offer some policy recommendations to help improve the wellbeing of people through empirical investigations using large-scale nationally representative household survey data. More specifically, it seeks to provide to answers to key questions: Do credits and remittances improve household welfare by raising consumption? Does lower education cause high mortality rates? Do poverty headcounts represent the reality of wellbeing of the population? And finally, what are impacts of education on employment selection and earnings during 2007 and 2013? The dissertation contains 6 chapters, and each chapter can be briefly described as follows.

Chapter 1 introduces the motivation of this dissertation, briefly explains the overview of Lao economy, outlines the structure and summarizes key findings, and briefly discusses the limitations.

Chapter 2 assesses the impact of household credit on consumption in Laos using nationally representative household data for 2007/2008. The analysis follows the two-stage selection bias correction method based on a multinomial logit framework to estimate and compare the consumption of borrowing households with their respective counterfactual consumption. In the first stage, the household borrowing status—namely formal sources (banks), semiformal sources (microcredit), informal sources with interests (private money lenders), informal sources with no interest (family and friends), and nonborrowers—is estimated by multinomial logit model. In the second stage, using the results obtained from the first stage, consumption of each household group is estimated by OLS with the inclusion of selection bias correction terms. The results show that when compared with what household consumption would have been without credit, borrowing households tend to have higher overall consumption. However, when consumption is disaggregated into food and nonfood, it is found that only formal credit has a positive impact, while borrowing from semiformal sources and informal sources without interest has negative impacts on food spending. For nonfood consumption, the impact of credit is found to be positive and statistically significant for all credit sources. The findings imply that access to credits can have a potential positive effect on household welfare in Laos.

Chapter 3 evaluates the effects of remittances on household expenditures in Laos. This chapter uses nationally representative household data collected during 2007-2008. The chapter employs the propensity score matching estimation method, and the results show that households receiving remittances tend to spend less on food and business investment, and more on health care and nonfood as compared to what they would have spent without remittances. Further, the findings reveal that only internal remittances have weakly positive effect education spending and negative effect on business investment. Overall results suggest that remittances can help improve the welfare of household such as increasing health and other nonfood expenditures. However, the productive use of remittances for human capital investment is found to be limited only to internal remittances.

Chapter 4 analyzes child poverty in Laos based on multidimensional welfare indicators. It uses a multidimensional method based on first order dominance (FOD) approach to analyze the child poverty incidence in Laos using the data from Laos Multiple Indicator Cluster Surveys for the years 2000 and 2012. The main objective is to perform ordinal welfare rankings of provinces, rural and urban areas, and regions (north, central, and south) based on multidimensional welfare indicators of children aged 0-17. The selected welfare indicators are: child health (whether a child aged 0-6 is stunted, underweight, or wasted), child schooling (whether a child in schooling age was attending school at the time of interview), access to safe drinking water, access to information, and access to improved sanitation. The results reveal that the urban areas dominate all areas except Vientiane Capital. Children living in Vientiane Capital and urban areas of Laos in 2000 and 2012 are shown to be relatively better off. Across the country, children living Phongsaly Province, rural areas, and Saravane Province were most deprived in 2012. Saravane province, located in southern region, was also found to be the poorest province in Laos based on poverty headcount ratio using consumption as measurement in 2012, which is 49.8 per cent. However, Phongsaly Province, located in northern region next to China, is shown to have a dramatic decline in poverty headcount rate from 50.8 per cent in 2003 to 12.3 per cent in 2013, making it one of the lowest poverty headcount rate in the country comparable to the urban areas. The results of this study suggest that multidimensional child poverty is more serious in Phongsaly Province even though it has lower poverty headcount rate, and that multidimensional poverty analysis using FOD approach provides a different perspective of how the poverty is viewed for the case of Laos. Policy aiming to eliminate the poverty incidence in the long term should focus on child poverty based on multidimensional indicators rather than one dimension such as consumption.

Chapter 5 analyzes the effects of mother's education on child mortality in Laos. It aims to explore the links between socio-economic factors and child mortality in rural and urban Laos using the Cox proportional hazard model, with a focus on the effect of mother's education. The data used are drawn from the latest Multiple Indicator Cluster Surveys collected between 2011 and 2012. The results show that mother's education plays different roles in urban and rural areas. In urban areas, mother's education at secondary level is strongly significant in reducing child mortality, but in rural areas only education at higher level shows significant effects. Analysis based on mother's birth cohorts before and after 1980 reveal that the education of older mothers has little effects on child mortality, suggesting that economic and political transition might affect lower education attainment and education quality of mothers who were born before 1980. Further findings suggest that immediate attention should be

directed to supporting family planning in rural areas where child mortality rates are high, as education lower than high school levels has no significant impacts in reducing child mortality. Overall findings support the view that investment in women's education is one of the most effective to reduce child mortality in Laos.

Chapter 6 estimates the returns to education for self-employed and wage-employees in Laos. This chapter uses two waves of nationally representative household survey data for the years 2007/2008 and 2012/2013. To deal with selection bias problem arising from some unobserved characteristics that affect individuals' decision whether to be self-employed or an employee, the chapter employs a more efficient version of an endogenous switching regression model to jointly estimate the effect of education on employment selection and earnings in both sectors. The results show that the returns to education decreases for self-employed and slightly increases for employees between 2007/2008 and 2012/2013: the estimated returns to education for entrepreneurs are found to be significantly higher than employees (8.28% versus 4.8%) for the year 2007/08, but the returns are relatively similar for 2012/2013 (4.75% versus 4.68%). These results indicate that there is a convergence in the rate of returns in both employment sectors. The chapter finds strong evidence of self-selection into both self-employment and wage employment for the year 2007/2008, but no evidence is found for wage employment for the year 2012/2013.