

学位論文の要旨 (論文の内容の要旨)  
Summary of the Dissertation (Summary of Dissertation Contents)

論 文 題 目  
Dissertation title:

Reciprocity of Rural Households through Transactions in a Developing Country: A Case Study from Lao PDR

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The strong human relations through the exchange of goods and services between households in rural developing countries lead to an increasing role of economic interactions and potentially wider economic development and growth. The main purpose of this research is to examine the interdependence among rural households through their transactions using a village input-output table (VIOT) model and a transformed QVIOT model created from our own household survey data conducted in a rural village in northern Lao PDR. Furthermore, this research also investigates the influence of external financial support as remittances on transactions in that corresponding village.

However, not enough statistics and data are available to support this research at the village level. We conducted our household surveys in a rural village in northeastern of Luang Prabang province, Lao PDR in 2015 and 2016 to obtain relevant data and information for constructing a village input-output table (VIOT) for interdependence analysis. VIOT construction is simple, but it is a useful tool to know the economic transactions among villagers in the village because this VIOT can provide not only a fundamental information describing a circular structure of goods and services, but also money transfers as remittances and earnings from labor services outside the village.

A number of previous studies focused on input-output (IO) model and its analysis for the economic impact evaluation of industrial sectors for a specific national, international or regional, and interregional level. However, this type of research on IO studies at the village level has been rarely conducted because researchers often lack enough information and socio-economic statistics. In addition, the survey approach is expensive and time-consuming. Few studies that used rural IO information from household survey data. Taylor and Adelman's (1996) study is one among the previous studies that focused on rural IO model, including a social accounting matrix (SAM) and computational general equilibrium models.

Our household surveys were conducted in March 2015 and March 2016 in Phonxay village of Ngoi district of Luang Prabang province, Lao PDR. The village was selected by local government, when we asked which village was the most challenged regarding economic development in the district or province. As of 2016, there were 124 households in the village, which had 720 inhabitants. The main income was rice (45%), followed by non-timber forest products (25%), livestock (19%), and wages and remittances (7%), respectively. The average monthly per capita income was 197,365 Kip (US\$ 25), which is above the Laos' national poverty line for rural areas (180,000 Kip/person/month).

This doctoral thesis is divided into five main chapters based on specific research objectives and questions in each chapter. Chapter 1 is an introduction and research background. This chapter introduces the subject area of the research, presents the objectives and research questions, the significance of the research, our contribution to the research, and a schematic overview of the structure of the doctoral thesis. In addition, my onsite team project is also included in this chapter. Chapter 2 is about making a village input-output table (VIOT) from household survey data. It is the main body of this doctoral thesis describing how to make a VIOT from a household survey data to examine interdependency among households through their transactions. This chapter is further divided into two main chapters, namely chapter 3 and chapter 4. Chapter 3 is measurement of reciprocity in the village

through social networks. It is extended to examine the reciprocity of households through their transactions using a qualitative input-output table (QVIOT) which is converted from the VIOT. The chapter presents the main findings of measurement of the reciprocity of households in the village. Chapter 4 is about investigating the influence of domestic transaction on transactions among households in the village. It estimates the average treatment effects of money transfer as remittances from outside the village on transactions between households in the village using PSM. Finally, Chapter 5 summarizes the main findings, main discussion, conclusion and policy implication.

The main results of this research are briefly summarized as follow: From the completed VIOT, we can find the degree of interdependency among households in the village (Chapter 2) by estimating a total output multiplier from intermediate transaction table. In our estimation, the VIOT produced a total output multiplier of 1.767, which is less than 2. In overall, this output multiplier is not so high, and we can't conclude that the degree of interdependency among households in the village is weak or strong, but this level of multiplier indicates that village economy depends somewhat on transactions from outside the village. Furthermore, we estimate backward and forward linkages effects to identify who are the key sellers and buyers in the village. We found that non-poor households, especially the 4 rich households, e.g. HH 121, HH 122, HH 123, and HH 124 are the main sellers, while poor households become main buyers in the village. For example, in rice and livestock transaction, respectively. The degree of interdependency among non-poor households is stronger than among poor households in the village.

By converting this VIOT into a QVIOT framework, we can examine the economic transactions among key agents in this village (Chapter 3) because each household is not only a producer but also a consumer who is trading products and consuming them within the village. A main reason for using a QVIOT is the data accuracy problem. There was a gap in the balances of sales and purchases for each good in our survey data, and information on transaction amounts recorded in VIOT might not necessarily indicate the strength of the relationships among households in the village. To overcome this problem, we used qualitative data on the existence of trade among households and expressed the interdependency among households from the QVIOT as an index. The main findings are that four higher-income households, especially from HH 121 to HH 124, which mainly trade rice very frequently, are playing key roles in the village economy, and the interdependency among them is stronger than that among lower/middle-income households. Rice is the main economic transaction, followed by crops, and bamboo transactions, respectively. Moreover, the total transaction numbers of products by multiplying QVIOT by third step show that some lower and middle-income households are isolated from NTFPs transactions, except rice transaction in the village.

Data on inter-household transactions obtaining from our VIOT shows that 55 out of 124 households in the village receive remittances from their relatives who are working outside the village. the money sent by their relatives are used and spent on transactions in the village. our interest is that we assume that households with remittances can facilitate their transactions in the village. We apply propensity score matching (PSM) method to compare households whom are transacting with each other that receive remittances with other similar households that do not receive remittances (Chapter 4). Remittances may be used and spent on consumer goods and services as well as intermediate inputs and intermediate demand because the households in this village are not only producers but also consumers who are trading these products and consuming them within the village. No empirical and evidences that examine the impact of remittances on transactions among households. Therefore, it is interesting to explore ways to maximize the remittance impact that have on development at individual household and village level. Chapter 5 summarizes the main findings of our research in each chapter, discussion and policy implication. Rice transactions are very common and become among key economic transactions in the village, and the degree of interdependency among top 4 rich households such as HH 121, HH 122, HH 123, and HH 124, is stronger than that among lower and middle-income households. In addition, remittances can facilitate and enhance major products transactions, mainly through rice, and NTFPs transactions among households with remittances in the village, respectively. This study provides us a significant knowledge about VIOT construction and transformed QVIOT as useful indicators to identify key players in the markets and capture their interdependence in the village. Moreover, these VIOT and QVIOT models can be used to form economic policies that enhance human network through trade expansion, marketing strategies and poverty reduction in the region.

備考 論文の要旨はA4判用紙を使用し、4,000字以内とする。ただし、英文の場合は1,500語以内とする。

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